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ABSTRACT

Improving Exchange Rate Management in Sub-Saharan Africa

by

James Duesenberry, Clive S. Gray, Jeffrey D. Lewis,
Malcolm F. McPherson, and Stephen D. Younger

November 1994

This study draws lessons for exchange rate management in Sub-Saharan Africa (SSA) from the experience of four countries that have experimented over the past decade with a variety of partial reforms. The four countries are Ghana, Uganda, Zambia and Senegal, with Senegal serving as a proxy for the CFA franc zone of 14 countries in West Africa. Although focussing on SSA, the paper offers a good primer on exchange management in developing countries that USAID missions worldwide should find of interest.

The report includes an examination of the historical origins of the exchange rate debate in SSA; a review of the principles of exchange rate management in developing countries; a discussion of transition issues involved in moving from a fixed to flexible exchange rate system; a review of alternative exchange rate management regimes; the country case studies on Ghana, Senegal, Uganda, and Zambia; a discussion of the current status of macroeconomic and exchange rate management in the 46 countries in SSA; a review of the conventional arguments against devaluation and commentary questioning these arguments; and conclusions and policy recommendations. The Appendix includes an empirical analysis of devaluation and inflation in SSA based on a simple model of devaluation and inflation. The study finds that:

- the anglophone economies showed signs of emerging from balance of payments disequilibria only when the governments concerned abandoned efforts at administratively determining exchange rates and let the market decide;

- donors that sought to broaden the scope of exchange rate management reform in the anglophone countries have become convinced of the desirability of short-circuiting tortuous policy meanderings and moving rapidly to market-determined exchange rates;

- for the CFA franc zone countries, though still bound by a fixed exchange rate vis-a-vis the French franc, the January 1994 devaluation of 50 percent was a direct, though tardy, response to market forces, and initial signs of renewed investment and growth are positive; and

- attempts to dampen wide gyrations in exchange rates is justifiable, but requires a sophistication in management

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that many SSA central banks and finance ministries have forfeited by tolerating institutional deterioration.

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Improving Exchange Rate Management in Sub-Saharan Africa

James S. Duesenberry
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IMPROVING EXCHANGE RATE MANAGEMENT IN SUB-SAHARAN AFRICA

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The present paper is a final report for subproject "Exchange Rate Management in Sub-Saharan Africa" conducted under the USAID-funded project *Consulting Assistance on Economic Reform (CAER)*.

The Executive Summary on page ix is presented in lieu of an abstract.

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List of acronyms

BCEAO	Banque centrale des états de l'Afrique de l'Ouest
BEAC	Banque des états de l'Afrique centrale
BoG	Bank of Ghana
BoP	balance of payments
BoZ	Bank of Zambia
CERDI	Centre d'études et de recherches sur le développement international
CFA	Communauté financière africaine (the CFA franc is the currency unit of the Central and West African monetary unions)
CMB	Coffee Marketing Board (of Uganda)
CPI	consumer price index
DC	developing country
DOTS	*Direction of Trade Statistics* (of the IMF)
EC	European Community (now Union)
ENER	equilibrium nominal exchange rate
EREER	equilibrium real effective exchange rate
ERER	equilibrium real exchange rate
ERM	exchange rate mechanism (of the EMS)
ERP	economic recovery program
EMS	European Monetary System
EU	European Union
FCFA	CFA franc
FDI	foreign direct investor
FEMAC	Foreign Exchange Management Committee (of Zambia)
Ffr	French franc
FZ	franc zone
GDI	gross domestic investment
GDP	gross domestic product
GFCF	gross fixed capital formation
GNP	gross national product
GoS	Government of Senegal
GRZ	Government of the Republic of Zambia
HIID	Harvard Institute for International Development
IBRD	International Bank for Reconstruction and Development (the World Bank)
ICA	International Coffee Agreement
IFS	*International Financial Statistics* (of the IMF)
ILO	International Labor Organization
IMF	International Monetary Fund
MLC	monthly labor costs
MoF	ministry of finance
MUCAS	Monetary Union of Central African States
NER	nominal exchange rate
NFA	net foreign assets

NIC	newly industrializing country
NIP	New Industrial Policy (of Senegal)
NLC	National Liberation Council (of Ghana)
NPART	Non-Performing Assets Recovery Trust (of Ghana)
NRA	National Resistance Army (of Uganda)
NRC	National Redemption Council (of Ghana)
ODA	official development assistance
OECD	Organization for Economic Cooperation and Development
OER	official exchange rate
OFCE	Observatoire Français des Conjonctures Economiques
OGL	open general license (to import)
PNDC	Provisional National Defense Council (of Ghana)
PPP	purchasing power parity
PRC	People's Republic of China
q.r.	quantitative restriction (on foreign exchange payments)
RER	real exchange rate
REER	real effective exchange rate
RIC	Reconstruction Import Credit
SAP	structural adjustment program
SDR	Special Drawing Rights
SIDA	Swedish International Development Agency
SSA	Sub-Saharan Africa
ToT	terms of trade
UMOA	Union monétaire ouest-africaine (French title of WAMU)
UNDP	United Nations Development Program
UNIP	United National Independence Party (of Zambia)
USDA	U.S. Department of Agriculture
WAMU	West African Monetary Union (English title of UMOA)
WPI	wholesale price index
ZCCM	Zambia Consolidated Copper Mining Co.
Zimco	Zambia Industrial and Mining Company

Executive Summary

Improving Exchange Rate Management in Sub-Saharan Africa

As of mid-1994, 13 Sub-Saharan African (SSA) countries, or nearly 30 percent of the 46-member SSA universe excluding South Africa, described their foreign exchange regimes to the International Monetary Fund (IMF) as "independently floating". Fourteen countries comprising the franc zone (FZ) maintained fixed exchange rates *vis-à-vis* the French franc, with France guaranteeing convertibility while maintaining an implicit veto over credit creation. As of October 1994 eight SSA countries, or one-sixth of the universe, had accepted the Fund's Article VIII, prohibiting members from imposing restrictions on payments for current international transactions without IMF approval.

This position indicated considerable movement towards market-determined foreign exchange markets compared with five years previously, when only four SSA countries claimed independently floating regimes and just two had submitted themselves to the rigor of Article VIII. The IMF and the donor community are currently pushing most of the other 19 non-FZ countries towards independent floating and acceptance of Article IV.

The goal of the present HIID-prepared volume, based on case studies of four countries, is to analyze SSA experience and draw lessons for future exchange rate management not only in those countries but over most of the continent. The four countries are Ghana, Senegal, Uganda and Zambia, with Senegal serving as a proxy for the franc zone. Each author participated in at least one field study, Lewis and Younger each studied two countries.

SSA Exchange Rate Policy and Its Consequences

Even apart from the franc zone, most SSA countries have attempted in the past to peg their exchange rates to the dollar, to another major currency, or, more recently, to the IMF's Special Drawing Rights (SDR) However, relaxation of the fiscal and monetary discipline imposed by colonial powers has brought nearly all non-FZ African countries more rapid inflation than their industrialized trading partners, raising demand for imports and depressing exports at the fixed exchange rates

Initially most countries reacted by attempting to defend their fixed rates with exchange controls As late as end-1992 over 70 percent of SSA countries still maintained administrative restrictions on a range of current transactions. The combination of inflation and controls undermined business confidence and encouraged capital flight. SSA's per capita GDP fell by over ten per cent during the 1980s.

Experience of the Three Anglophone Countries

The three anglophone case study countries underwent inflation of between 2,200 percent (Zambia) and 20,000 percent (= 200 times increase--Uganda) during the 20-year period 1970-1990 In some years annual inflation exceeded 100 percent. Official exchange rates (OERs) lagged far behind and parallel markets sprang up, attracting receipts for any exports that the authorities could not force into official channels as well as payments for those imports and

services not favored with official foreign exchange allocations. The authorities tried to maintain OERs that valued the national currencies anywhere up to 40 times their market levels.

The IMF and donor agencies sought to convince policy makers that these conditions, by discouraging development of exports and import-substituting industries that might eventually compete in world markets, were retarding economic growth and perpetuating external and fiscal imbalances. Each government came under increasing pressure to heed market signals and either move the OER towards market-clearing levels, or stop trying to maintain an official rate altogether.

Eventually each one instituted reform measures that have now brought all three to virtual unification of official and market exchange rates, restoring order in their foreign exchange markets. Ghana and Uganda accepted IMF Article IV status in early 1994, Zambia has not yet (November 1994) done so but is expected to take this step soon.

In the interim, all three countries followed a tortuous process of partial reform measures, subject to occasional reversals and even without these, repeatedly being undermined by inflation. Periodic major devaluations of the OER were required to put the reform process back on track.

In addition to explicit OER devaluation, whether undertaken in discrete steps or gradually in the form of a "crawl", partial reform measures that were applied at one time or another in at least one country included the following:

- bonuses were paid on foreign exchange earnings and surcharges levied on imports and other payments;
- exchange controls, initially imposed on nearly all uses of foreign exchange, were lifted in varying degrees, placing a proportion of imports on open general license;
- processing of import license applications, initially handled by the central bank, was transferred to the commercial banks;
- private nonbank exchange bureaus that had sprung up illegally to operate the parallel market were legalized;
- requiring commercial banks and (legalized) exchange bureaus to restrict sale of foreign exchange to authorized uses, i.e. nonprohibited imports, the authorities varied the degree to which they enforced the requirement;
- still requiring proceeds of major exports to be transferred to the central bank, the authorities auctioned off a portion of the foreign exchange thus acquired;
- eligibility to participate in the central bank auctions was widened from commercial banks and/or licensed importers to the exchange bureaus; and/or
- exporters were allowed to retain a portion of their receipts and either use the proceeds to import directly or sell them at a market-determined price.

Ghana's reform efforts can be traced back to an Economic Recovery Program (ERP) launched in 1983; the Government of Zambia initiated a central bank auction in 1985, abandoning it in 1987 but resuming the reform path under a 1989 IMF stand-by agreement; and Uganda's ERP was introduced in 1987. The reform process can be said to have culminated in Ghana with closure of the central bank auction in March 1992 and referral of foreign exchange sales to an interbank market, although the Bank of Ghana continues to control most cocoa and gold proceeds and varies the proportion of these it supplies to the banks. Uganda's culminating step is seen as establishment of a unified interbank market in November 1993; Zambia's is viewed as abolition of exchange controls in January 1994.

Meanwhile the economic performance of all three countries has improved substantially, and all are now poised to achieve respectable rates of growth.

Experience of Senegal and the African Franc Zone

Senegal serves in the study as a proxy for the CFA franc zone (FZ--14 countries). Defenders of the zone's currency arrangements argue that disadvantages (if any) of its fixed exchange rate *vis-à-vis* the French franc (Ffr) are outweighed by such features as the guaranteed convertibility that has enabled member countries to avoid burdening their trade regimes with exchange controls, and the fiscal and monetary discipline imposed by exercise of supranational authority, including France's latent veto power, over bank credit.

During the 1960s and 1970s the FZ economies appeared to substantiate these advantages by performing on average better than the rest of SSA. However, in the early 1980s severe external and fiscal imbalances appeared, coupled with signs of economic stagnation, and during 1985-93 the growth rate comparison was reversed. The Bretton Woods institutions and other external observers saw this as partly a result of substantial appreciation of the zone's real effective exchange rate (REER) due to a nearly 50 percent decline in its terms of trade, along with appeciation of the French franc *vis-à-vis* the currencies of the zone's other trading partners. The late 1980s saw growing market speculation against the CFA franc (FCFA) and efforts to persuade the CFA and French authorities to consider devaluation as a policy option.

In an effort to avoid such a step, which the authorities considered a threat to continued monetary union, most of the members swallowed bitter medicine in the form of deflationary measures that, in Senegal's case, forced its 1991 CPI index nearly 8 points below that of 1986. However the measures were not sufficient to restore the zone's competitiveness, and in 1993 the Bretton Woods institutions gave France to understand that it would have to shoulder a large and growing burden if it wanted to prevent economic collapse while supporting the old 50:1 FCFA/Ffr exchange rate. At that point the French accepted the need for a substantial (50 percent) devaluation, which was formally approved by the entire franc zone membership in January 1994.

The realignment led to rapid return of flight capital, reconstituting the zone's net foreign assets and its operations account balances with the French Treasury. Early evidence showed Senegal's exporters and domestic demand reacting appropriately to the new relative prices, while wage demands and inflation were being contained.

Lessons from the Case Study Countries' Experience

The evidence shows that, the further the four countries departed from market-based exchange rates, the heavier the costs imposed on them by ensuing macroeconomic imbalances and inefficiencies in resource allocation. Much output, investment and growth was foregone during the 6-9 years while the three anglophone countries were undertaking partial reforms in the direction of a market system, and Senegal, its CFA partners and France were waiting for final proof that overvaluation of the CFA franc vitiated internal measures to restore balance. The question arises: had the IMF and the donor community insisted on shorter transitions by imposing stricter conditionalities for structural adjustment finance, would the countries have been

spared this cost?

The present study does not aspire to a definite answer, but it notes that events during the years in question constituted a learning process for national policy makers as well as their budding oppositions. A political consensus developed that liberalization sooner or later was unavoidable.

Indeed one can say that events accompanying the trend towards liberalization throughout Africa have constituted a learning process for all actors, including the international financial community as well as domestic and international market participants. The collapse of communism in Central and Eastern Europe and much of Asia has reinforced the belief that *dirigiste* policies underlie Africa's poor economic performance in the 1980s. In Africa as elsewhere, including in the so-called transition economies, the Bretton Woods institutions and major bilateral donors impose increasingly strict conditionalities, leaving governments with ever narrower scope to resist liberalization and fiscal and monetary discipline.

Meanwhile the markets are fully conscious of this tendency, and act in growing confidence that governments will seek to avoid the economic turmoil that would result from suspension of an IMF program, threatening their continuation in power. In many African countries the markets view liberalization as opening up opportunities for profitable investment under much more secure conditions than in the past.

In the franc zone, prospects for renewed competitiveness along with the relative stability conferred by monetary union should stimulate investment and support a renewal of growth. Nevertheless, FZ managers would be well advised to adopt a new formula, more flexible than the unanimity of 14 presidents that is currently required, to vary their common exchange rate in response to future events analogous to the evolution of the 1980s.

Controls on Capital *versus* Current Account

Nearly all SSA countries with unified, market-determined exchange rates for current transactions, excepting only three of the smallest countries, attempt to control payments on capital account, believing that preventing capital export by residents keeps savings at home and available for domestic investment. Such controls are next to meaningless in the franc zone, and can easily, if not costlessly, be evaded elsewhere.

Some developing countries have gained from the fiscal and monetary transparency and discipline imposed on them by full liberalization. SSA countries should consider the potential benefits from this course. However the report does not unequivocally recommend that all SSA countries free their capital account in the immediate future.

State Intervention to Dampen Exchange Rate Fluctuations

Floating of exchange rates in some SSA countries has been followed by wide oscillations in the rates, as short-term capital moves in response to shifting expectations about inflow of foreign exchange from exports and/or foreign aid. Among the case study countries Zambia is a striking illustration of this phenomenon. Producers of exportables have perceived the downward swings--corresponding to real appreciation of the local currency--as threats to profitability, diminishing their readiness to invest.

Central bank intervention to dampen these gyrations is justifiable; eventually the market will compress them of its own accord as it acquires confidence in the government's policy management. On the other hand fruitful intervention requires a sophistication in management that many SSA central banks and finance ministries have forfeited by tolerating institutional deterioration.

CHAPTER I

INTRODUCTION

Countries in Sub-Saharan Africa (SSA) have followed a wide range of approaches to exchange rate management. Most of them endeavored for a decade or more following independence to maintain a fixed rate *vis-à-vis* one or another major currency. In the 1970s attempts to maintain exchange rate parities in the face of domestic inflation and changing terms of trade (ToT) pushed a greater or lesser share of foreign trade into parallel foreign exchange markets. In the early to mid-1980s, the International Monetary Fund (IMF), the World Bank and often bilateral donor agencies began to push SSA governments into stabilization policies that included devaluing their exchange rates to levels that took into account the past inflation, or even allowing the rates to be largely determined by supply and demand in the foreign exchange market

Thus, in 1983 Ghana initiated a series of programmed devaluations and eventually introduced a float Zambia adopted a foreign exchange auction in 1985, abandoning it two years later; in 1992, it unified its exchange rates by shifting to an exchange bureau system. After years of fixing its currency to the pound sterling, The Gambia floated it in 1986. Some countries, such as Malawi, have tied their currency to a basket of foreign currencies and then devalued periodically.

Up to January 1994, the 14-country franc zone had maintained the same (fixed) exchange rate against the French franc since 1948 [1] On January 14, all but one devalued by 50 percent (i.e. doubled the CFA franc equivalent of one French franc; Comoros devalued by 25 percent). The new rate is once again fixed

The outcome of these diverse strategies has been mixed, although the general picture is consistent with the view that, up to the late 1980s, few SSA economic managers had used the exchange rate as anything more than a last resort for extricating an economy from a balance of payments (BoP) crisis. Almost none had managed it as an instrument for promoting long-range development objectives. In some African countries, changes in exchange rate policy accompanied by other measures of macroeconomic stabilization are now helping to improve economic performance; in others, however, exchange rate policy continues to undermine, rather than encourage, economic activity

Making the transition from a system in which the exchange rate is viewed by governments and central banks as an institutional constant or an instrument of last resort to one where it becomes a regular component of the policy maker's toolkit is not easy Typically, SSA governments have been reluctant to take steps leading directly or indirectly to market-clearing exchange rates, despite overwhelming evidence of external imbalances and serious distortions in relative prices Few top policy makers fully appreciate the links between exchange rates and other aspects of macroeconomic policy, particularly trade and capital flows, and fiscal and monetary policy. As a result, improvements in exchange rate management have had to await the government's adoption of donor-supported adjustment programs.

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[1] The fourteen countries, listed individually in Chapter VII, comprise seven members of the West African Central Bank (BCEAO), six members of the Central African Central Bank (BEAC), and Comoros. The only member country that is not a former French colony, Equatorial Guinea, joined the franc zone during the 1980s

Conversely, policy makers have readily appreciated that a devaluation tends to reduce real incomes of some economic actors in the short run, among them incomes of the policy makers themselves and of white-collar workers, particularly in the public sector, to whose interests SSA politicians are normally attentive. In many ways, the habitual resistance to devaluation has represented the ascendancy of short-run material interests of policy makers and their most assertive constituencies over national goals. More than 20 years ago Richard Cooper [1971] showed that policy makers could already cite two decades of experience whereby devaluations led, with quite monotonous regularity, to the demise of governments and ministers of finance.

The present report surveys issues of exchange rate management in low-income countries generally, and then examines four case studies in Africa, namely Ghana, Uganda, Zambia, and Senegal (as a proxy for the franc zone as a whole). Our aim is to formulate a set of policy guidelines for exchange rate policy which may be applied in a variety of economic and political circumstances.

The definition of Sub-Saharan Africa in this report is based on the listing, in the World Bank's *World Development Report 1993*, of 49 "economies" (not synonymous with countries) in the region. Forty-seven of these, excluding the territories of Mayotte and Reunion, are independent countries and members of the IMF. Table X.1 in Section X.D below, taken from IMF [1993a], describes exchange rate regimes of 46 SSA countries; we have excluded South Africa from the coverage of this report.

CHAPTER II

HISTORICAL ORIGINS OF THE EXCHANGE RATE DEBATE

In this chapter we first summarize key aspects of exchange rate management in industrialized economies, since these experiences have defined the framework within which developing countries have had to function We then consider exchange rate management within the specific context of SSA, evaluating both the legacy of the colonial era as well as the background to the current economic difficulties.

A. Exchange Rate Management in the Industrial Countries

Many current issues in exchange rate policy in the industrialized economies have been debated for a long time. Until the end of World War I, exchange rate policy was simply one aspect of the broader concern over the monetary standard. A metallic coinage standard was the norm. So long as domestic currency could be converted into full-bodied metallic coin, the exchange rate between any two currencies depended only on the relative weights of the standard coin, and sometimes on the relative values of gold and silver.

When governments issued inconvertible paper currency, it often circulated at a discount relative to full-bodied coins For example, the United States experienced a floating exchange rate between Greenbacks and gold dollars as well as between dollars and British pounds. Exchange rates between inconvertible paper currencies and gold coins were market-determined and were subjects of policy only in the sense that governments sought to get them back to par with gold coins. Though frequent, episodes of issue of depreciated paper money were treated as aberrations from the norm

By the late 19th century the gold standard was firmly established in the leading trading nations. It seemed to promise inflation control as well as an approximation to a uniform currency for much of the trading world. During the relatively brief period in and immediately following the 19th century when it served as the basis for international exchange, the gold standard was praised as the anchor for price stability and blamed as a determinant of periodic depressions. In any case, the strains imposed by war forced many countries to abandon gold convertibility.

Controversy over exchange rate policy in its modern sense really begins after World War I, when the British government decided to return to the gold standard at the pre-war gold value of the pound, and therefore at pre-war parity with the dollar. In the 1920s, the persistent question for many countries which had abandoned convertibility was whether to return to the gold standard and, if so, at what parity.

With the onset of the Great Depression, gold convertibility was abandoned by all countries except the United States, and a wave of competitive devaluations took place as governments sought to free themselves from the need to limit imports by restraining domestic demand. They also sought to increase demand for their exports by reducing the value of their currency in terms of the currencies of competitors. While many of those decisions were taken under the pressure of events, they mark the beginning of systematic exchange rate policy.

Bretton Woods

As World War II ended there was widespread agreement that, while the gold standard had proved to be too rigid for most countries, a regime of uncontrolled floating rates and competitive devaluations was also unsatisfactory. The Bretton Woods system was designed to assist participating countries to maintain stable exchange rates by means of credit arrangements enabling a country to withstand a current account deficit caused by temporary factors.

At the same time it was recognized that persisting changes in the trading environment might require countries to choose between a permanent change in the nominal exchange value of their currency or a painful deflation. It was agreed that circumstances would sometimes justify the former rather than the latter course. But to ensure orderly exchange markets and avoid competitive devaluations it was agreed that member countries would seek the approval of the IMF before changing their official exchange rates. This arrangement was known as the "adjustable peg" system.

For more than two decades the system operated successfully in the sense that the large trading countries underwent relatively few changes in parities. But the adjustability of the peg created grounds for conflict over exchange rate policy, both within and between countries. Countries with surpluses were reluctant to appreciate their currency out of concern for the interests of their export industries. Countries with BoP deficits were faced with the choice between devaluation and recession.

Domestic resistance to both of these options weakened the credibility of the authorities' commitment to fixed exchange rates. In the political climate of the 1960s the adjustable peg option could not be used except as a last resort. Instead, governments had the choice of undertaking strong fiscal and monetary measures to "defend" national currencies, or else facing a wave of speculation that would force a devaluation once foreign exchange reserves and borrowing capacity were exhausted. Some countries, most notably the United Kingdom, made costly efforts to defend a fixed exchange rate; when the government was finally convinced that these efforts had failed, it implemented a discreet devaluation.

Meanwhile, the rather arbitrary exchange values adopted in the 1940s became progressively inappropriate as some countries were able to achieve more favorable combinations of productivity growth and wage changes than others. Finally, the growing volume of trade and the relatively stable financial conditions ruling in most of the developed market economies created favorable conditions for large scale international capital movements. Increasingly sophisticated financial markets emerged, so that as the larger trading countries gradually dismantled their controls, funds began to move rapidly between countries in response to relatively small interest differentials. While free movement of capital may have increased efficiency in its use, it created a new source of instability in the exchange markets.

Capital flows began to cause problems for the United States in the 1960s even while its trade balance remained positive. In the early 1970s the balance turned negative under inflationary pressures generated by the Vietnam war, forcing the U.S. to abandon its commitment to a fixed price for gold. In 1971 the Nixon administration devalued the dollar from $35 to $38 per ounce, and shortly thereafter negotiated the so-called Smithsonian agreement which realigned the exchange rates of several major trading countries. It took just over a year for massive speculative attacks to undercut the new parities, effectively ending the Bretton Woods system, and floating rates became the rule for the industrial countries from early 1973

While the specific events leading up to the abandonment of the gold exchange standard were connected with the Vietnam war, it seems likely that the growth of world capital markets and the rapidly changing trading positions of Japan and Germany would have brought the Bretton Woods system to an end in any case. Moreover, it is difficult to see how the trading world could have handled the pressures created by the oil crisis of 1973 while maintaining fixed exchange rates [2]

Floating rates

For a time there was widespread agreement that a world of floating rates would be more satisfactory than the adjustable peg system. Proponents of floating rates had expected that the system would insulate the national economies from external shocks, and allow governments to adopt "independent" monetary policies. It did not take long for disenchantment with the new system to set in

Freedom to adjust exchange rates without waiting for a BoP crisis seemed at first to be an advantage to countries whose trade position had been weakened by over-expansion of domestic demand or by some change in the ToT It was found, however, that a nominal exchange depreciation can be quickly eroded by inflation. To avoid that, exchange rate changes must be accompanied by fiscal and monetary restraint. The required measures might be almost as severe as those required to produce a real depreciation of the currency through reductions in the domestic inflation rate relative to inflation rates elsewhere.

Moreover, capital movements have generated exchange rate shifts that are inconsistent with relative cost differences across countries. This has interrupted trade expansion. As it turned out, while governments cared about their ability to pursue independent monetary policies, they were not indifferent to exchange rate jumps that accompanied shifts in these policies.

In response to the volatility of floating rates the pendulum swung in the opposite direction, and many governments are striving towards greater exchange rate stability. The industrial countries consult together and use their reserves in concert to dampen movements which they considered inconsistent with underlying economic factors. The members of the European Union (EU--formerly European Community or EC) are working to keep the exchange ratios among their currencies within narrow limits through the exchange rate mechanism (ERM) of the European Monetary System (EMS)

The ERM's apparent success over a period of 12 years led the EU leadership to consider the time ripe to schedule the introduction of a single European currency for 1999. However speculation arising from divergence among EU members' fiscal and monetary policies derailed the plan in late 1992. The experience has demonstrated once again that fixed exchange rates are not consistent with domestic policy autonomy.

B. African Exchange Rate Management in Historical Perspective

The establishment, functioning, and ultimate collapse of the Bretton Woods system of fixed exchange rates was driven primarily by events and concerns in the industrialized economies.

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[2] The collapse of the ERM in late 1992 illustrates the strains to which fixed exchange rate systems are subject even without major shifts in terms of trade or international productivity.

Despite the lack of explicit focus on developing country concerns, however, the evolution of the system has had an enormous impact on the developing nations. The periodic episodes of major turbulence and restructuring (such as the collapse of the Bretton Woods arrangements) have confronted developing economies with an institutional "external shock" every bit as significant as the more widely recognized economic shocks such as ToT movements or recession-driven declines in demand for developing country (DC) exports.

Nowhere have these shocks been more keenly felt than in the SSA economies. While a few SSA countries were facing serious economic problems already in the 1960s, the economic crises currently experienced by most countries in the region emerged only after the oil and food shocks of 1973 and 1974. The response (or non-response) of African countries to these developments set in motion a series of events which culminated in large budget deficits, severe BoP pressure, and levels of external borrowing that could not be serviced. Up to about 1975, use of the exchange rate as a means of dealing with these pressures was virtually unheard of in SSA. Indeed, failure to adjust exchange rates aggravated the problems.

The colonial legacy in SSA

The main colonial powers in SSA, France and the United Kingdom, were major participants in the development and maintenance of the Bretton Woods system of exchange rate management. Their colonies' currencies were fixed relative to the pound or franc. The relationship was maintained through a system of currency boards and instituts d'émission some of which predated World War II, and which typically maintained full sterling or franc backing for the local currency.

With decolonization (mainly during 1955-1965), most countries established their own central banks, became members of the Bretton Woods institutions in their own right, and assumed responsibility for exchange rate management. Under the IMF Articles current at that time, the newly independent countries maintained fixed parities, often relative to the currency of the former colonial power. Indeed, as already noted, franc zone (FZ) countries maintained such a relationship until January 1994, and have now restarted a similar relationship at a new level of parity.

At independence, nearly all former colonies had levels of foreign reserves equivalent to several months of imports, and minimal (often zero) foreign debt. Their domestic economies were generally in balance. Given existing international conditions, characterized by stable prices and expanding export markets, no country faced immediate BoP difficulties. That is, none of the newly independent countries were under such pressure as to lead them forthwith to abandon the system of fixed exchange rates at historical parities.

However for many SSA countries that situation changed within a few years of independence. The countries whose currencies remained linked to the pound and the franc faced pressures similar to those which afflicted Britain and France during the 1960s. In a number of cases the pressures were aggravated by loosening of the fiscal discipline formerly imposed by the colonial power.

Volumes have been written about the "colonial legacy" as a determinant of problems now confronting former colonies in SSA. One aspect of that legacy, with which countries in SSA could have easily dispensed, was the attitudes of both the UK and France towards devaluation. Their realignments under the Bretton Woods system were always insufficient, and carried out only after delay had caused major economic disruptions. SSA economic managers were no more

prescient than their counterparts in the metropoles in appreciating the costs of such a policy stance.

Through the 1970s the majority of DC governments attempted to retain fixed exchange rates despite the rudimentary nature of their financial markets and their lack of reserves with which to defend the rates With few exceptions, this policy gave rise to parallel foreign exchange markets and levels of capital flight leaving behind little domestic savings to finance investment.[3]

A further carry-over from the colonial period has been the use by African governments of interventionist monetary policies. Taking power in the immediate post-war period, the socialist governments in the UK and France believed in public control of the "commanding heights" of their economies A key element in this approach was official control over the allocation of credit. That tradition, transferred to the respective colonies, was frequently reinforced by the approaches followed by donor agencies until the early 1980s.

Economic crisis in SSA

The issue of exchange rate management in Africa must be considered in the broader context of the economic regression that has afflicted the region since the late 1970s. In virtually any dimension of macroeconomic performance, Africa lags behind other areas of the developing world. According to the World Bank [1993b], SSA's per capita GNP declined at an average annual rate of 1.2 percent during 1980-1991.[4] This was barely offset by positive growth during the 1970s, so that per capita GDP in 1991 was not significantly different from its 1970 level. By contrast, per capita GDP growth averaged 5.3 percent per year in a sample of nine East and Southeast Asian economies over the same period.[5]

Although the weight to be assigned to various causes of Africa's economic crisis is the subject of debate, most analysts, whether based in the IMF, the World Bank, or African governments, agree on its principal manifestations: unsustainable fiscal and BoP deficits, declining per capita output, inability to fund public health and education at earlier levels, increasing environmental degradation, and inability to maintain existing infrastructure or to invest in new productive capacity [Mills, 1989: 6]

A systematic literature review on causes of the SSA crisis is outside the scope of this study, but a brief sketch of factors underlying the region's problems is useful, primarily because the feasibility of alternative exchange rate prescriptions will depend to some extent on the underlying causes. The literature stresses three categories of factors: (1) external, (2) structural, and (3) policy inadequacies and errors.

External factors. Many analyses of the predicament in SSA hypothesize that African countries were atypically vulnerable to and affected by the adverse external shocks and changing international conditions that characterized much of the 1970s and 1980s. Economic pressures

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[3] See Aghevli et al [1991 82-83]. A further carry-over from colonial times has been the system of capital controls While loosening those controls somewhat in 1958, the UK only formally abandoned them in 1979, France maintained capital controls until 1989.

[4] According to the "World Development Indicators" annex, p. 239. Per capita GDP growth for 1970-80 and 1980-91 is calculated from average annual growth rates given on pages 239 and 289 in the same source.

[5] For a more in-depth comparison of the macroeconomic performance of SSA and the East and Southeast Asian countries, see Lewis and McPherson [1993].

including import price shocks, particularly the eightfold rise in oil prices during the 1970s; the industrial countries' "stagflation", occasional recessions and growing protectionism; and declining prices of major African export products, combined with a succession of natural disasters, notably droughts, the burgeoning AIDS crisis, and political turmoil (confrontation with South Africa, civil wars) to create an impression of ongoing crisis. While the catalog of afflictions is sobering, it remains open to debate why, or even if, these external factors affected SSA economies more severely than other developing economies.[6]

Quantifying or even cataloguing those facets of the external environment that have changed since 1970 is a difficult task, but one dimension in particular, shifts in ToT, has received much attention. Changes in the ToT, i.e. in the ratio of the price indices for exports and imports, are an important measure of change in economic welfare. A demonstration that Africa's ToT worsened more than those of other regions, detracting from resources available for development, would help to explain why macroeconomic management (including exchange rate policy) appears to have been less successful in SSA than elsewhere.

However, the evidence provides little support for the ToT hypothesis. For example, in a comparison of the African and Asian experiences, Lewis and McPherson [1993] find that external shocks on the import side, including the oil price increases of 1973 and 1980, adversely affected all oil-importing countries in both regions

Export price trends vary widely according to commodity composition, but there is no evidence that export prices of Africa as a whole suffered significantly more than Asia's. Middle-income African economies[7] exhibit ToT movements that are very similar to those experienced by the ASEAN countries and China Conversely the ToT of lower-income economies in SSA showed higher volatility and fell by 40 percent between 1970 and 1975 in response to the rise in oil prices and a steep decline in commodity prices. The years 1975-77 saw a substantial recovery, before the ToT plunged again with the second round of oil price increases.

Since 1981, there has been little apparent trend in this low-income group. By 1988 the difference between the ToT trend from 1970 for low- and middle-income Africa and the ASEAN *cum* China group was quite small. Nonetheless, SSA countries were more severely affected by ToT shocks than Asian countries because of unwillingness of most SSA governments to adjust exchange rates, budgets and monetary policies to changes in their real income and BoP positions.

Structural factors. In addition to external forces, structural and institutional aspects of individual economies are partly responsible for the current African crisis. Factors characteristic of a significant proportion of African economies include a physical environment lacking in natural resources; rapid population growth; political and economic institutions established under colonialism; excessive dependence on international trade, whereby a high ratio of imports *plus* exports to GDP makes an economy especially sensitive to ToT movements, heavy dependence on primary exports; heavily import-dependent production systems; transport networks that connect ports and hinterland but not interior entrepôts; fragmented domestic markets; and heavy reliance on expatriate skills [World Bank, 1981: 4 and 1989: 6]. We will comment on these

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[6] See World Bank [1981: 4 and 1989. 23] for further discussion

[7] The World Bank [1993b] classifies the following nine SSA economies as middle-income: Côte d'Ivoire, Senegal, Cameroon, Congo, Namibia, Mauritius, Botswana, South Africa and Gabon

selectively.

Seven of the 46 SSA countries covered by this report are described in World Bank [1981], popularly known as the Berg Report, as "rich in oil and mineral resources".[8] Weakness of the natural resource endowment is an important factor in explaining Africa's low income base at independence (in some of the aforementioned seven countries the oil or minerals had yet to be exploited at independence), but it does not explain subsequent weak growth performance.

In 1960 SSA's per capita GNP was modestly above $300 (1990 prices), Thailand's was slightly lower, Korea's was 50 percent higher, and Turkey's was about double at $650.[9] None of these three countries is rich in oil or minerals,[10] in 1993 Korea's per capita GNP was 18 times that of SSA, Turkey's 5 1 times, and Thailand's 4.5 times as high

In regard to population growth, SSA was one of two developing regions--the other was the Middle East and North Africa--whose growth rate increased from the decade of the 1970s (2 8%) to that of the '80s (3.1%) Growth rates in East Asia and the Pacific fell from 1.9 to 1 6%, in South Asia from 2 4 to 2.2%, in Latin America and the Caribbean from 2 4 to 2.0% [World Bank, 1993b: 289]. Since population growth enters directly into the expression for growth of per capita output, Africa's relatively high level does indeed depress the latter On the other hand since the population term can be offset by greater output, as noted in World Bank [1989. 25], high population growth "is not a sufficient explanation" for a weak growth performance

Comparing population quality in Africa with that in Asia's successful developers, the latter began their periods of rapid growth with substantially higher levels of literacy and what many scholars have identified as a cultural base relatively favorable to the development of a modern market economy.

Africa's continuing dependence on primary exports is illustrated by Figure II.1, comparing proportions of primary commodities in merchandise exports of five regions in the developing world in 1970 and 1991 [World Bank, 1993b: 269]. Three regions have substantially reduced their dependence on primary exports In the Middle East and North Africa oil continues to dominate Africa's stagnation at 92 percent for more than 20 years results from a set of factors that reflect policy failure more than any innate structural characteristics of African economies

Most importantly, SSA has been unable to move into the manufactured exports for which world demand is growing much more rapidly than for primary commodities. From 1970 to 1991 annual OECD imports of manufactured goods from developing countries rose by $253 billion, from a negligible base of $6 billion. SSA's share of that increase was a trivial 1 6 percent [World Bank, 1993b. 271]. Secondly, within the category of SSA's primary exports, oil produced by a handful of countries partly supplanted the region's agricultural products, which

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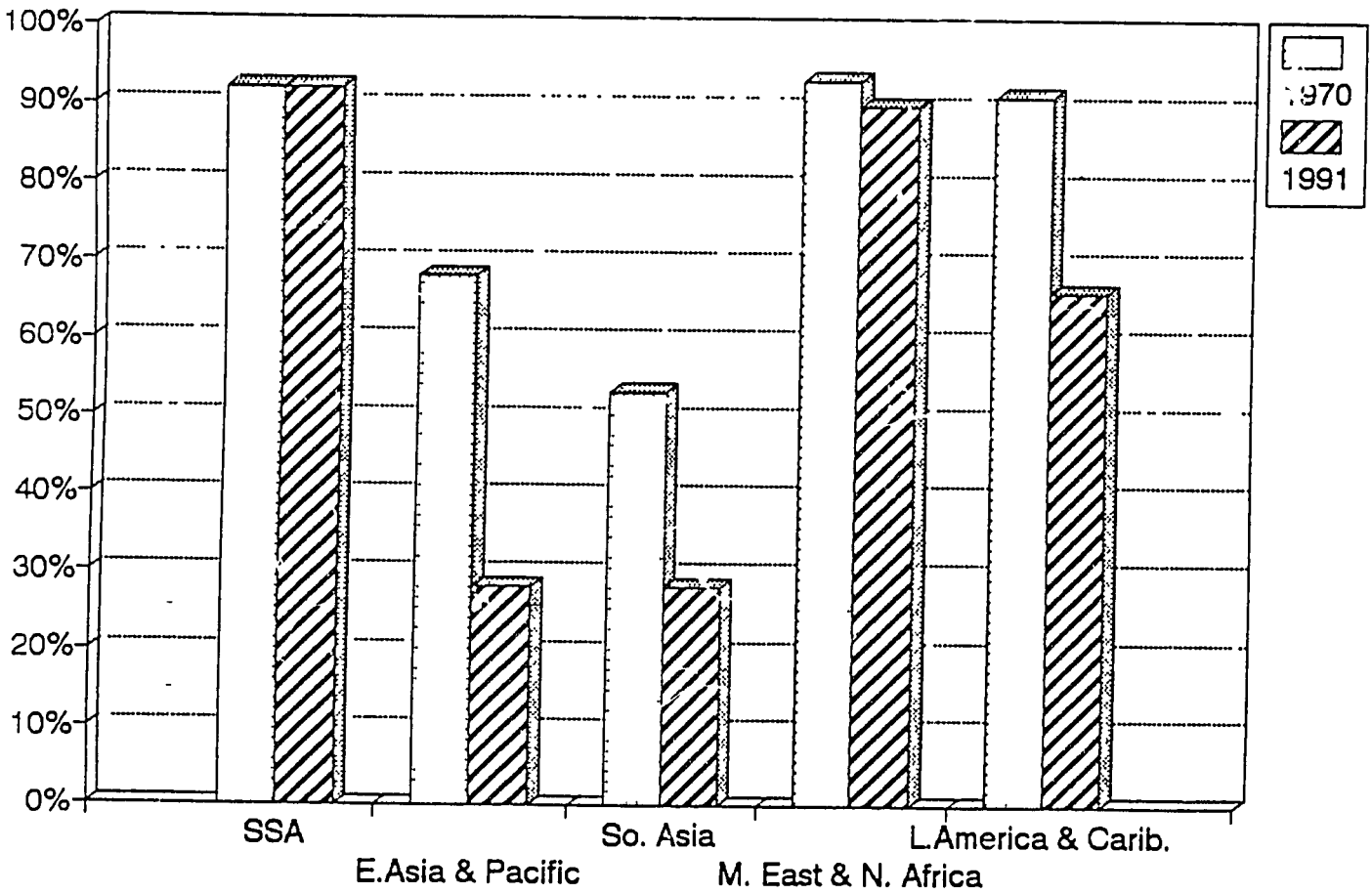
[8] Page 1 The countries cited are Botswana, Gabon, Guinea, Nigeria, Zaire, Zambia and Zimbabwe "among others"

[9] Africa's 1960 per capita GNP is calculated in 1979 dollars from data in World Bank [1981: 3] Data for the other three countries, computed in 1982 dollars, are obtained by projecting backwards average annual growth rates for 1960-82 given in World Bank [1984: 218-19].

[10] Proportions of fuels, minerals and metals in 1970 exports were as follows Thailand - 15%; Turkey - 8%, Korea - 7%. World Bank [1993b· 268-69]

Figure II.1 - PRIMARY COMMODITIES AS SHARE OF EXPORTS IN FIVE DEVELOPING REGIONS, 1970 & 1991



suffered from an overall policy bias against agriculture as well as absorption by the rapidly growing population [World Bank, 1981: 19-21].

Policy inadequacies and errors. In addition to external events and institutional features, the policies and development strategies pursued by SSA policy makers have also contributed to the crisis. As already noted the colonial legates who handed over the reins of power represented European administrations that followed a relatively interventionist approach to economic management at home However, in comparison to the scene that eventually came to dominate independent SSA, management of the respective colonies' affairs featured a tame form of interventionism limited to two principal manifestations: (1) the marketing of export crops was largely entrusted to government-appointed agencies, and (2) privileges with respect to other facets of trade were allocated in a discriminatory manner to privately-owned trading companies controlled from the metropole However at a macroeconomic level the dominant theme was fiscal conservatism, i.e. balanced budgets.

From independence up to the present time the dominant course of SSA political leaders has been ascent of a learning curve that has involved increasingly sophisticated and single-minded use of the instruments of state power to generate economic rents. The rents have been used in varying proportions to (1) facilitate consumption, (2) acquire domestic and foreign assets, and (3) preserve and extend political control. Only a minuscule fraction has been directed into efficient local investment.

The sources of the rents have varied. In some countries surpluses accumulated by marketing boards during the Korean War price boom remained at independence, usually in the form of foreign reserves. Virtually all SSA governments nationalized subsets of existing enterprises in the financial and directly productive sectors. In the case of banks and other financial intermediaries this provided access to savings and working balances, with the other nationalized enterprises, as well as units (notably public utilities) already in the public sector, various points of access to cashflow opened up.

Governments also established many new state enterprises, in industry as well as other sectors, frequently drawing on foreign credits arranged by suppliers and guaranteed by the host government. Few of these enterprises were organized with a view to competing on world markets Investment decisions were distorted not only by overvalued exchange rates but by the opportunities for private gain available to decisionmakers. All of this is additional to the government budget itself, leakages from which multiplied, both direct and via foregone revenues, as colonial discipline receded into the past.

Coupled with claims from the pressure group comprising rank-and-file public officials as well as demands of major segments of society for expanded social services, the rent-seeking intensified pressures on the state budget to the point where fiscal discipline crumbled in one country after another. Governments used their control over central banks to cover the resulting deficits, with predictable consequences for prices and costs, the financial system, and government revenue. Even in the franc zone, where multinational central banks and implicit French veto power limited nominal credit to governments, policy makers managed to squeeze resources through the banking system's back door, in the process bankrupting many nominally private financial institutions

The upshot of all this was to force sophisticated private savers into capital flight, discourage other saving, and cause public resources to be wasted on unproductive investment. SSA national

accounts give investment as averaging 17 percent of GDP during 1980-1990. Dividing this by average annual GDP growth of 2.1 percent during 1980-91 yields a lofty capital-output ratio of 8.1, suggesting gross inefficiency.[11]

Apologists for the interventionism that has resulted in this catastrophe justify it on grounds ranging from economic (market failure) to social (lack of adequate indigenous entrepreneurship) to political (nationalism and dependency theory). According to the World Bank, the interventionist policies "undermined the efficiency of the private sector and have added greatly to the high cost of doing business in Africa" [World Bank, 1989: 27]. One is being charitable in attributing the outcome of rampant rent-seeking to policy inadequacies and error. Clearly preoccupation with compensating for *market* failures has masked the far costlier phenomenon of *government* (i.e. non-market) failures in Africa.

[11] The average GDI/GDP rate is calculated as the simple average of 11 successive annual rates given in World Bank [1992: 50-51]. The GDP growth rate during 1980-91 is given in World Bank [1993b: 241].

CHAPTER III

PRINCIPLES OF EXCHANGE RATE MANAGEMENT IN DEVELOPING COUNTRIES

Changes in a country's exchange rate directly affect the local currency equivalent of prices that local producers of given goods and services receive, and thus their incentives to supply those products Depending on the type of product and the country's position in the world market for that product, exchange rate shifts may also affect foreign demand

Specifically, world demand for highly differentiated manufactured goods is not perfectly elastic, and producers of those goods have latitude to modify their selling prices expressed in an international currency such as the dollar. The producers will respond to exchange rate shifts by setting prices that best serve their commercial objectives, normally some combination of short-run profit maximization and market penetration. Since a high proportion of exports of industrial countries consist of such products, shifts in their exchange rates have complex effects on international prices, marketing strategies and foreign demand for those countries' exports.

By contrast, the bulk of SSA exports consist of undifferentiated primary goods on whose dollar prices the producers in a single African country can have no perceptible impact. Management of an African country's exchange rate thus affects its output of goods and services, and demand of its residents for foreign products, but has little effect on foreign demand for its products

The present chapter explores issues of exchange rate management generically, with special reference to conditions prevalent in developing countries in general and Africa in particular. The first section examines the role of the exchange rate in overall economic management. Next, we consider how different components of the BoP are affected by exchange rate shifts. The following section examines the nature of equilibrium in the foreign exchange market, and how the corresponding price is determined. The chapter concludes with an annex listing and describing the uses of alternative concepts of the exchange rate.

A. The Role of Exchange Rate Policy

Exchange rates are key prices in any economy, on a par with the prices of labor (average wage) and capital (benchmark interest rate). They have a major impact on resource allocation, influencing the use of productive resources as between tradable and non-tradable goods and services as well as decisions to save and invest. The exchange rate is a key determinant of the BoP and, if appropriately used, can serve as a nominal anchor for the price level. Movement of the exchange rate in response to BoP shocks affects output and price stability. Changes in exchange rates have direct effects on the distribution of income and wealth, especially as between urban consumers of imports and rural producers of exports.

Given the variety of influences exerted by the exchange rate, disagreement over choice of an exchange rate target, and whether and how government should intervene to attain the target, is inevitable. Several Latin American countries have learned that use of the rate as a nominal anchor for the price level limits its use to guide resource allocation. Moreover, the exchange rate

cannot serve as a nominal anchor unless it is supported by appropriate macroeconomic policies.

Other questions to be faced in choosing a target include: Should movements in the real exchange rate closely approximate changes in local currency production costs so as to avoid shifts in a country's international competitiveness? To what extent should the exchange rate move in response to domestic or external "shocks"? Does the exchange rate have a role in the protection of domestic industries? Or, should a more neutral stance be maintained? In what way will active management of the exchange rate enhance or retard financial development?

Exchange rate policy need not be dedicated to a single objective. Tinbergen's famous dictum tells us that we must have as many instruments as objectives, but competent policy makers can use them in various combinations, subject to economic feasibility as well as political constraints on changes in income distribution and resource employment. These issues are considered in more detail in Chapter V's discussion of exchange rate regimes.

The exchange rate can be conceived in various ways, and several definitions are in regular use. To avoid disrupting the thread of the present exposition, detailed definitions have been incorporated in the annex to this chapter. For the present we simply list the different concepts employed and (if relevant) their acronyms:

Official exchange rate (OER);
Market exchange rate;
Parallel market exchange rate;
Nominal exchange rate (NER);
Equilibrium nominal exchange rate (ENER);
Real exchange rate (RER);
Real effective exchange rate (REER); and
Equilibrium real exchange rates (ERER and EREER).

B. Balance of Payments Components

Before discussing the determinants of exchange rate equilibrium it is useful to examine how different elements in the BoP equation react to shifts in the exchange rate.

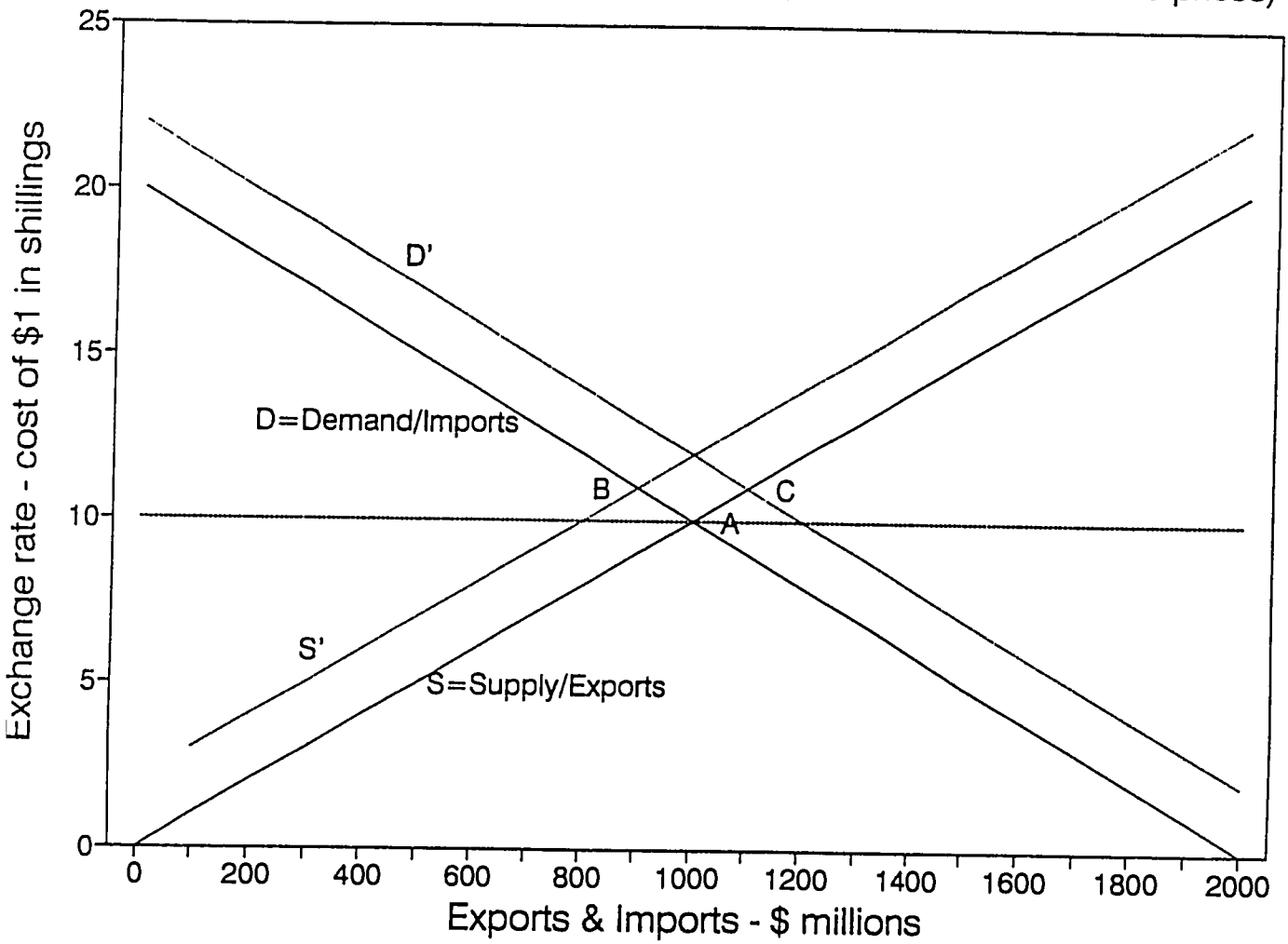
A summary statement of the balance constraint is:

$$\begin{aligned} &\textit{Exports} - \textit{imports (of goods and nonfactor services)} + \\ &(\textit{Grants} + \textit{Remittances} + \textit{Net official capital flows} + \\ &\textit{Private capital flows} + \textit{Direct investment} - \textit{Interest payments}) \\ &= \textit{Change in reserves} \end{aligned} \tag{1}$$

While this equation is the same for all economies, the interpretation of each of the elements can differ depending on economic circumstances. Below we discuss briefly each of the elements, noting the primary factors influencing it, the likely impact on it of exchange rate movements, and any special features characteristic of the SSA environment.

Imports. In a simple analytic framework (cf. Figure III.1), the value of imports depends on three factors: the real exchange rate, the level of real GDP, and the extent of effective

Figure III.1 - DEMAND AND SUPPLY OF FOREIGN EXCHANGE
(as function of exchange rate - for given GDP, protection & nontradable prices)



protection.[12] Cast in the form of a traditional supply and demand (*S & D*) analysis, the figure holds the latter two factors constant--here they do not appear in the graph--and allows the first factor, the exchange rate, to vary along the vertical axis, determining dollar values of imports along the horizontal axis

This can be explained more intuitively as follows: the *S* and *D* curves traditional in microeconomics show volumes, i.e. physical quantities (*q*), of a good or service supplied and demanded as a function of the market price (*p*). The higher *p*, the less the *q* that consumers will demand, while the higher the *q* that producers will be willing to supply. In Figure III.1 the exchange rate is the analogue to *p*. In effect, it is the price of one dollar in terms of Country A's currency, say the shilling.

The analogue to *q* in this market is a little more difficult to grasp. It is no longer a physical quantity of good or service *X*, e.g. tons or person/months, but rather a quantum of *dollars* demanded in order to purchase (import) that good or service. The higher the price of one dollar, the less the number of dollars that economic actors can "afford", hence the less the volume of the foreign good or service that they will import

Note that this latter statement says nothing about the total amount of *shillings* that importers in Country A will spend to buy the dollars needed to purchase the desired quantum of the good or service. As in traditional *S & D* analysis, the impact of a price change on the value of *expenditure* in local currency depends on the price elasticity of demand. If demand is elastic, expenditure goes down as *p* goes up; if it is inelastic, expenditure rises; and if the elasticity is unitary, i.e. equal to 1.0, expenditure remains constant, although in every case, *q*, the physical quantum demanded, goes down.

It should also be noted that this analysis assumes the *dollar* price of the good or service in question to remain invariant with respect to the shilling/$ exchange rate. In other words Country A's demand is too small to affect the world market price of the good or service.

By way of illustration, let us assume a dollar price of $5 per unit and an initial exchange rate of sh.10 to the dollar. The market demands 100 units, yielding a dollar cost of $500 and a shilling cost of sh.5,000.

Now the exchange rate rises, for whatever reason, to sh.11/$1. The dollar price per unit remains $5, but the unit shilling price has risen to sh.55. Consumers in Country A move up the *D* curve, demanding (say) only 90 units. *Dollar* expenditure has dropped by 10 percent, from $500 to $450 (= 90 x $5); given the level of elasticity implied (haphazardly) by this example, *shilling* expenditure has dropped slightly, by 1 per cent, from sh.5,000 to sh 4,950 (= 90 x sh.55).

If we relax momentarily the assumption of unchanged dollar prices, the drop in demand in Country A has a noticeable impact on world demand for the good or service in question, whose fall thus depresses its dollar price. The dollar price reduction offsets part of the decline in A's demand, in effect making that demand less elastic with respect to the shilling/dollar exchange rate than in the case with an invariant dollar price.

It is important to keep in mind. *q* in the foreign exchange market represents the level of

[12] The effective rate of protection differs from the nominal rate by taking into account taxes and other encumbrances on imported inputs.

expenditure in dollars--more precisely, the amount of dollars that is acquired in the market to finance the desired volume of imports--not the physical volume of imports or the expenditure in shillings. Here the downward sloping demand curve--traditional in this as in nearly all markets--means simply that a rise in the cost of the dollar leads a population to buy fewer dollars.

Moving from the micro back to the macro level depicted in Figure III.1, depreciation of the local currency--a rise in the dollar's price in shillings--decreases the dollar value of imports at a given GDP with a given degree of protection. the economy moves up and to the left along its dollar demand curve, e.g. from point *A* to *B* A decrease in effective protection, raising demand for imports at any given exchange rate, shifts the function up and to the right, e.g. from *D* to *D'*, the same happens with an increase in real GDP

Obviously one determinant of the efficacy of exchange rate depreciation is the responsiveness of imports to the rate change, measured by the elasticity of imports with respect to rises in the local currency value of the dollar In some DCs, including many in SSA, devaluation is often rejected on the ground that import demand is inelastic, implying that devaluation generates little decline in the volume or dollar value of imports relative to increases in their local currency cost. This argument is used to justify reducing imports through protectionist measures rather than exchange rate depreciation.[13]

Exports. The response of exports to shifts in the exchange rate can be analyzed in a parallel manner. The supply curve, *S*, shows exporters responding positively to a rise in the dollar's value in shillings by earning a larger quantum of dollars

This they do, of course, by increasing physical output and/or diverting a larger share of output of a given good or service into exports rather than domestic consumption. But the horizontal axis in a diagram of the foreign exchange market does not show directly either the physical volume of output or the amount of shillings that exporters earn. As in the analysis of import demand, the axis measures a total dollar value, while the vertical axis shows the unit value of one dollar in shillings.

The incentive to produce for export depends on the level of export prices in local currency relative to prices of non-tradable goods and services. These comprise labor, internal transportation, electric power and other services normally procured domestically, as well as goods that are not traded because they are costly to transport due to being perishable or having a high weight-to-value ratio.[14]

With given prices for non-tradables, the export supply function, *S* in Figure III.1, slopes upward· depreciation of the local currency enhances the incentive to produce for export by raising the shilling proceeds of a given quantum of exports. Exporters respond by moving from

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[13] This rationalization is subject to numerous critiques There is also a certain irony in the fact that the argument is frequently advanced by public sector managers who have increased their economy's dependence on imports by promoting highly inefficient industries. The assertion that exports and imports are unresponsive to exchange rate changes, underlying the viewpoint known as "elasticity pessimism", are examined in Sections IV A and XI.B below.

[14] Goods and services that would be traded but for policy measures such as quantitative restrictions or prohibitive duties and other taxes are considered tradable for purposes of this analysis.

point A to C, raising the dollar value of exports.

Export incentives may also be influenced by tax policies as well as by trade measures which affect the local currency cost of foreign inputs used in the production of export goods. Analogously to the case of imports, the elasticity of export supply strongly influences the effectiveness of devaluation in redressing the BoP. If supply is inelastic, exports will be relatively unresponsive to changes in export incentives, suggesting that a substantial devaluation would be required to correct an imbalance.

Remittances. Remittances from family members working abroad figure prominently in the BoP of some African countries, e.g. Ghana. This item depends on employment opportunities in foreign countries as well as on relative incentives for repatriating funds as opposed to spending or saving them abroad. An overvalued NER is a disincentive to remittances and also pushes them outside official channels.

Official grants and capital flows. This component is titled official development assistance (ODA) in World Bank and OECD publications. Dependence on ODA to achieve a modicum of BoP equilibrium is heavier in Africa than in any other developing region. Figure III.2, based on World Bank [1994: 199], shows an ODA/GDP ratio of over 9 percent in SSA as compared with ratios around 2 percent or less for five other low- to middle-income regions.

An increasing proportion of aid flows is linked to policy commitments on the part of the recipient governments. Bilateral aid tends to be tied to restricted lists of imports figuring in public investment or other expenditure programs, or to support of foreign technical assistance personnel. The high proportion of the import bill financed by these flows that is insulated from (or even independent of) the impact of changes in currency parity is a constraint on the efficacy of exchange rate shifts.

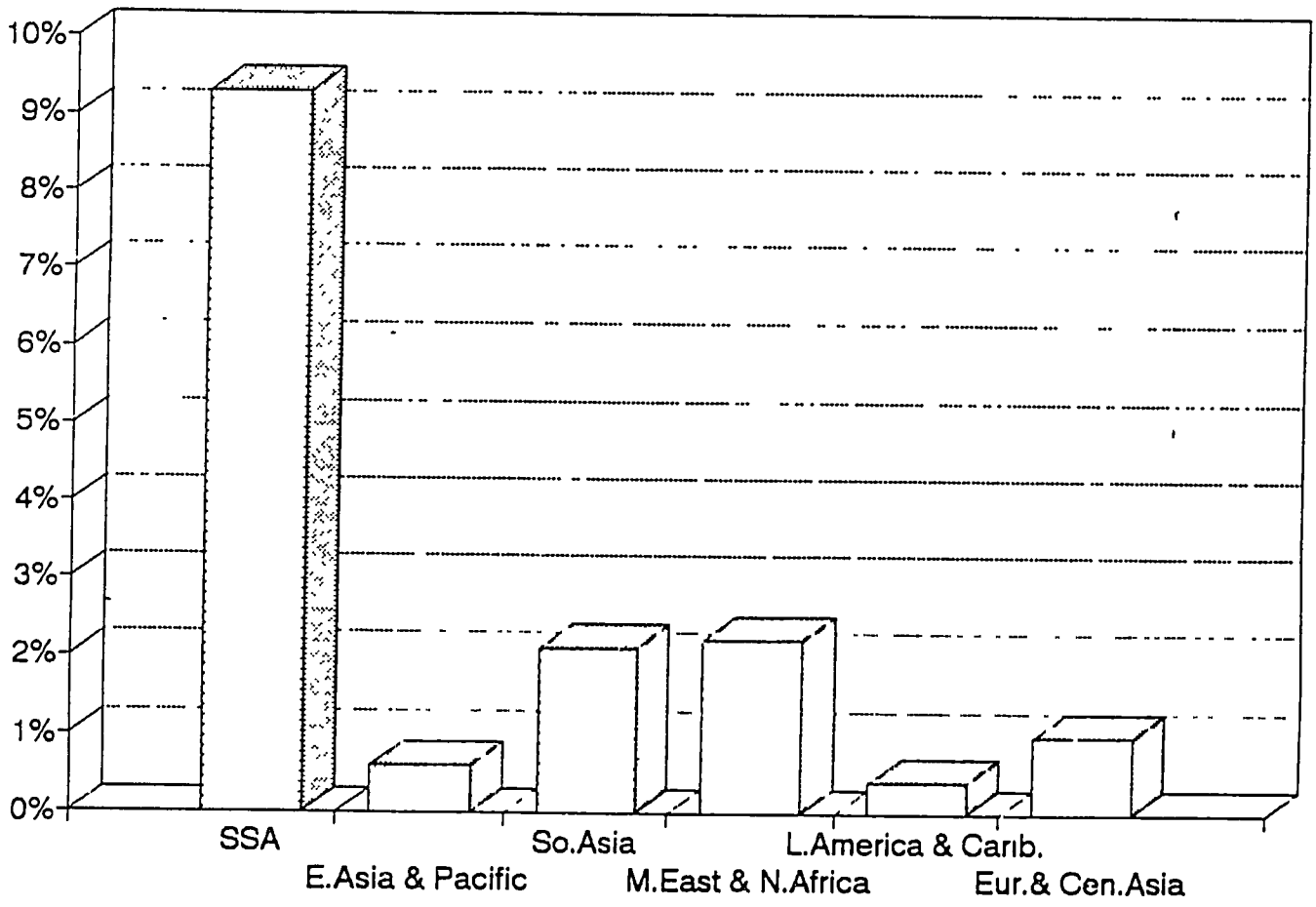
Private capital flows including direct investment. Private capital flows respond to a variety of factors apart from the exchange rate. The profitability of direct investment is influenced by regulatory and tax policy (e.g. tax holidays), as well as labor productivity, wages, the status of infrastructure, and many other factors. While the level of the exchange rate has an obvious impact on profitability of direct investment, exchange rate management affects heavily assessment of risk by foreign and local investors. Most SSA countries (including those in the franc zone, despite its long-time fixed nominal rate) experience steady capital flight in response to political turmoil, inflation and anticipation of currency depreciation.

In most of SSA, overt movements of financial capital are restricted to transactions balances and small savings. For the majority of holders of financial assets, the information and transactions costs of foreign transfer are high. In a number of SSA countries pursuing structural adjustment programs, nominal interest rates have been raised sufficiently above inflation to become significantly positive in real terms, but still without stemming capital flight or encouraging repatriation.

IMF [1994c] provides data permitting 100 observations of annual real interest rates, defined as $(1+r)/(1+i)-1$, r = rate of interest and i = rate of increase of consumer price index, for 32 SSA countries during the four years 1990-1993. Of the 100 data-points, 63 are positive, one zero and 36 negative; 29 data-points for 16 countries yield real interest rates exceeding ten percent.

Slightly over two-thirds of the countries (11) and data-points (20) corresponding to real interest rates above ten percent relate to franc zone countries, where several years of deflationary

Figure III.2 - RATIO OF OFFICIAL DEVELOPMENT AID TO G.D.P. IN SIX LOW & MIDDLE-INCOME REGIONS (1991)



policy virtually eliminated inflation during the four-year period. However, as shown in the Senegal case study (Chapter VII), before stabilization took hold, the FZ's competitive position had deteriorated to the point where incentives for both local and foreign investors were weak, and speculation against the CFA franc encouraged capital flight

Only a small portion of the financial capital entering and leaving African countries is recorded, most of it ending up in BoP errors and omissions Nigeria accounts for more than the $1.6 billion increase of recorded SSA portfolio liabilities during 1990-92. Data are recorded for only three other SSA countries during the period, with Zimbabwe accounting for most of the net reduction of liabilities corresponding to that subset [IMF, 1993b· 68].

Changes in cross-border bank deposits of nonbanks as tabulated in the IMF's *International Financial Statistics* [1994c] are another potential indicator of movements in financial capital. In aggregate, SSA deposits abroad were stable at $26-28 billion during 1990-93, Liberia accounting for 54-58 percent and Nigeria 10-13 percent. The rest of SSA registered a 13 percent increase during 1990-92, while deposits fell by 5 percent during 1993 Movements for The Gambia, Nigeria and Seychelles showed no significant trend; from a peak of about $200 million in June 1992 Ugandan deposits abroad had fallen 25 percent by end-1993.

Instead of a smooth curve linking interest rates and capital flows, policy makers face a discontinuous function taking the shape of a "floor" below which the interest rate cannot be reduced without accelerating capital outflow, while rates substantially above the floor generate little if any capital inflow (hence no pressure on the exchange rate) due to the high risk associated with domestic financial instruments.

Interest payments. BoP accounting treats interest payments as import of capital services. Since private banks stopped lending foreign exchange to African governments in the early 1980s, most interest liabilities pertain to debt owed to official sources. The bilateral portion of this debt has become subject to renegotiation. Default and/or forgiveness have become so common that BoP accounts produced by many SSA authorities show minimal interest payments.[15]

C. Exchange Rate Equilibrium

Objectives of exchange rate policy

No SSA countries have sufficient reserves to sustain a significant overall balance of payments (BoP) deficit for any length of time. Countries must find ways to limit current account deficits to the amount of capital they can expect to attract from commercial or official sources. Those who fail to do so end up making emergency requests for official assistance and/or falling into arrears on payments. If unwilling to devalue or adopt a flexible exchange rate regime, the authorities are soon forced into import licensing and restrictions on use of foreign exchange as well as on domestic demand.

The objective for most countries is to satisfy the BoP constraint while (i) making full use of available productive resources, (ii) preserving reasonable price stability, and (iii) avoiding protectionist measures. Countries have tried various combinations of exchange rate, trade,

[15] If, following IMF and IBRD practice, balance of payments accounts are kept on a *commitment* basis, defaults are included in interest payments with accumulation of arrears treated as the offsetting capital inflow.

monetary and fiscal policy measures in order to achieve this objective. It is clear that no one way of doing things is right for all countries at all times. Which policy combination is optimal depends on objective factors facing a country at a given time as well as on the local political situation.

At the same time we are far from indifferent about which of the feasible policy combinations is applied It has long been agreed that trade protection is an inefficient way to meet the BoP constraint and that resorting to it invariably proves costly in terms of current real income and longer-term growth. Thus, an important challenge to economic management is to meet the constraint with minimal use of tariffs, quotas, import licensing and exchange controls.

Internal balance. *Ex post*, real demand cannot exceed available resources. An excess of *ex ante* nominal demand over *ex ante* nominal supply causes inflation; the greater the excess, the higher the level of inflation.

All governments want to avoid the human and material costs of unemployed labor and capital. At the same time no one advocates expanding demand until productive resources are pushed to their physical limits. In practice it is necessary to manage monetary and fiscal policy with one eye on the potential for employing unused resources and the other on the danger of accelerating the rate of price increase.

Internal balance is attained when the level of demand permits the fullest utilization of available resources consistent with an acceptable rate of inflation. The amount of slack needed to contain inflation will vary from time to time but at any one moment the inflation constraint imposes an upper limit on real GDP. The factors involved in the relationship between demand levels and the rate of inflation are discussed below in Section D.

External balance. If real GDP is subject to a ceiling consistent with the government's inflation target, and trade policy is determined by considerations of efficiency tempered by political expediency, then the range of viable real exchange rates is likely to be very limited. *External balance* requires that outflows of foreign currency to pay for imports of goods and services as well as interest and principal on outstanding debt should equal receipts of foreign currency from exports, grants, remittances and loans. Any difference between the two will result in a change in the central bank's foreign exchange reserves.

Given their limited reserves, if central banks cannot increase the inflow of grants and loans, they must take measures to reduce imports and/or increase exports. They can even go beyond the level corresponding to external balance and attain a current account surplus, but most SSA governments seek to maintain a net capital inflow in the belief that this will finance more rapid development than can be sustained by domestic saving.

The BoP constraint is defined by the simple identity (all values in foreign currency, say dollars):

BoP current account (value of imports of goods and services *minus* value of exports)

equals

BoP capital account (disbursements of grants[16], loans and other investments *net of* debt

[16] IMF balance of payments methodology classifies grants in the current account because they do not create or liquidate liabilities However whether bilateral donors provide aid in the form of grants or interest-paying loans depends on domestic institutional factors, and SSA policy makers, under pressure to finance an import surplus in the short run, draw little practical distinction between them.

amortization and other outflow of capital)

A positive balance on the right side of the equation sustains a positive balance (imports exceed exports) on the left side.

For any given real GDP, a rise in the exchange rate (sh/$) makes imports more expensive in local currency and causes the foreign currency value of imports to fall. Consumers substitute domestic products for foreign ones. Urban workers who have cars conserve petrol by driving less and/or taking the bus instead of driving. Producers use more domestic inputs in lieu of imports At the same time the higher exchange rate creates an incentive for producers of exports to increase their output.

For some purposes it is convenient to remove interest payments and workers' remittances from current account debits and credits, respectively, and group them with capital movements on the right side of the BoP equation. Thus:

(2) $$m(P_m^{\$}\cdot\frac{E_n}{P_{nt}},Q)\cdot P_m^{\$} - x(P_x^{\$}\cdot\frac{E_n}{P_{nt}})\cdot P_x^{\$} = F$$

where the left hand terms represent:

(i) dollar value of imports as (a) a negative function of foreign prices for imports, $P_m^{\$}$, and the nominal exchange rate, E_n, divided by an index of prices of non-tradables, P_{nt}; and (b) a positive function of real GDP, Q; and

(ii) dollar value of exports as a positive function of their foreign prices, $P_x^{\$}$, and the same nominal exchange rate/non-tradable price index term, while F is the sum of interest payments, remittances, grants and net capital imports in dollars.

If the components of F and the ratio of foreign prices of imports and exports (i.e. the terms of trade) are predetermined, the equation defines a "tradeoff line" between real GDP and the real exchange rate (RER). *EXT* in Figure III.3 is the locus of points satisfying the external balance condition at different levels of real GDP. It rises from left to right because an increase in GDP tends to increase imports. To satisfy the BoP constraint either the import/GDP ratio must fall, or export volume must go up. For either to happen the exchange rate must rise (more sh/$).

The highest level of inflation consistent with internal balance defines a maximum level of real GDP, given by the vertical line Q^* in Figure III.3. The intersection of *EXT* and Q^*, point E^*, is the only RER satisfying both internal and external balance conditions.

Domestic policy and balance of payments equilibrium

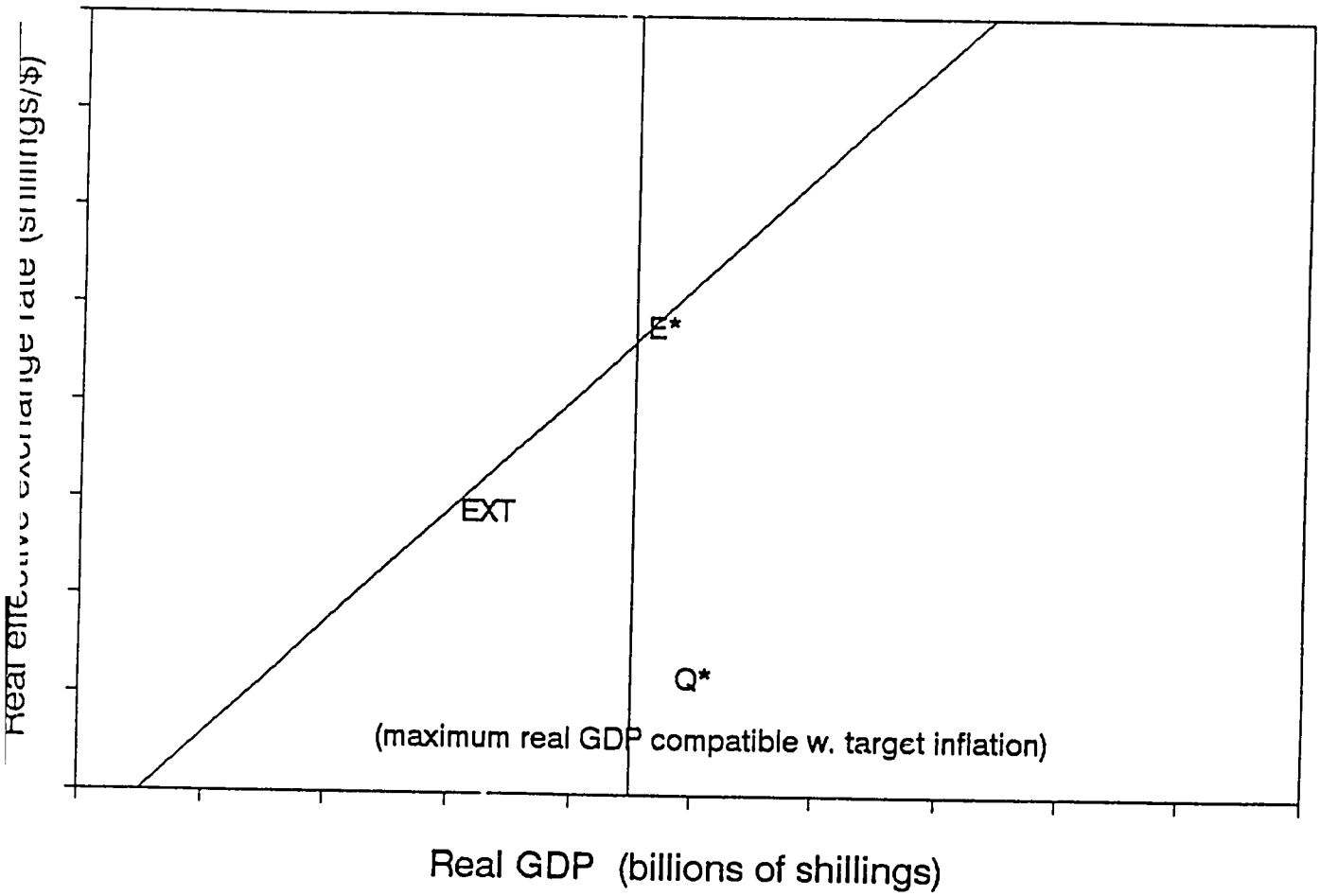
Ex post, domestic absorption--consumption and investment, both private and public, or $C+I+G$--can exceed real GDP only by the import surplus that can be financed by grants and loans from abroad. Thus:

$$C + I + G - Q^* = \text{imports} - \text{exports}$$

A rise or fall in the import surplus while real GDP remains constant requires an offsetting change in some component of domestic absorption. If for example the real exchange rate (sh/$) falls, encouraging imports and discouraging exports, the domestic policy response could be (i) a rise in taxes to reduce consumption, (ii) an increase in interest rates to reduce investment, or (iii) a reduction in government expenditure.

The central message is that, given a decline in the capacity to produce real GDP or the financing available to support net imports, *something has to give*. The only choices are (i) which

Figure III.3 - DETERMINATION OF THE EXCHANGE RATE & GDP
as function of internal and external balance conditions



components of expenditure will be cut, and (ii) how to bring about the adjustment.

Dual role of interest rates. Interest rates can not only play an important role in determining domestic demand but may also influence international capital flows. A rise in one country's real interest rates relative to rates elsewhere tends to attract an inflow of foreign capital and thereby shift the *EXT* curve over (downward) to the right. At the same time the rise in interest rates dampens domestic demand. This may reduce real GDP, or else offset pressures on demand from other sources, keeping GDP unchanged.

A classic example of the latter case occurs when a government raises *G* while managing monetary policy so as to keep total demand constant. This causes interest rates to rise, "crowding out" private investment but also attracting capital inflow. In the short run this inflow depresses the exchange rate--i.e. fewer sh/$. The drop in the exchange rate induces a rise in net imports, allowing domestic absorption to rise by the amount of the capital inflow, with the result that the amount of private expenditure crowded out is less than the increase in *G*.

Figure III.4 illustrates the interaction between real interest and exchange rates (vertical and horizontal axes respectively). The line marked *EXT*, derived from Equation (2) with real GDP fixed at Q^* in the short run, shows all the interest-RER combinations consistent with the equation. It slopes down to the right because, as noted above, a higher real interest rate should induce an inflow of capital, causing the RER (sh/$) to fall.

The line marked *INT* is derived from the internal balance constraint, again with real GDP constant at Q^*. We assume for the moment that *G* and *C* are fixed. Investment expenditure varies inversely with the real interest rate--a rising interest rate causes investment to fall, diminishing domestic absorption (*DA*). With constant GDP the RER must rise to stimulate net exports to take up the slack (GDP - *DA*). Hence the real interest and exchange rates rise together.

Now an increase in government expenditure shifts the *INT* line to the right, creating *INT'*. At any given RER a higher interest rate is required to reduce investment sufficiently to balance the rise in *G*. The short-term effect of the rise in *G* is to raise interest rates and lower the RER (fewer sh/$), moving (short-term) equilibrium from *A* to *B*. However the increase in interest rates is less than would have been required had the RER remained fixed (point *C*).

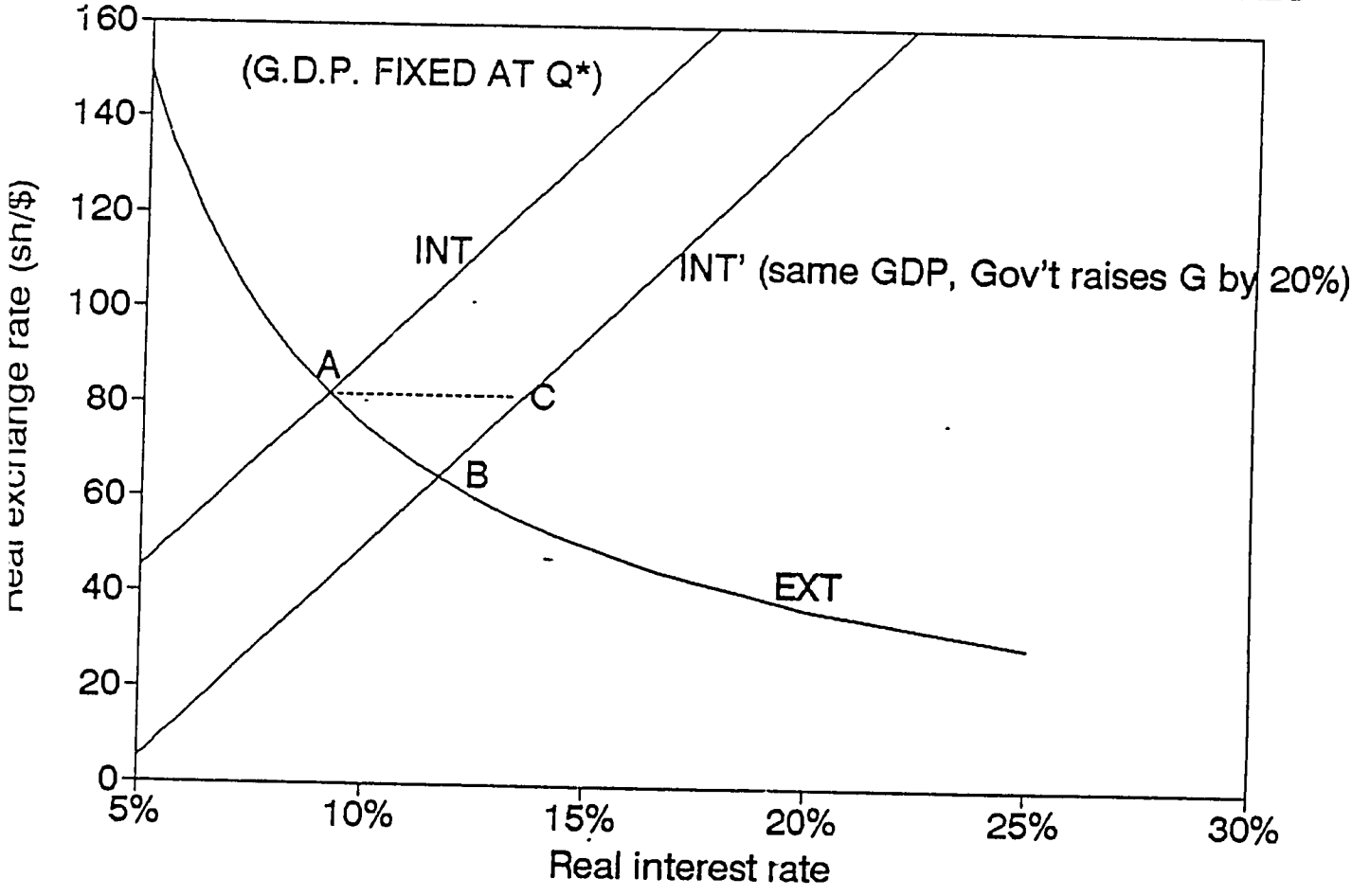
Over a longer term, displacement of investment by *G* may be expected to reduce the economy's productive potential, and also touch off speculation about the government's ability and willingness to balance the budget and contain inflation. This will push *EXT* upwards to the right, since for any given interest rate a higher RER will be required to offset capital flight and restore external balance.

Developed country foreign exchange markets are sensitive to changes in capital flows induced by changes in relative interest rates. In most SSA countries international capital flows are strongly influenced by uncertainties about government policies towards inflation and threats of political instability. In these circumstances the links between capital flows and interest rates cannot be described by a simple formula. Instead we first examine BoP adjustment on the assumption that domestic macroeconomic policy does not influence international capital flows. We then consider the implications of the sensitivity of capital flows to government policy and the political situation

Implication of deviations from equilibrium

What happens when an external shock--e.g. a change in world prices of a country's major export commodity--upsets a system's equilibrium? In some policy regimes the operation of

Figure III.4 - IMPACT OF RISE IN GOV'T EXPENDITURE ON SHORT-TERM EQUILIBRIUM OF REAL EXCHANGE AND INTEREST RATES



"market forces" will bring about a new equilibrium without significant policy changes. In other regimes, restoration of equilibrium will require changes in macroeconomic policies. The outcome depends not only on the policy regime but also on the nature of the disequilibrium.

Figure III illustrates four types of disequilibrium:

Region A, point *p*. The REER is below *EXT* for the indicated level of GDP, leading to a BoP deficit which exerts upward pressure on the nominal exchange rate. At the same time GDP is to the right of the vertical Q^* line, giving rise to excess demand for non-tradable goods and services and inflation above the target level. This type of disequilibrium has occurred frequently in anglophone SSA countries.

The path via which equilibrium will be restored *ex post* depends on the government's macroeconomic policy responses to these conditions. If fiscal and monetary policy are managed so as to maintain a fixed nominal GDP while the exchange rate floats, the system will move towards equilibrium ($p \rightarrow E^*$) with little direct intervention. Prices for non-tradable goods and services will rise and so will the nominal exchange rate. Rising prices in a situation of fixed nominal demand will reduce real domestic absorption.

Initially, increases in the nominal exchange rate will be offset by rising prices, resulting in little or no change in the REER. However, once the excess demand is neutralized, inflation will decelerate and the real exchange rate will rise (more sh/$) until the joint movement of prices and exchange rate brings the system back into equilibrium.

Market forces can bring about adjustment to a new equilibrium, but governments are often unwilling to allow this to happen. Instead, to prevent a decline in output, they accommodate price increases by monetary and fiscal expansion, thus perpetuating the inflation. As long as they have sufficient reserves they expend them to prevent a rise in the nominal exchange rate; if they lack excess reserves but are still creditworthy, they borrow for the purpose. In so doing many believe they are forestalling major price increases that would otherwise accompany devaluation.

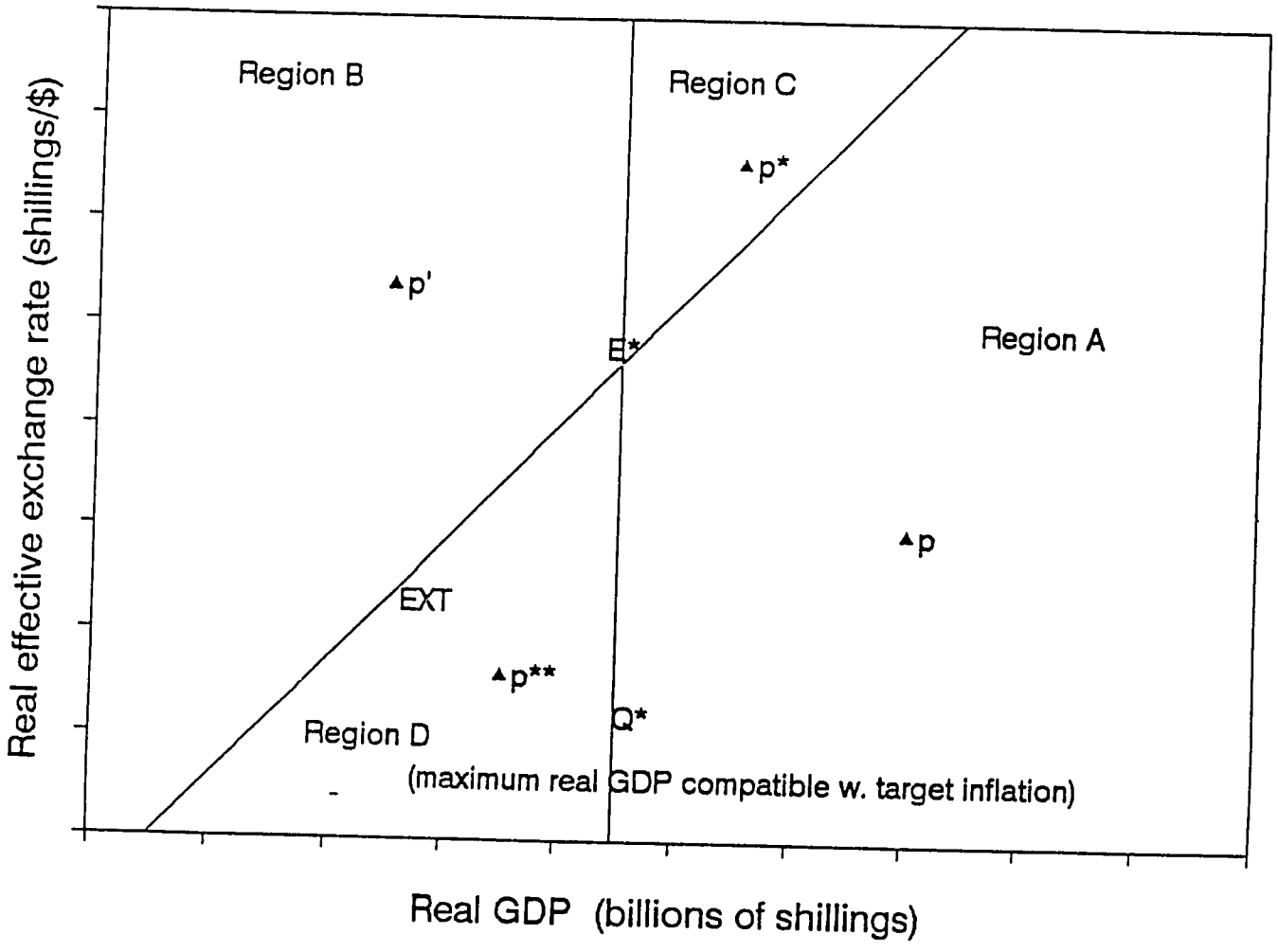
Since reserves and credit are soon exhausted while inflation tends to accelerate, SSA governments have often resorted to exchange controls to maintain a disequilibrium exchange rate and to price controls and rationing to limit the inflation generated by excess demand.

Region B, point *p'*. Here the opposite situation prevails, the exchange rate being too high (the local currency is undervalued) and the level of domestic absorption falling below the equilibrium level This situation holds in a small number of Asian economies (e.g. Taiwan and Singapore), but has thus far been witnessed only during brief interludes in a few African countries. When the exchange rate falls below the equilibrium level, the inflow of foreign currency will tend to press the exchange rate down (i.e. cause the local currency to appreciate) unless it is absorbed into official reserves. If *p'* is pushed rapidly down onto *EXT*, external balance may be achieved while, without policy measures to stimulate demand, output remains below equilibrium.

Region C, point p^*. This situation features excess demand for non-tradables accompanied by an undervalued local currency. Non-tradables prices will rise, simultaneously bringing p^* back to the Q^* line and pushing down the REER. If the inflow of foreign currency also forces down the nominal exchange rate (less sh/$), point E^* may be reached in short order.

Region D, point p^{**}. Here overvaluation of the currency is accompanied by slack in the domestic economy. Some SSA governments, acknowledging that their currency is overvalued but pointing to un- and underemployment of labor and installed capacity, consider themselves

Figure III.5 - DISEQUILIBRIUM IN THE FOREIGN EXCHANGE MARKET



to be in this situation. Politically it is much easier to inflate demand in order to take up the slack than it is to increase the nominal exchange rate (devalue the local currency). The outcome is to aggravate the imbalance in the foreign exchange market.

Sources of disequilibria

The foregoing disequilibria may occur as a consequence of (i) policy actions that move real output and the real exchange rate away from an unchanged equilibrium position, or (ii) a government's failure to respond or inappropriate response to changes in the conditions underlying equilibrium in the foreign exchange market.

How policy causes deviations from equilibrium. The most common case in point in SSA has arisen when a government underwrites its development program in part with credit from the banking system. The corresponding expenditure generates excess demand and inflation in non-tradable sectors while at the same time increasing demand for imports.

Partly in order to slow the inflationary spiral, governments have sought to avoid or postpone devaluation by drawing down reserves and borrowing abroad. With a fixed nominal exchange rate, rising domestic prices cause the real exchange rate to fall, stimulating imports and discouraging exports at a time when increased demand has already led to a BoP deficit. The excess demand and overvalued exchange rate place the country in region A of Figure III 5. Having exhausted its excess reserves and no longer able to borrow, a government often resorts to exchange and price controls in an effort to maintain the disequilibrium position.

Shifts in the equilibrium real effective exchange rate (EREER). The *EXT* and Q^* lines Figures III.3 and III 5 reflect underlying conditions, hence they shift when those conditions change. Each such shift changes equilibrium point E^*.

Exogenous factors. A variety of exogenous factors affect the location and shape of *EXT* and the position of Q^*. A good crop year operates on both curves, pushing *EXT* down and to the right as exports receive a boost and some imports (particularly food) are reduced or eliminated, while Q^* also moves to the right. Intersection point E^* thus moves unambiguously to the right, raising real GDP.

If financing (*F*) remains unchanged, so also does the import surplus. Since imports rise *ex ante* less than exports, the real exchange rate must fall (fewer sh/$) to restore external balance.

A favorable ToT shift also moves *EXT* down and to the right, enabling equilibrium to be attained at a lower exchange rate (fewer shillings per dollar) and higher GDP. An increase in the financing available to cover a current account deficit does likewise.

Conversely unfavorable movements in any of these factors shift the *EXT* curve up and to the left, thus increasing E^*. During the last two decades ToT deterioration--higher prices for imported oil and lower relative prices for many commodity exports--has caused substantial rises in the EREERs of many SSA countries. With no significant improvement in financial resources available to cover the increased deficit--for many countries, the opposite has happened, in the form of exhaustion of reserves and increased capital flight--E^* has moved leftward and upward, establishing a higher equilibrium price for foreign currency and a lower equilibrium level of GDP and domestic absorption. The appropriate policy response, which most SSA governments resisted for many years, was a combination of currency devaluation and domestic demand restraint.

Policies. While resource endowment and technology play important roles in determining the EREER, of no less interest is the impact that *policies* can have on Q^* and *EXT*, intentionally or

otherwise. Changes in taxes, interest rates and government expenditure affect the composition of final demand and thus the relative demands for tradable and non-tradable goods and services. Changes in domestic interest rates affect capital flows

We saw earlier that the real effective exchange rate (REER) takes into account tariffs, quotas and other protectionist devices that are often applied to stave off the need for a devaluation. These measures alter the position and shape of *EXT*, creating new intersections with Q^*. A government that removes factor price distortions and otherwise promotes efficient markets will make it possible for demand to grow without raising non-tradables prices beyond the target level, thus moving Q^* to the right.

At the same time reduced protection increases the demand for imports at any level of GDP. Taken by itself this pushes *EXT* upward and to the left, the combined effect being to raise E^*. On the other hand the East Asian example, mirrored thus far by only a couple of SSA countries (notably Mauritius and Botswana), indicates that pursuit of sound policies over a sufficient period of time to establish credibility creates a dynamic in the growth of exports, pushing *EXT* downward and to the right. The net outcome for the EREER is thus not predictable *a priori*.

Flows of foreign aid and private capital are only partly exogenous. Aid flows influence and in turn are partially determined by host government policies. A government whose financial management inspires confidence among foreign lenders and direct investors attracts a higher capital inflow while inducing domestic asset-holders to invest locally rather than exporting their capital. This pushes *EXT* to the right.

Once donors have reached agreement with a host government regarding fiscal and monetary policies compatible with a market-oriented exchange rate, they may choose to provide "balance of payments" or "structural adjustment" support that will help to maintain the REER near a target level, barring major shocks. Rather than encouraging client governments to maintain fixed exchange rates at such a level, the object is to induce them to establish broad objectives for the rate and take these into account in decisionmaking in many areas of domestic as well as foreign trade policy.

D. Restoring Equilibrium

Some of the shocks that lead to exchange rate disequilibria are soon reversed; equilibrium is restored by restoration of the situation *ex ante*. The purpose of holding foreign exchange reserves is to be able to wait out a temporary shortfall in foreign currency receipts or outflow of funds without seeing the national currency's parity drop precipitously.

However when BoP pressure persists, the measures required to restore equilibrium depend much more on the nature of the disequilibrium than on its causes. As already noted, in SSA the most common imbalance involves excess demand coupled with an overvalued national currency (too few sh/$), the situation depicted by region A in Figure III.5. Regardless of whether the problem arose from overexpansion of demand or from a loss of competitiveness due to an adverse ToT shift, the remedy is the same disinflation and devaluation.

Disinflation

Real demand must contract to bring inflation down to an acceptable level. Policy should aim at nominal GDP growth equal to the anticipated growth of real output plus an acceptable rate of inflation. This almost always requires reductions in public expenditure and the budget deficit,

together with contraction in expansion of money supply and bank credit. Unavoidably, disinflation also involves a temporary drop in real output.

Devaluation

The other half of the adjustment process is a rise in the real exchange rate (more sh/$ in real terms). Even with a successful disinflation, prices will continue to rise, though more slowly. The nominal exchange rate must rise faster than domestic prices if the dollar's real value is to increase.

The higher real exchange rate will provide greater incentives for export production and reduce the ratio of imports to GDP. The resulting drop in net imports (dollar value) will reduce the drain on foreign exchange reserves or permit a reduction in foreign borrowing. However as noted earlier, lower net imports with aggregate output fixed (in real terms) implies a reduction in domestic absorption.

If export production is to increase while imports decline, domestic consumption and investment, both public and private, must contract. Indeed demand restraint may have to continue after disinflation has been completed.

When a BoP deficit has been contained by use of exchange controls and import licensing, the adjustment problem is somewhat different. In lieu of a reduction in net imports, relaxation of controls and devaluation of the currency will lead to a redistribution of imports. Sectors favored by the rationing system will respond to higher prices by buying less imports, while formerly disadvantaged sectors will have greater access to imports and/or see their relative prices fall. Meanwhile export incentives will improve. The aggregate supply-demand balance need not change, although due to stickiness in resource realignment a period of demand restraint will be called for in order to limit inflationary pressure during the transition.

Timing

The time dimension of an equilibrium exchange rate poses complications. Most markets take varying periods of time to adjust fully to any change in prices, and the foreign exchange market is no exception. An exchange rate shift will not produce an immediate response in exports and imports. The principal short-run response will occur in the capital markets. The full response in marketing channels and production may take several years to develop.

The exchange rate which a country could sustain if other conditions remained fixed for a period of time between two and five years can be regarded as a medium-term equilibrium rate. The concept is elusive because other conditions will not in fact remain constant. Nonetheless, it is useful in analyzing questions about the implications for the exchange rate of alternative policy proposals.

Among the fixed conditions on which the medium-term equilibrium rate relies is a constant stock of physical and human capital as well as a given set of trade policies and conditions in world markets. In the longer run, capital will accumulate, the labor force will grow and its education and work experience will change. Those changes will define a set of equilibrium exchange rates for future dates. At the same time, accumulation of capital and upgrading of the labor force will not take place independently of the course of the REER. On the contrary, the course of the REER starting immediately will condition the development of the whole economy as well as the trend of the medium-term equilibrium rate itself.

ANNEX TO CHAPTER III: Exchange Rate Concepts: Official, Nominal, Real and Equilibrium

Even a casual scan of the massive literature on exchange rates yields a bewildering catalog of classifications--exchange rate labels such as official, market, parallel market, nominal, real, effective, real effective, and equilibrium all appear with frequency, among others These distinctions are important here because confusion exists about which exchange rates really matter, and in what circumstances, in the African context

Official exchange rate(s) (OER). This designation characterizes any rate(s) announced by a monetary authority as applicable to any purchases or sales of foreign exchange in which it chooses to engage at a given point in time. Normally such rate(s) is/are determined and maintained by the authority over some period of time by a process other than simple recording of the most recent market outcome. The borderline between official and market rates becomes blurred at the point where an authority records the market outcome on one day and adopts that rate as applicable to its transactions on the following business day only.

Market exchange rate. This is the price of foreign exchange resulting from interaction of supply and demand in the market at a given point or over a given period of time.

Parallel market exchange rate. This concept applies in situations where the monetary authority maintains an official rate (OER) at which demand for foreign exchange exceeds supply, and the authority must introduce nonprice rationing in order not to exhaust its supply of foreign currency. Since users of foreign exchange (importers, speculators and others) are unable to get all they want at the OER, while earners (exporters and remitters) receive less than they would earn in a free market, both parties (and intermediaries acting between them) have an incentive to deal through channels outside the control of the authorities. Thus a parallel (or unofficial or "black") market for foreign exchange emerges and determines a set of rates higher than the OER (i e more shillings per dollar)

Nominal exchange rate (NER). This is a broader designation than any of the foregoing definitions. If the monetary authority is maintaining an official rate which is applicable by law to the bulk of a country's foreign trade, even if a substantial amount of trade occurs at a different (parallel market) rate, then the official rate is also the nominal rate. If no such official rate exists, then the market rate becomes the nominal rate. In either case the nominal rate is the one normally quoted in the press. If more than one official rate applies to different types of transactions, there will be multiple nominal rates. For simplification, the following discussion assumes a single nominal rate.

Equilibrium nominal exchange rate (ENER). The equilibrium rate represents the true opportunity cost of a currency, i.e. the value that would prevail in a free market unhindered by official controls. It is thus a theoretical concept, and of all exchange rate concepts discussed here, the one least subject to unambiguous measurement. The rate prevailing in the parallel market is frequently used as a proxy for the equilibrium exchange rate, at least in the medium term.

The *medium-term* ENER is the rate that would emerge in the months following a full liberalization of the foreign exchange market; the *long-term* ENER is the level that the currency would attain once distortions in resource allocation resulting from the former controls had disappeared. Needless to say, estimation of the long-run rate is subject to a wide margin of

uncertainty.

We will return in later sections to the issue of how reliably the parallel market rate may be interpreted as reflecting the medium- or long-term ENER, in particular the extent to which movements in the parallel rate may be taken as reflecting movements in either of the equilibrium rates.

All the preceding rates represent a nominal price of foreign exchange--e g. one dollar--in terms of units of country X's currency (say shillings). Hence their impact on X's economy is influenced by domestic and world inflation.[17] By way of illustration, depreciation of a nominal exchange rate by twenty percent over one year, e.g. an increase in the price of a dollar from ten shillings to 12, will have different implications depending on whether X's domestic prices rise during the same period by only ten percent *versus* one hundred percent. Measuring the impact of NER movements requires correcting for the influence of inflation rates in X and its trading partners

Real exchange rate (RER). The standard means of making such corrections is to convert the nominal rate into a real exchange rate. The RER is the nominal rate multiplied by the ratio of a price index of tradables to one of non-tradables. Most goods and services have both tradable and non-tradable components, making construction of such indices a complex and tedious task. For empirical purposes the approach normally adopted is to use consumer price indices (CPIs) of a given country, X, and its trading partners.

Specifically, country X's CPI (P) proxies the index of X's *non-tradable* prices, while the CPI of each of X's n trading partners, Y_i, $i = 1..n$, proxies the index of X's *tradable* prices *vis-à-vis* Y_i.[18] A composite index of world prices (π) facing X is obtained by multiplying the CPI of each Y_i by that country's share, α_i, in X's trade, and summing the resulting products.

The real exchange rate (E_r), often called a *purchasing power parity* (PPP) rate, is defined as the nominal exchange rate (E_n) multiplied by the ratio π/P:

(3)
$$E_r = E_n \cdot \frac{\pi}{P} = \frac{E_n \cdot \pi}{P}$$

Partially differentiating we obtain:

(4)
$$\hat{E}_r = \hat{E}_n - (\hat{P} - \hat{\pi})$$

where a ^ over a variable denotes a percent change.

Equation (4) says that a change in the RER equals the percent change in the NER *minus* the difference between domestic and world inflation (this being a difference between two

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[17] All exchange rates presented in this report are defined in terms of local currency units per dollar, so that the exchange rate corresponds to the price of a dollar in local currency. An increase in the exchange rate--that is, a rise in the number of local currency units per dollar--accordingly means that it takes more local currency to buy a dollar, and thus amounts to a depreciation of the local currency.

[18] For a more comprehensive discussion of the link between the tradables-nontradables real exchange rate of the trade literature and the more common empirical alternatives, see Devarajan, Lewis, and Robinson [1993].

percentages). In other words a *nominal* devaluation generates a *real* one only to the extent that the nominal devaluation exceeds

$$\hat{P} - \hat{\pi}$$

i.e. it must exceed any excess of domestic over world inflation.[19] Intuitively this makes sense: if world inflation is zero, and domestic inflation is 20 percent, then nominal devaluation must exceed 20 percent to generate a real devaluation. A nominal devaluation of 20 percent leaves the *real* exchange rate unchanged, while a nominal devaluation of less than 20 percent results in an *appreciation* of country X's currency

The outcome of adjusting for inflation is an RER series that can be used to analyze changes in X's competitiveness over time. This can be seen by considering a modification to the first equation in which we substitute a separate index of either export prices or import prices for the single world price index (π)

Real effective exchange rate (REER). Recognizing that the prices faced by exporters or import-competing firms are influenced by import tariffs, export taxes and subsidies, and other trade-related distortions, we define the real effective exchange rates faced by producers of (i) import substitutes and (ii) exports as follows

(6) $$E_{rm} = \frac{E_n \cdot \pi_m \cdot (1 + t_m)}{P}$$

(7) $$E_{rx} = \frac{E_n \cdot \pi_x \cdot (1 - t_x)}{P}$$

where t_m and t_x represent the combined impact of trade-related distortions on local currency prices of imports and exports, respectively.

As the ratio of imported goods prices to domestic prices, E_{rm} measures producers' incentive to compete with imports; conversely E_{rx}, the ratio of export to domestic prices, measures the incentive to produce for export instead of the domestic market.[20]

The signs of the respective t terms reflect the fact that indirect taxes on imports have a positive effect on the REERs faced by producers competing with imports, while taxes on exports make for lower (i.e. less favorable) REERs for exporters, offset to a greater or lesser extent by export subsidies.

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[19] In fact, the calculations get more complicated, since frequently efforts are made to correct not just for general "world" inflation or inflation in a single foreign country, but rather "average" inflation across a group of countries. There is much debate over the appropriate composition of the country group (and hence the weights used in the calculation), with import weights, export weights, SDR weights, and others all having their proponents

[20] These incentives are easiest to understand if one replaces the aggregate price indices with individual product prices: for example, a firm will have an incentive to compete with imports if its cost of producing a certain good (the denominator, P) is lower than the local currency cost to traders of importing the same good (the numerator, π).

Taxes are fairly easily measured, however the same cannot be said for foreign exchange quotas and other restrictions whose impact on the REERs faced by manufacturers of certain import substitutes in Africa is often far greater than that of customs duties. The only way to measure this impact is to observe the prices fetched in the market by the imports in question, and compare them with the corresponding c.i.f. import values in foreign exchange, multiplied times the applicable NER. The observed gaps represent scarcity rents accruing to the traders favored in the allocation of import licenses and foreign exchange.

Equilibrium real exchange rates (ERER and EREER). These concepts are helpful when one is talking about moving country X towards equilibrium over a period of time. The ENER, defined above, relates to the present moment--X has an NER (shillings per dollar), and we can try to estimate the rate, in SSA usually higher than the NER (i.e. more shillings per dollar) that would bring about external balance in the short run.

However, the longer the period over which balance is to be achieved, the more X's currency and those of its trading partners will be subject to differential rates of inflation. Use of the ERER or EREER enables us to abstract from future inflation and track X's movement toward equilibrium without having to continually adjust the target.

CHAPTER IV

TRANSITION ISSUES

Accepting some form of devaluation as a *sine qua non* for restoring equilibrium in the foreign exchange markets of most African countries, the first section of this chapter looks at ways of bringing it about and its economic effects. Next, we consider arguments for and against freeing the capital market at the same time as current account transactions are liberalized Concluding sections consider the sequencing of measures to restore equilibrium, and the problem of institutional capacity of agencies responsible for managing foreign exchange policy.

A. Devaluation of the nominal exchange rate

We first note some alternative ways of achieving a devaluation when that is required. Next we consider arguments about the macroeconomic effects of devaluation. We then turn to questions about the supply response to devaluation Finally, income distribution and inflation effects are noted. All these matters are discussed in greater detail in relation to the SSA context in Chapter X, following presentation of the four country case studies.

The question of devaluation arises for countries where the authorities maintain an official exchange rate that overvalues the currency Overvaluation is sustained by drawing down reserves, borrowing abroad, or by exchange control and import licensing. A government has three basic options for the process of devaluation:

1. It may gradually reduce the proportion of imports licensed to benefit from a preferential NER, obliging purchasers of other imports to obtain their foreign exchange at higher nominal rates or in the parallel market.
2. It may simply declare a new NER at a level it considers sustainable, and then take steps to support it if demand for foreign exchange continues to outstrip supply at the new rate.
3. It may abandon the support measures temporarily and leave determination of the exchange rate at least temporarily to the market. Recipients of foreign exchange who were formerly keeping it outside the country or selling it through illegal channels where it was subject to a risk premium and high transaction costs, will now sell it openly. The outcome will be a level intermediate between the former NER and the parallel market rate. In the absence of official intervention the rate will approach an equilibrium level determined by structural factors and by fiscal, monetary, and other policies affecting trade as well as by variations in confidence and expectations about future policies and their outcomes

Our use of the term "nominal devaluation" will embrace all three of these alternatives. "Devaluation" implies active determination of a new value, but formally alternative No. 3 refers to a passive act whereby the market is allowed to determinate the value.

With this alternative the government faces the choice between allowing the rate to continue to float, its value going up and down with the market's assessment, and intervening to declare and support a new NER once the market has established a rate considered sustainable. Even after a decision to float, the authorities can still intervene periodically to dampen movements they consider at variance with underlying economic conditions.

The two principal sources of instability are inflation and capital movements. The latter may

be induced by changes in interest rate differentials or by shifts in investors' confidence in the government's ability to stabilize the economy. The links between devaluation, inflation and interest rates are discussed below. The question of confidence is discussed in Section IV.D.

Devaluation and aggregate demand

The mainstream or classical approach to devaluation as a remedy for a BoP deficit cites shifts in both expenditure and production: expenditure shifts away from imports toward domestic products, and production shifts out of goods and services for domestic use, into exports. Both shifts contribute to the reduction in domestic absorption required to eliminate the BoP deficit. If the change in currency parity is not sufficient to accomplish the task by itself, fiscal and monetary adjustments may be required to reach the right level of aggregate demand.

Critics of the classical view make two apparently contradictory arguments about the effects of nominal devaluation. Much of the structuralist literature argues that nominal devaluation leads to contraction of demand and output. But another body of literature focuses on inflationary consequences. Indeed, some authors assert that the inflationary effects of nominal devaluation may make it impossible to achieve a real devaluation. The difference in views arises in part from different assumptions about the monetary and fiscal policies which accompany a nominal devaluation.

The view of devaluation as contractionary arises from consideration of its impact on some components of aggregate demand. For example, a devaluation raises both the local currency cost of debt service and the local currency value of aid flows. *Ceteris paribus* the government deficit rises or falls according to whether the first or second effect predominates. A similar argument applies to the trade balance and the value of local money balances *versus* that of financial assets held abroad.

In making these arguments the structuralists are primarily concerned with the domestic absorption component of demand in the short run. They argue, not always explicitly, that the shifts of production and expenditure induced by a rise in the real exchange rate will not occur for some time after the devaluation has had its impact on domestic demand.

The net effect of these and similar considerations should be taken into account by those who manage monetary and fiscal policy. Once recognized, the macroeconomic side effects of devaluation can be offset by monetary and fiscal action. However, uncertainty about these effects complicates the task of establishing precise targets for nominal demand, price movements and real exchange rates. That argues for the need to develop procedures for rational adjustment of policies as events unfold. It does not argue that efforts to change real exchange rates are futile. Nor does it support the notion that devaluation inherently depresses demand.

In any case temporary contraction of demand is often necessary to ensure that inflation does not undermine the goals of a nominal devaluation. If devaluation does not lead to a contraction of output it is often necessary to induce one by deliberate monetary and fiscal restraint.

Devaluation and inflation

By definition a nominal devaluation puts upward pressure on local currency prices of imports subject to the new NER and of goods competing with those imports. The local currency counterpart of export prices also rises, tending to raise prices of goods that compete with exports for scarce resources--e.g. domestically produced food competing for land with export crops. These price increases in turn generate wage demands which may lead to further price rises.

Some increase in the overall price level (CPI) is virtually inevitable. Its magnitude depends

largely on the course of nominal demand. As shown in the Appendix, the CPI's direct response to an increase in the price of foreign currency (ΔE_n) appears to range from 20 to 40 percent of ΔE_n when prices are relatively stable before the devaluation and there is no increase in nominal demand.

Of course, it is rare for any government to pursue a policy so austere as to prevent such an increase. But as the Appendix shows, given some determination on the part of the policy makers and a degree of popular support, it is possible to bring the inflation induced by a devaluation to a halt within a reasonable time. Some SSA governments have succeeded in doing this; the majority have yielded to fear of recession or interest group pressures and allowed inflation to nullify the devaluation's benefits within a short time

Interest rates and capital movements

Structural adjustment programs, in Africa as elsewhere, invariably call for measures to restrain the growth of money supply associated with "inherited inflation" as well as devaluation. Customarily the government commits itself to raise nominal interest rates to levels that are positive in real terms High rates may be maintained for some time after inflation declines, in an attempt to induce nationals of the country to repatriate capital that fled abroad during a long period of negative real rates. The ensuing capital inflow may induce inflationary pressures, or cause a temporary appreciation of the exchange rate If the authorities succeed in maintaining a stable growth rate of nominal demand, instability arising from the interest rate movements should gradually diminish.

Supply response

While the immediate object of devaluation is normally to resolve a BoP crisis by diverting some domestic consumption to exports and temporarily reducing the ratio of imports to GDP, devaluation can also make an important contribution to long run development. It does this by reducing or eliminating distortions caused by exchange controls. import licensing and other protectionist measures, and thereby enhancing efficiency. The resulting impetus to exports generates the means to pay for imports of intermediate and capital goods required for full utilization of existing plant Over the longer run, further growth in exports will make possible the imports required for continued expansion.

While it is generally agreed that real devaluation will move exports and imports in the right direction, there is much disagreement about the degree and timing of the response of imports and exports as well as about the accompanying changes in income distribution. The following subsections consider supply responses in different sectors of the economy.

Agriculture. Agriculture is the most readily available source of additional exports in most SSA countries. Farm exports can be increased by employing more labor and by increased use of fertilizers and pesticides, until gains from further use balance marginal costs. When a higher exchange rate raises the local currency price of farm products, the marginal value products of all inputs rises Farm operators can be expected to respond by increasing output.

The short run, say one or two years, allows for little or no increase in investment as a basis for raising output Instead, operators must apply additional current inputs, including labor, to work their existing capital stock more intensively Thus, the increase in output in the short run, determined by the short-run price elasticity of supply, will depend on the cost of those inputs and on the availability of labor with appropriate skills.

The action of many SSA governments in depressing relative prices of agricultural products,

among other traded goods, as part of an effort to promote industrialization and favor urban consumers, has led farm operators to use their capital stock less intensively. Typically there is also excess labor supply in rural areas. Thus, most of the required resources are already in place, and when devaluation reverses the price distortion, a significant production response can be expected within a year or two. Once resources are fully utilized, further gains come more slowly.

The experience of many African countries shows that restoration of exchange rates reflecting real opportunity costs of resources is an essential part of any program aimed at increasing farm output and exports. However, while price adjustment alone brings positive results, the interaction of capital, appropriate technology and price incentives over time is far more fruitful. Large and rapidly growing populations make continued investment in raising agricultural productivity essential. Much of the disappointment with SSA structural adjustment programs results from short time horizons and inadequate investment in the sectors that are supposed to respond, including agriculture.

Other resource-based sectors. Tourism, fisheries and mineral exports are already well developed in many SSA countries. Exchange rate adjustment and favorable ToT provide incentives for increased output but, as in the case of agriculture, the outcome is heavily influenced by the availability of trained workers, credit and adequate infrastructure.

Nontraditional exports. In most developing countries the first rewards to exchange rate adjustment are obtained in the recovery and expansion of traditional resource-based sectors. Some countries have found it possible to expand their export base by developing nontraditional resource-based activities, e.g. horticulture. But the potential of these sectors for raising per capita incomes over the long run is limited by competition from other low-income countries and, in many countries, by decreasing returns from the land and other natural resources employed. Other sources of export revenue must be developed. The East Asian economies have shown that, although agricultural development cannot be neglected, the path to rapid growth of per capita income lies in developing manufacturing exports.

Manufacturing exports. In many developing countries, especially those of SSA, a variety of factors inhibit the development of manufacturing exports. The poor condition of infrastructure makes for frequent power shortages and costly and unreliable transport and communications services. Government regulation is conducted inefficiently and burdened by corruption. Labor productivity is low and technical specialists are scarce at any price. Notwithstanding a devaluation that reduces the cost of labor and other local inputs in dollar terms, the share of tradables in production costs, compounded by the foregoing deficiencies, may keep total cost at a level making production in a given country uncompetitive at any exchange rate

But it is after all not necessary to be competitive in every conceivable product. Circumstances that make one or a few products competitive in international trade provide a basis for expansion through learning-by-doing in the environment of world competition instead of under the soft constraints of infant industry protection and subsidies.

Income distribution

Distinguishing between short- and long-run effects is particularly important in assessing the effects of devaluation on income distribution. In the short run there are gainers and losers. But once devaluation of an overvalued currency has had its full effect on productive efficiency, nearly all groups will be better off.

At the outset, all groups involved directly or indirectly in production of goods for export will gain as will those who produce import substitutes. In many SSA countries the main export producers are rural smallholders with relatively low incomes. Moreover, elimination of rationing and exchange controls makes more consumer goods available at lower prices, while availability of spare parts and other inputs benefits producers of non-tradables as well as tradables

It is also true, however, that in the short run currency depreciation often involves redistributions of income that are disadvantageous to politically influential groups. Tradable goods and services figure more heavily in the household budgets of urban workers and high-income consumers than in those of farm operators and other rural producers. For such items as were actually available at local prices based on the overvalued exchange rate, devaluation (unless offset by budget subsidies) raises their prices and burdens their consumers accordingly. Where this applies to staple food items, e.g. wheat and rice in the franc zone, the effect on urban residents' well-being can be dramatic.

Moreover where depreciation is accompanied by lifting of exchange controls, enterprises that formerly operated behind this protective wall are likely to lose revenue, possibly even go bankrupt, exposing their labor force to unemployment. Conversely devaluation brings higher prices for farm operators, while their laborers get more work and earn higher wages.[21] However groups that lose from policy changes are often more vocal than beneficiaries, especially when the losers are literate urban dwellers and the gainers are poor farmers. Nor is there yet much appreciation among policy makers or on the part of public opinion regarding the prospective long-run gains from devaluation for the vast majority of the population.

Conditions for successful devaluation

Of the many devaluations undertaken in Africa, a high proportion have failed in the sense that, after a relatively short time, inflation had reduced the real exchange rate (price of the dollar in constant shillings) to a level no higher, often even lower, than just before devaluation. The failure to effect real devaluation vitiated any improvement in the BoP. In a few cases a real devaluation occurred but the initial supply response was so small that the government maintained or reinstated exchange control and other protectionist measures to resolve continuing BoP pressure.

Clearly devaluation does not provide a quick fix to a BoP deficit. Success requires first of all that the government maintain sufficient fiscal and monetary restraint to make the devaluation stick in real terms. Second, the income redistribution implied by a real devaluation must be politically feasible. Third, the amount of BoP improvement to be expected within a given time from measures designed to maximize real devaluation depends on the resources mobilized to speed up supply responses.

Variants of equilibrium that undercut export competitiveness

A real exchange rate meeting the conditions for internal and external balance summarized in equations (1) and (2) will not necessarily maximize the growth of exports. The larger the balancing inflows on capital account plus remittances, the larger the current account deficit that can be financed, and thus the weaker the required performance of exports.

Some inflow on capital account finances imports that are additional to the economy's

[21] Higher food prices may cause some rural nonfarm people to lose on balance.

underlying import demand, and thus does not directly affect the equilibrium exchange rate. This is true of foreign project aid and foreign direct investment. In contrast, nonproject (e.g. structural adjustment) aid, speculative financial inflows and the portion of remittances not spent directly on imports help to cover the trade deficit, and thus take some of the pressure off exports. (To be sure, any net movement of speculative finance out of the country, or a surplus of external debt service over loan disbursements, has the opposite effect of increasing the pressure on exports).

Another phenomenon making for an exchange rate lower than the equilibrium corresponding to normal trade flows is the so-called "Dutch Disease", whereby a sudden foreign exchange windfall arising from export of a natural resource such as oil enhances a currency's value. The resulting rate can depress the local currency values of the country's other export products below cost, making it heavily dependent on a single resource-based export.

B. Differential Exchange Rate Policy for the Current and Capital Accounts

The exchange controls to which governments resort in order to defend overvalued rates automatically bring into being a situation of *multiple exchange rates*. This is because the payments for which the authorities provide foreign exchange at the nominal rate from officially controlled sources take place at a preferential price in local currency, while all other payments must take place at higher prices, incorporating a premium to reflect the market value of foreign exchange.

The authorities may explicitly set more than one nominal rate for different categories of payments; they may allow a free market to operate alongside the controlled foreign exchange transactions; or they may seek to prevent transactions other than those proceeding through official channels, in which case an illegal parallel market comes into being whose prices reflect risks and associated transactions costs related to the effectiveness of government enforcement measures.

All exchange control regimes seek in one way or another to limit payments with foreign exchange at the OER to uses that the authorities consider "essential" to national objectives. Such uses typically comprise importation of wage goods to satisfy demand that exceeds domestic production at officially desired prices, along with purchase of goods and services for use by government and, often, quasi-public bodies (public debt service is one payment category that almost always benefits from the OER). Capital equipment and other goods and services imported as inputs into domestic industries favored by government policy also typically benefit from the OER.

Conversely payments that are typically ineligible to receive officially controlled foreign exchange, at least at the most favorable OER, include imports of so-called "luxury" goods; imports of goods and services that the government considers to be produced domestically in adequate volume; and nearly all exportation of capital owned by residents. Accordingly, these payments, if they occur at all, take place at effective exchange rates higher than the OER.

Full equilibrium in the foreign exchange market means that all transactions are allowed to take place at prevailing rates, whether an OER supported by the government, a floating rate, or a rate whose float the authorities seek to manage. As already indicated, there is a wide consensus

in the development community that quantitative controls *vis-à-vis* transactions on *current account* of the BoP have led to severe distortions and inefficiencies, retarding the growth of the countries concerned. World-wide, in SSA as in other regions, country authorities that have not yet openly agreed with this point of view have found themselves under strong pressure from the IMF and donor institutions to abandon the controls and allow goods and services to be traded at exchange rates that are either market-determined or, if officially pegged, are sufficiently close to market values that the authorities can sustain them with reserves and foreign borrowing.

No such consensus yet exists with regard to DC authorities' management of the *capital account* of their BoP. Apart from support for a foreign investment regime that guarantees investors the right to repatriate their investment, the IMF and donor institutions tolerate, in some cases even favor, efforts by the authorities to prevent or tax export of capital by residents, as long as the controls are not designed or operated in such a way as to constitute a significant burden on trade Still, official intervention in any market, whether for goods, services or capital, introduces price distortion, and restricting capital transactions, even if trade in goods and services is free of quantitative restrictions (except for controls for reasons of health and public safety), brings about a parallel market with a price (exchange rate) higher than the NER

Economic arguments can be made for and against freeing the capital account as part and parcel of efforts to restore equilibrium in the foreign exchange market. The most potent argument in favor is that domestic capital markets are not efficient as long as the government restricts investors from placing their funds wherever the combination of risk and return are most favorable, whether at home or abroad. The authorities of several Asian countries, namely Hong Kong, Singapore, Indonesia, Malaysia and Thailand, have maintained full or nearly full convertibility, for capital as well as current transactions, for several years. In the process not only have they avoided net capital flight, all have added significantly to their foreign reserves.

On the other hand the foregoing list of countries is notable for the omission of two of the most successful Asian newly industrializing countries (NICs), Korea and Taiwan. Most SSA policy makers will point to their example, and argue that no small developing country can hope to avoid a substantially higher level of political risk than any industrial country, hence a prescription for a free capital market is a recipé for encouraging permanent capital flight. While admitting that sophisticated operators will circumvent capital controls, the policy makers will argue that reasonable controls make it sufficiently costly for small assetholders to export their capital so as to avert a significant share of the capital flight that would otherwise take place.[22]

One answer to this is that the high risk is in large part a function of the inappropriate policy framework which economists are simultaneously trying to persuade the policy makers to correct--notably exchange rate overvaluation, current account controls, inflation, and so on Even so, it can be argued that, supposing appropriate economic reforms were implemented, continuing political volatility poses a continuing threat of their reversal.

Beyond the question of underlying risk there is at least one economic reason to stop short of full capital account convertibility for the foreseeable future. Above we have argued that the government can best support the competitiveness of its exporters and import-competing firms by maintaining a stable real exchange rate, perhaps at a somewhat "undervalued" level. To do

[22] One irony of this argument is that many policy makers belong to the sophisticated group that already maintains sizable assets abroad and continues to export capital illegally.

this, it will likely have to intervene from time to time in the foreign exchange market to control dips in the exchange rate (drops in the shilling price of a dollar) caused by phenomena related to "Dutch disease".

A completely free capital market complicates this type of management insofar as private funds moving across borders to take advantage of interest or risk differentials or anticipate exchange rate shifts can easily swamp the resources available to a government to try to dampen price fluctuations. Most DC authorities are still concerned to prevent massive capital flight forcing them to devalue, but several of the faster growing DCs have encountered the opposite problem. As authorities in these countries have convinced foreign and local investors of their intention to maintain incentives and promote free markets, the investors have found the relatively high interest rates prevailing in the countries' capital markets increasingly attractive, while perceiving the foreign exchange risk to be low and declining with continuing economic growth.

To see how capital movements affect exchange rate management under different regimes, we begin by assuming that a DC holder of a financial asset was formerly prohibited from shifting it abroad, that this prohibition is removed, that he decides to export the asset, and that his decision is independent of that made by any other holder of local or foreign assets. In the short run his action will either cause a net outflow of capital, or (assuming the asset's value to exceed a certain threshold) drive up the exchange rate (more sh/$). Which of the two outcomes to expect depends on the exchange regime in effect.

If the central bank is supporting the exchange rate at some fixed level, the local assetholder's purchase of a foreign--assuming the transaction to be of a certain magnitude--will push the exchange rate up to the intervention level, whereupon the central bank will have to sell foreign currency to bring the rate down again. If the assetholder exports additional assets, or other assetholders follow his example, the central bank will continue selling foreign currency until its reserves fall below a level it considers prudent, or its borrowing power is exhausted. At that point it must take extraordinary action, either devaluing the national currency or reimposing controls. Many devaluations from fixed rates have occurred when large capital outflows depleted central bank reserves.

Conversely if the country is following a floating rate regime, increased purchase of foreign assets will push up the exchange rate. In the short run, modest exchange rate movements will not affect the current account significantly. Both the exchange rate and short-term interest rate must increase sufficiently to bring incentives for capital export down to a level where net capital inflow will balance the current account deficit. The incentive to hold local assets rises when (i) the exchange rate is sufficiently high to reduce the likelihood of further depreciation of the local currency, and (ii) local real interest rates have risen relative to those in developed countries.

In sum, in floating-rate countries with capital controls whose effect is nonnegligible, their elimination will, *ceteris paribus*, lead to higher interest rates and higher exchange rates in the short run rather than net capital export. In the medium term, the higher exchange rates (more sh/$) resulting from elimination of exchange control should stimulate exports and dampen import demand (indeed one may think of elimination of capital controls as a form of export promotion). This outcome might be expected to increase domestic investment.

For the longer run, capital control policy should be considered in a broader context which takes account of the effects of controls on domestic and foreign assetholders' attitudes towards an economy's overall management. Once country *X* abolishes controls and assetholders are

reasonably confident that they will not be reimposed in the foreseeable future, higher returns on investment in *X* than those available elsewhere will attract an inflow of capital.

In Korea, Malaysia, Argentina, Chile and Colombia, among others, such inflows have threatened to force the exchange rate downward (less local currency per dollar) unless the central bank intervenes to purchase the foreign exchange Pumping local currency into circulation to buy up the dollars expands money supply, raising prices. Sterilization of the foreign exchange is expensive, since the government must pay interest on "stabilization bonds" for unneeded funds In these circumstances, a government seeking to preserve export incentives must choose between an expensive sterilization and a return to controls

Having said this, one must recognize that certain types of transactions which are technically capital flows act to facilitate trade. Exporters and importers seek forward contracts for foreign exchange to eliminate the risk accompanying variable delivery of and/or payment for goods. To write these contracts, banks must be allowed to take an open position forward and to hedge that position by lending or borrowing in foreign currencies While in theory the government might attempt to limit these transactions, in practice it is difficult and probably counterproductive.

C. Sequencing of Measures to Restore Equilibrium

Advising a developing country to give the market free rein to restore equilibrium in its current account without delay, while agreeing that it may reasonably retain, for some time, controls over residents' export of capital, is tantamount to taking a stand on the desirable sequence of reform measures. In effect, one is saying that liberalization of the current account is most urgent and should come first. Conversely full liberalization of the exchanges including the capital account, while eventually necessary in order to take full advantage of the international division of labor, can and in some cases probably should be delayed while the country pursues other measures to build up the confidence of its population and the international business community.

An even more fundamental issue of sequencing, however, is the relative timing of liberalization of the current account *versus* macroeconomic stabilization through reduction of the budget deficit and other measures to restrain inflation. As will be seen in Chapter VII on Senegal's experience, the defenders of the long-standing FCFA/French franc parity pursued increasingly restrictive stabilization measures over a period of years--dating as far back as the early 1980s--before accepting a 50 percent devaluation of the CFA franc in January 1994; and up to the bitter end they argued that stabilization required still more time to become effective before a devaluation would be appropriate.

Based on experience in Africa and elsewhere, a general consensus has emerged that, as desirable as it is to balance the government budget and restrain credit creation so as to hold down inflation, there is little rationale for placing the burden of this adjustment on the backs of the majority of producers and users of tradable goods and services, which is the result of continuing to overvalue the national currency and enforce the exchange controls required to sustain the overvaluation. Instead, liberalization of the exchange rate, whether by devaluation of an OER to an economic level or floating of the currency, is an integral part of a stabilization program. One can go still further to say that, even when a government finds itself incapable of implementing other fiscal and monetary measures of stabilization, the exchange rate should be

liberalized and allowed to depreciate *pari passu* with inflation in order to limit disequilibrium in the foreign exchange market.

D. Institutional Capacity

The final dimension deserving of mention here is that of the institutional capacity of the agencies responsible for implementing exchange rate policy. An axiom of economic policy is that, the greater the degree of intervention in the market involved in a government policy, the greater the public sector institutional capacity required to meet the policy's objectives. Thus, no approach to exchange rate management requires more institutional capacity than defining "essential" goods and services and implementing exchange controls so as to prevent use of foreign exchange for other purposes. Experience world-wide has shown that such institutional capacity exists nowhere, least of all in developing countries.

Conversely, at least formally, allowing the exchange rate to float with no intervention by the monetary authority requires no institutional capacity at all. In practice, so many are the temptations faced by DC policy makers to re-enter the market and influence, if not control, the course of the exchange rate, that presence of technocratic knowledge and skills in the finance ministry and central bank is highly desirable to dissuade them.

Intermediate between the two extremes is a managed float, where the authorities bring to bear reserves and borrowings in an effort to dampen short-term swings that reflect speculative movements of capital rather than underlying economic conditions. Judging whether an exchange rate has temporarily moved higher or lower than warranted by those conditions, and will swing back, possibly overcompensating, unless dampened by official intervention, is obviously a matter of great skill, requiring that the responsible technocrats be closely familiar with past developments, enjoy the confidence of movers and shakers in the domestic business community and abroad, and be able to judge the latters' real intentions. In Chapter X the question is raised to what extent SSA governments dispose of such talent or, if they had access to it in the past, have subsequently allowed it to evaporate.

CHAPTER V

ALTERNATIVE EXCHANGE RATE MANAGEMENT REGIMES

Once a satisfactory level of stabilization is attained, a government must consider how to respond to future shocks affecting the BoP. Maintaining a sustainable balance in the international accounts requires a combination of measures in the areas of fiscal, monetary, and trade policy. Policy makers can, in advance of the event, consider the advantages and disadvantages of adjusting to BoP shocks by (i) financing, (ii) changing a pegged exchange rate, (iii) allowing the market to change a floating rate, and/or (iv) demand management From time to time a country's authorities may change their preferences among these alternatives, but at any given time they will be disposed to act in a certain way reflecting the preferences in effect at that time.

Most governments follow one of three basic approaches to exchange rate management·

1. (Case of the FZ countries) they may seek to maintain indefinitely a fixed rate *vis-à-vis* some currency or basket of currencies, adjusting to external BoP shocks first by using reserves or borrowing and then by fiscal and monetary measures.
2. they may choose the opposite course of a floating exchange rate--this has been the practice of the OECD countries since the early 1970s, leaving aside the special case of the European Monetary System.
3. they may adhere to the original Bretton Woods approach, using a fixed exchange rate as an anchor in managing domestic demand but also recognizing that under some conditions the cost of defending the rate may outweigh the benefit Most of the 74 non-FZ countries identified in IMF [1994c] as pegging their exchange rate to a single currency or composite of currencies can be grouped in this category (none have maintained the peg as long as the 45-year life of the 50:1 CFA/Ffr rate)

As noted in Section III.C, enlightened DC policy makers manage their exchange rates so as to attain a viable BoP position, subject to maximizing resource utilization, holding price inflation within limits acceptable to society, and minimizing protectionism. Obviously, pursuit of these objectives involves trade-offs Some underutilization of resources is necessary to ensure reasonable price stability; the political compromise between resource utilization and price stability differs among countries. The choice of exchange rate regime should be consistent with the compromise that is made; for example, the closer resource utilization is pushed to the margin at the expense of price stability, the less appropriate will be a fixed rate regime.

The experience of successful developers has shown that full and productive use of resources requires expansion of exports at a rate well in excess of GDP growth. Attainment of this objective presupposes a certain level of real exchange rates. Indeed, much of the difficulty in both fixed rate systems and pure floats arises from ways in which either system may lead the exchange rate away from a level that will support an adequate growth rate of exports.

Finally, the choice of exchange rate regime will be influenced by short-run political considerations such as the desire of politicians to avoid the turmoil associated with BoP crises, concern over "losing face" if the national currency is allowed to depreciate, and pressures from economic agents whose interests are linked to changes in the local currency equivalent of import or export prices.

The following sections examine the three aforementioned approaches to exchange rate

management in the light of their relations to price and output stability as well as to rules for control of nominal demand.

A. Fixed Exchange Rates

Defenders of a fixed rate regime portray it as a vaccine against inflation. It may also eliminate or reduce adjustment costs arising from temporary shifts in the factors underlying supply and demand for traded goods. And it may insulate an economy from capital movements generated by speculation about changes in interest rates or other changes in policy. To be sure, it can only do this if the rate is supported by a demonstrated commitment to use monetary and fiscal policy as well as foreign reserves and lines of credit to defend it.

As indicated in Section II.B above, efforts to maintain a fixed exchange rate have often proved costly. While fixed rates insulate an economy against unnecessary and undesirable adjustments to ephemeral shifts, they foreclose an exchange rate response to fundamental and persisting changes. The alternative--forcing prices of non-tradables, notably labor, to decline relative to tradables prices--is normally much more painful. Yet failure to force such a realignment undermines the country's competitive position and depresses export growth.

In sum, by pursuing a fixed rate policy a government places a bet, and a large one, that price stability can be maintained without significant loss of output. If that proves to be wrong, the country pays a heavy price in lost output and often ends up by devaluing anyway.

The consequences of the fixed exchange rate model as applied in Africa are discussed in greater detail in Section XI.B below.

B. Floating Rates

The opposite approach to fixed rates is to let the market determine the exchange rate with a minimum of intervention. The rate will then move in whatever way is required to reach BoP equilibrium.

The advantages and disadvantages of floating rates are the opposite of those attributed to fixed rates. Floating rates permit a continuous response to changes in fundamentals. A floating-rate policy is neutral with respect to inflation. It is not a cause of inflation--inflation results from government acts of commission and/or omission in regard to monetary and fiscal policy--but neither does it limit inflation. The great advantage of a floating rate is that, when inflation does occur, BoP equilibrium is maintained by automatic shifts in the exchange rate instead of by measures of demand restraint and protection that result in underutilizing resources and distorting their allocation.

Because freely floating exchange rates clear the market, finance ministers and central bank governors in floating-rate countries do not have the constant worry about their BoP positions and foreign reserve levels that afflict their counterparts in fixed-rate countries. That said, no one should believe that adherence to a floating exchange rate allows a government to conduct its fiscal and monetary policy without concern for trade and payments considerations In fact, movements of the exchange rate give rise to significant problems of their own.

Floating rates are determined by interaction among many aspects of economic policy and conditions in the markets for goods, services and capital. The rates resulting from this process

are not necessarily optimal or even satisfactory from the viewpoint of promoting medium- and long-term growth. A variety of temporary shocks from weather to political disturbances in trading partner countries can cause ephemeral movements in exchange rates. The actions of "stabilizing speculators" may limit such fluctuations, but under many commonplace scenarios it can also aggravate them.

The fact that elasticities of supply and demand tend to be significantly higher in the medium-to-long term than in the short run means that a change in supply or demand conditions may cause the exchange rate temporarily to overshoot the level that would equilibrate supply and demand during a period long enough to yield return of a capital investment. Again, stabilizing speculation may help, but it will not ordinarily be efficient enough (operate with a sufficiently long horizon) to resolve the problem altogether. The result may be costly distortions in resource allocation

Capital movements, actual and potential, can lead to sharp fluctuations in a floating exchange rate. When there is slack in the domestic economy, loan demand falls and interest rates do likewise. Other things being equal a reduction in interest rates in one country causes capital to flow out and raises the exchange rate (sh/$) Net exports rise, reducing slack in the economy, raising the return to local investment and making capital export less attractive. In this case the capital flow plays a constructive role.

But interest rate differentials are not always well matched to economic conditions and may lead to perverse or excessive exchange rate movements. Speculation based on guesses about future policy may be destabilizing. Finally, capital and exchange rate movements can be generated by speculation about political instability, with capital running from unstable countries to safe havens

The capital movements and exchange rate swings that followed the shift in U S. fiscal policy in the early 1980s reflected all the forces just mentioned. No one will argue that they kept exchange rates close to medium-term equilibrium positions. Developing countries are exposed to similar phenomena and are more vulnerable due to thinness of their exchange markets.

World-wide, policy makers have recognized the disadvantages of fixed exchange rates and have generally abandoned them, without being fully satisfied with the outcome of floating rates. Indeed, dissatisfaction with floating rates drives renewed efforts to establish the European Monetary Union. However, a return to fixed exchange rates is not the only alternative to floating rates. In fact, pure floats are rare; one or another form of official intervention in exchange markets is common in most countries.

C. Managed Floating

While all countries face contingencies such that well-conceived intervention would yield better results than *laissez-faire*, their financial and technical resources for influencing exchange markets constructively vary. Section X.B cites institutional handicaps facing SSA finance ministries and central banks

Notwithstanding heavy investments in staff development, many of these agencies have seen their capacity to analyze financial markets and implement fruitful intervention strategies deteriorate in recent years Some SSA governments have allowed private interests to loot their treasuries and/or central banks. It would be irresponsible to advise such governments to follow

exchange rate policies involving sophisticated market interventions.

Proceeding from the assumption that a country's monetary authorities have reasonable staff capacity to follow markets and design measures that promote national development objectives, as well as financial capacity to influence the exchange market perceptibly in the short run, the discussion in this section focusses on "rules of engagement" for central bank intervention.

The first step is to identify a target path consistent with the objectives for exchange rate management outlined earlier, followed by analysis of the bank's response to different kinds of deviations from the path. We then consider options open to central banks more severely constrained with respect to availability of reserves, borrowing capacity, and ability to influence local financial markets.

Target path

For simplicity we discuss the target path for a single rate with one other currency, rather than for a band of rates involving several currencies. Target bands and multiple currencies are considered later.

The target path for the exchange rate should:

- equilibrate the BoP with minimal resort to distortionary (protective) trade restrictions;
- maintain real effective rates that support a target for export expansion well in excess of GDP growth; and
- allow for the degree of demand slack consistent with a viable compromise between price stability and full utilization of resources.

A fixed *real effective* rate (REER) target, if achieved, may meet these conditions while accommodating a developing country whose domestic politics dictate an inflation rate higher than that of its developed country trading partners. However, even if feasible, the fixed REER approach may not provide a satisfactory response to persisting changes that alter the level of the rate consistent with export targets. It may then be desirable to make adjustments in fiscal, monetary and trade policy aimed at moving the exchange rate in the required direction.

Limiting volatility

Short-run deviations from the medium-term trend of exchange rates increase the risks and costs of trade and often give false signals for resource allocation. While longer-term objectives should take priority in exchange rate policy, governments also have a legitimate interest in containing short-run volatility. However, as indicated below, their capacity to accomplish this is severely limited.

Policy instruments

SSA countries have little scope for controlling the movement of their exchange rates through direct market intervention. Even developed countries with ample reserves are able to exert only a marginal influence on their exchange rates. African countries lack both reserves and borrowing capacity to do even that. Nonetheless, governments and central banks can influence the trend of their exchange rates and reduce volatility through fiscal, monetary and trade policy.

D. Macroeconomic Policy

Market determination of exchange rates is strongly influenced by macroeconomic policy and expectations about it. One cannot expect exchange rates to follow a stable course in the absence of consistent and realistic macroeconomic policy, holding nominal demand to a path implying

an acceptable rate of inflation. At the same time it is essential to maintain significantly positive real interest rates.

Changes in expectations about inflation and in real interest rate differentials are two major causes of short-run REER variations. Stable demand management and realistic interest rate policy minimize speculative capital flows and the snsuing exchange rate fluctuations

One way to control inflation is to set a target for nominal GDP growth and conduct monetary and fiscal policy in a way consistent with the target If nominal GDP grows at a rate equal to the sum of potential real output growth and an acceptable rate of inflation, the problems of inflation and exchange rate depreciation will be minimized. There will be no bursts of excess demand, and supply shocks will not be accommodated. Shocks will initially cause domestic prices and the price of foreign currency to rise but that will force a reduction in real domestic absorption, limiting the "pass through" of the initial price rise into further wage and price increases. If inflation can be contained while interest rates are determined by market processes, the volatility of exchange rates can be greatly reduced without direct market intervention. At the same time the market-clearing and resource utilization objectives will be achieved

Short-term movements

Nonetheless, short-term variations in export prices and volume as well as events in the capital markets will at times cause temporary deviations of exchange rates from their medium-term equilibrium. When it is feasible, intervention that limits such movements can reduce losses from excessive exchange rate volatility. In practice, however, governments generally lack the resources and forecasting capacity required to conduct successful exchange market intervention. Injudicious intervention is likely to exacerbate rather than contain volatility.

Proponents of floating rates often exaggerate the efficacy of stabilizing speculation by private operators, but no greater reliance can be placed on forecasting by government agencies. Indeed, speculators have every reason to suspect the authorities of wanting to keep rates constant and therefore being biased towards judging permanent shocks as transitory. Official intervention is socially useful only if the government systematically makes better judgments than the market and acts upon them. That criterion is not met in most cases but there are some exceptions.

One such exception may arise out of speculation about government policy. Market expectation of accelerating inflation will at the very least cause a gradual increase in the price of foreign currency, and under some circumstances can produce a "run" on the local currency. If the market's anticipation is well founded, the appropriate action is, of course, to address the underlying problem, i.e. to adopt fiscal and monetary measures to dampen inflation. In this case, pressure on the exchange rate creates a positive incentive for correct government action.

When the market incorrectly anticipates a shift towards more inflationary policy, the government must, of course, reiterate its commitment to stability. However this will rarely satisfy the market; the statement of intent must be backed up by actions that reinforce the credibility of stabilization policy.

One such policy option is for the central bank to manipulate bank reserves and reserve requirements so as to generate a spike in interest rates. Though initially disturbing to domestic financial markets, such a step may help to stop a run on the currency as long as it forms part of a package of measures demonstrating the government's adherence to stabilization.

Direct intervention by central bank transactions in foreign exchange is limited by availability of resources, but should not be ruled out altogether. A case for limited intervention may arise

when a government seeking to build up its foreign exchange reserves finds that its currency tends to appreciate. It may take the opportunity to acquire reserves during periods when its currency is strong. This reduces volatility taking the form of transitory upswings, thereby avoiding the need for subsequent downswings.

Once acquired, reserves can be useful as a supplement to other stabilization measures. No SSA country is likely to have sufficient reserves in the foreseeable future to check a rate movement backed by the bulk of market participants. But when other stabilization measures are in place, selling foreign exchange may satisfy enough of the remaining speculative demand to stabilize the market.

Improving exchange markets

Even a relatively stable market will experience daily and hourly variations in rates due to minor imbalances between in- and outflows of foreign exchange. If the market is well organized, featuring dealers prepared to make a market in foreign currencies, most of these imbalances will be absorbed with minor variations in spreads. However, when the exchanges are newly liberalized and participants are new at the game, dealers may not be prepared to take positions for small returns and information will flow imperfectly.

In the face of rate movements caused by market "noise", the central bank may dampen volatility by changing rules, procedures and information systems, or, if resources are available, by direct purchase and sale of foreign exchange. In considering direct entry, it has to balance the costs of market volatility against the prospect that action by the bank may preempt dealer activity.

Seasonal variations in exports, large payments for debt service, and lumpy receipts of foreign aid all exert pressure on exchange rates. It is open to government to manage its own foreign transactions so as not unnecessarily to disturb the market. On the other hand dealers should be expected to dampen fluctuations reflecting the crop cycle. When a large proportion of foreign exchange receipts is channeled through the government, the central bank may improve the efficiency of the market by developing a pseudo market along the lines of the Bank of Zambia plan discussed in Chapter IX below.

Conclusions

The cases discussed above do not exhaust the catalogue of sources of instability in foreign exchange markets, but they suggest a framework to which the following policy considerations apply:

1. The objective of exchange rate policy should be to maintain a real effective exchange rate approximating a value which (a) meets the BoP constraint and (b) provides an adequate incentive to exports It is helpful to regard such a rate as a "real adjustable peg", where the peg is a target ratio between the real values of the national and foreign currencies, rather than an explicit buying or selling price. The target should be adjusted to reflect persisting changes in conditions affecting trade. The authorities should use indirect (market-based) instruments to reduce any discrepancies between nominal (market, not official) rates and the target.

2. It is not possible for most SSA countries to control market exchange rates. (Countries of the franc zone comprise a special case here.) Policies that impact on exchange rates should be guided by the objective in (1).

3. If the authorities can adhere to a policy of maintaining stable nominal GDP growth at a rate consistent with the country's real growth potential and an acceptable inflation rate, the

market exchange rate should follow the path described in (1).

4. Short-run disturbances will cause deviations from the target path. Given limited resources and uncertainty about the market's reaction to intervention, the monetary authorities should accept, i e not seek to counteract, market-based shifts in exchange rates within a fairly wide band

5. However, it will be appropriate to exploit temporary pressures for real appreciation of the national currency to accumulate reserves.

6. Speculative capital movements may sometimes move exchange rates significantly off the target path If the authorities are satisfied that continuation of that movement will be costly to the economy--e.g it will damage exporters and dampen incentives to produce for export--they are justified in using official resources to check the movement. Appropriate instruments for this purpose include use of reserves, putting pressure on domestic interest rates to influence capital flows, and adjusting fiscal policy to restore confidence. Reserves alone will ordinarily be insufficient to reverse major exchange rate shifts.

7 Exchange rates are likely to fluctuate widely for a time after liberalization. If reserves and/or borrowing capacity permit, the authorities may wish to intervene to counteract movements they consider excessive. Often they will be better advised to resist the temptation. The interplay of disinflation and adjustments in exchange and interest rates is a dynamic process which is made even more complex by external and internal shocks and shifts in policy.

A basic stabilization program involves moving towards budget balance on the fiscal side and, on the monetary side, a policy consistent with stable growth of nominal GDP. Exchange and interest rates should move towards levels that support those policies. Movement towards equilibrium will be complicated by lagged responses of different segments of the economy to changes in inflation and exchange and interest rates. The effects of external shocks will be superimposed on those effects.

Given their limited resources as well as forecasting ability, in lieu of intervention with possible consequences opposite to those intended, most governments would be best advised to let the adjustment process play itself out The longer a government sticks to a package of stabilization policies, the greater its credibility and the faster the market will settle down. Meanwhile the central bank and ministry of finance can begin to develop the necessary data base and instruments so that limited efforts to stabilize exchange rates will promote growth.

Institutional improvement

The process of raising the capacity of finance ministry and central bank staff to design and implement appropriate policies can well begin with an effort to improve the data base. With guidance from senior staff (or technical assistance), a staff group formed for this purpose can move into policy analysis. Interaction of members of this group with visiting IMF missions and selective training (both local and abroad) will further enhance their capacity.

In a few countries recent efforts along these lines have succeeded in raising the quality of analysis reaching senior policy makers. The policy makers may still make unwise choices; however they can no longer say that they were poorly advised.

E. Exchange Rates and Export Promotion

At many points our discussion of exchange rate management has emphasized the importance

of competitive position in export markets as the basis for sustained growth of output. Two main factors lie behind this. First, shifting an economy to a higher growth track nearly always requires an increase in the share of national income devoted to investment Since, for DCs, capital goods are more import-intensive than consumption goods, raising the share of investment means increasing the ratio of imports to GDP Insofar as incremental investment must be financed by domestic as opposed to foreign savings, an increase in imports requires an increase in the ratio of exports to total output.

Second, a growing economy consumes an ever widening range of goods and services. Economies of scale and specialization as well as exploitation of comparative advantage make for a rising share of imports in domestic absorption. In the top-performing DC economies, export earnings from primary products have not expanded at a rate sufficient to meet import demand. In their place "nontraditional exports", especially manufactured products, have grown much faster. An exchange rate high enough to make those activities profitable has been a *sine qua non* in the process.

Criteria for determining the appropriate exchange rate for outward-oriented growth differ from those relevant to a static equilibrium. In the latter case the exchange rate adjustment required to reach a "sustainable current account" is calculated with the help of elasticities of demand and supply for imports and current export products. Focus on growth involves attaining an exchange rate consistent with sustained growth of manufacturing exports, i.e. a rate such that the dollar-equivalent price required to cover costs does not exceed the costs of competing producers wherever located.

To be sure, the exchange rate is only one factor in such a cost comparison. An export promotion program should seek to reduce tariffs and quotas that raise the costs of imported components and capital goods to export producers. Exporters need access to efficient energy and transport services. Bottlenecks in supply may affect export competitiveness even more severely than high input prices. Even where power and transport services are nominally priced below cost (as is often the case in DCs), outages and blockages raise costs to producers.

Some branches of production are impractical due to scarcity of local technicians and the prohibitive cost of bringing in expatriates. Creation of a dynamic industrial base requires continuing investment in raising the educational level of urban workers and enlarging the cadre of specialists with business and engineering skills.

The benefits of investment in education and infrastructure and of allowing exporters access to inputs at world-prices are enhanced by maintenance of competitive exchange rates, and counteracted by overvalued rates.

It is sometimes suggested that, in order to enhance competitiveness, DCs should intentionally depreciate their currencies by accumulating exchange reserves in excess of levels necessary for stabilization. Taiwan appears to have done this, but other Asian NICs have been capital exporters only for short periods. Such a policy would probably be wasteful for capital-poor African countries. However, they can and should pursue internal policies consistent with an exchange rate favorable to exports.

Most importantly they should maintain low tariffs and eliminate quotas and other impediments to imports. This will increase the equilibrium real exchange rate--i.e. make external balance attainable at a higher shilling value of the dollar--and thus foster exports while raising overall efficiency. At the very least SSA countries should avoid real appreciation of their currencies.

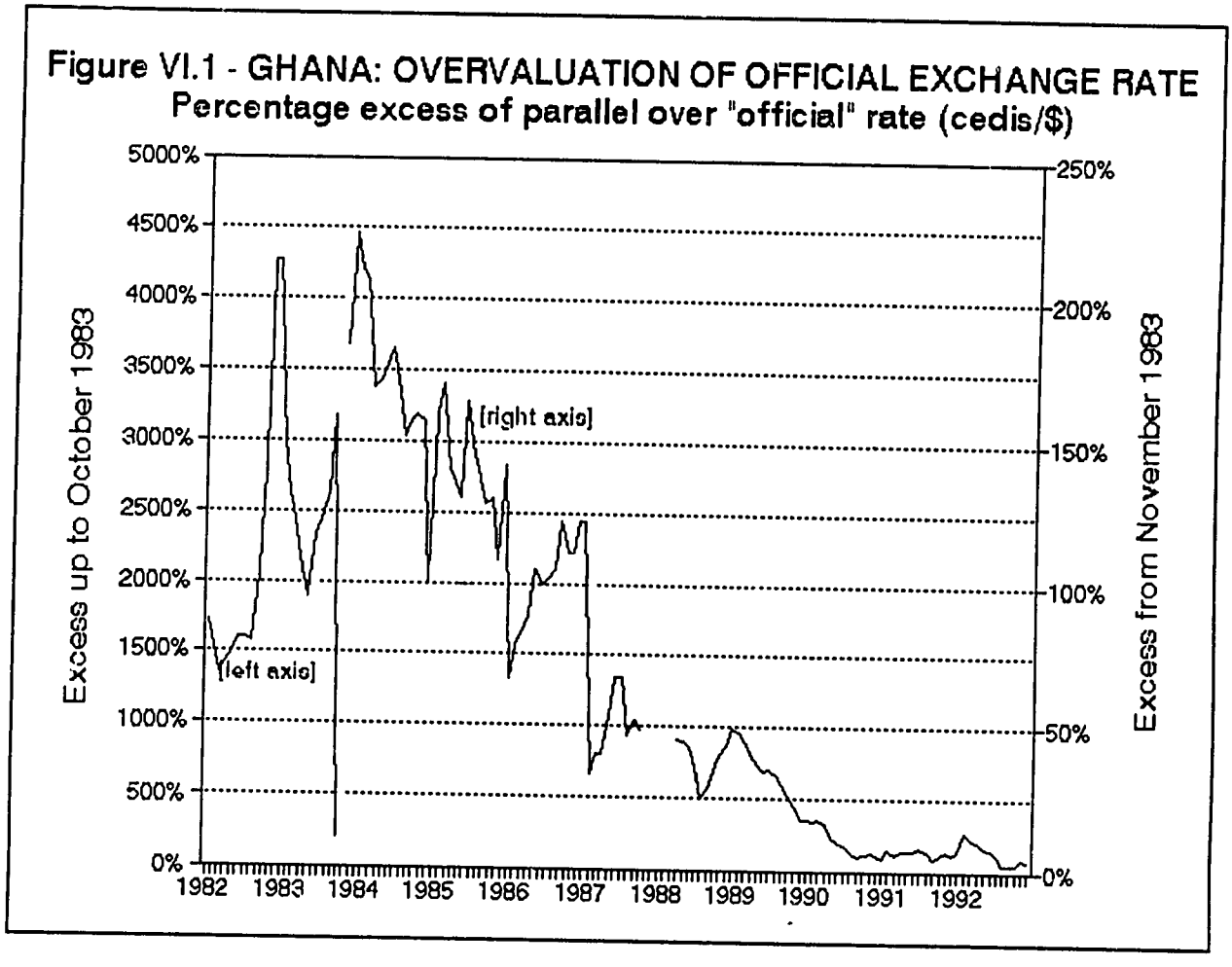
CHAPTER VI

EXCHANGE RATE MANAGEMENT IN GHANA

Stephen D. Younger[23]

A. Introduction

Ghana's management of its exchange rate forms one of the richest and most interesting chapters in African monetary history. Before most African countries had established their own



[23] This paper has benefitted greatly from helpful discussions at the Bank of Ghana and the Non-Performing Assets Recovery Trust. In particular, Stephen Ameyaw, Acting Director of Research at the Bank of Ghana, and Edward Asare, Manager at NPART, went out of their way to clarify the author's understanding of key issues in exchange rate policy Helpful comments were also received from Patrick Connolly, Chad Leechor, Jeff Lewis, Malcolm McPherson, and Jon Walters. Special thanks are due to Clifford Zinnes and E E Walden, whose comments and conversations during the writing of this paper greatly improved the final product.

currencies, management of Ghana's currency, the cedi, in the face of an adverse terms of trade shock and expansionary aggregate demand policies had already provoked a balance of payments crisis. At its nadir, the cedi was overvalued by more than 4000 percent (i.e. 40 times--see Figure VI.1)[24] and foreign trade was controlled by means of a complex set of trade and exchange restrictions. Starting in 1983, the authorities embarked on a reform program which has now brought the cedi virtually to the point of convertibility. This wide range of experience with different trade and exchange regimes makes Ghana a good case to include in the present study.

Chapter III distinguishes between two broad concerns in exchange rate management: the generally accepted importance of unwinding exchange controls and other restrictions on current account transactions, and the difficulty of identifying an "optimal" exchange rate policy once the goal of current account convertibility is attained. Ghana is an interesting case on both counts. Over the past ten years, the government has gradually dismantled a complex system of trade and exchange controls, eliminating all formal controls on purchase of foreign exchange for current account transactions and all but a few quantitative restrictions on imports and exports, which remain in place for non-economic reasons.

Ghana provides, then, an example of how a country has fared under extensive trade liberalization accompanied by large devaluations of an overvalued official exchange rate (OER), culminating in unification of the official and parallel market rates. The Ghanaian authorities now face questions of exchange rate management such as those with which most industrial countries grappled for 25 years or so after World War II--the choice between fixed or flexible exchange rates and the desirable degree of capital account convertibility. The present chapter addresses both of these issues, first describing Ghana's liberalization experience and then considering options for future exchange rate management.

B. History of Exchange Rate Policy in Ghana

From independence in 1957 through the early 1980s, Ghana's exchange rate policy defined a path followed more or less by most other African countries (outside the franc zone) achieving independence subsequently. At independence and for a short time thereafter, Ghana's economy was essentially open. Exports were 28 percent of GDP and foreign exchange reserves equaled 13 months of merchandise imports.

As a member of the sterling area, Ghana patterned its exchange regime on Great Britain's, with few restrictions on current or capital account transactions among member countries. Imports and exports were subject to licensing, but licenses were granted automatically for transactions within the area. Even outside the sterling zone, current account restrictions were mild, the most important being mandatory surrender of export proceeds within six months of

[24] The figure plots the ratio of a composite parallel rate (p) to the official rate (o), less 1.0. The p rate is as recorded by Pick [1987] up to September 1986; in an unpublished paper by Seth Vordzargbe [late 1980s] from October 1986 to October 1987; and, following a 5-month gap, the exchange bureau buying rate [unpublished data from Bank of Ghana (BoG)] from April 1988 on. The o rate is the official rate declared by BoG up to February 1987, from March 1987 to February 1992, the auction rate reported by BoG; thereafter the interbank rate also reported by BoG.

sale. Prior approval was required for invisible and capital account transfers.

As early as 1960, however, the balance of payments came under pressure from inflationary public expenditure and other expansionary aggregate demand policies accompanied by a declining world cocoa price. Ghana responded by borrowing as much as it could, making half-hearted attempts to stabilize aggregate demand, and turning increasingly to trade restrictions and exchange controls.

The following year (1961) saw the first application to the sterling area of exchange controls hitherto limited to transactions outside the area (i.e. surrender of foreign exchange within six months, and official approval of invisible and capital transactions). Later in the year the system of Open General Import Licenses (OGLs) was largely replaced with a requirement for Specific Licenses for almost all imports. Throughout the crisis the authorities were reluctant to devalue, but by 1965 they were obliged to apply for rescheduling of foreign debts, and the creditors in turn insisted that an agreement be reached with the IMF This was done, but the military overthrew President Nkrumah in February 1966 before the agreement could be signed

The 1961-66 experience was pivotal for Ghana's future trade and exchange rate policy. First, use of the exchange rate as a constructive policy instrument was shunned, an attitude that plagued Ghana for the next two decades. Second, resort to exchange and trade controls in lieu of devaluation to address the payments imbalance generated a bureaucracy to impose the controls and manage official holdings of foreign exchange. That bureaucracy quickly learned the value of the licenses it controlled and early on began to extract rents.[25] Once installed, the bureaucracy did not release its grip on the licensing system until 1989.

The military regime coming to power in 1966, the National Liberation Council (NLC), took stronger "orthodox" policy measures than the Nkrumah administration, devaluing the exchange rate by 43 percent, improving tax collection, and trimming government expenditure. This government also succeeded in renegotiating Ghana's medium-term debts, and began to relax the tight import controls of the final Nkrumah years, moving items back from specific to open general licensing.

These policies were continued by the Busia civilian government, elected to succeed the NLC in 1969. Liberalization brought 59 percent of imports onto the OGL list by the end of 1970. At that point a second sharp decline in cocoa prices put strong pressure on foreign exchange reserves. The government again sought help from its creditors, who insisted on a devaluation. The authorities acquiesced in December 1970, devaluing the cedi by 44 percent to 1.82 per dollar.

Two weeks later General Acheampong's National Redemption Council (NRC) took power. The NRC not only rolled the cedi's official value back to 1.28 per dollar, an appreciation of 42 percent, but also jailed many civil servants and politicians accused of responsibility for the devaluation and sharply condemned the influence of foreign advisors (including the World Bank and IMF) in the Busia government.

This stance made it politically impossible for Acheampong to devalue later in his tenure. Instead, the NRC opted for ever tighter controls, including return of imports to specific

[25]As early as 1963, corruption in the granting of import licenses was a serious problem (see Leith [1974] for a discussion). Indeed, in the debates over import controls that persisted through the 1960s, corruption seems to have been a more influential criticism than the loss of exchange convertibility.

licensing, nationalization of many businesses (especially those with foreign ownership), and price controls in response to the inflation that accelerated with a growing public sector deficit.

During the Acheampong government's first three years, rising cocoa prices and a temporary suspension of foreign debt service staved off the economic crisis that these policies would eventually precipitate. However, beginning in 1975 Ghana began a dramatic 10-year slide that saw real per capita income fall by a third. International cocoa prices once more turned down; creditors forced a resumption of foreign debt service under a rescheduling agreement; government spending ballooned in an effort to industrialize via state-owned enterprises; and inflation accelerated, exceeding 100 percent during the drought of 1977, a rate unheard of in West Africa. Inevitably the exchange rate became highly overvalued and import licensing increasingly restrictive and corrupt. Exporters began to avoid the controls by smuggling produce to Côte d'Ivoire or Togo. Foreign currency, notably CFA francs and dollars, became an important medium of exchange.

The crisis led fellow officers to overthrow Acheampong in July 1978. Despite general dissatisfaction with the NRC, a succession of three governments in as many years did not change its statist policies. While the Akuffo regime devalued the cedi by 58 percent in 1978, partly through the ruse of a currency reform, the parallel market rate (cedis per dollar) remained around 175 percent above the new OER. Throughout this period, the economic decline that began in the early 1970s accelerated. (See Alderman [1990] or Rimmer [1991] for details.)

Reversal of the statist policies has come from an unlikely quarter. On the last day of 1981, Flight Lieutenant Jerry Rawlings took power for the second time in three years. Initially his government, the Provisional National Defense Council (PNDC), introduced a series of measures that were as statist as any of the NRC's policies, including strict domestic price controls and a government monopoly on the sale and purchase of foreign exchange.

Nevertheless, the precarious state of the economy, aggravated by a severe drought and repatriation of one million Ghanaians expelled from Nigeria, obliged the PNDC to reinforce its appeals for international assistance. Rejected by the Soviet Union, the PNDC turned to western donors who, in turn, insisted on an IMF agreement. The government was reluctant to accept the Fund's policy package, but once it did, it pursued the policies with remarkable courage.

In April 1983 the PNDC instituted export bonuses and import surcharges that effectively devalued the cedi by 90 percent. More devaluations followed in 1983 and 1984 as the cedi's real value was kept constant at its April 1983 level. The process continued during 1985 though the target changed to a real depreciation of about 20 percent. A large devaluation in January 1986 brought the OER to 90 cedis per dollar, where it remained for most of the year.

Meanwhile the authorities initiated an Economic Recovery Program (ERP)[26], comprising among other measures a significant reduction in the fiscal deficit, tighter [illegible] of monetary policy, gradual relaxation of trade and exchange restrictions, and elimination of many domestic price controls. Without going into detail here, it is important to note that such reforms are often necessary or logical complements to the exchange rate measures on which this discussion focusses.

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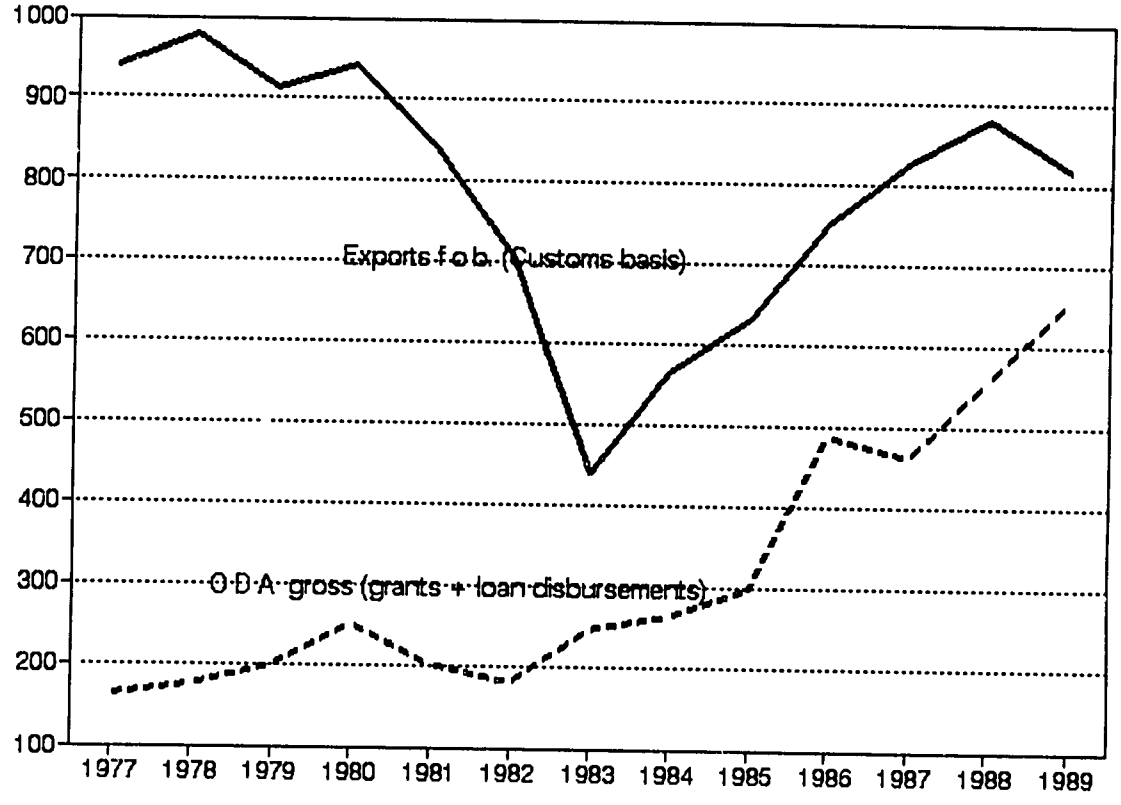
[26] The ERP has been described extensively by Alderman [1990], Rimmer [1991], and Younger [1989]. On macroeconomic and exchange rate policy, Kapur, et al. [1991] is especially useful. Younger [1992] provides a less sanguine interpretation of recent fiscal and monetary policy.

Throughout the reform period, the central bank, the Bank of Ghana (BoG), has been the main seller of foreign exchange, obtaining its supply from proceeds of foreign loans and, until 1991, through the foreign exchange surrender requirement faced by exporters--that is, exporters were required to sell their earnings to the Bank. In many cases, however, exporters were allowed to retain a part of the foreign exchange earnings to purchase imports directly. These funds could be deposited in dollar-denominated accounts in Ghanaian commercial banks

This type of export bonus goes back well before the ERP, but in the ERP's early years the proportion of export receipts that could be allocated to retention accounts, increasing exporters' earnings and ensuring their access to foreign exchange, was raised substantially. As the reforms progressed, some exporters saw their retention shares reduced, obliging them to satisfy a rising share of their import needs through the foreign exchange auction market (see next section).

Despite substantial devaluations during 1983-86, the cedi (OER) remained overvalued during the mid-1980s, as evidenced by a parallel market premium that averaged 120 percent during 1985-86. (See Figure VI 1.) The government continued to rely on import licensing to curtail foreign exchange demand, while also trying to streamline bureaucratic procedures and clarify the rules for allocating foreign exchange.

Figure VI.2 - GHANA: EXPORTS AND O.D.A. RECEIPTS, 1977-1989
(all figures in $ millions)



This was made easier by increased inflows that accompanied the new policies. After the drought ended, exports began to recover and the government's vigor in pursuing stabilization

began to attract support from the donor community, which had shunned Ghana beginning in the late 1970s (see Figure VI.2). These inflows made the foreign exchange constraint less binding, allowing imports to rise as follows between 1983 and 1987 (see Table VI.1):

1984	23.3%
1985	9.0%
1986	9.3%
1987	27.3%

Even though the PNDC government has gone further than the large majority of African countries in implementing a policy package recommended by the donor community, it has not always done so enthusiastically. One can say that the Bank and Fund have coaxed it along with the carrot of financial support. But as the foreign exchange situation improved in the mid-1980s, the government's bargaining position vis-à-vis the Bank and Fund strengthened, and it showed reluctance to devalue further after January 1986. (Fiscal and monetary policy, however, remained relatively tight Up to 1992 the PNDC government observed fiscal prudence, compared with to the majority of African countries, even while voicing reservations about free market capitalism) The government eventually broke the impasse with the IMF by agreeing to institute a second foreign exchange window where the price would be determined in an auction.

The auction market

Introduced in September 1986, the auction market functioned initially as a "second window" source of foreign exchange. The government maintained a first window for several key items--cocoa, petroleum, some pharmaceuticals, and debt service--at the 90 cedis per dollar OER that it maintained during January 1986-February 1987. The auction was open to most importers of raw materials and intermediate goods, including capital equipment, but not consumer goods. It was a "retail" market in the sense that bids were limited to specific importers who had both an import license and guaranteed cedi cover from their commercial bank.

The BoG accepted bids once a week under a Dutch auction system. Even though the exchange rate was technically free to float, the Bank in fact maintained targets for it and adjusted the amount of foreign exchange it sold in each week's auction in order to meet them.

During its initial 18 months the auction system underwent several important changes. Two weeks after its inception, the government liberalized the import licensing system so that all non-consumer imports were automatically granted licenses along with the right to bid for foreign exchange at the auction. No quotas were set for the value of such imports.

In February 1987, the two windows were unified, the auction in effect absorbing the "official" market, whose rate had remained fixed at 90 cedis per dollar up to that point. The marginal auction rate, at that moment 150 cedis per dollar, became the official rate used to value export receipts and aid inflows. All non-consumer goods importers could now bid for foreign exchange in the auction.[27] During the remainder of 1987 broad categories of consumer goods were admitted to the auction so that by the end of the year, virtually all imports of goods and most services had access. This made the import licensing system obsolete, and it was formally abolished in January 1989.

[27]Public sector importers did not bid in the auction, but after February, 1987, they did purchase all foreign exchange at the marginal auction rate. The government financed these imports with foreign exchange it received from foreign borrowing and grants as well as some cocoa revenues.

Table VI.1 - GHANA: MACROECONOMIC INDICATORS, 1983-1992

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
	Annual Percentage Change, Unless Otherwise Specified									
Real GDP	-4.6	8.6	5.1	5.2	4.8	5.6	5.1	3.3	5.3	3.9
Consumer price index (end of period)	142.4	6.0	19.5	33.3	34.2	26.6	30.5	35.9	10.3	13.3
Exports, f.o.b.	-27.7	29.1	11.6	18.5	10.0	6.9	-8.2	10.9	11.2	-1.1
Imports, f.o.b.	-15.1	23.3	9.0	9.3	27.3	6.1	1.5	19.8	9.4	10.5
Real effective exchange rate	-32.8	-61.4	-27.3	-42.5	-22.9	-4.3	-5.8	-0.2	3.6	-10.6
Net domestic assets of the Banking System	44.4	84.3	77.1	49.8	11.8	8.5	-10.7	-19.6	-4.2	42.3
Credit to the government	67.4	15.2	8.5	4.4	-8.6	-7.4	-7.7	-8.8	-17.7	n.a.
Credit to the rest of the economy	-22.9	63.0	35.7	14.4	16.5	6.0	6.0	12.6	9.4	n.a.
Broad money	38.1	72.1	59.5	53.7	53.0	43.0	26.9	18.0	19.9	52.9
Velocity (M2/GDP)	0.13	0.13	0.16	0.17	0.18	0.18	0.17	0.15	0.14	0.17
	In percent of GDP									
Gross investment	3.7	6.9	9.6	9.7	13.4	14.2	15.5	14.4	15.9	12.6
Surplus or deficit (-)[1]	-2.7	-1.8	-2.2	0.1	0.5	0.4	0.7	0.2	1.6	-4.8
Overall surplus or deficit (-)[2]	-2.7	-2.3	-3.0	-3.3	-2.4	-2.8	-2.1	-2.4	-1.6	-8.2
Current account balance[3]	-0.8	-1.0	-2.5	-1.5	-2.1	-1.7	-1.8	-3.5	-3.6	-5.5
External debt outstanding	9.7	26.4	34.1	46.5	63.7	58.0	55.2	52.9	53.8	58.0
Debt service	0.7	3.3	5.8	6.7	10.8	12.5	9.8	5.8	4.5	4.1

Source: Kapur et al. [1991] and BoG worksheets [undated].

[1]Excluding capital outlays finance through external project aid.
[2]Including capital expenditure financed through external project aid.
[3]Including official grants.

Movements in the exchange rate were relatively smooth during this period of expanding access to the auction. The government met the increased demand for foreign exchange from its own sources (largely increases in foreign aid) and subsequently, as the auction rate approached the parallel rate, by reducing the share of foreign exchange proceeds that some exporters were allowed to retain, requiring them to sell the proceeds to the BoG at the auction rate. After letting the rate depreciate slightly in real terms (measured against a basket of currencies) in the auction's first three months (fourth quarter of 1986), the government managed the flow of foreign exchange to the auction in an effort to keep the real rate roughly constant.

The next major development in exchange rate policy occurred in April 1990 when the auction was converted from a retail to a wholesale market. Direct sale of foreign exchange to end-users was discontinued, the BoG accepting bids only from authorized dealer banks, which were allowed to bid for any amount of foreign exchange on condition that they resell it only for approved transactions.[28] In addition, authorized dealers were permitted to trade foreign exchange among themselves.

From that time on, responsibility for documenting customers' use of foreign exchange has fallen on the dealer banks rather than on the BoG. With removal of the few remaining restrictions on current account transactions, this went a long way towards making the cedi a convertible currency.

In June 1991 the BoG relinquished its central position in the foreign exchange market by allowing exporters other than COCOBOD (the sole authorized exporter of cocoa) and the gold mining companies to surrender their earnings to authorized dealer banks rather than itself.[29] Then, in March 1992, the auction system was terminated, allocation of foreign exchange being turned over to an interbank market.

The interbank market

While interbank foreign exchange transactions were permitted from April 1990, until the export surrender requirement was relaxed the focus of the market remained the auction. However, once the BoG started selling its foreign exchange at a competitive rate, the exact form of the sale--auction or intervention in the interbank market--had little economic significance.

Closure of the auction was accompanied by one significant policy change. Until then commercial banks were required to pay the marginal auction rate for all export proceeds they purchased during the following week Since April 1992 exporters are allowed to negotiate whatever rate they can with the commercial banks. In the early months the banks did not bid aggressively,[30] but competition for exporting clients has picked up considerably since late 1992.

Nevertheless, up to early 1994 the new interbank market had yet to find its sea legs. A

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[28] Basically, these were all current account transactions. Most capital account transactions still do not have access to the official foreign exchange market.

[29] COCOBOD is the only entity allowed to sell cocoa overseas. Because it is a state-owned marketing agency, its surrender requirement is nominally moot The gold mining companies have special arrangements in which they are allowed to retain varying percentages of their export revenues in dollar-denominated accounts either abroad or in Ghana; the remainder is surrendered to Bank of Ghana

[30] It appears that banks maintained the old practice of paying the official exchange rate until July or August of 1992, when the Bank of Ghana issued a circular encouraging exporters to negotiate for better rates.

variety of problems, some due to the market's novelty and others to government policy, have impeded its functioning. Notwithstanding the market's designation, foreign exchange transactions between banks are rare. Thus, the market that should transfer foreign exchange from exporters to importers at a modest transactions cost is, at present, probably less efficient than the auction that preceded it. Importers complain that the banks sometimes have no foreign exchange to sell, but the exchange rate does not rise to clear this apparent excess demand

The shortage of transactions appears to be due to several factors First, the central bank limits each bank's foreign exchange exposure, establishing an aggregate ceiling of $4 million for all banks--about 3 percent of one month's imports.[31] This restriction obliges the market to equilibrate on a flow basis that is, given the banks' minuscule liquidity, foreign exchange from export receipts must flow out as import demand within a week

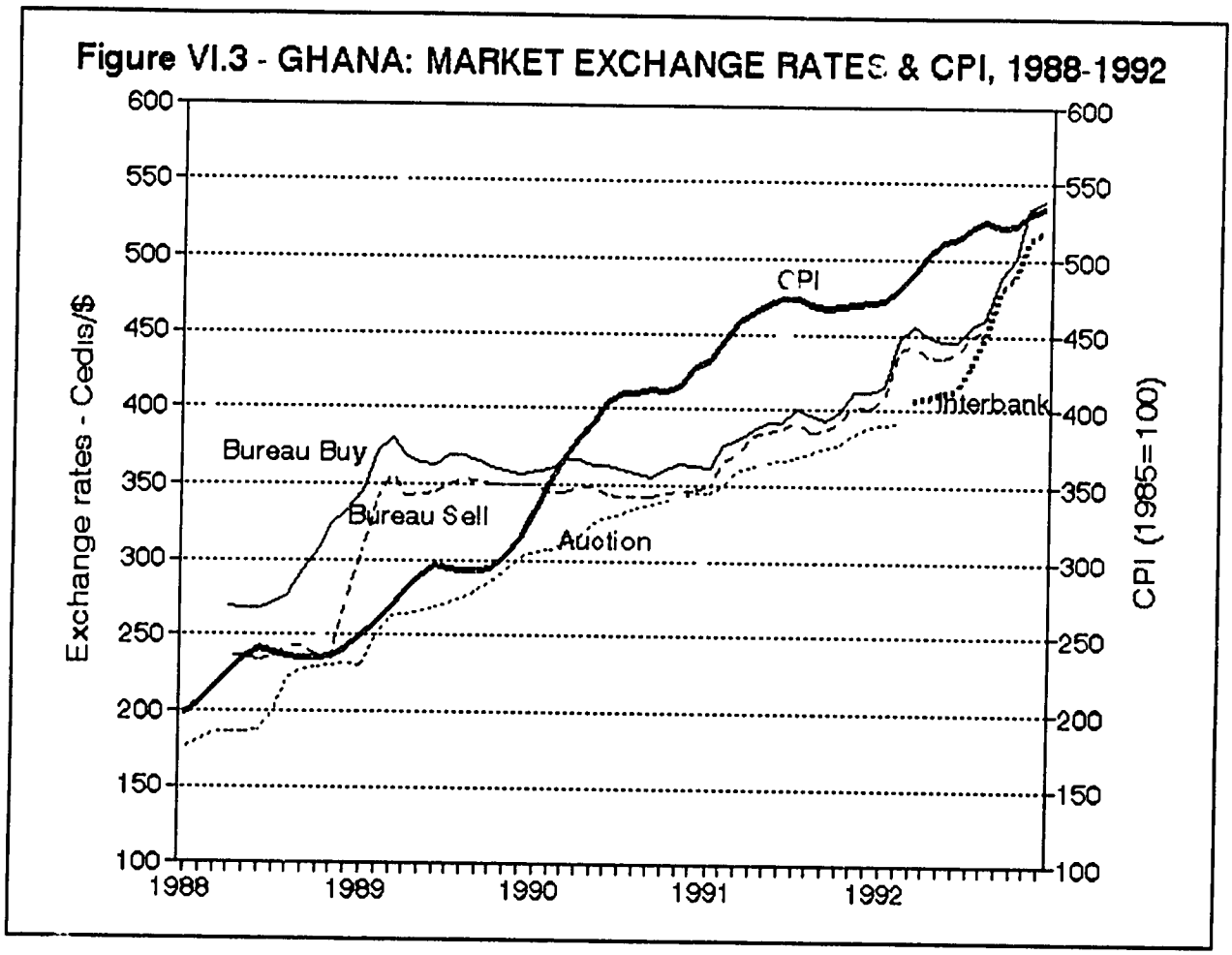
Equalizing of flows is a difficult condition to satisfy Export proceeds and import demand do not occur in smooth flows of constant amounts each week, but rather are "lumpy" In a free market a dealer bank purchases export proceeds when exporters choose to sell to it and arranges to have enough foreign exchange on hand to satisfy demand from importer clients In this way, it serves to smooth the irregular flows of export proceeds and import demands, thus helping to keep the exchange rate stable.

If government regulation requires that in- and outflows be matched on a weekly basis, one would expect short-term imbalances between supply and demand to cause significant gyrations in the exchange rate But in fact, the rate has depreciated smoothly since the interbank market began operation (Figure VI.3) It appears that Ghana's banks are treating importers' requests as orders to be filled when supplies are available rather than spot demands, thus obliging their clients to queue Under this arrangement, it is waiting time, rather than the exchange rate, that absorbs short-term fluctuations in the balance between in- and outflows.

The queues serve the commercial banks' interests by reducing the risk of having to liquidate a foreign exchange balance at a loss in order to stay under one's exposure limit. Pent-up demand enables the banks to sell quickly any extra foreign exchange receipts. Conversely importers whose foreign accounts (if any) are not adequate to satisfy their needs must incur waiting costs, including exchange risk (the price is settled only at the time of sale), interest on supplier credits, and suppliers' good will when payment is delayed By giving priority to importers who have outstanding letters of credit, who have been waiting a long time, or who have a supplier's credit about to come due, the banks help to limit these costs.

Another factor limiting rate fluctuations was the government's effort to control foreign exchange profit margins Until 1993, banks were subject to a maximum markup of 1 percent on any foreign exchange transaction. This made it difficult either for an importer to "jump the

[31]This limit applies to balances above and beyond the banks' commitments to supply foreign exchange to importers Qualifying commitments include letters of credit which guarantee foreign exchange payment for a Ghanaian importer to his or her supplier, and the following week's demands from importers who have contracted to pay their suppliers on a collection basis.



queue", or for a bank to increase its holding, by offering higher rates.[32]

To be sure, neither the exposure limit nor the profit ceiling prevented banks from competing for export clients by offering higher exchange rates which were then passed on to their importers. In fact, competition for export clients has been strong, and the cedi has depreciated from 366/$1 at end-June 1991 to 935 at end-May 1994.

However the exchange rate is only one factor in that competition. In fact, until mid-1992, banks continued to pay exporters a single rate, namely the average of the previous day's interbank transactions (considered the "official" exchange rate), as they had done during the auction phase. Thus, until mid-1992 competition was restricted to the services banks provided their clients--financing, document processing, and international transfers Furthermore, the link between sale of foreign exchange and these other services makes it difficult for an exporter to shift quickly to another bank in response to a higher exchange rate. The cost of transferring the paperwork adds a certain stickiness to the market

[32]These restrictions also account for the lack of trading between banks. Any bank with an inflow of export receipts basically has a choice between satisfying its own clients and making 1% or satisfying another bank's demands to make the same 1%. Given that each bank has a queue, the preference for satisfying one's own clients is obvious

Another explanation for the lack of foreign exchange trading between banks and the persistence of importers' queues lies in the BoG's intervention strategy. The Bank has used the abolition of the auction to wean the commercial banks from relying on it as a source of foreign exchange. While it remains a net seller of foreign exchange, that is only because receipts from cocoa, gold, and program aid are larger than the government's own requirement. The central bank no longer intervenes in the market to influence the exchange rate, and its sales are not based on competitive bidding. Rather, it decides how much foreign exchange to sell in a week based on market conditions and a target for reserve holdings, and apportions that amount among those banks indicating a desire to purchase foreign exchange, based on the BoG's perception of each bank's "need" "Need" appears to be a function of the given bank's access to export proceeds and its clients' demands, rather than any offer price, since the BoG's selling price is fixed at an average of the previous day's interbank rates The BoG denies requests for foreign exchange that it feels the requesting bank does not "need", and a bank cannot reverse that decision by offering a higher rate.

The BoG's strategy helps explain why banks are reluctant to buy and sell foreign exchange among themselves. On the one hand all banks are reluctant to release foreign exchange that their own clients might demand, while those with relatively less access to foreign exchange through exporters can go to the BoG and plead a case for "need" in lieu of bidding it away from other banks. By responding to this type of request the central bank is effectively preempting a function of the interbank market. In sum, BoG intervention now occurs on a less competitive and more arbitrary basis than was the case during the auction period, when the highest bidder was always able to obtain from the central bank the amount of foreign exchange for which it had applied. This is a significant step backward in the development of Ghana's foreign exchange market.

The novelty of the interbank market and the paucity of data from it preclude a comparison of the roles of the various factors cited above. Nevertheless, to enable the market to function properly the BoG should raise the limit on banks' exposure and sell its own foreign exchange on a competitive basis, operating as any other market participant. While some limit on the banks' exposure restricts *de facto* capital account convertibility, the current limit is far too low. A more reasonable limit would be determined by examining seasonal variation in export receipts and import demand and estimating the balances banks would need to even out these fluctuations. It would also be desirable to allocate these ceilings among banks in a more competitive fashion, since basing them on past market share limits competition for foreign exchange intermediation.

The bureau market

Ghana's long history of exchange control has endowed it with an active parallel market that was thriving well into the ERP, with rates far above the OER. In February 1988 the government essentially legalized a large segment of the parallel market by legalizing foreign exchange bureaus. Anyone with a minimum amount of capital ($5,000) can register a bureau with the BoG and trade foreign exchange at freely determined rates As a general rule, the BoG does not intervene in the bureau market, so the rate in that market is genuinely floating The bureaus are not required to record the sources of their foreign exchange or its use, although they must report total amounts bought and sold each month. Transactions are carried out mostly in cash, over the counter.

Supply sources in this market include remittances from Ghanaians abroad, tourists, and non-

traditional exporters, who are allowed to sell their retained foreign exchange to the bureaus. Moreover economic stabilization appears to have attracted back to Ghana some of the earlier capital flight, and those funds enter mainly through the bureau market. Capital export is still nominally subject to control, and foreign exchange sold by bureaus is supposed to be used only for current account transactions. However the absence of end-use reporting makes possible use of bureau funds to buy foreign assets. Given these liberal rules, the bureau market has effectively marginalized the parallel market.[33]

When the authorized bureau market first opened, there was a large spread between exchange rates in that market and the BoG auction market--as of April 1988 bureaus sold dollars for 46 percent more cedis than auction buyers were paying. However by mid-1991 the premium had shrunk to 7-8 percent, where it remained until the auction was terminated.

The cedi depreciated by almost 30 percent in the bureau market's first ten months of authorized operation, but from April 1989 through January 1991 the buying rate hovered in the range 356-369 per dollar Steady expansion of access to the auction market and increased sales of foreign exchange there contributed to this stability, as did repatriation of funds held abroad. The narrowing of the premium resulted largely from steady depreciation of the auction cedi.

As the interbank market becomes more efficient, it is likely to squeeze the bureaus. While the auction was still functioning, the bureaus continued to finance imports even after all imports (including consumer goods) were allowed access to the auction. Purchasing foreign exchange in the bureaus required no bank cover, no prior approval, and less paperwork than bidding in the auction; this added convenience explains the premium in the bureau exchange rate.[34]

As the commercial banks learn to manage more efficiently the documentation associated with the interbank market, they will attract more demand from importers, forcing down the premium on the bureau rate. Meanwhile, the bureaus' traditional suppliers--Ghanaians abroad and non-traditional exporters--are likely to find that the convenience of dealing with banks, including wire transfers and ability to credit and debit accounts without handling cash, outweighs the bureau premium. Thus, if the reforms are not reversed, the bureau market may be expected to shrink to a marginal retail market for small-scale transactors just as did the parallel market after the bureaus were legalized [35]

- Events of 1992-93

The year 1992 saw a substantial political opening in Ghana. A new constitution was adopted, bringing presidential and parliamentary elections in November and December, respectively. A

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[33]While many former black market traders have opened bureaus, there are still a few who operate outside the legal markets, mostly attracting a market of small-scale traders by shaving a cedi or two off the margins that the bureaus maintain

[34]Note that once the auction rate approached the bureau rate in 1991, the latter began to move up with the auction rate, after having been stable for a long period On the one hand, exporters with partial retention rights probably began to find it more convenient to sell all their export receipts to their bankers to avoid the extra transaction cost of taking their allowed retention to the bureaus for only a slightly higher price. That reduces the supply of funds to the bureaus On the other hand, some importers probably began to shift their demand to the bureau market to avoid the auction paperwork once the rates drew close.

[35]Note, however, that at least one bureau has opened an office in the U.S to transfer remittances to Ghana.

vibrant and aggressive private press emerged. These developments stimulated a variety of demands that the PNDC government had previously succeeded in suppressing or postponing. Civil servants demanded and received wage increases promised them years earlier. Other public sector employees obtained lump sum payments associated with pension reforms Spending on development projects accelerated in an effort to deliver pre-election benefits

All told, government expenditure increased by about 3 percent of GDP, while the deficit rose by about 6 percent of GDP While bending to demands on the expenditure side, the government reduced its tax effort, holding back overdue increases in fuel prices and weakening income and customs tax collection.

These developments had predictable macroeconomic effects The deficit was financed almost entirely by borrowing from the central bank, increasing money supply by 53 percent despite tighter credit to the private sector. Depreciation of the cedi accelerated, the exchange rate rising from 390 (auction rate) to 520 (interbank rate) cedis per dollar. Despite this demand pressure, consumer price inflation stayed at a remarkably low 13.5 percent, bringing about a 15 percent real depreciation of the cedi during the year.[36]

During 1992 and into 1993 the government in general and the monetary authorities in particular were severely criticized for allowing the cedi to depreciate so rapidly. The authorities responded by selling reserves in both the interbank and bureau markets In addition, they tried "moral suasion" to hold down the rate. The comparative failure of these measures may be viewed as the one macroeconomic policy success in an otherwise disappointing period. Reimposition of foreign exchange controls or import licensing would have been politically popular, and the government's resisting this temptation is a sign that foreign exchange policy has crossed a threshold in Ghana, even if fiscal prudence has weakened.

C. Evaluation of the Exchange Reforms under the ERP

The exchange and trade reforms described above are part of the Economic Recovery Program aimed at developing a competitive, market-oriented economy. There is little doubt that the ERP has succeeded on the trade and exchange front. The real effective exchange rate (REER) has depreciated by 90 percent since 1983, while virtually all current account restrictions have been removed

To be sure, policies are not goals in and of themselves, but rather instruments for economic stabilization and growth. Here too, the ERP has been reasonably successful, although some of the improvements in Ghana in the past ten years are less pronounced than one might have hoped for. GDP growth has been solid at about 5 percent per year, but it remains below rates achieved by rapidly growing Asian economies even though Ghana's policy regime is now similar to (and in some respects even more liberal than) those countries'. Investment remains low, suggesting that much of the growth witnessed to date is *recovery* of output rather than growth of productive capacity. In 1991 and 1992 recorded inflation was respectably low (Table VI.1), at 10 to 13 percent, although the CPI's 1993 increase of 25 percent (December to December--IMF, 1994:

[36] Because much of the demand pressure came late in the year, the inflationary impact spilled over into 1993

61) embodies repressed inflation carried over from 1992.[37]

As for international transactions, most traditional exports have recovered from their recorded lows in the early 1980s, although many have yet to regain their historical peaks. Perhaps the most encouraging response to the exchange rate changes has come from nontraditional exports, which have grown from a trivial $1 million in 1983 to $65 million in 1992. (See Table VI.2. Jebuni et al. [199 give a comprehensive review of exporters' response to the ERP.)

Increased imports financed by rejuvenation of exports and foreign assistance have played a key role in rehabilitating Ghana's productive capacity. The ERP's detractors attribute Ghana's improved performance to increased aid flows rather than government policies While foreign debt grew from $1.2 billion in 1983 to $4 billion in 1991, $450 million of the increase was used to retire pre-ERP arrears, and another $200 million went into accumulation of foreign exchange reserves.

Moreover Ghana's aid receipts in recent years have been comparable with those received by

Table VI.3 - O.D.A. RECEIPTS OF GHANA AND ALL SUB-SAHARAN AFRICA*

	SSA	Ghana
Net disbursements of ODA from all sources:		
Annual average, 1985-1991 (millions)	$13,150	$455
Per capita	**$27**	**$30**
As ratio to GNP	**7.7%**	**7.4%**
Memorandum:		
Total population, mid-1991 (millions)	489	15.3
GNP per capita, 1991	350	400
Total GNP, 1991 (billions)**	$171	$6.1

Source: All data from World Bank [1993b: 238-39 and 276-77].
Notes:
* O.D A = official development assistance.
** Product of per capita GNP and population.

other African countries. Table VI.3, based on World Bank [1993b] data, shows average annual net ODA disbursements during 1985-91 of $30 per capita (1991 population estimate) for Ghana and $27 for Subsaharan Africa as a whole. Annual disbursements represented 7.4 percent of Ghana's 1991 GNP as against 7.7 percent for SSA. In effect, what Ghana experienced as a result of the ERP was a recovery of aid flows to normal levels rather than an extraordinary commitment.

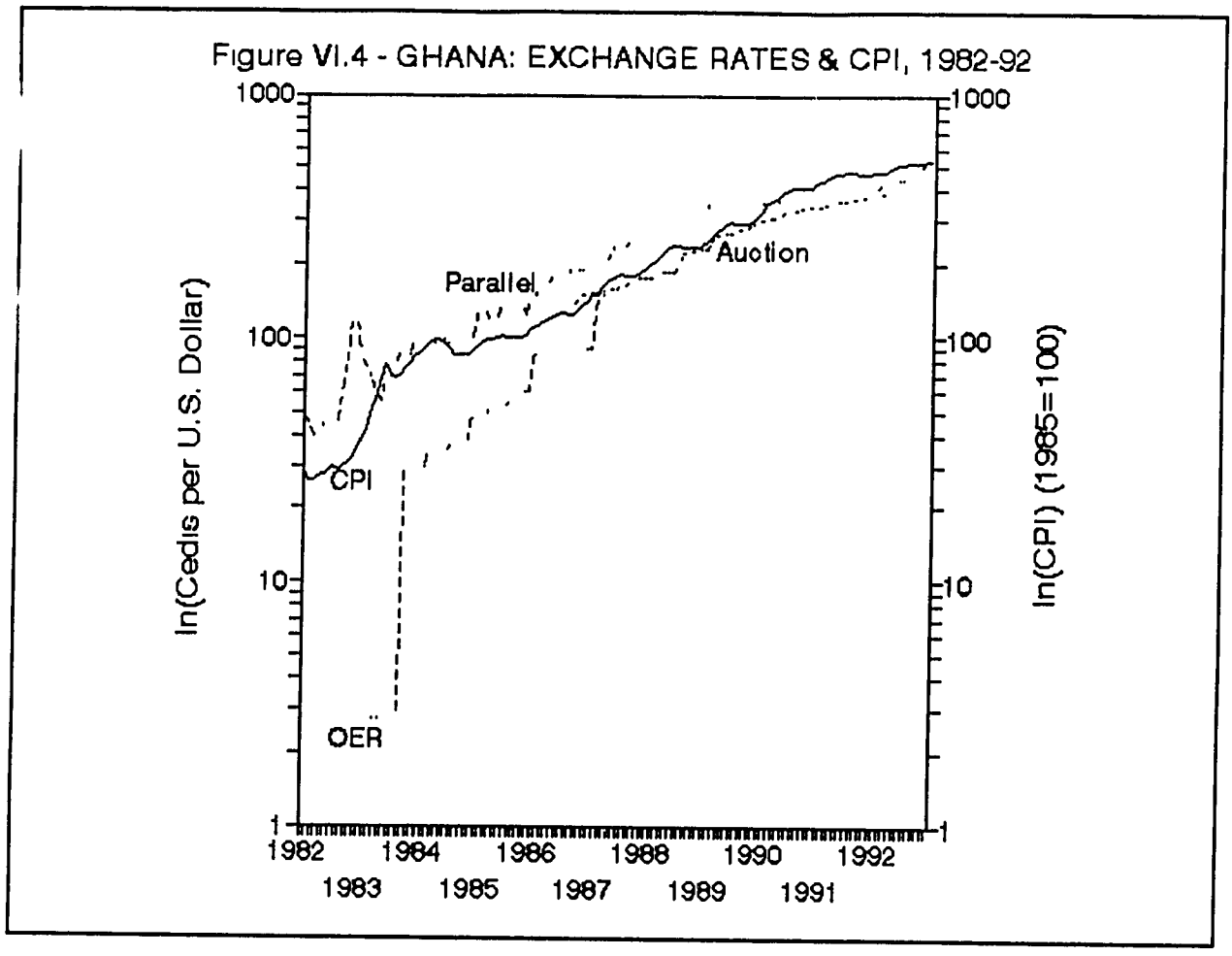
Section IV.A above examined the connection between devaluation and inflation. As shown

[37] The tight monetary policy pursued to lower inflation, making credit scarce and interest rates high, has unavoidably hampered investment. Younger [1991, 1992] discusses this problem

Table VI.2 - GHANA: EXPORT AND IMPORT VALUES AND VOLUMES, 1983-1992

EXPORTS	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Cocoa Beans (US$ m)	242	352	376	470	451	422	381	324	313	277
Volume (metric tons)	159,280	149,574	171,747	195,224	197,988	200,904	255,860	247,380	243,040	223,774
Unit Value (US$/ton)	1520	2351	2189	2406	2278	2102	1490	1309	1289	1237
Cocoa Products (US$ m)	27	30	36	34	44	40	26	37	33	26
Volume (metric tons)	15,000	15,265	15,956	15,645	20,893	20,250	14,940	20,756	21,745	19,328
Unit Value (US$/ton)	1767	1965	2256	2141	2125	1965	1767	1773	1522	1325
Gold (US$ m)	114	103	91	106	140	169	160	202	304	343
Volume (fine ounces)	278,000	286,759	285,138	292,211	323,496	382,995	420,096	526,361	834,986	995,377
Unit Value (US$/ounce)	410	360	318	364	432	440	381	383	365	345
Diamonds (US$ m)	2.8	2.8	5.5	4.8	4.0	3.5	5.2	16.5	19.2	19.3
Volume (carats)	439,000	425,035	639,593	564,950	396,720	305,787	262,691	636,371	663,390	690,408
Unit Value (US$/carat)	6.4	6.6	8.6	8.5	10.1	11.4	19.8	25.9	28.9	28.0
Bauxite (US$ m)	1.5	0.9	2.7	5.0	5.2	6.9	9.1	10.0	8.6	9.5
Volume (metric tons)	82,000	45,000	124,453	226,461	226,415	299,939	374,646	368,629	320,313	399,155
Unit Value (US$/ton)	18.3	20.0	21.7	22.1	23.0	23.0	24.3	27.1	26.8	23.8
Manganese (US$ m)	3.1	8.3	9.0	8.2	7.8	8.8	11.7	14.2	20.2	16.4
Volume (metric tons)	127,000	247,780	263,441	245,794	235,123	282,337	284,645	255,310	281,195	285,055
Unit Value ($/ton)	24.4	33.5	34.2	33.4	33.2	31.2	41.1	55.6	71.8	57.5
Timber(US$ m)	15	21	28	44	90	106	80	118	124	114
Volume (cubic meters)	103,303	148,252	246,812	291,382	493,543	545,778	375,826	370,000	393,598	406,662
Unit Value (US$/cubic m.)	142	143	113	151	182	195	213	319	316	280
Electricity (US$ m)	12	21	35	46	49	74	83	87	96	96
Non-Traditional Exports (US$ m)	1.0	3.6	7.5	4.4	9.6	30.9	31.0	56.7	58.1	64.9
TRADE INDICES (1985=100)										
Exports										
Price Index	86	109	100	107	110	105	87	90	88	83.2
Volume Index	81	83	100	111	119	133	147	157	179	187.6
Value Index	69	90	100	119	130	139	128	142	158	156
Imports										
Price Index	105	102	100	95	106	111	111	126	124	127.5
Volume Index	71	90	100	111	128	129	131	142	158	170.2
Value Index	74	92	100	106	136	144	146	179	196	217
TERMS OF TRADE	82	106	100	113	104	94	78	71	71	65

Source: Quarterly Digest of Statistics, various years

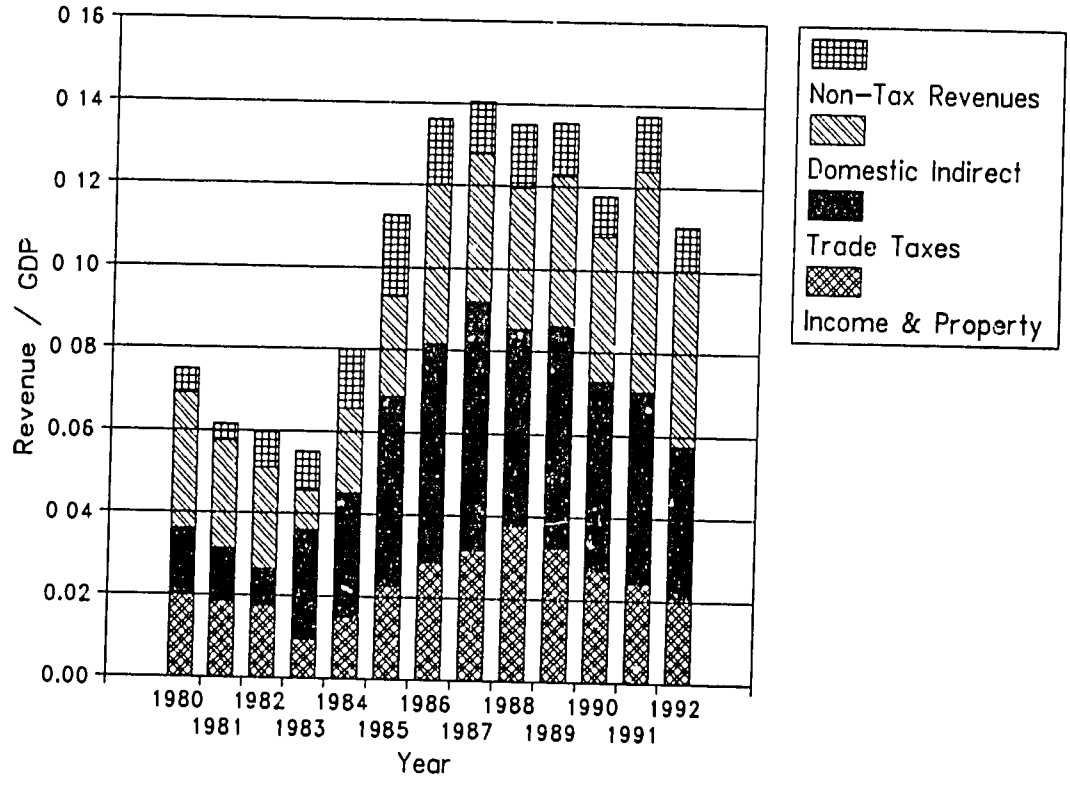


in Figure VI.4, consumer prices did not move with the substantial devaluations of the OER that occurred in the ERP's early years. In a more formal test, Younger [1992b] used time series regression on monthly Ghanaian data to investigate the impact of official devaluations on consumer prices during the period 1974-1986 when exchange controls were severe. That work finds an effect on the order of 5-10 percent for a 50 percent devaluation (doubling of the dollar's cedi equivalent). As indicated in Chapter III, when foreign exchange is severely rationed, its marginal value is reflected in the parallel rate rather than the OER, changes in which tend to squeeze importers' rents rather than the prices they charge.

Some writers (e.g. Edwards, 1989] argue that much of the inflationary impact of devaluation arises through its effect on the government's fiscal position. The treasury resorts to creation of high-powered money (borrowing from banks) to finance additional expenditure corresponding to the higher local currency value of government imports and, especially, foreign debt service, resulting from devaluation. This drives prices up, forcing additional devaluation to compensate for the price increase, and so on.

This has not occurred in Ghana; on the contrary, devaluation has improved the fiscal situation. On the revenue side, as shown in Figures VI.5 and VI.6, total tax receipts and receipts from each of the three major tax categories--income & property, domestic indirect, and

Figure VI.5 - GHANA: RATIO OF TAXES TO GDP, 1980-1992

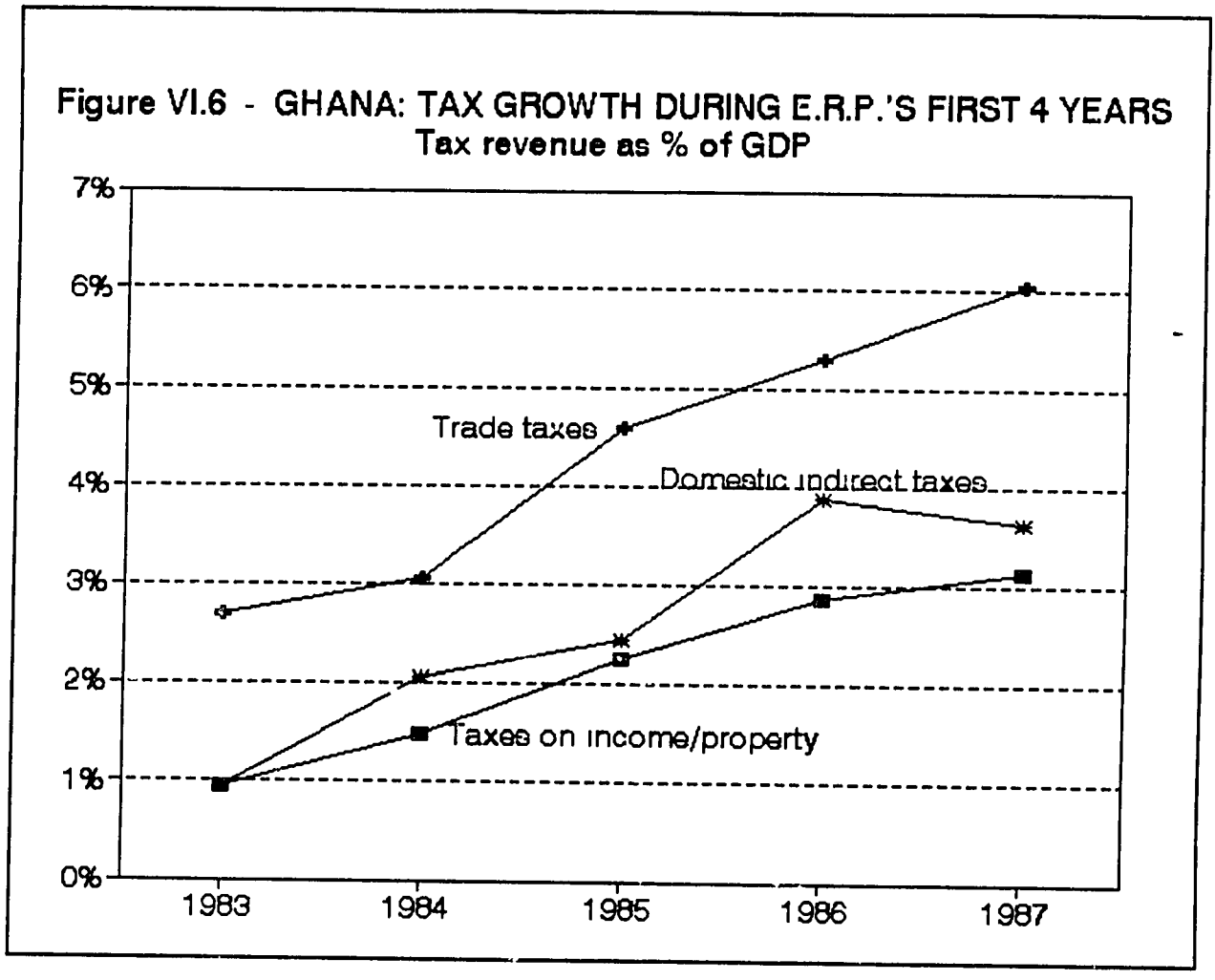


trade[38]--rose ratios to GDP during the 1983-87 period of massive official devaluations. In the case of trade taxes, this happened because most such revenue derives from *ad valorem* assessments on offieial cedi values of imports, and under conditions of rationing brought about by exchange controls, import demand was inelastic with respect to those values.

On the expenditure side, government purchases of imports (apart from those financed by foreign aid) are small in relation to the increased tax revenues, while new capital inflow (foreign aid denominated in foreign exchange) in effect covered debt service.

On the other hand devaluation has caused problems for firms that held liabilities denominated in foreign exchange. Since well before the ERP, country risk made it impossible for Ghanaian firms to borrow abroad, but after 1983 the government on-lent to industrial enterprises two Reconstruction Import Credits (RICs) from the World Bank on conditions that imposed part of

[38] Trade tax receipts are defined to include the implicit cocoa levy.



the exchange risk on the borrowers.

Specifically, borrowers were charged the official cedi equivalent of loan disbursements as of the dates when the disbursements occurred, so that periodic devaluations before completion of disbursement raised the cedi value of their liabilities. While the cedi value of assets also rose, in some cases economic value failed to rise commensurately, and firms saw their net worth disappear.[39] Since Ghana lacks effective bankruptcy and foreclosure procedures, it was not possible for these enterprises to restructure, nor could their creditors seize and re-sell their assets. Thus the companies ended up in a state of limbo where they were not creditworthy for

[39]Technically, the asset's value to the firm will increase by an amount equal to the depreciation of the nominal exchange rate only if the stream of income that flows from the asset increases by the same amount. This could happen if the firm were exporting its production, since the devaluation would affect the firm's income stream (which is in dollars for an exporter) the same way it affects its liability. The income stream could also increase if the price of the good the firm sells changed in proportion with the cedi value of its debt. Given the strong real depreciation of the cedi during this period, it is unlikely that this happened for firms who were not exporting a large portion of their output.

new borrowing, while any cashflow or new equity could be claimed by creditors.[40]

Assuming that 80 percent of the RICs' $127 million value was on-lent to firms, then the implied amount of credit, converted to cedis at the end-of-year exchange rates prevailing when the loans became effective (in 1983 and 1985 respectively), is C 5.1 billion, or 20 percent of all outstanding credit from the banking system to private firms and state-owned enterprises.

The Non-Performing Assets Recovery Trust (NPART), Ghana's analog to the Resolution Trust Corporation in the United States, provides further indicators of the impact of devaluation on enterprise finances. In an effort to clean up financial institutions' portfolios, NPART has taken most bad loans off commercial banks' books, replacing them with government bonds.[41] It is now recovering assets through a special (pseudo-bankruptcy) tribunal Table VI.4 depicts firms reviewed by NPART up to mid-1992 which had foreign exchange liabilities. Valued at

Table VI.4 - GHANA: FIRMS' DEBTS TO NPART RESULTING FROM LOANS DENOMINATED IN FOREIGN CURRENCY

(millions of cedis)

	Private Firms	% of Total	State-owned Firms	% of Total	Total	% of Total
Total Debts to NPART	15,197		17,791		32,988	
Foreign Exchange Loans						
Valued at the Exchange Rate at the Time of the Loan Agreement	1,980	13	5,801	33	7,782	24
Valued in US Dollars at the Time of the Loan Agreement (millions)	43		79		121	
Revaluation Losses						
Assuming Valuation at the Exchange Rate Three Months after The Loan Agreement	256	2	2,108	12	2,364	7
Assuming Valuation at the Exchange Rate Two Months after The Loan Agreement	1,122	7	6,205	35	7,327	22

Notes: Data are for all firms reviewed by NPART up to August, 1992 with some debts in foreign exchange.

[40] The problem is analogous to the investment disincentive for countries that suffer from a debt crisis, since there is no bankruptcy court for countries either. See, for example, Froot [1989] and the symposium in the *Journal of Economic Perspectives* [Rogoff, 1990] on reasons for low investment in heavily indebted countries

[41] The banks have not escaped scot-free The bonds that they received carry lower-than market interest rates: 7% to 9% for bonds replacing loans to a private debtor, and 12% for SOEs.

exchange rates prevailing at loan commitment, these liabilities account for only 24 percent of total debts to NPART.

Assuming all these loans had terms similar to the RICs, and that disbursement occurred one year after loan signature, then losses from devaluation amount to 7.3 billion, or 22 percent of the firms' obligations to NPART. Thus, while these losses are an important part of Ghanaian companies' financial difficulties, they are far from comprising the bulk of the problem.

In evaluating a trade and exchange reform program one also has to look at the impact of liberalization on firms' international competitiveness. Studies by the NPART and a local consultant review of domestic resource costs suggest that many firms currently experiencing financial distress have reasonably good chances to compete once their balance sheets are cleaned up.

NPART has recommended that the tribunal liquidate only 40 of the 126 firms analyzed up to mid-1992. The consultants' report concluded that only 9 of 68 firms with bad debts exceeding 20 million cedis (about $40,000) would not be viable given financial restructuring and modest improvement in management and marketing practices. Both analyses started with larger, more heavily indebted firms. Thus, it appears that firms unlikely to succeed against international competition constitute a distinct minority

Gradualism vs shock therapy

Recalling Ghana's 90 percent devaluation in 1983, it may seem odd to characterize its exchange rate policies as "gradualist". However, it took six years from the advent of the ERP for Ghana to eliminate all exchange controls on current account, and eight years to close the gap between the official and parallel/bureau exchange rates. This raises the question of whether Ghana might have benefitted from more rapid liberalization.

The need for institution-building can be viewed as one justification for gradualism in Ghana's case. Many ERP reforms have involved not only policy changes but also creation of new institutions (e.g. legal foreign exchange bureaus) and far-reaching reorganization of existing ones. The Bank of Ghana, for example, once focussed on allocating credit and foreign exchange in accordance with development goals or political considerations, has evolved into an institution that monitors private money and foreign exchange markets and intervenes in them only as required to realize macroeconomic objectives.

These changes have required cultivation of new skills--trading, auditing, statistical analysis, etc.--via staff retraining and hiring, all of which takes time. The same holds for other public and private institutions that operate in and regulate the new markets that have come into being. Had this institutional retooling not been allowed to take its time, the transition to market-oriented policies would probably have gone less smoothly than it has in Ghana.

On the other hand, the debt revaluation problem is an argument in favor of rapid exchange rate adjustment. As long as the exchange rate remains overvalued, one or another local actor accepts an almost certain exchange rate loss every time the country receives a loan in foreign currency, since donors can be expected to insist on real depreciation until the exchange rate reaches an equilibrium level. As shown above, real depreciation can cause serious financial problems for firms that sell their output on domestic markets. Conversely if government assumes the risk, future devaluations will impact on the budget as the local currency value of

debt service increases with the exchange rate.[42]

D. Policy Options

Ghana is now close to achieving current account convertibility. At this point the government has to choose among basic options for future management of the exchange rate:

1. allowing it to float in the market with no official intervention designed to influence the level of the rate (obviously some official agencies will continue to buy and sell foreign exchange in the normal course of business); and
2. operating a "managed" float where official agencies intervene with the intention of dampening fluctuations that are believed to arise from short-term speculation and not to accord with the country's economic prospects.

Choice of option (2) requires establishment of rules for determining the cause of an exchange rate movement and deciding whether and how to try to reverse or dampen it.

Costs of exchange rate volatility

Why should Ghana be concerned about exchange rate volatility? In a small open economy that relies heavily on its interactions with the world economy, the real exchange rate is a key relative price that affects the profitability of exporting and importing firms alike. When it gyrates within short periods, as it could be expected to do under a floating exchange rate regime with capital convertibility, the riskiness of activity in the tradable goods sectors is increased, dissuading firms from pursuing export or import-competing projects.

Some of this risk can be hedged through forward contracts, but even in developed economies, the transactions costs of protecting oneself against adverse exchange rate movements can be high.[43] While sophisticated financial instruments are currently being developed in Ghana, it would be premature to rely on them in formulating current exchange rate policy.

Objectives for exchange rate policy

Recent conversations with the Ghanaian authorities suggest that their principal exchange rate policy goals are to maintain (i) the competitiveness of Ghanaian firms in international markets, and (ii) price stability.[44] It can be argued that achieving these goals presupposes in turn maintaining a relatively predictable real exchange rate.

Ghana is a small, low-income country and as such must look to trade with the outside world as the major engine of growth. In an open economy the exchange rate strongly influences relative prices faced by firms and consumers. Ghana has been well-advised to emphasize getting the exchange rate "right" in the sense of reflecting the true scarcity value of foreign exchange

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[42] One could also object on equity grounds to the government's assumption of foreign exchange risk for private borrowers who number among the privileged members of society.

[43] For European businesspeople, the main attraction of adopting a single currency within the EEC is that they would not have to bear these transactions costs.

[44] These goals may not always be consistent with one another if macroeconomic policies do not complement exchange rate policy. In particular, if aggregate demand grows more rapidly at home than abroad, the real exchange rate will become overvalued if it does not depreciate, but a depreciation will hasten a rise in domestic prices.

in an open trading environment. At the same time, the exchange rate should be used to promote *relative* price stability (*nominal* price stability is the business of monetary policy)

The fact that a freely floating exchange rate can gyrate widely in a short period of time introduces an element of uncertainty for Ghanaian exporters or processors of imported inputs that does not face firms trading within a single currency area. Insofar as this risk discourages Ghanaian firms from dealing in tradable goods and services, it will retard Ghana's economic development

The economic environment for exchange rate policy in Ghana

The appropriate option for exchange rate management depends heavily on the kinds of shocks likely to face an economy. The Ghanaian economy's structure subjects it to shocks that are different from and more severe than those faced by most industrial economies. Any policy regime must take into account their impact on the foreign exchange markets [45]

Disturbances in the foreign exchange market can usefully be classified into three types: (i) short-term (daily or weekly) fluctuations in foreign exchange supply and demand associated with the timing of different traders' activities, (ii) predictable seasonal fluctuations related to harvest patterns, holidays, etc., and (iii) unpredictable shocks that can be either temporary (e.g. a drought) or permanent (e.g inflationary financing of a budget deficit) Categories (i) and (ii) are fairly straightforward and, by definition, temporary In general, policies to respond to these shocks are equally straightforward (see following section).

Historically, the biggest shock to Ghana's foreign exchange market has come from expansionary demand management. In the four years preceding the ERP, overall budget deficits, financed through the banking system and spilling over into import demand, averaged 6 to 7 percent of GDP. During the triennium 1989-91 the ERP brought this below 2 percent of GDP, although with the relaxation of fiscal discipline in 1992 it shot up over 8 percent.

Ghana is also subject to shocks over which the authorities have no control. Roughly 60 percent of export revenue comes from cocoa and gold, two commodities whose prices fluctuate widely In addition, petroleum accounts for 15 percent of imports The resulting terms of trade fluctuations (Table VI.2) impact directly on the foreign exchange market. With agriculture accounting for half of GDP, periodic droughts spill over into the foreign exchange market through reduced cocoa output and increased food imports.

The foreign exchange market also faces financial and quasi-financial shocks. Remittances from Ghanaians living abroad, equal to 62 percent of recorded cocoa exports during the four years 1989-92, vary in accordance with the cedi's perceived strength. With a loss of confidence--stemming, say, from an expected depreciation--remittances drop, further depressing the currency

Conversely, capital inflow in the form of increased grants and loans in support of the ERP has put upward pressure on the cedi.[46] Ghana might before long join the group of reforming economies in Latin America and Asia that have been buffeted by private capital inflows as they

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[45]The discussion in this section assumes that the authorities maintain controls on capital account transactions and so concentrates on how different shocks will affect the excess demand for foreign exchange coming from current account transactions only

[46] See Younger [1992] for a discussion of this phenomenon.

become fashionable places to invest. To be sure, the confidence driving these inflows can evaporate quickly and force the exchange rate back down, often abruptly.

Choice of an exchange rate regime

The level of sophistication among Ghanaian policy makers about the impact of exchange rate management on the economy has increased dramatically over the decade or so since the ERP was launched The authorities have demonstrated their appreciation that a nominal exchange rate that does not move--i e. depreciate the national currency--in such a way as to take account of differential inflation, leads to diminishing incentives for producers of tradable goods and services, with detrimental effects on income and employment, and sooner or later brings about a balance of payments crisis

At the same time, as demonstrated in 1992, the Ghanaian political environment does not give assurance that the government will soon achieve a fiscal balance consistent with an inflation rate close to that of Ghana's main trading partners. Thus, notwithstanding IMF loan conditionalities, differential inflation will continue for some time, putting pursuit of a fixed nominal exchange rate regime out of the question.

As for the opposite end of the spectrum, Ghana has never operated a floating exchange rate free of official intervention. Some discussions of Ghana's foreign exchange policy describe the auction and/or interbank rates as floating, but that is not strictly correct. During the auction, the BoG regularly intervened in the market by reviewing each week's bids and deciding how much foreign exchange to sell that week based on the various exchange rates offered It continues to do so from time to time in the interbank market, mostly by clearing the commercial banks' queues. In addition, the Bank intervened heavily in the bureau market early in 1993

The outcome of the BoG's actions has been to maintain a crawling peg, designed to dampen short-run fluctuations while allowing the cedi to depreciate rapidly enough to make the premium in the exchange bureau market gradually disappear. To avoid tipping its hand to speculators, the Bank, like central banks everywhere, never revealed the target exchange rate towards which it was manipulating the auction. Nor are data available on the weekly flow of foreign exchange through BoG accounts that would enable outsiders to reconstruct the Bank's tactics.

Table VI.5 - GHANA: REAL EFFECTIVE EXCHANGE RATE (1980=100)

Year	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
REER*	76.2	100.0	225.7	282.3	189.9	73.2	53.2	30.6	23.6	22.5	21.2	21.1	21.9	26.2

* Calculated as the cedi exchange rate for a trade-weighted basket of currencies times a similarly weighted basket of Ghana's trading partner price indices divided by Ghana's own consumer price index

Source IMF Information Notice System.

Table VI.5 shows that, notwithstanding inflation (CPI growth) that averaged 32 percent annually between 1987, when the auction *de facto* absorbed official foreign exchange transactions, and 1991 (the auction terminated in March 1992), the mean annual real effective exchange rate (REER) varied by less than 10 percent over the whole period. Over a period of

years a free market can be expected to sustain an REER that equilibrates supply and demand for foreign exchange How the evolution of Ghana's REER might have differed had the BoG managed its foreign exchange balances with no thought of influencing the exchange rate is impossible to say. In any case, the end result was a crawling peg for the cedi that supported Ghana's economic rehabilitation

If tighter fiscal and monetary policies eventually bring Ghana's inflation rate down to the level of its trading partners, and productivity differentials remain constant, the crawling peg regime might result in a nominal exchange rate so stable as to appear fixed On the other hand the economy is likely to suffer real shocks--terms of trade changes, droughts, etc.--at which point relative prices, including the real exchange rate, must change to restore equilibrium Fixing the crawling peg's rate of depreciation in a way that ignores these shocks will yield unstable results in which reserves either accumulate or decumulate to unrealistic levels and prices and the exchange rate interact in an inflation/devaluation or deflation/revaluation spiral [Adams and Gros, 1986, Younger, 1986].

Determining how far the exchange rate should move to adjust to a real shock, not overcompensating and thereby setting the stage for further reverberations, is no easy task. With a nominal shock, say a 10 percent increase in the money supply, one can be reasonably confident that domestic prices will rise by the same amount, 10 percent, and that the cedi value of the dollar should also rise by 10 percent (less international inflation) to maintain equilibrium.

Conversely, to restore equilibrium after a 50 percent increase in the world price of petroleum, the cedi's value must obviously fall, but by how much depends on demand elasticities of petroleum, other imports, and exports, whose estimation is subject to a considerable margin of error An *ex post facto* indicator of direction is the change in the central bank's foreign reserve position--after accounting for regular seasonal fluctuations, a steady accumulation of reserves would indicate that the balance of payments had received a favorable shock and the market could be expected to raise the cedi's value. A loss of reserves would indicate the opposite.

An undervalued exchange rate? One option for exchange rate management that is sometimes proposed for developing countries, and has recently been debated in Ghana, is for the authorities to intervene with a view to keeping the national currency *undervalued*. This means supporting an exchange rate with a higher cedi value for the dollar than would be required to keep the balance of payments in equilibrium under a liberal trade regime, thereby creating such strong incentives for tradables producers and foreign as well as domestic investors that the country's foreign reserves grow over time in terms of months of import demand covered.

It should be noted that a country does not have to maintain a current account surplus in order for its currency to be undervalued. It can be argued that a low-income country such as Ghana should strive to be a net importer of capital, with the inflow of foreign public aid, foreign investment, and repatriation of earlier capital flight exceeding capital outflow If the current account deficit is smaller than net capital inflow, reserves will increase.[47]

The advantage of using currency undervaluation as an incentive for tradables production is

[47] The qualification of a liberal trade regime is important. In the short run one can accumulate reserves with a severely overvalued exchange rate by tightening import quotas or foreign exchange licenses. Ghana itself did this in some years prior to the ERP.

that it is non-discriminatory and administratively much simpler than the more usual approach of selective export subsidies and import tariffs. To succeed, this latter approach requires governments to "pick a winner", at which they are notoriously inept Moreover exporters have learned from experience that export subsidies tend to go unpaid or be long delayed due to fiscal problems If the BoG could conduct its foreign exchange operations so as to keep the value of the cedi below equilibrium, it would avoid these problems.

At the same time an undervalued exchange rate policy would pose complications for Ghana. First, the authorities might consider it necessary to reinsert the BoG into a central role in the foreign exchange market, whereby it would once again be the only legal buyer and seller of foreign exchange, at a rate determined by it, in lieu of intervening indirectly in an essentially free market. This poses the danger that system managers would once again ignore or seek to counteract market signals, as they did to the economy's detriment in the past

Conversely if the BoG intervened indirectly by buying and selling in the interbank market, sustaining an undervalued cedi would require it to pump cedis into the market in order to acquire more foreign exchange than it would to maintain a lower (fewer cedis per dollar) exchange rate This would increase the money base, with corresponding upward pressure on the price level or, if the BoG sterilized its reserve accumulation by reducing domestic credit, discouragement of investment [Younger, 1992a]. To avoid squeezing the BoG's reserve accumulation out of the private sector, it would have to be financed by a budget surplus This is what has happened in Taiwan, whose government has had more success than any other country in maintaining an undervalued exchange rate

Second, efforts would have to be made to freeze out speculative capital inflow. Undervaluation of the cedi in a free market would attract financial capital that could only be sterilized by dollar-for-dollar increase of the budget surplus. (Trying to keep the money base constant by compressing domestic credit would keep interest rates high and thus encourage even greater inflow) On the revenue side Ghana's tax administration comes nowhere near the sophistication required for such an approach; nor, given the pressing need for expansion of public services, can one expect the government to reduce real expenditure

Capital account convertibility. The pros and cons of capital account convertibility in Africa are discussed in Chapter XI As noted earlier, Ghana has delegated to the commercial banks and foreign exchange bureaus responsibility for selling foreign exchange only against documentation of approved, mainly current account, transactions. Anyone desiring to transfer assets abroad for unapproved purposes can acquire foreign currency in-country and export it either on his/her person or with an agent. For those who find the procedures of the banks and exchange bureaus too cumbersome for the purpose, a residual parallel market sells foreign exchange at a modest premium with no requirement for documentation.

Ghana is surrounded by countries that use a convertible currency, the CFA franc. As the pressure on this currency mounted up to its devaluation in January 1994--see Chapter VII on Senegal--Ghana found itself playing the unaccustomed role of a haven for franc zone flight capital For a much longer period the roles had been reversed. Given that the new CFA franc exchange rate is likely to last a number of years, even if not the nearly half-century lifetime of its predecessor, the franc zone is once again poised to receive Ghanaian flight capital.

Ghanaian residents in Europe and the United States assist domestic residents in moving funds in and out of the country Relationships between local companies and foreign suppliers and

customers are another channel through which persons with appropriate connections can export capital at a low transactions cost. Finally, under certain conditions Ghanaian financial institutions are allowed to hold foreign exchange deposits on behalf of customers, and some of these are transferable amongst residents [48]

Notwithstanding the many channels around and through exchange control, once a resident of Ghana has reached the head of the queue that still characterizes the interbank market, he/she cannot simply order his/her bank to make an unconditional transfer to a foreign bank account or correspondent, and have the money credited in a day or two at the cost of a standard bank commission (say maximum 2-3 percent). This study has not had access to any data allowing us to estimate how much less capital is currently sent abroad than would be exported given unqualified convertibility through the banking system The null hypothesis, that the impact of nominal controls on capital export from Ghana is insignificant, cannot be discarded.

Under the present trade and exchange regime, Ghana does not appear to suffer either currency substitution (the use of foreign currencies as a medium of exchange) or strong speculative capital flows into or out of the country. Capital flight estimates by Youngblood, et al. [1991] show fairly small flows, which are also less volatile than those characteristic of several Latin American countries.

Assuming that the impact of the controls is nontrivial, the question arises whether Ghana would be best advised to eliminate them. Ghanaian policy makers, like their counterparts in other African countries that are embarked on significant economic reform, are not yet ready for the argument that allowing any resident to export local assets when and in such amounts as he/she chooses creates an environment that gives maximum encouragement to economic initiative

Moreover, as is argued in Chapter IV, and documented in the Zambia case study, unqualified convertibility can bring with it unanticipated transfers into as well as out of the country that are large in relation to normal current account transactions, too large to be compensated by budget operations, and thus cause volatility in the exchange rate with disincentive effects for producers.

If a solid basis for advising Ghana's policy makers to drop all capital controls does not yet exist, one must recognize that certain types of transactions which are technically capital flows increase the efficiency of trade Both exporters and importers find it useful to write forward contracts for foreign exchange to eliminate the risk that accompanies variable delivery of and/or payment for internationally traded goods. To write these contracts, banks must be allowed to take an open position forward and to hedge that position by lending or borrowing in foreign currencies. In this connection the Ghanaian authorities would thus be well advised to drop or relax the current $4 million limit on the banking system's foreign exchange exposure

Recommendations for Ghana. Given the potential for shocks discussed in the preceding sections, in the context of Ghana's goal of an internationally competitive economy under a regime of relatively stable prices, what are the implications for exchange rate management? We have argued that the size of potential shocks relative to the volume of current account transactions makes a purely floating regime so volatile as to increase undesirably the risk associated with foreign trade operations. At the other end of the spectrum, a fixed rate regime

[48] The Bank of Ghana does not publish data on these accounts, but commercial bankers suggested to the writer that they may be around $25 million.

poses even greater risks, given that Ghana's political system is unlikely in the foreseeable future to subordinate fiscal and monetary policy to defending an REER that would maintain international competitiveness.

Thus, Ghana should look to some sort of intermediate intervention strategy, with the BoG buying and selling foreign exchange as required for two purposes: (i) to maintain a central tendency for the REER that sustains the economy's competitiveness, and (ii) to dampen fluctuations around that tendency in order to contain traders' risks.

For daily and weekly fluctuations in foreign exchange flows, little official intervention appears to be necessary. Experience with the bureau market and the new interbank market indicates the presence of sufficient liquidity from supplier credits, high intertemporal elasticities of substitution, and balances held (legally or illegally) in foreign exchange to smooth these fluctuations. The Ghanaian market is sufficiently transparent to allow the BoG to respond appropriately to any outsized transaction

While monthly import and export data are not available for Ghana, market participants report that the current account deficit varies seasonally. Timber sales peak during the rainy season; remittances surge before Christmas and Easter; demand for foreign exchange peaks shortly after the holidays as importers cover their suppliers' credits.

The more lax the controls on residents' holding of foreign assets, the less the need for the BoG to try to smooth seasonal variations. This is because private operators (including the commercial banks) will find it profitable to draw on their foreign balances to conduct the relevant arbitrage. Conversely, the more the government sticks to its current policy that residents should not hold foreign balances and succeeds in limiting them, the more BoG intervention would be necessary to smooth seasonal variation. Such intervention would be analogous to open market operations designed to keep interest rates stable in the face of shifting money demand.

A complicating factor is the simultaneity of seasonal variations with other shocks to which the correct response is to allow the exchange rate to shift. Thus, the authorities face the need to distinguish normal seasonal variation from shocks that merit a change in the exchange rate.

As regards irregular shocks that are known to be temporary--e.g. a drought or a failure of the Brazilian cocoa harvest--once again private traders will find it profitable to stabilize the market if allowed to do so. The less they are able to play this role, the more the burden falls on the BoG.

A disadvantage of entrusting this role to the BoG is that, the larger the seasonal variations or temporary shocks, the larger the stock of reserves the central bank must maintain to stabilize the exchange rate. Holding reserves has an opportunity cost; moreover the larger the stock of official reserves, the greater the political temptation to relax monetary and fiscal discipline and expand imports, setting the stage for future instability in the exchange market.

Permanent shifts in Ghana's economic environment are the most difficult foreign exchange shocks to deal with. It is a relatively simple matter for the BoG to complement private dealers in stabilizing the market against temporary shocks, but once a basic determinant of the equilibrium exchange rate has shifted--terms of trade, productivity growth, the trade regime, the fiscal deficit, money supply growth, etc.--the authorities need to recognize what has happened and allow the REER to shift.

Once the authorities accept this principle, they must decide whether to act mechanically in

response to a well-defined set of indicators, or conduct, in IMF terminology, "other managed floating".[49] In Ghana's case, the lack of precise information as to the structure of the economy and the likely impact of different shocks on the foreign exchange market make it difficult to define a firm set of rules. The crawling peg based on differential inflation rates covers shocks from aggregate demand, but not real shocks, when relative prices, including the real exchange rate, must change to restore equilibrium.

To determine the appropriate size of future REER changes, the central bank should study how exporters, importers, remitters. and potential speculators have responded in the past to different exchange rate signals. Formal statistical estimation of the respective elasticities will be difficult since the exchange rate has rarely been a market-clearing price in Ghana.

E. Conclusions

Ghana has made great strides in managing its foreign exchange rate during the last ten years. A host of restrictions on the free functioning of the exchange market (among other markets) have been removed. Most of the reforms have eliminated rents that were accruing to one or another interest group and have thus had to overcome political opposition; on the other hand they represented the easy steps from an economist's perspective, since the restrictions never had any justification in economic theory. The decisions currently facing Ghana's policy makers are more complex, and the guidance they can glean from economic theory more equivocal.

The Ghanaian authorities express a desire to increase international trade while preventing capital outflow. Thus, a purely floating exchange rate regime with no restrictions on capital account is not the appropriate prescription. At the same time, the likelihood that the government's fiscal and monetary stance will feed inflation above that in the industrial countries, combined with the potential for real shocks, argues against a fixed nominal exchange rate. The implication is that Ghana should follow a managed float in which the exchange rate evolves in response to differential inflation and other fundamental determinants. The central bank's intervention strategy should be to smooth the impact of temporary shocks, but not resist adjustments responding to fundamentals.

In theory, such a strategy could be based on a set of rules for adjusting the target exchange rate--if the money supply increases by m, the exchange rate is allowed, even encouraged to depreciate by x; if international cocoa prices rise by y, the rate is nudged to appreciate by z; and so on. In practice, the lack of knowledge about some of the parameters needed to formulate such rules requires the authorities to act on hunches derived from analysis of those parameters subject to timely measurement--exchange rates, the money supply, interest rates, and foreign reserves--along with other *ad hoc* information available at the moment.

An ample stock of foreign reserves--say the equivalent of six months' normal imports--will

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[49] This is one of the column headings in the monthly *IFS'* table of "Exchange Rate Arrangements". All the headings are given in Table X.1 below. As of December 31, 1993, 29 countries were classified in the "Other managed floating" category, four of them in Africa (see list in Table X.1), while 56 countries, 11 of them in Africa (including Ghana), were classified as "independently floating" The difference between these two categories is more apparent than real, since in most if not all of the "independent" floaters, including the United States, central banks intervene on occasion to influence the exchange rate.

be needed to smooth temporary fluctuations in the market. Hence the authorities should resist the temptation, frequently associated with a regime not bound by strict rules, to use their "discretion" to make the real exchange rate appreciate (i.e. by running down reserves).

To reduce this temptation, and increase firms' confidence about the economic environment, the government should announce its general policy for exchange rate management. Without binding itself to rigid criteria, the authorities can indicate their intent to keep the real exchange rate stable, while letting it adjust to a new equilibrium level when conditions change. Over time, private traders will judge official performance according to these goals. If they conclude the government has acted consistently, confidence in its exchange rate management will grow, reducing the perceived risks associated with foreign trade.

A final recommendation is for the Bank of Ghana to collect more timely data on the state of the economy Weekly, even daily information on imports and exports, monetary variables, and capital flows is relevant to determining intervention strategy in the foreign exchange market. Also important is an understanding of the seasonality of foreign exchange demand. Ghana is entering a new regime of open trade and liberal exchange markets, one whose very novelty requires the authorities to "learn by doing." Finally, close study of the underlying determinants of the foreign exchange market is essential. Responding to sudden shocks is easier when one grasps the fundamental factors driving them.

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CHAPTER VII

EXCHANGE RATE MANAGEMENT IN SENEGAL

Clive S. Gray and James S. Duesenberry[50]

A. Introduction

Senegal's membership in the West African Monetary Union (WAMU) and, through WAMU, the franc zone (FZ), puts exchange rate management for that country in a different category from that of the other three African countries forming the subject of case studies in this volume. Briefly, the governments of Senegal and of the other six members of WAMU, as long as they wish to remain within WAMU, cannot alter the nominal exchange rate of their common currency, the CFA[51] franc, *vis-à-vis* the French franc, without the agreement of every other WAMU member as well as that of the French government.

A parity of 50 CFA francs (FCFA) to the French franc (Ffr) was fixed in October 1948 and lasted until January 1994, just over 45 years.[52] Thus, for almost half a century, 'management' of Senegal's nominal exchange rate consisted of leaving it unchanged *vis-à-vis* the French franc, thus allowing it to vary *vis-à-vis* all other currencies in the same proportion as the French franc's parity varied *pari passu* with France's foreign exchange policy and movements on world currency markets.

On January 11, 1994, the CFA franc was devalued by 50 percent to a new parity of 100 FCFA to the French franc. Once again the exchange rate is fixed, and the responsible authorities, African and French, have indicated an intention to manage it as before.

The same observations hold for exchange rate 'management' by every other member of WAMU--Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger and Togo; for the six members of the Monetary Union of Central African States (MUCAS) and its Banque des Etats de l'Afrique Centrale (BEAC), namely Cameroon, the Central African Republic, Chad, Congo, Equatorial

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[50] Material in this chapter was gathered in the course of interviews held in Dakar during September 1992; in France at various times during 1992-93; review of literature on both Senegal and the West African Monetary Union as a whole (see Bibliography); and discussions in two seminars, one on overall issues of the CFA franc held at USAID/Washington in January 1993, and another on an earlier draft of the chapter held at the Centre d'Etudes et de Recherches en Développment International (CERDI) of the University of Auvergne, Clermont-Ferrand, in April 1993. In Dakar the authors interviewed senior staff of the Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO) and of the African Center for Monetary Studies; officials of Senegal's Ministry of Economics, Finance and Planning; managers of several Senegalese business enterprises; and officials of the USAID mission to Senegal The authors acknowledge helpful suggestions by Eric Nelson The usual disclaimers apply

[51] CFA = Communauté Financière Africaine.

[52] Abstracting from the adjustment required by France's introduction of the new franc (1 NF = 100 old francs) in January 1960--the previous parity was 1 CFA franc = 2 FF.

Guinea and Gabon; and for Comoros with its own central bank.[53]

Many points in this chapter apply no less to the other 13 countries than to Senegal Since the two African monetary unions and Comoros together account for less than 2 percent of total franc zone money supply (M2), economic and monetary conditions in those areas have had a negligible impact on the French franc's parity with currencies of other industrial countries.

To be sure, no two FZ countries have experienced the same movements in their terms of trade or domestic prices, and all members have retained autonomy in regard to fiscal (tax and subsidy) and numerous other measures affecting relative prices of tradable and nontradable goods and services. Thus, taking any given year as the base period for computation of price and exchange rate indices, the real effective exchange rate (REER) has moved differently for different member countries (See Figures VII.5 and VII.6 below)

At the same time the common constraints on monetary and exchange rate policy imposed by FZ membership have narrowed the variability of the member countries' experience *vis-à-vis* several major economic parameters, notably inflation and real exchange rates. Hence it makes sense to compare their experience with that of the remaining sub-Saharan African countries, as a number of writers have done very competently. The present authors' September 1992 discussions in Dakar included consultations with multilateral institutions about exchange rate management in the WAMU as a whole. We believe our conclusions and recommendations to be relevant to members of both monetary unions and Comoros.[54]

B. Advantages of the franc zone arrangement

There is a near-consensus in the literature, and in public as well as private pronouncements by both French and African participants in the FZ arrangement, regarding five positive contributions which it makes to member countries' development:

1. The assurance of convertibility between the zone's currencies[55] and the French franc facilitates trade (i) between the member countries and France, (ii) between the member countries and other countries whose currencies are convertible with the French franc, and (iii) among the member countries, as well as capital movements from France and other industrial countries to FZ members.
2. By enabling local currency to be used directly for imports from any source and for other international payments without passing through exchange control, the arrangement relieves FZ residents of the costs and risks imposed on consumers, foreign investors, and users of tradable inputs by the exchange control/import licensing procedures to which most other

[53] On January 11 Comoros devalued its franc, formerly on a par with the CFA franc, by only 33.3 percent, raising the value of the French franc to 75 Comorian francs.

[54] Given the authors' lack of familiarity with Comoros, that country will not be referred to again in this chapter.

[55] The CFA franc of the WAMU is not legal tender in the BEAC zone and *vice versa*. Until August 1993 the respective central banks exchanged the two currencies at par. Resumption of this arrangement in the wake of the January currency realignment is under discussion, but is opposed by the BEAC on the ground that it would facilitate unauthorized capital export.

African countries have resorted at one time or another.

3. Pooling of the major share of the member countries' foreign reserves--the two central banks are required to deposit at least 65 percent of their reserve with the respective operations accounts in the French Treasury--stabilizes access to foreign exchange in the face of differential fluctuations in export earnings and capital inflows of individual members
4. France's agreement to grant the central banks overdraft facilities in the operations accounts--a prerequisite to the assurance of convertibility--gives each monetary union as a whole access to credit above and beyond what the central banks and/or individual countries can borrow on capital markets and from public lending agencies.
5. Internationalization of the determination of credit policy, with France enjoying *de facto* veto power, enhances member governments' fiscal and monetary discipline, thus limiting inflation and its attendant distortions.

The FZ arrangement has had another result whose net contribution to the member countries' fortunes is a matter of controversy: namely, further limiting inflation by maintaining a parity between the CFA and French francs that can only be changed by unanimous consent of the members of the respective monetary unions, including France, and which in fact remained fixed for over 45 years

Finally, the FZ arrangement has served France's desire to maintain its long-standing political, economic and cultural ascendancy in the region. French policy makers are less inclined to acknowledge this publicly, and many opposition forces in the member countries consider this outcome not merely irrelevant, but even antagonistic to their countries' best interests. Without begrudging France a piece of foreign turf where it can loom as the most influential outside power, the present authors see themselves obliged to raise the possibility, and pursue it further below, that the French government's political goals have made its stance on the parity issue so rigid as to impede the member countries' economic growth in comparison with what could have been achieved by following a different exchange management regime.

C. Recent evolution of the Senegalese economy

Until the 1980s the policies underlying the monetary union seemed to yield positive results for Senegal. Like many other developing countries, in the last half of the 1970s it benefitted from a boom in commodity prices. This encouraged it along the import substitution path of development, with resource-based export industries plus tourism providing export earnings to finance inputs for manufactures. The country was largely self-sufficient in food.

At the end of the 1970s the terms of trade moved against Senegal while resource-based exports were also hampered by bad weather and by difficulties with the quality of phosphate production. In 1981, following two years of dry weather, depressed prices for groundnuts and the new petroleum shock, Senegal's domestic absorption exceeded GDP by 13 percent while the fiscal deficit reached nearly 10 percent of GDP.

Increased groundnut earnings in 1982 led recovery of GDP, reducing the resource gap. The government attacked the fiscal deficit by raising taxes and limiting expenditure growth The 1982 recovery did not, however, start a continuing expansion. For the remainder of the decade real output grew at around 2 percent per year as strong investment demand was offset by fiscal

restraint.

According to BCEAO and GoS data assembled by the World Bank [1991b], exports in nominal CFA terms rose only 1.6 percent annually from 1981 to 1990.[56] More recent IMF data show nominal export growth of 0.1 percent over the period 1981-1993. Slow GDP growth together with reduced prices for petroleum and rice caused import values also to stagnate, showing annual growth of only 0.2 percent during 1981-93 [57] In real terms both exports and imports fell over the 12-year period.

No government can be satisfied with a stagnant economy and a growing population Continued growth requires rising export volume in order to pay for increasing amounts of imported intermediate products and capital goods.

During the late 1980s and early 1990s Senegal and its associates in the FZ (including France) were the object of a rising chorus of advice to devalue the FCFA in order to make exports more competitive Depicting it as a necessary even if not sufficient condition for renewed growth, proponents of devaluation attributed nonperformance of Senegal's exports not only to difficulties facing its resource-based export industries, but also the weak competitive position of the country's manufacturing sector.

Senegal has avoided the rapid inflation that has often undermined the competitive position of developing countries operating a fixed exchange rate. Consumer prices more or less kept pace with those in France during the period 1975-86--French inflation was 166 percent during the period, Senegalese 158 percent--but from 1986 to 1991 Senegal's prices actually declined by 7 percent while France's rose another 17 percent.[58] Nonetheless, up to the 1994 devaluation, Senegal featured comparatively high wage rates (see section E(3) below). Real wages in the formal sector have risen while, partly due to a restrictive labor relations code, productivity has not shown comparable growth.

With encouragement from the donor community, a decade and more before the January 1994 devaluation the GoS sought to make manufacturing more competitive by modifying the real effective exchange rate (REER) in lieu of changing FCFA parity. In 1980 it introduced subsidies for nontraditional exports, financed by customs duties on imports. In 1985 it approved a New Industrial Policy (NIP) embodying both trade liberalization and measures to restructure state-owned industries and reduce costs of inputs including labor. Aid from official sources almost doubled during 1986-90 while the NIP was underway.

However, the export subsidies ran afoul of fiscal constraints, and were not paid with sufficient regularity to convince manufacturers that they could be relied on. Under the NIP, manufacturers complained more about being undercut by increased imports than they took advantage of the program to reduce costs. Partly in response to this pressure, and partly to increase import tax revenue, the government reversed itself and raised import tariffs in 1989 and 1990 [World Bank, 1991b: 8-9].

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[56] Semilog regression coefficient from series in CFA francs, $R^2 = 40\%$.

[57] Trade data are from *Direction of Trade Statistics*, reported in *IFS* [1993 & 1994b]. Growth rates comprise respective semilog regression coefficients. In each case $R^2 = 0$.

[58] Computed from consumer price indices given in the respective *IFS* country pages.

Notwithstanding the failure of these measures to energize nontraditional exports, the government's demand management policies reduced Senegal's current account deficit (before taking account of official unrequited transfers) from 24.3 percent of GDP in 1981 to 7.8 percent in 1990 and 5.0 percent in 1991, before it rose again to 9 3 and 9 9 percent in 1992 and 1993, respectively [World Bank, 1991b 15; IMF, 1994a· 296]. In recent years the deficit has been approximately equal to official transfers, France serving as the primary source of these

The next section of this chapter reviews recent evaluations of the WAMU's overall economic impact. It is followed by a description of alternative measures of FCFA overvaluation up to the recent realignment After an account of the flare-up of the FCFA parity controversy in 1992 that culminated in the January 1994 devaluation, Section G reviews the arguments of the French and WAMU authorities against the latter option. Section H presents an alternative view, citing *inter alia* the experience of other African countries to which opponents of FCFA devaluation pointed as evidence that it would not work in the franc zone.

D. Economic impact of the monetary union: recent evaluations

All sources agree that the CFA zone has undergone severe economic stress since the end of the 1970s, necessitating rigorous adjustment measures. As one indicator of stress, all 14 countries had IMF programs at one time or another during the period 1980-93, and all had outstanding obligations to the Fund as of late 1994. Table VII.1 shows the CFA area as a whole having negative net foreign assets (NFA) of over $2.2 billion equivalent at the end of 1993, including an overall deficit of about $1 4 billion equivalent in French Treasury operations accounts Both figures were more than accounted for by the big three deficit countries, Cameroon, Côte d'Ivoire and Senegal. The majority of smaller countries had positive operations account balances and NFA.

Guiding a multi-year research effort at the Centre D'Etudes et de Recherches sur le Développement International (CERDI) of the University of Clermont[59] regarding the comparative development strategies and economic performance of FZ and other developing countries, particularly non-FZ African countries, during the period 1962-1981, Patrick and Sylviane Guillaumont [1988b] drew the following conclusions in a conference volume published in 1988:

1. Corrected for exogenous factors, the average growth rate of FZ countries during the two decades (termed their 'performance') was approximately the same as the average for all other developing countries (i.e. not just African comparator countries).
2. The FZ's performance was not significantly different from that of other African countries during the 1960s, however it was significantly superior during the period 1970-1981.
3. FZ membership helps in two major ways to explain result (2):

a. the zone's foreign exchange regime "promoted economic efficiency by permitting relative stability of exchange rates (both nominal and real), limiting the degree of overvaluation and ensuring a permanent supply of foreign exchange, whatever the balance of payments deficit"; and

[59] Recently renamed the Université d'Auvergne.

Table VII.1 - C.F.A. ZONE FOREIGN BALANCE, END-1993

(US dollar equivalents)

	Total IMF credits & loans outstanding	Balance on French Treas.Ops. Account (approx.)	Net Foreign Assets as per IFS
BEAC members			
Cameroon	16.3	-743	-758.9
Cen.Afr.Rep.	28.8	110	81.6
Chad	27.7	26	-2.2
Congo	4.8	6	1.3
Eq. Guinea	16.4	-9	-25.1
Gabon	45.2	-35	-79.9
Subtotal BEAC	139.2	-644	-783.1
BCEAO members			
Benin	43.0	279	235.9
BF	20.9	382	361.1
Cote d'Ivoire	218.5	-1529	-1747.1
Mali	70.6	323	252.1
Niger	51.9	132	80.3
Senegal	244.2	-460	-703.7
Togo	68.5	146	77.4
Subtotal BCEAO	717.7	-726	-1443.9
" Cameroon, Côte d'Iv., Senegal	479.0	-2481	-2959.6
Total CFA zone	856.9	-1370	-2227.0

Source: IMF loans & credits and net foreign assets (NFA) given by IMF [1994c country pages], with SDR and FCFA figures converted to dollars at exchange rates prevailing December 31, 1993. Balances on French Treasury Operations Account equal NFA less IMF loans & credits, as the IMF nets out balances owed to itself in computing NFA. It is understand that virtually all other CFA area NFA correspond to operations account balances or deficits.

b. zone membership brought with it certain "structural choices" favorable to growth, notably: (i) a higher investment rate, financed by greater public saving and foreign capital inflow, the former influenced by restriction of central bank credit to governments and the latter by currency convertibility; (ii) greater openness to foreign trade, and (iii) greater preference for agriculture (all in comparison to other African countries).[60]

[60] Page 129. Translation by the present authors.

At the same (November 1986) conference, the then head of the IMF's Africa department (soon to become governor of the BCEAO, later prime minister of Côte d'Ivoire), Alassane Ouattara [1988], noted: "Even though the results are sometimes difficult to evaluate, experience seems to show that the foreign exchange regime practiced in the countries of the [franc] zone has not delayed or limited adjustment in countries which have succeeded in implementing measures aimed at both the demand and supply sides".

Less than four years later, Ouattara's successor at the Fund and the head of the Fund's Research Department approved a memorandum for an Executive Board seminar [IMF, 1990: 40] noting that continuation of the FCFA's fixed parity meant that "downward flexibility in nominal prices and costs is needed in order to improve competitiveness and to provide appropriate incentives in the key traded goods sectors". The paper goes on to note:

> Labor resistance to downward pressure on wages had emerged in several countries of the [franc] zone, indicating that the current strategy carries with it the risk that the real exchange rate realignment may not occur quickly enough to avoid delay in the return to external viability consistent with enhanced growth prospects In general, the Fund has been sympathetic with the aim of the CFA countries to maintain exchange rate stability in the context of their regional monetary arrangements based on strong ties of solidarity However, if the present approach of improving external competitiveness through downward adjustment of nominal costs and prices were to prove unworkable, alternative adjustment measures would have to be considered

In other words there might be no alternative to devaluing the FCFA.

Starting in the same year several unofficial writers, reviewing data for most or all of the 1980s, have been more explicit about the burden imposed on FZ countries by the fixed exchange rate. Devarajan and de Melo[61] found that, while the (unweighted) average annual real GDP growth rate of the CFA countries during 1973-81 was one percentage point higher than that of 20 African comparator countries--this of course parallels the conclusion of the CERDI conference volume--and during 1982-85 the difference was still wider, at 3.5 percent *versus* 1.0 percent, during the latter part of the decade (1986-89) the CFA zone's growth rate had fallen to 1.8 percent *versus* 3.0 percent for the 20 African comparators.

Using econometric techniques to determine whether the difference in FZ and comparator growth rates during the 1970s and 1980s was statistically significant, Devarajan and de Melo found the CFA countries performing significantly better than the African comparators in the 1970s, and worse, though not significantly so, during 1982-89.[62] They also found that the CFA countries failed to adjust adequately to deterioration of their terms of trade, and that what adjustment occurred consisted primarily of expenditure reduction, falling disproportionately on investment. They concluded that inability to adjust the *nominal* exchange rate had prevented the degree of depreciation of the *real* exchange rate necessary to transform resources from nontradables to tradables and achieve an acceptable current account balance

A year later Devarajan and Rodrik [DR, 1991] wrote even more explicitly about the burden of the fixed FCFA exchange rate, answering with a resounding 'no' the title of their paper: "Do the Benefits of Fixed Exchange Rates Outweigh Their Costs? The Franc Zone in Africa". Their

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[61] Their report was issued in August 1990, and published in a Bank volume the following year.

[62] Devarajan and de Melo also evaluated CFA performance against two alternative comparator groups, (i) 41 other low- and middle-income countries, and (ii) 52 other primary and fuel exporters. The CFA countries performed significantly worse than group (i) during 1982-89, and insignificantly worse than group (ii)

approach was to estimate the relative preference of CFA policy makers as between reduced inflation and increased GDP growth, the latter assumed to be responsive to real exchange rate depreciation and changes in the terms of trade.

Given medium response coefficients, DR found that policy makers for the CFA zone as a whole, by accepting the fixed exchange rate, had revealed a willingness to sacrifice one percentage point of growth for less than two additional percentage points of inflation. Senegal's specific parameters showed its choice as reflecting less inflation-aversion, but still sacrificing one percentage point of growth for about 6 points of inflation. Stating their "impression...that most African policy makers would be willing to trade up to about 10 percentage points of inflation for a one percentage point increase in their GDP growth rate", DR conclude that the CFA leaders' choice reflects "an excessive anti-inflation bias".

In the same year Guillaumont, Guillaumont and Plane [1991] took a fresh look at the FZ/non-FZ dichotomy, this time focusing on the comparative performance of subsets of those countries--6 FZ and 13 African comparators--in executing IMF-supported structural adjustment and stabilization programs from 1979 to 1988. The study confirms the relative appreciation of FZ REERs. It shows that prices paid to export and food crop producers increased in FZ countries and declined, on average, in the comparator countries.

Ratios of budget deficits to GDP rose faster up to the mid-80s in the FZ subset, but levels of these ratios in the non-FZ subset averaged over twice those in the FZ countries. Average investment/GDP ratios in FZ adjusters declined to 4-5 points below those of six comparators which devalued on average less than 20 percent per year. Finally, GDP growth rates were on average higher in the non-FZ subset.

Noting that heightened "concern about overvaluation and lack of competitiveness" in the immediate past may make 1987-1988 data less relevant, Berg and Berlin [1993] summarize the data on economic performance as follows:

> The broad conclusions from these studies coincide, with only a few dissenters. The CFA zone has enjoyed relative price stability, and at little apparent cost in terms of sacrificed growth until the late 1980s In the past decade, its real exchange rate has become misaligned, reducing the competitiveness of its members. Economic performance has worsened since 1985, though how much worse it has been depends on choice of comparator countries and on the periods covered It is certain, though, that investment rates have fallen more than in comparator countries, that GDP growth in the CFA countries has slowed relatively more or increased less Most critical, many countries in the zone face acute problems of competitiveness and seem able to maintain external balance only with relatively large inflows of foreign assistance

Statements issued by the relevant authorities--the IMF and French and CFA spokesmen--in the wake of the devaluation a year later were much less equivocal about the franc zone's poor performance in recent years. The IMF released data (see Table VII.2) showing that the zone's lower GDP growth rate had become entrenched over a period of eight years, that during the same period its external current account was much deeper in the red and its overall fiscal balance moderately weaker, compared with non-CFA economies. Average ratios of trade to GDP had declined, while those of the other countries had increased. CFA countries had accumulated external debt equal to nearly 75 percent of GDP, as against a debt burden of 57 percent for non-CFA countries.

Each of five CFA leaders--presidents of Benin and Niger, prime minister of Côte d'Ivoire, finance minister of Cameroon, and the BCEAO governor--invited to contribute to a special IMF publication on the franc zone [IMF 1994b], depicted the devaluation as necessary to overcome

their economies' loss of competitiveness and stagnation of output resulting from sharp ToT declines. In the same forum France's representative on the IMF Executive Board cited capital flight and "a spectacular decline in productive investment". He described the devaluation as "a resetting of the exchange rate at the level required for the resumption of economic progress" [63]

Table VII.2 - IMF SUMMARY OF COMPARATIVE PERFORMANCE OF CFA AND NON-CFA AFRICAN COUNTRIES, 1975-1993

	1975-85 average		1985		1993		1986-93 average	
	CFA	Non-CFA	CFA	Non-CFA	CFA	Non-CFA	CFA	Non-CFA
(annual changes in percent)								
Real GDP growth								
Aggregate	4.6	1.4					0.1	2.5
Per capita	1.7	1.3					-2.8	-0.3
Inflation (CPI)	11.2	17.8					1.1	22.0
(in percent of GDP)								
Overall fiscal balance	-5.0	-6.1	-2.7	-4.5	-8.1	-8.2	-7.6	-5.6
External current acc't (after grants)	-6.5	-1.9	-1.7	0.2	-6.7	-1.2	-7.4	-0.8
Merchandise trade:								
Exports	28.0	20.7	32.1	19.6	22.4	24.0	22.3	24.0
Imports	23.8	18.9	21.1	15.4	18.5	22.2	18.7	20.9
External debt	38.2	25.2	54.2	41.0	93.5	55.0	73.7	57.0

Source. IMF 1994b 2 Non-CFA countries include Nigeria and South Africa, but exclude Djibouti, Liberia, Mauritania, Somalia and Sudan.

Comparing the growth performance of the FZ with other African countries raises the question as to what margin of difference might have been regarded as proof that the fixed FCFA/Ffr exchange rate was an obstacle to growth. Given the benefits of the FZ as outlined in the preceding section, one would expect, *ceteris paribus*, that FZ countries as a whole would perform substantially better than African comparators displaying less fiscal and monetary discipline and experiencing more severe (particularly on the import side) disruptions in their

[63] IMF 1994b: 19-20.

external trade.

Thus, failure of the FZ to achieve significantly better performance, let alone its inferior track record, would have been enough to show that something was happening to offset the unquestioned benefits of monetary union. Since exogenous factors, notably terms of trade deterioration, did not hurt the FZ significantly more than other African countries during this period (and subsequently), one can place the burden on those who were defending the fixed rate regime and the long-standing FCFA parity to suggest reasons other than lack of competitiveness arising from the fixed exchange rate.

E. Assessing the overvaluation of the CFA franc

In 1990-91 World Bank staff conducted a series of FZ country studies assessing the degree of FCFA overvaluation by three different methods: (i) measuring the evolution of the REER up to 1990; (ii) applying estimated elasticities of supply and demand for foreign exchange and 'normal' capital inflow to calculate an exchange rate at which the balance of payments would be in equilibrium; and (iii) comparing wage costs between FZ and competitor countries. This section draws on the paper prepared for Senegal [World Bank, 1991a] with respect to estimation by the first two methods, and presents later information on comparative wage costs.

The real effective exchange rate approach

Noting that choice of the base year has a substantial effect on estimated REER evolution, the Bank paper takes 1977 as the base year for Senegal since 1975-77 was the latest period in which the current account deficit was below 10 percent and could be financed by normal capital inflow. From 1977 through 1990 the nominal effective exchange rate appreciated by 21.3 percent (units of foreign exchange per FCFA), mainly because of the French franc's appreciation with respect to the (Senegalese) trade-weighted index of currencies of Senegal's trading partners.[64]

This nominal appreciation was partially offset by 6.4 percent lower (trade-weighted) inflation of the wholesale price index (WPI) of Senegal's trading partners as compared with Senegal's consumer price index. The REER unadjusted for terms of trade changes (see following paragraph) thus rose by only 1.213·(1-.064)-1 = 13.5 percent. In other words, in 1990 the index of currencies of Senegal's trading partners, worth 100 FCFA in 1977, had declined in real terms to 100·100/113.5 = 88 1 francs.

Meanwhile Senegal's terms of trade deteriorated by 14 percent over 1977-90. Taking into account the elasticity estimates used in subsection (B) following, the Bank paper calculates that a 13 percent devaluation (in foreign exchange terms) would have been required to maintain balance of payments equilibrium. Thus, the currency basket's index should have been 113 1977 FCFA Combining the two indices and subtracting unity, we have 113/88.1-1 = 28.3 percent as the estimated increase of Senegal's REER during 1977-1990.

The authors have not had access to the Bank's other FZ country papers but an authoritative summary of four of them gives the REER changes shown in Table VII.3.

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[64] For trade-weighting the Bank paper uses an IMF methodology that takes into account parameters of countries that are competitors with the country under study despite not being significant trading partners of the country. One country taken into account in the weighting by the Bank paper but not the IMF study it cites is Nigeria, given a 10% weight to account for a recent increase in Senegal-Nigeria trade. [World Bank, 1991a. Table 1a].

Table VII.3 - CFA FRANC OVER-VALUATION: COMPARISON OF TWO ESTIMATING PROCEDURES

	Cameroon	Gabon	Ivory Coast	Mali	Senegal	Togo
Real Effective Exchange Rate:				1976/		
Year of reference	1984/85	1979	1985	1977	1977	1970
Change in REER	47%	18%	n.a.	27%	30%	-15% to +25%
Balance of Payments	50%	14%	35% to 108%	10%	19%	13%

Source: see text.

The balance of payments elasticities approach

In this approach the Bank writers assume supply price elasticities of 0.75 for groundnuts and fish and 1.0 for other export products, while demand price elasticities are assumed to be zero for public investment imports, -0.75 for food and commercial imports, -0.25 for petroleum, and -1.25 for other goods. They estimate that an exchange rate index of 115 would close the balance of payments gap under the current trade protection regime, while an index of 125 would be required under a tariff rationalization program eliminating export subsidies and reducing import tariffs for the latter three goods categories to 15 percent, 30 percent and 35 percent, respectively

In other words overvaluation according to this approach falls between 15 percent and 25 percent. At the same time the Bank writers caution that this estimate reflects the relatively depressed level of economic activity during the 1980s and argue that a larger devaluation would be needed to support higher investment and growth with the attendant surge in import demand.

The unofficial summary of the other Bank studies estimates overvaluation by this method, assuming current tariff regimes, as shown in Table VII.3.

Comparison of labor costs

The loss of competitiveness imposed on FZ countries by the fixed rate regime is illustrated by a comparison of monthly labor costs (MLC) per manufacturing worker in FZ countries with those elsewhere in the developing world. Berg and Berlin [BB, 1993] provide data for such a comparison between Côte d'Ivoire and Senegal on the one hand and Morocco, Tunisia, Ghana, Mauritius, Indonesia and Malaysia on the other, MLC in the latter countries being translated into FCFA equivalents at prevailing exchange rates. Ratios of BB's MLC figures for the two FZ countries to those for the comparator countries, ranging from 1.56 to 4.69 for Senegal and 1.71 to 5.14 for Côte d'Ivoire, are presented in Table VII 4. Figure VII.1 illustrates the corresponding percentage excess of MLC in Côte d'Ivoire and Senegal over the comparators' MLCs.

Business managers interviewed by the authors in September 1992 confirmed the relatively high labor costs in Senegal. A revealing insight was provided by management of a fish-packing enterprise whose previous Japanese owners had been bought out by a state company from China (PRC), where the scale of management compensation is of course substantially lower. As quoted by their Chinese successors, the Japanese described the high cost of living for expatriate personnel as the major cost element making the enterprise unprofitable.

Table VII.4 - MONTHLY LABOR COST (MLC) PER WORKER IN MANUFACTURING: Ratios of Côte d'Ivoire and Senegal to six African/Asian countries

Denominator	MLC ('000 CFA francs equiv.)	Numerator: Iv.Coast	Numerator: Senegal
Côte d'Ivoire	149		
Senegal	136		
Morocco	87	1.71	1.56
Malaysia	85	1.75	1.60
Tunisia	80	1.86	1.70
Mauritius	50	2.98	2.72
Ghana	38	3.92	3.58
Indonesia	29	5.14	4.69

Source: Berg & Berlin [1993], Annex A, Table 7. Monthly labor cost is defined as the cost of labor to enterprises including both salary payments and charges paid by employers; figures are described as derived from national data.

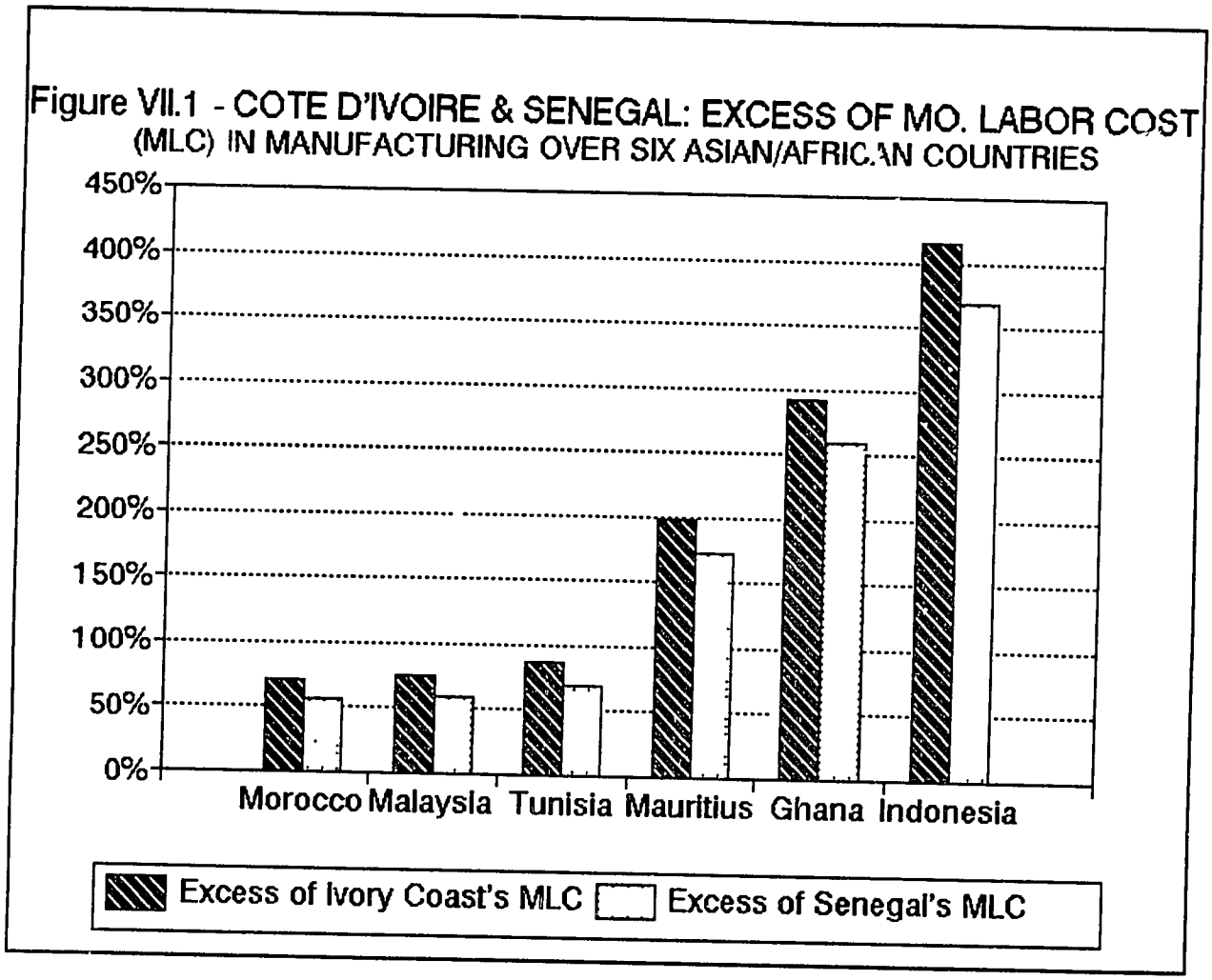
To be sure, relatively high labor costs per worker can be offset by higher productivity, associated with greater capital endowment and/or worker skills and diligence. Senegal's capital endowment and educational system are not significantly better than those of the African countries it must compete with, and inferior to those of many Asian competitors. The managers interviewed by the authors described the skills and diligence of Senegalese workers as satisfactory, though no greater than those of workers in comparator countries.

BB provide another indicator of relatively high labor costs in FZ countries in the form of a comparison of the monthly cost of civil servants as a multiple of per capita GDP. For Senegal alone the multiple is 9; for nine FZ countries including Senegal the multiple is 10. Conversely for six non-CFA countries, namely Zaire, The Gambia, Ghana, Guinea, Mauritania and Morocco, the multiple is 3; the same figure applies to Malaysia.[65]

Conclusion: the desirable level of devaluation

According to the Bank's Senegal study, an FCFA devaluation designed to correct the overvaluation estimated in the study would have to be increased by ten percentage points to permit lowering of import taxes in order to equalize returns to exporting and import substitution. Taking into account the underestimation cited in subsection (B) above, the study settles on an estimate of 43 percent for overvaluation in FCFA terms, equivalent to 30 percent in foreign

[65] BB, 1993: Annex A, Table 8. The average cost of a civil servant is obtained by dividing total government expenditure on the civil service by the total number of civil servants.



currency terms.[66]

As noted in Chapter IV, given that tradables figure in the consumer price index (CPI), devaluation has an immediate inflationary impact and correcting a measured overvaluation of x percent requires a realignment greater than x to compensate for this. Devaluation must raise FZ domestic food prices because some foodstuffs are imported and land will shift into production of export crops whose prices have risen. Nonetheless domestic prices will not rise in proportion to import prices. Earnings of artisans and workers in informal services, determined by supply and demand in a free labor market, will not fully compensate for increased import prices.

The Bank study assesses the direct and indirect import content of some 30 product groups figuring in Senegal's CPI and estimates the one-month and 2-year impact of a 100 percent

[66] Overvaluation of 43% in CFA franc terms means that, instead of the nominal rate of 50 CFA francs per Ffr, an equilibrium exchange rate would be 1.43 times 50 = 71.5 CFA francs per Ffr. The same overvaluation in French franc terms is measured by taking the reciprocal of 1 plus 0.43 and subtracting unity; this gives 0.7 - 1.0 = - 0.3, meaning that the equilibrium value of 100 CFA francs is 30% less in French currency than the nominal value.

devaluation (increase in the French franc's value to 100 FCFA) on the index. Ignoring any impact on expectations, the results are 20 percent and 37 percent respectively.

Taking the 2-year figure, this means that any devaluation designed to correct for x percent FCFA overvaluation must yield a nominal percentage increase of $1.37(1+x)-1$. Given a desired value of $x = 43$ percent, the nominal increase thus comes to 96 percent, or 98 FCFA. It is calculations such as these that underlay the preference frequently expressed (in confidence) by Bank and IMF economists for a new rate of 100 FCFA francs to the French franc--a preference that carried the day in January 1994.

F. Down the slippery slope to devaluation: 1992-93

From the early 1980s the World Bank and IMF have worked with most of the CFA countries to implement adjustment programs having two principal foci, (i) to reduce fiscal deficits through enhanced expenditure control and revenue collection, and (ii) to counteract appreciation of real exchange rates by restraining inflation of nontradables and providing incentives (including elimination of disincentives) for exporters. After a decade or more of these efforts it is instructive to see where the two largest WAMU economies. Côte d'Ivoire and Senegal, stood at the end of 1993:[67]

1. Côte d'Ivoire had recorded its seventh consecutive year of decline in real GDP (total, not merely per capita) and of current account deficits close to or exceeding 10 percent of GDP; and its net foreign assets were equivalent to *minus* $1.75 billion.
2. Senegal had recorded GDP growth of -2.0 percent, giving it an average of less than one percent per annum over the past five years; its current account deficit, the largest since 1987, was $305 million; and NFA were equivalent to *minus* $704 million.

By this time it was an open secret that most staff economists in multilateral and bilateral aid agencies, including many French government analysts, considered the FCFA overvalued; did not regard the "downward adjustment of nominal costs and prices" called for in the foregoing IMF paper as politically feasible; and believed that most of the CFA economies would stagnate until a realignment, if not a change in the system, brought about substantial FCFA depreciation.[68] The World Bank [1991b] refers to large capital flights already in 1988 "in expectation of a devaluation". According to *Jeune Afrique Economie* [1992], in recent years the local (CFA) press had raised the possibility of devaluation before every semiannual meeting of FZ finance ministers, only to quiet down after each meeting publicly reaffirmed the long-standing parity.

The BCEAO, GoS and French Treasury resisted devaluation on the ground that it was not only insufficient but unnecessary for growth. Moreover, they asserted that in the conditions ruling in Senegal a real devaluation was not possible, because trade unions and public employees would demand and obtain full compensation for the increases in import prices following devaluation. A realignment would, they said, simply set off a wage-price spiral that would

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[67] IMF

[68] Shortly after the January 1994 realignment, Mamoudou Touré, director of the IMF's Africa Department and a former finance minister of Senegal, described the devaluation as "long overdue" [IMF 1994b: 7].

undermine fiscal and monetary discipline. In this connection they pointed to several nominal devaluations in Africa that had failed to produce real devaluation, and others that had succeeded only after a period of costly demand restraint following years of disruptive inflation.

In addition, they maintained that, even if a real devaluation could be achieved, it would not bring rapid improvement in the balance of payments due to low supply elasticity of Senegal's major exports, namely groundnuts, phosphates and fish. They accepted a higher supply elasticity for manufacturing exports, but asserted these were too small to make much difference.

As an alternative to devaluation the French and WAMU authorities pushed regional economic integration as a source of economies of scale for local manufacturing firms and thus improved competitiveness. Focussing specifically on labor costs, the GoS drafted legislation to soften some rigidities in the labor code.

The gathering storm: 1992

In March 1992 U.S. Assistant Secretary of State for Africa Cohen was quoted in the French press as responding casually to a journalist's question about the FCFA by saying that most experts regarded it as 50 percent overvalued. Prime Minister Bérégovoy fired off an official protest to President Bush, followed at the next month's semiannual FZ meeting by a denunciation of American interference in the zone's internal affairs [American Embassy, Yaoundé, 1992]. The meeting reaffirmed FCFA parity, described by French finance minister Sapin as "the voice of reason".

Subsequent press accounts [Guéye, 1992; *Jeune Afrique Economie*, 1992; *Le Soleil*, 1992] describe Côte d'Ivoire prime minister Ouattara as having convinced his president (then Houphouet-Boigny) that FCFA devaluation was their country's only way out of its economic impasse An article headlined "Ivoirean Blackmail" [Guéye, 1992] asserted that the Ivoireans, backed by Benin (whose current president is a former World Bank staff member) and Cameroon, intended to leave the FZ and print their own currencies if the franc was not devalued.

Just prior to a WAMU summit in late July, IMF Managing Director Camdessus toured six FZ countries and was quoted in Abidjan as saying, "The Fund's position is that when there is a problem of competitiveness, it is always better to take care of it at the root rather than attack the symptom, i.e. the value of the currency" [Guéye, 1992].

The July 1992 summit was touted as offering a confrontation between Côte d'Ivoire and Senegal, the latter continuing its firm opposition to devaluation. In the event, the meeting, joined by two MUCAS country presidents, produced the usual disclaimer of intent to devalue, at which point four presidents, those of Côte d'Ivoire, Senegal, Burkina Faso (all WAMU) and Gabon (MUCAS), flew to Paris to meet French President François Mitterand and issue yet another ringing affirmation of FCFA parity That meeting's communiqué [*Le Soleil*, 1992] quoted finance minister Sapin as confirming that France would "naturally" maintain its existing guarantee of FCFA convertibility.

Behind the façade, it was reported that Ivoirean officials had informed the French that their government would soon lack access to sufficient FCFA, whether out of current income or bank credit, to meet its payroll. Hence, Côte d'Ivoire's only alternative to (i) devaluation or (ii) withdrawal from the FZ and issuance of a separate currency, was an infusion of emergency aid. France appears to have come to the rescue--IMF [1994c] indicates that Côte d'Ivoire's deficit in its French Treasury operations account rose by 27.5 percent or a total of Ffr 1.9 billion

during the six months July 1-December 31, 1992.[69]

In September 1992 the authors were informed by many interviewees in Dakar that the business and financial communities regarded devaluation as a foregone conclusion, probably soon after the Senegalese presidential election in February 1993 and the French parliamentary elections the following month. *Jeune Afrique Economie* [1992] refers to the arrival in Switzerland and Monaco of suitcases stuffed with FCFA rushing to be converted at the 50:1 rate. A French official informed the authors that significant quantities of FCFA banknotes had recently started arriving in Paris via London, as dealers in the three neighboring anglophone countries[70], formerly content to hold FCFA as a convertible instrument, rushed to anticipate devaluation.

Favored clients were reported to be hurriedly contracting FCFA loans with their local banks. FCFA were said to be on offer at a discount of 10 percent, anticipating a devaluation of at least 25 percent. For the first time, local contractors bidding on a construction project for a multilateral agency, the African Center for Monetary Studies, were insisting on a parity adjustment clause.[71]

The scene was reminiscent of the periodic chaos in foreign exchange markets and flights of industrial country finance ministers to Basel before they finally learned to live with fluctuating exchange rates and stop trying to block the market.[72] As the leading position of the United States evaporated, the industrial countries could no longer uphold fixed exchange rates by means of a *deus ex machina* comparable to the French Treasury. For the sake of the industrial countries' eventual economic progress, they can count themselves as fortunate not to have had such a resource.

The fate of FCFA parity is sealed: 1993

After the Senegalese and French elections passed with no hint of imminent devaluation, the parallel exchange market quieted temporarily, the FCFA/Ffr premium in Accra running in the 8-10% range during the first part of the summer of 1993. Suddenly, on August 2nd the BCEAO and BEAC announced that they would no longer redeem FCFA banknotes--i.e. repurchase them with French francs--outside the African franc zone. Commercial banks in France were given a few hours to report their existing stocks of the banknotes to the Banque de France. The measure's stated purpose was to combat illegal export of capital via export of FCFA banknotes. No new restrictions were imposed on exchange of FCFA for French francs through bank outlets in the African franc zone.

The market's immediate reaction to the partial suspension of convertibility was a sharp

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[69] Calculated via the methodology explained in Table 1--IMF loans and credits outstanding were converted from SDR to French francs and subtracted from Côte d'Ivoire's negative NFA to obtain the French franc equivalent of the operations account deficit on each of the two dates. The year-end deficit minus that for June 30 equals Ffr 1.9 billion.

[70] Nigeria, Ghana and The Gambia.

[71] Information supplied to the authors by ACMS officials.

[72] Ironically, following several years of relative quiet, members of the European Monetary System reenacted the scenario in September 1992, just weeks after the franc zone summit in Paris.

reduction in the premium, presumably on the basis of a belief that the measure would strengthen the FCFA in the short run and forestall devaluation for some time to come However the next day the premium regained its former level; during the ensuing two weeks it averaged in the 6-7% range, and then shot up over 12%. By this time the market had clearly decided that the central banks' step foreshadowed a formal devaluation, although only at the last minute did it anticipate anything as drastic as the 50 percent drop in the FCFA's value announced in January.

During this period commercial banks reported a sharp increase in FCFA deposits as banknotes that would otherwise have been exported to circumvent restrictions on capital export and forestall documentation of interest to the tax authorities found their way into the banks en route to exchange for French francs Sales of French francs through the banking system were reported to have increased dramatically up to year's end as the central banks honored their commitment to redeem FCFA within the local currency area.

Meanwhile the French government, seeing its own fiscal situation deteriorate under the impact of recession, had grown increasingly reticent to cover FZ budget deficits. In September Prime Minister Balladur wrote the FZ country presidents that France would henceforth restrict its nonproject aid to support of agreements reached with the IMF [*Jeune Afrique Economie,* 1993]. By this action France in effect signalled its African partners that they would have to come to terms with the IMF and World Bank--in other words, accept their prescription to devalue.

In November *Jeune Afrique Economie* [1993] reported that the French government regarded FCFA devaluation as a "necessary evil". An unnamed high French official was quoted directly as saying that all the African partner governments now shared this conclusion. The magazine went on to describe the event as "matter of days", with only the level of the parity change remaining to be settled. "Barring a last minute surprise", it said, this would fall within the 30-50 percent range, implying a new rate in the range of FCFA 70-100 to the French franc.

The matter finally came to a head at top-level meetings involving France, the two central banks, the FZ-member countries, the IMF and IBRD, starting in Paris in the first week of January 1994 and concluding in Dakar on January 10-11. The Dakar session announced a new parity of 100 FCFA/1 Ffr, with France guaranteeing convertibility as before. France and the multilaterals pledged a variety of aid instruments to ease the burden of the new rate on poor consumers and promote growth of the FZ economies. The IMF indicated it would approve temporary food subsidies from government budgets, which were expected to benefit from the devaluation coupled with forgiveness of much of the outstanding bilateral debt to France.

Through May 1994 the Fund had announced new programs, stand-by, Structural Adjustment Facility (SAF), or Extended Structural Adjustment Facility (ESAF), with 13 of the 14 countries; the 14th, Togo, followed in mid-September. A $67 million stand-by agreement with Senegal was the first of these programs [IMF, 1994a: 71].

G. Arguments of the French and WAMU authorities for maintaining FCFA parity

While the outcome of this saga is now known, in order to shed light on the merits and demerits of fixed exchange rates for African countries it is useful to review arguments that were presented well into 1993[73] pro and con retention of the 45-year old parity. The present section presents the arguments pro, the following section gives an alternative view

In one way or another, the official rationale for maintaining the longstanding FCFA parity is an embellishment of Camdessus' 1992 statement (see preceding section) that lack of competitiveness is best attacked at its roots rather than via the exchange rate symptom. This section organizes the official stand around three primary sources.

1. A 1991 circular from a French government agency to its field offices in Africa, providing guidance to them for discussions on the parity question and referred to below as the Guidelines, serves as the point of departure for describing the official French position;[74]
2. Representative BCEAO views are described on the basis of discussions between the authors and senior BCEAO staff in Dakar in September 1992,
3. A background paper prepared by Berg and Berlin [1993] for a January 1993 USAID/Washington seminar on the FCFA issue lists systematically arguments advanced for using means other than devaluation to restore FZ competitiveness.

Other sources, including discussions of the authors in 1992-93 with French economists in France and Africa, both in- and outside government, are drawn on to extend and clarify the presentation.

Arguments of the French authorities

Citing unspecified calculations of the IMF and World Bank, the Guidelines claim that the FZ's 1990 REER values were approximately equal to those of 1978. The period 1980-85 had seen an effective FCFA depreciation, largely due to the French franc's decline with respect to the dollar, followed by a largely compensating appreciation as the franc/dollar rate reversed course. Similarly, the FZ's price inflation was more rapid than the weighted average of its trading partners up to the mid-1980s, following which it has been substantially slower.

Therefore, say the Guidelines, any argument characterizing the FCFA as overvalued is based, not on the franc's own evolution, but rather on a cursory comparison with exchange rates of other African countries, notably the WAMU's anglophone neighbors. Earlier, L'Hériteau [1990] had cited the dichotomy between overvaluation in *space*--i.e. *vis-à-vis* FZ neighbors--and over *time*, the latter characterization not applying to the FCFA.

This argument demonstrates the ease with which contrary conclusions can sometimes be drawn out of the same body of data. Section E above cites unpublished World Bank studies, issued shortly before the Guidelines were circulated, giving REER overvaluation rates of 18 percent to 47 percent for five FZ countries, including 30 percent for Senegal.

The Guidelines then proceed to examine the competing devaluations in Africa, particularly

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[73] In the Clermont-Ferrand seminar that discussed an early version of this chapter, as late as mid-April 1993 senior French academic economists were justifying retention of CFA parity

[74] The circular is not labelled confidential; one of the authors had access to it in Africa.

those of Ghana and Nigeria, contrasting the then (1991) current situation of the FZ from the positions of the other countries when they devalued. When those devaluations occurred, fiscal and monetary indiscipline and resultant inflation had pushed the parallel market exchange rates (in local currency units per dollar) as high as ten times the official rates. Most transactions in tradable goods occurred in an underground economy that was disconnected from official circuits, making official exchange rates fictional and meaningless. The authorities could acquire only very limited amounts of foreign exchange at those rates, and that only by using the police power of the state to intervene in the market.

In these circumstances, according to the Guidelines, a devaluation becomes "réparatrice" rather than strategic--i.e. by giving long overdue recognition to the impact of preceding inflation, it serves merely to *repair* a situation of disequilibrium, reestablishing the connection between the real economy and formal-sector financial institutions including the tax collector. To be *strategic* the devaluation would have to go further and, by changing the relative prices actually perceived by economic agents, serve to reorient domestic production towards tradables.

Instead, argue the Guidelines, the African devaluations have formed part of a vicious circle of inflation, depreciation of the currency *vis-à-vis* convertible currencies, devaluation, more inflation, and so on. In this connection it is noted that, out of 16 non-FZ countries devaluing before 1986, nine had devalued again in 1990 (and some also in between).

The Guidelines go on to assert that none of these countries have achieved structural adjustment conveying clear economic benefits. As regards public finances, with two exceptions the fiscal bonus associated with higher receipts from taxation of trade has been more than offset by the burden of higher debt service (denominated in local currency terms) and domestic inflation The exceptions are Ghana, with little debt at the outset of its structural adjustment program, and Madagascar, which is alleged to have followed a strict policy of austerity.

Regarding industrial competitiveness, the Guidelines argue that 'real and structural' factors play a greater role than monetary factors, given the small weight of wages in manufacturing costs. They add that differential labor costs can be offset by tax measures (export subsidies). On the agricultural side, well-executed restructuring is credited with having reduced costs and raised productivity in the cotton and coffee sectors in five FZ countries.

A more recent treatment of Ghana's devaluation policy by a pair of authoritative French writers, Coquet and Daniel [CD, 1992], complements the Guidelines' viewpoint by drawing four major lessons [regarding] the instruments utilized and the objectives they have *effectively* facilitated...:[75]

- Devaluation has generally not achieved the objectives initially ascribed to it
- The nominal objectives, when they were attained, resulted more often from the accompanying measures.
- Devaluation was indispensable in Ghana, and it was effective in that it allowed the State to reestablish its authority and essential functions
- The reasons which made devaluation necessary in Ghana do not exist in the FZ and in the short run make such a policy inappropriate for the resolution of their immediate problems.

Like CD a year later, the Guidelines find the scene in the FZ to be very different from that in the African devaluers. There is no parallel market. Inflation is under control--since 1985 only one FZ country's CPI has risen faster than France's (see Table VII.5 below). Given the French

[75] Translation by the present authors. Emphasis given in the original This article in the *Revue de l'OFCE* is cited at length by *Jeune Afrique Economie* [1992] in describing the official stance on CFA franc parity.

Treasury's convertibility guarantee, the authorities and any other economic agent can buy any amount of foreign exchange at the official rate (the circular could have added that this is partly because France helps to decide how many FCFA are created). Consequently, argue the Guidelines, the FZ is in no need of a 'réparatrice' devaluation.

Logically, given the earlier argument, this leads immediately to the question whether a 'strategic' devaluation would benefit the FZ. On this the Guidelines have much less to say. Instead they describe FZ integration as a better instrument of adjustment than devaluation, concluding that the zone should be preserved and strengthened. This implies that preservation of the FZ is incompatible with devaluation, but the point is not stated explicitly, apart from a claim that FZ members have benefitted from less capital flight than other developing countries by virtue of belonging to a union guaranteeing security of capital transfer *at a fixed exchange rate*[76].

Other benefits of preserving the FZ are given as:

1. Promoting exchange among member countries, underexploited since independence because of statist and protectionist policies;
2. Via the multinational character of the two FZ central banks, controlling the excesses of other African countries in monetizing budget deficits;
3. Constituting a regional framework for 'institutional reform and real adjustment'.

No case is made that abandonment of the fixed exchange rate would result in loss of these benefits, and the present authors argue in Sections H and J below that the FZ could continue to confer them under a very different exchange rate regime.

In closing, the Guidelines cite 'real adjustment' measures recently introduced at the regional level, viz.:

1. Monetary policy reforms such as suppressing preferential rates, controlling end-uses of refinancing, strengthening indirect controls, and establishing regional banking commissions for prudential supervision independent of member government influence;
2. Establishing a regional working group on insurance;
3. Resolutions at FZ finance ministers' meetings calling for initiatives such as creating a 'regional business space'.

Following the Guidelines' formulation, France supported a move, agreed by the WAMU heads of state in July 1992, to convert the UMOA (WAMU) into a UMEOA, the 'E' standing for 'Economique'. Going still further, it called for economic union of the two (BEAC and BCEAO) currency areas. French technical assistance financed studies in areas such as harmonizing government budgets and company legislation, and coordinating national statistical and social security systems as well as insurance.

The Guidelines' assertion regarding the limited impact of devaluation on industrial competitiveness was taken further by so-called 'elasticity pessimists', both French and African, who argued that (i) the supply elasticity of the primary products comprising the bulk of CFA countries' exports was very low, hence devaluation would not increase those exports significantly, and (ii) the manufacturing sector was so small that an improbably massive response would be required for it to contribute noticeably to exports.

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[76] Emphasis supplied.

Many official French defenders of the FZ were more explicit than the Guidelines about the harm that would result from altering the currency parity and in ruling out what the Guidelines called 'strategic' devaluation. A change in the parity--and this was the crux of their argument--would threaten preservation of the monetary union by undercutting "monetary credibility". If, the argument ran, the authorities devalued the FCFA after insisting for 45 years on the inviolability of the 50:1 exchange rate, businessmen would not trust the new parity, confidence would be undermined, and speculation and capital flight would displace production and investment.

Partially fulfulling this prediction, on January 12 the head of the Council of French Investors in Africa complained to French Prime Minister Balladur that "the shock wave of the CFA devaluation for French investors could reach Ffr 10 billion this year" [Financial Times, 1994]. A response to him could have made the following points: (i) if the earlier exchange rate was satisfactory, why had it stimulated a cumulative commitment from French business of less than 1½ percent of France's annual gross fixed capital formation, for an area of deep cultural and historical interest to France with 40 percent more population than the metropole;[77] and (ii) how many members of the Council had not already repatriated every franc they could mobilize, recognizing that the FZ's dire economic straits left no alternative but to devalue? So much for the confidence value of the 45-year-old FCFA/Ffr parity.

In a nutshell, the official defenders of parity did not deny that policy slippages and terms of trade deterioration in the 1980s, along with adjustment programs in neighboring countries, had lessened FZ competitiveness. In the best of all possible worlds, they said, the French franc would have been worth 15-20 percent more FCFA, say 60 rather than 50. But the disadvantages of a devaluation under current circumstances, notably the resulting destabilization and potential breakup of the union, were depicted as more than offsetting the potential advantages of increased competitiveness.

Views of BCEAO managers

The BCEAO's statutes have long provided for it to foster monetary discipline within its zone in two major ways:

1. through an annual programming exercise for each member country, a major outcome of which is to determine the ceiling on central bank credit to the government concerned (the statutes limit this in any case to 20 percent of the preceding year's revenue); and
2. through a bank supervision function by which accounts of all banks in the member countries are examined and any findings calling for regulatory action are reported to the responsible government. Up to 1990 a section of the BCEAO was charged with this role; it has now been entrusted to an independent commission.

In the event, both approaches fell short of their objectives in the 1980s. In the early years of the decade, governments financed expansionary fiscal policies through borrowings not subject to the UMOA limit, namely (i) foreign loans, (ii) borrowing by parastatals for "social" purposes, and (iii) involuntary credit from banks to suppliers as both the governments themselves and public enterprises accumulated payments arrears. After some respite in the middle of the decade

[77] This assumes a Ffr.20 billion value for French private investment in the FZ, which the 50 percent devaluation would effectively halve; FZ population is estimated at 80 million in mid-1993, from World Bank [1993: 238], adjusted for two years of population growth; French GFCF and population are from IMF [1993: 355].

budget deficits were back up to 10.5 percent of GDP in 1988-89 [IMF, 1990].[78] The BCEAO helped indirectly to finance credit expansion by lending to shaky banks and discounting (at a preferential rate) crop marketing loans that were not fully repaid. Honohan [1990] reports a net capital deficiency of banks in three WAMU countries--Côte d'Ivoire, Senegal and Benin--approximately equal to the union's average currency issue, or close to $2 billion

This in turn reflects on the efficacy of WAMU bank supervision, which failed to arrest conditions, noted in the IMF's 1990 paper, such as "deficiencies in bank management, the nonobservance of normal banking procedures (such as inadequate provisioning for loan losses, nonpayment of accrued interest payments, and excessive off-balance-sheet risks) and extension of credit without proper collateral". It was in recognition of these shortcomings that the WAMU authorities established in 1990 the supranational banking commission, based in Abidjan and charged with conducting frequent bank audits, that is cited in the aforementioned Guidelines. By 1995 at least 60 percent of every WAMU bank's portfolio must comprise loans approved *a posteriori* by the BCEAO [de Zamaróczy, 1992].

Against this background of policy failure in the 1980s, BCEAO managers maintained to the authors that the WAMU's first priority is to reinforce fiscal and monetary discipline among member governments and financial institutions (including, by implication, itself). An FCFA devaluation under current circumstances, they argued, would counteract this effort in at least two ways: by causing a fresh inflationary push through higher prices of tradables leading to pressure for wage increases; and, by its very success in strengthening the balance of payments, easing the pressure for reduction of fiscal deficits. The authors were told that the BCEAO did not rule out resort to modification of currency parity at some (indefinite) future time, once a proper foundation had been laid. At the same time the BCEAO managers pointed to the difficulty of winning unanimous agreement from seven governments--not to mention the need to coordinate with the MUCAS.

The BCEAO viewpoint was perhaps thrown into sharpest relief by an exchange which one of the authors initiated by listing measures that must accompany a successful devaluation, creating business confidence that the economy's position will not soon lose the added competitiveness resulting from the realignment. The list featured fiscal and monetary moves to hold budget deficits and credit expansion within limits that would prevent domestic inflation from significantly exceeding that of trading partners. The BCEAO team's immediate response: such measures must be taken *before* an eventual devaluation, as *prerequisites* for it to succeed, rather than as "mesures d'*accompagnement*".

<u>The position as summarized by Berg and Berlin</u>

Berg and Berlin [1993: 18-21] systematize the French and WAMU arguments against devaluation as follows:

1. Structural obstacles in sectors such as transport and agriculture, and deficient markets for land, capital and output, are the key impediments to competitiveness, not an overvalued exchange rate;
2. Devaluation would create inflationary expectations and, if accompanied by dissolution of FZ institutions, undermine monetary discipline in member countries;

[78] Based on commitments, GDP-weighted, before grants.

3. Rejecting the highly visible, once-for-all cut in real wages associated with a devaluation, labor would force nominal wage increases soon pushing real wages back to previous levels;
4. Devaluation would relax the pressure to attain the productivity increases and cost reductions without which FZ economies cannot make significant new inroads into export markets;
5. Deciding on a new FCFA/Ffr parity would be difficult given the need for unanimous consent among member governments, and poses too great a risk of breaking up the zone, undermining its long-term advantages.

H. An alternative view

With due respect for the concerns that the BCEAO management and French authorities expressed before finally agreeing to the devaluation, the present section presents a different view of the pros and cons of fixed parity

Timing of complementary demand management (fiscal & monetary) measures

We first consider the strategy proposed by the BCEAO staff (it will be referred to here as the "BCEAO strategy") of undertaking devaluation only after prior fiscal and monetary measures have achieved certain targets. Reduction of the underlying inflation rate, r, to a given level, r^*, can be taken as a proxy for these targets.

Let e_n represent the then official/nominal exchange rate (OER = NER = 50 FCFA to the French franc) and e_e the real effective exchange rate (REER) that would equilibrate Senegal's balance of payments. Then $v = e_n/e_e - 1$ represents the then degree of FCFA overvaluation from Senegal's viewpoint. If allowed to persist over time t, this overvaluation occasions a loss of output, L_t, compared with the output $\hat{Y}_t$ that would have been attained had e_e been the REER during this time. L_t is determined by the elasticity of output (notably but not exclusively exports and import substitutes) with respect to the exchange rate.

Let t_0 represent the present, and t_1 the time required for the fiscal and monetary measures in question to achieve r^*, at which point a devaluation is undertaken. Time t_2 represents a medium-term planning horizon, i.e. the period over which the BCEAO compares the effects of its exchange rate policy on Senegal's real income with those of an immediate devaluation.

The BCEAO argument in support of its strategy accepts the possibility of some net loss of output

$$L_{t_1-t_0}$$

up to the moment of devaluation, while the deflationary policies are taking hold. However, according to the BCEAO, the additional inflation touched off by a premature devaluation undermines the intent of the devaluation and otherwise undercuts production by diverting resources from productive uses. Hence, under the BCEAO strategy, output over the entire planning horizon will be greater, compensating for the initial loss. In other words:[79]

[79] The terms in this inequality represent present values at the social discount rate.

$$Y_{t_2-t_0} - L_{t_1-t_0} > \hat{Y}_{t_2-t_0}$$

This is far from self-evident. By pushing up prices of tradables, devaluation has an initial inflationary impact whenever it is carried out, whether at t_0 or at t_1. The key issue of political economy is how to limit increases in prices of nontradables, notably labor, so that these become relatively cheaper than tradables and permit the devaluation to have its intended impact on output and the balance of payments. On the macro management side the question is how best to control the public sector deficit and its financing, on the micro policy side the question is one of limiting wage increases.

Taking the issue of wage demands first, it is recognized that trade unions have a strong political base in several FZ countries, nowhere stronger than in Senegal, and will apply pressure to ensure that urban wages are raised to compensate fully for the impact of devaluation on prices of tradables. The question arises as to whether this pressure is likely to be stronger under the "devaluation now" option or the BCEAO strategy. It could be argued that, the lower the current rate of inflation, the more the impact of a devaluation stands out and is likely to stimulate union pressure.

As for fiscal policy, devaluation acts on both the revenue and expenditure sides *Ad valorem* taxes on international trade rise in the same proportion as the devaluation, less the price elasticity effect on import demand; indirect taxes on domestic goods and services rise in lesser proportion. External debt service rises in the same proportion as the devaluation; purchases of materials rise less.

In 1990/91, over 50 percent of Senegal's tax revenue derived from taxes on international trade, mostly *ad valorem* duties and other taxes on imports. Contractual debt service charged to the budget amounted to about 43 percent of revenue, declining to 31 percent net of debt relief, while materials and maintenance were 27 percent of revenue [World Bank 1991b]. Assuming materials etc. rise in the first year following devaluation by half its proportion, expenditure rising in proportion to the devaluation amounts to about 45 percent of tax revenue.

Thus one would predict a positive initial fiscal impact of devaluation in Senegal;[80] in any case there is no reason to expect it to undercut ongoing pressure by the WAMU/BCEAO management and the IMF on Senegal (and other member countries) to trim fiscal deficits.

The BCEAO argument also raises the question of what criteria would be used to determine that fiscal and monetary restraint had succeeded sufficiently to warrant undertaking a devaluation. Table VII.5 reproduces *IFS* data on consumer price indices in the FZ countries and France, showing that only Cameroon experienced more rapid inflation than France during 1985-1990. For five of the 12 countries depicted--the *IFS* gives no price data for Benin--1990 indices are below the 1985 values, while Senegal's CPI shows no significant change. Taking the French CPI as a base, with 1985 = 100, Figures VII.2(a) and (b) show percentage points of deviation of the FZ CPIs.

Clearly consumer price inflation in the FZ declined dramatically from the early 1980s through 1993. Structural adjustment measures promoted by the BCEAO, the IMF, the World

[80] Reviewing Senegal's fiscal position in the wake of the January 1994 devaluation, the IMF predicted an increase in customs receipts notwithstanding reduction of import duties to enhance efficiency and counteract inflation.

Table VII.5 - FRANC ZONE AND FRANCE: COMPARISON OF PRICE INDICES, 1978-1990
(Average annual values, 1985 = 100)

	France	Burkina Faso	Came-roon	C.A.R.	Chad	Congo	Equat. Guinea	Gabon	Côte d'Iv.	Mali	Niger	Senegal	Togo
1978	50	53	47			51		52	57		59	48	60
1979	56	61	50			55		56	66		63	52	65
1980	63	68	55			59		63	76		70	57	73
1981	72	73	61	68		69		68	83		86	60	87
1982	80	82	69	77		78		80	89		96	71	97
1983	88	89	81	88	79	84		88	94		93	79	106
1984	95	94	90	91	95	94		93	98		101	88	102
1985	100	100	100	100	100	100	100	100	100		100	100	100
1986	103	97	103	102	87	102	82	106	107		97	106	104
1987	106	95	125	95	82	105	72	105	108		90	102	104
1988	109	99	136	91	94	109	73	95	115	109	89	100	104
1989	113	98	133	92	90	113	78	102	116	109	87	100	103
1990	116	98	135	92	90	115	78	110	116	109	86	101	104

Notes:

All data from IMF [1992] (empty spaces indicate no data provided), with the following exceptions:

Cameroon: the IMF source has recently replaced an earlier series for 1985-89 with a series for which the 1985 value is 91.1 The authors have therefore multiplied figures for all years from 1985 by the ratio 100/91.1 The unadjusted value for 1990 (123.4) is the average for the year's first three quarters

Côte d'Ivoire values for 1989 and 1990 are averages of values for two or three quarters only

Congo (ditto for 1990 value).

Bank and bilateral donors took hold and yielded substantial results on the fiscal and monetary fronts, though as indicated earlier, not yet in regard to output and exports. Few if any of the world's successful devaluers have started from a base of such rigid credit restraints and correspondingly low inflation rates.

In no FZ country has monetary policy reform been stricter than in Senegal. Credit to the economy declined by 17 percent from end-1988 to end-1993.[81] The ratio of M2 to GDP fell from 0.11 in 1983 to 0.06 in 1990 [World Bank, 1991b]

In the authors' view, well before the January 1994 realignment, restraints on inflation in Senegal and the FZ as a whole had been sufficiently effective to permit a devaluation to be carried out without causing the acceleration in inflation that the BCEAO feared. On the other hand, in defense of the BCEAO position it can be argued that, if devaluation is carried out at time t_0 rather than t_1, the average inflation rate r up to time t_2 will be greater than both the target rate r^* and the average rate prevailing during t_0-t_2 in the event the BCEAO devaluation strategy is adopted

If further devaluation is ruled out, the higher inflation may make the exchange rate once more significantly overvalued by time t_2. Output over the entire period will be less than $\hat{Y}_t$ and, depending on the elasticity of output with respect to the exchange rate, it may be less than the output obtained by following the BCEAO's strategy. Since this strategy is predicated on arriving

[81] Absolute figures in FCFA billion from IMF [1994c. 470]--end-1988 595, end-1993: 493.

Figure VII.2(a) - FRANC ZONE & FRENCH INFLATION, 1978-90

Franc zone CPIs as ratios to French CPI * 100, less 100

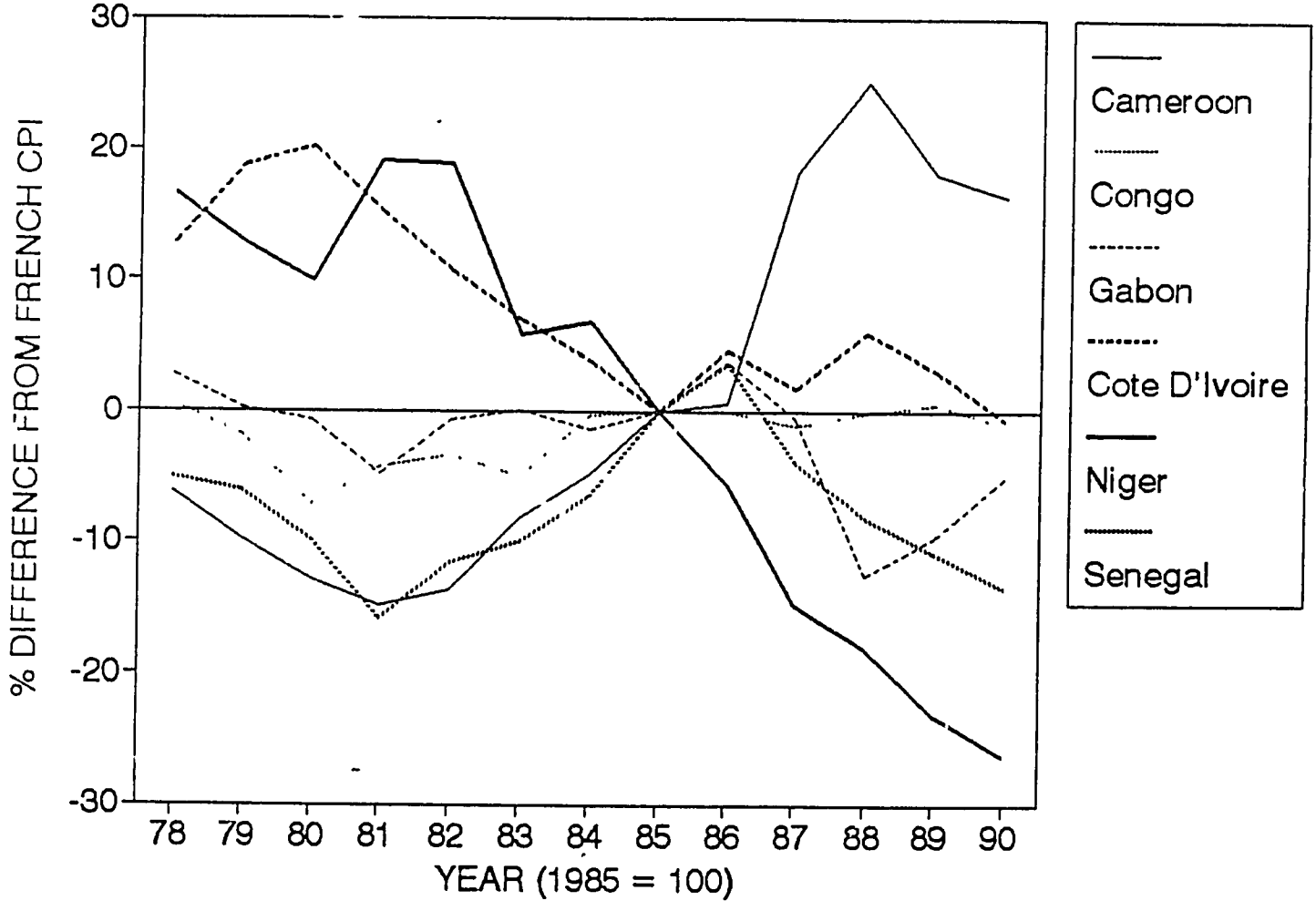
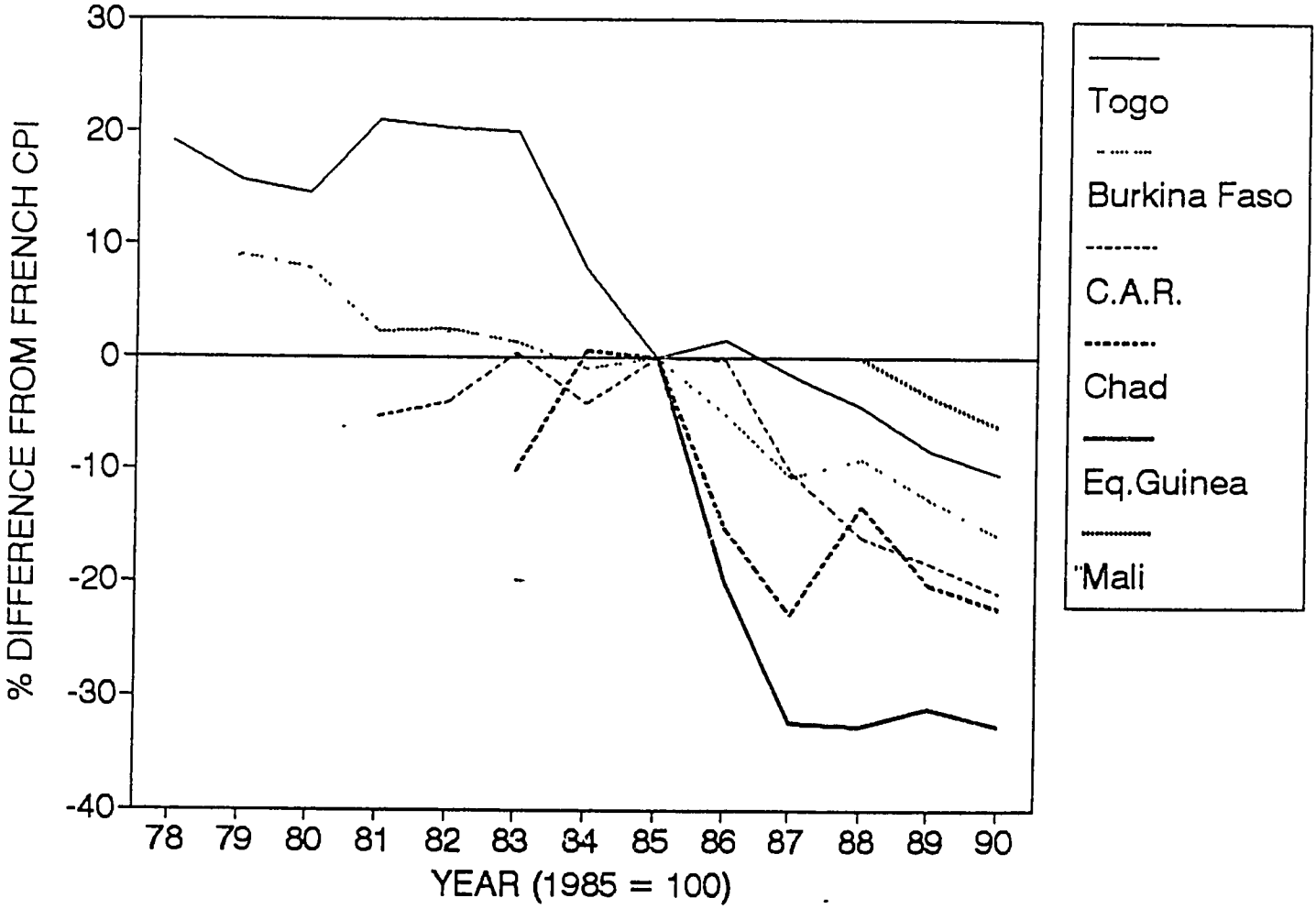


Figure VII.2(b) - FRANC ZONE & FRENCH INFLATION, 1978-90

Franc zone CPIs as ratios to French CPI * 100, less 100



at a nominal exchange rate that will not have to be devaluated again in the foreseeable future, the BCEAO's position as explained to the authors in 1992 can be described as internally consistent.

Conversely if repeated devaluation is not ruled out as a means of maintaining an REER of e_c, then the negative impact of the higher inflation rate on international competitiveness can be offset Which of the alternative strategies then brings about higher output depends on the importance of the negative effects, other than appreciation of the REER, arising from the increment in inflation associated with the "devaluation now" strategy. In the authors' view, given economic stagnation in the FZ, the disincentive effect of postponing devaluation and thus delaying attainment of e_c depressed output more severely.

Exchange rate management, 'credibility', and franc zone integrity

The view that changes in currency parity cause foreign as well as domestic investors to lose confidence in a country's economic management, thereby aggravating inflation, capital flight and many other ills, was dominant world-wide up to the early 1970s. Even so, this view did not prevent the French government itself from devaluing (or stepping aside to let the market devalue) the effective dollar/franc exchange rate by 52 percent in five steps between 1948 and the Smithsonian agreement of December 1971 [82] Nor did such changes undermine the confidence of France's economic actors sufficiently to prevent her GDP from growing at a compound annual rate of 5.3 percent from 1950 to 1971.

Figure VII.3 plots the movement of the franc against the dollar (left axis) and the deutschmark (right axis) during the 21 years following the Smithsonian agreement. Notwithstanding the volatility of the exchange rates, French GDP has grown at a compound annual rate of 2.63 percent, bringing her per capita GDP from 87 percent of the United States' in 1971 to 96 percent in 1991.[83]

Needless to say, the gyrations of the franc exchange rate, both before and after 1971, reflect changing policy stances by the French authorities as well as exogenous developments in France's foreign markets. It is not within the scope of this chapter to analyze and critique French monetary and exchange rate policy in the postwar period. It is, however, relevant to compare France's own experience with the assertion that allowing the exchange rate *vis-à-vis* currencies of one's main trading partners to vary depresses growth by undermining the authorities' credibility, inducing permanent speculation against the national currency and deterring investment.

According to the World Bank's *World Development Report 1992*, 11 low- or middle-income countries achieved average annual growth rates of 5.0 percent or more during the 1980s. Table VII.6 shows what happened to these countries' exchange rates (national currency units per dollar) during the same period. Once again, no evidence that devaluation undermined investors' confidence. Indeed economists' present consensus goes in virtually the opposite direction: that these economies did well in large part because investors acquired confidence that the governments concerned had finally come to understand the importance of adjusting exchange

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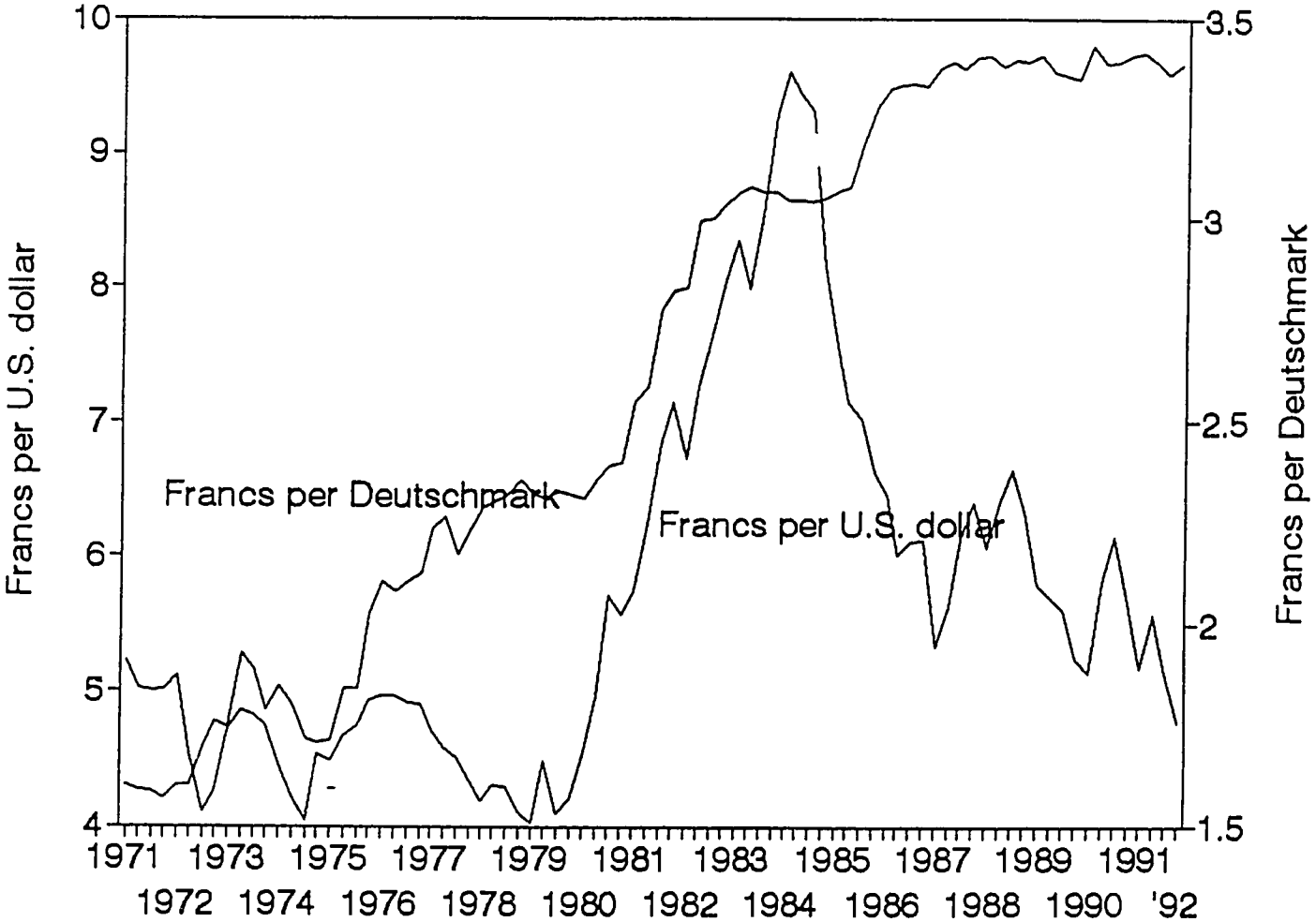
[82] Number of devaluations calculated by comparing year-end exchange rates given in IMF [1992] Multiple changes within a year, if any, are not included The rate of Ffr 2.66/$1 in 1948 became Ffr 5.56 in 1969.

[83] Calculated from series in IMF [1992].

Figure VII.3 - VOLATILITY OF THE FRENCH FRANC, 1971-92

End-of-quarter market rates per $ and DM



rates whenever necessary to maintain competitiveness.

Showing that the 11 highest-growth developing countries devalued to the extent of raising the value of the dollar by at least a quarter, the median being India's 129 percent, is scarcely

Table VII.6 - CHANGES IN CURRENCY PARITY OF HIGH-GROWTH LOW- AND MIDDLE-INCOME COUNTRIES, 1979-1990

(% changes in national currency units per U.S. dollar, December 1979-December 1990)

Malaysia	23.4%
Thailand	23.8%
Korea	48.0%
Mauritius	88.8%
Pakistan	121.2%
India	128.6%
Botswana	137.3%
Egypt	185.7%
Indonesia	203.2%
China	249.0%
Turkey	8188.7%

Sources: Countries are those identified in IBRD [1992] as low- and middle-income countries whose real GDP grew at least 5.0% per annum during 1980-90. Countries listed as meeting that criterion but excluded here are Bhutan, Chad and Mongolia. Changes in currency parity calculated from IMF [1992].

sufficient to prove that the FZ's member countries would have grown by 5 percent or more during the 1980's had it also devalued. The only African country among the eleven is Botswana, whose relevance to the rest of the continent is often challenged because of the strong influence exerted over its economy by South Africa.

It is not argued here that examination of the eleven cases is sufficient to prove the case that the FCFA should have been devalued long before January 1994. Rather, the authors wish merely to note that maintenance of a fixed exchange rate has not proven essential to rapid growth of any of the top developing country performers during the past decade.

While correctly guessing the timing of a devaluation enables a speculator to make the highest return for the least investment in the short run, the East Asian Gang of Four and other newly industrializing countries (NICs) would not be where they are if many investors had not found the creation of real value added in their economies to be a more solid basis for profiting from devaluations over the medium to long term. Even though it raises the domestic currency cost of tradable inputs and foreign borrowing, by the same token devaluation increases returns to exporters and import substituters who are generating positive value added, and reduces the real cost of their domestic borrowing.

Indeed investors have much more to lose, and are likely to be much more reluctant to invest, when the authorities are defending a fixed exchange rate in which the market has lost confidence. This is because the investors must anticipate and protect themselves against a large, one-shot devaluation that will burden them with a heavy, visible loss. Conversely, investors' gains from inflation are much more likely to protect them from losses incurred as a currency depreciates slowly from a position of market strength.

In a nutshell, the authors find that the 'credibility' argument ignores world-wide experience over the past 20 years and resurrects discredited arguments from the 1950s and '60s.

The question then arises as to whether the FZ has special features that make its members more vulnerable than non-FZ countries to the disruption accompanying a devaluation. The zone has two characteristics making it unique in the world: (i) it is multinational, and (ii) it has an operations account with the French Treasury via which France guarantees FCFA convertibility. These two features underlie the benefits listed in Section B above.

Admittedly the rules of consensus that have governed decision-making in the BEAC and BCEAO thus far complicated the task of agreeing to devalue and, once that decision was made, agreeing on a new FCFA/Ffr parity. This is especially so given that the degree of overvaluation and its trend differed among member countries. Figures VII.4(a) and (b) show the annual movement of REER indices--value of the French and CFA francs in terms of a basket of foreign currencies--for France and five FZ countries, taking 1980 and 1985 as alternate base years. From either of these bases the range of variation in 1991 was about 30 percent.

In the event, France's economic weight as well as its role as guarantor of convertibility and principal source of concessional budget subventions enabled it to carry the day once it had accepted the inevitable--that a change in parity was essential to restore the FZ's competitiveness. Even lacking so dominant a member, the EU has decided many difficult issues by consensus achieved through tough negotiations. Moreover, the two African unions are entitled to change their rules. There are many possible formulae for decision-making by multinational bodies. The U.N. General Assembly uses a simple majority voting scheme; since the WAMU has an odd number of members, it could do the same (with special procedures to cater for abstentions). The IMF and World Bank use weighted voting with GNP figuring heavily in the weights.

There was no reason for a change in FCFA parity to undermine France's role as guarantor of convertibility. The operations account continues to function at the new rate of 100 FCFA just as it did at 50--indeed the account should be easier to manage as the members' balances of payments improve and the tendency towards a chronic deficit becomes less pronounced.

In the unlikely event of one or more FZ governments deciding that the costs of remaining in the zone at a devalued exchange rate outweighed its advantages, the reaction of France and the other members should have been to ease its/their departure. As long as the zone provides the benefits identified in Section B, it is hard to imagine a majority of members deserting it at any exchange rate within some reasonable range.

Moreover should France have wished to retain the special influence with a departing member or members that the FZ has long provided, it could have proposed a separate operations account for that country or group of countries in exchange for a voice in decisions affecting credit creation. For 17 years--1967 to 1984--France maintained a separate operations account for Mali, and the Malian franc was convertible at 100/1, i.e. two Malian francs per FCFA. This arrangement continued until Burkina Faso withdrew its veto of Malian membership in the

Figure VII.4(a) - FRANC ZONE: REAL EFFECTIVE EXCHANGE RATE INDICES
France & 5 franc zone countries, REER indices - 100 (1980 = 100)

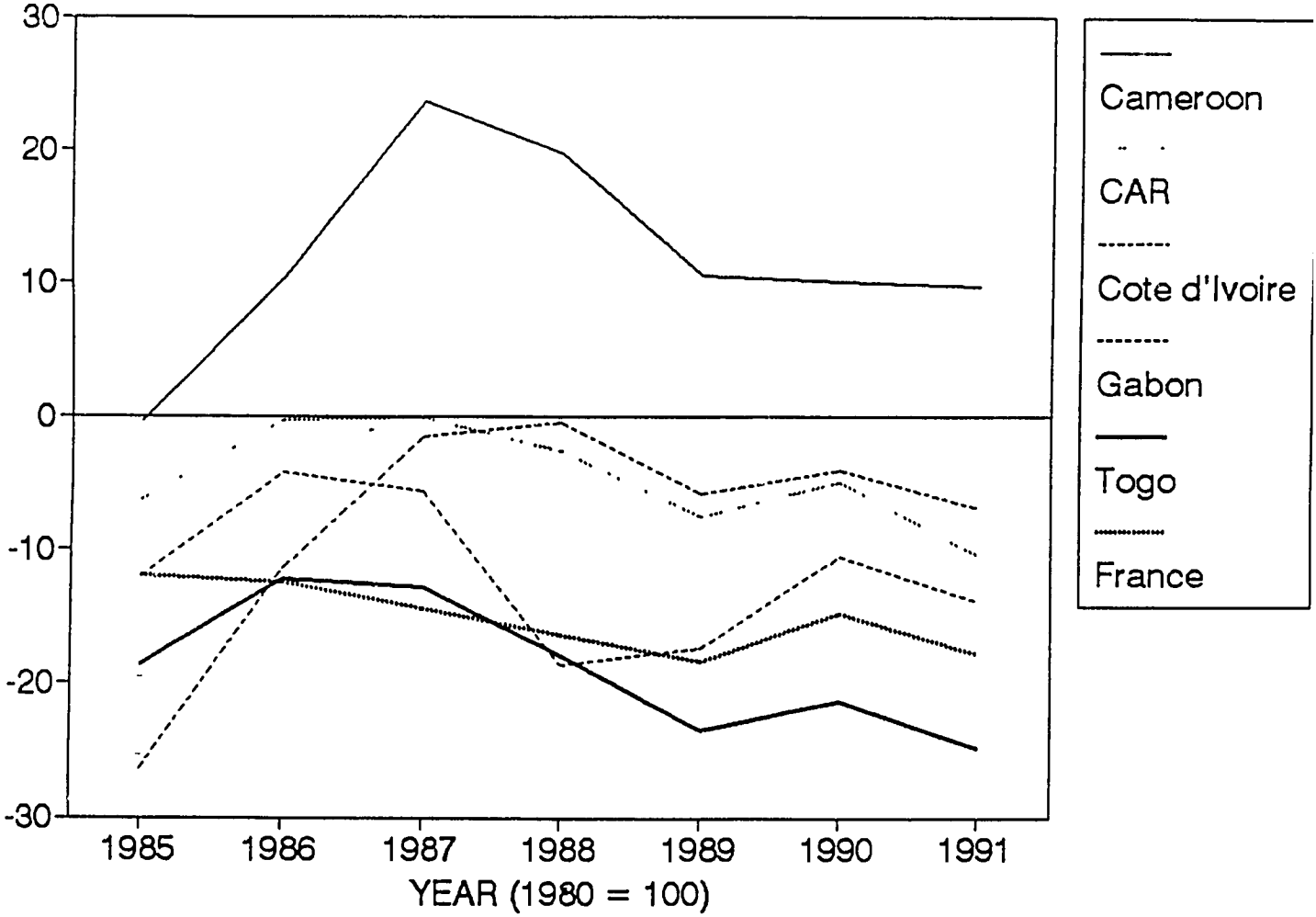
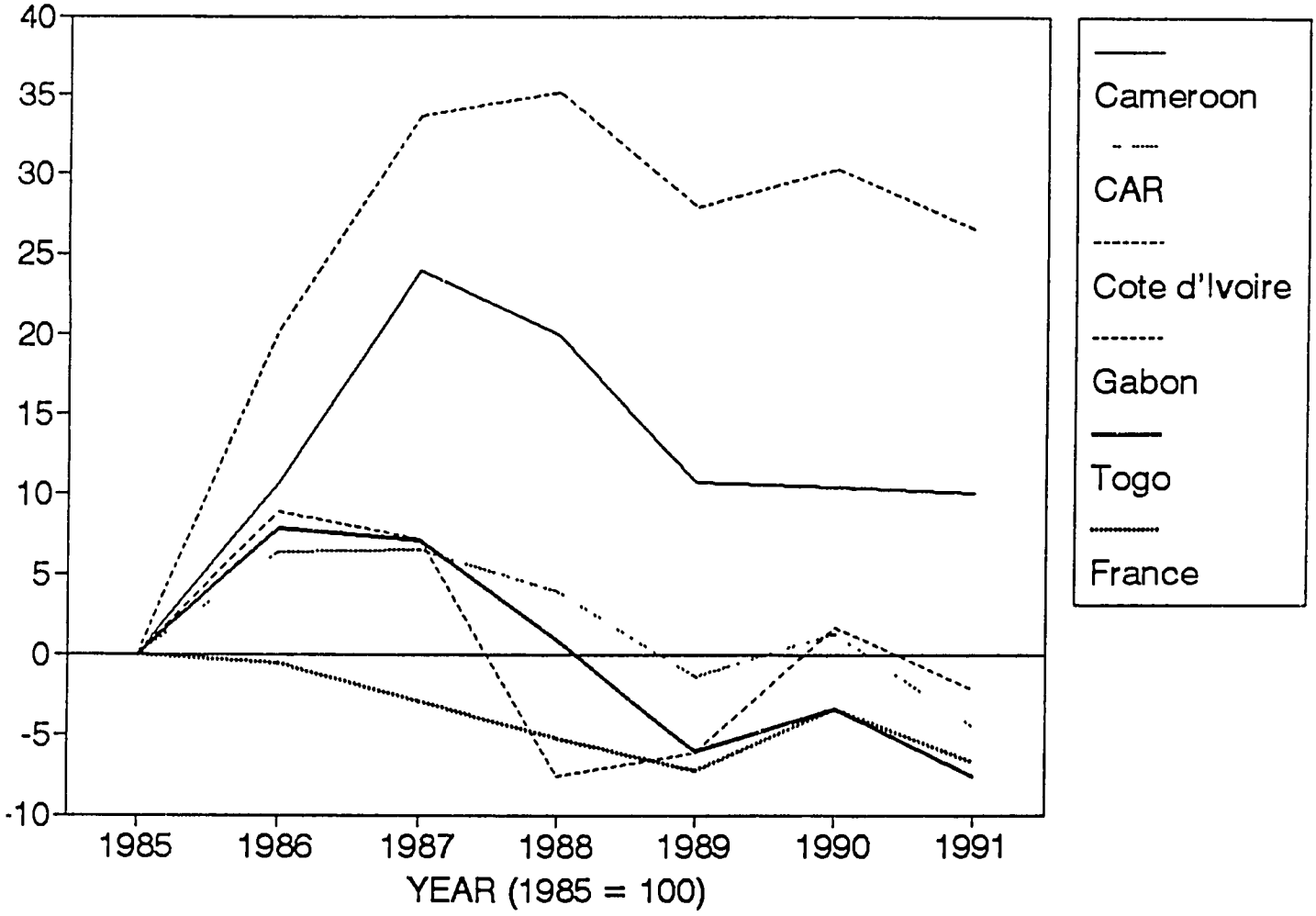


Figure VII.4(b) - FRANC ZONE: REAL EFFECTIVE EXCHANGE RATE INDICES
France & 5 franc zone countries, REER indices - 100 (1985 = 100)



WAMU, motivated by a territorial dispute. The Comorian central bank has had its own operations account since 1988, and continues to maintain it at a new (since January 1994) exchange rate of 75 Comorian francs to the French franc, 25 percent below the new FCFA exchange rate.

Interpreting the experience of African devaluers

The summary of official French views in Section G cites global evaluations of the devaluation experience of 16 other African countries and specific analysis of Ghana's. Coquet and Daniel [CD, 1992] go to great lengths to disprove any implications of the Ghana experience for the *pro*-side of the FCFA devaluation debate.[84] The Ghana chapter in this volume paints a rather different picture from CD. To be sure, it emphasizes the role of fiscal and monetary "mesures d'accompagnement" in reducing both inflation and inflationary expectations in Ghana However it also shows that these measures have formed an integrated package together with the establishment of a market-based foreign exchange regime which prices foreign exchange at its social opportunity cost.

One cannot dispute the contention that, once the typical African country has devalued an OER, it has come under heavy pressure to do so again within a few years--some indeed within a matter of months or even weeks--and the majority have in fact done so. Ghana and the other two anglophone case studies in this volume feature multiple devaluations over the past two decades. This experience raises two questions:

1 what has been the relative contribution of each African devaluation at time t to the inflation that imposed pressure to devalue again at time $t+n$?; and
2. is it inevitable that devaluation will undermine fiscal discipline?

Responding to the first question, notwithstanding the direct impact of devaluation on domestic prices of tradables figuring in the CPI, if the devaluation restores the value of foreign exchange to its social opportunity cost, *and* the government conducts a fiscal and monetary policy that holds the budget deficit close to the level that can be financed by capital inflow--a heroic assumption, to be sure--then inflation in the medium- and long run will be less than it would have been in the absence of devaluation.

This is because, in an economy lacking the FZ's automatic access to an operations account in a foreign treasury, an OER that overvalues the local currency makes the demand for tradable goods exceed their supply at prices conforming to that rate. The resulting shortages accelerate inflation and increase the returns to smuggling, which in turn depresses government revenue, aggravating the budget deficit and thus inflation. According to the previously cited French literature, this is indeed what had happened in Ghana and several other African countries before devaluation.

However, that literature challenges vigorously the assumption of a tight fiscal and monetary policy. Indeed it says that each devaluation has encouraged a *more* lax fiscal and monetary policy than would have been pursued in its absence, precisely because it has reduced the short-run cost of inflation This contention must also be accepted--if one reduces the cost of inflation in the short run, then governments operating in the political environment of a typical African country will undeniably 'buy' more short-run inflation.

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[84] Approximately one-third of their article on the future of the franc zone is devoted to a discussion of Ghana.

On the other hand, in the medium to long term, it is the fiscal and monetary policy follow-up to devaluation, rather than devaluation *per se*, that determines the rate of inflation Moreover, the French literature is the first to note that many non-FZ African countries have followed lax fiscal and monetary policies long before they devalued. To say that an African devaluation restoring the exchange rate to equilibrium inevitably triggers a vicious circle of inflation and further devaluation ignores counterbalancing policy options that a government can pursue and that several have recently pursued, usually with a guiding hand from the IMF and the donor community. Ghana, Uganda and Zambia are leading examples of this scenario.

This leads into the second question above. Opponents of FCFA devaluation argued that to admit the possibility of devaluation was to remove an important barrier to laxity in fiscal policy. They believed that non-FZ African countries had been encouraged in pursuing inflationary policies by the option to devalue.

In fact, however, as long as they maintained OERs, those countries have been very reluctant to use that option. Most have followed inflationary policies and then used exchange control and other measures to avoid or at least postpone devaluation. Rather than devaluation causing inflation, it is nearer the truth to say that inflation eventually made devaluation unavoidable. Both inflation and devaluation were the consequences of lax fiscal and monetary policies and the interaction of those policies with supply shocks.[85]

When finally deciding to devalue, African countries have usually instituted restrictive fiscal and monetary policies at the same time, although not all have succeeded in making the policies stick. The need for demand restraint to accompany devaluation is part of the standard doctrine of the multilateral agencies. Where an African government has failed to maintain demand restraint, this has not been because of the illusion that flexible exchange rates bring fiscal freedom.

It is worth noting that Asian countries, e.g. Indonesia and Malaysia, which adjust their exchange rates by a crawling peg policy or periodic adjustments, generally pursue conservative fiscal and monetary policies.

In summary, comparison of franc zone and other African countries shows that pursuit of a flexible exchange rate regime has been associated with higher inflation than the FZ's fixed nominal exchange rate system. On the other hand no country can escape changes in its economic environment, caused by factors over which it has no control, that require modification of its *real* exchange rate, typically in the direction of depreciating the local currency. Under a flexible regime such modification can be effected by allowing the nominal rate to change.

Conversely if the nominal rate remains fixed, adjustment can only be effected via demand restraint. The FZ experience shows that even severe and prolonged demand restraint may not suffice to eliminate imbalances and allow a country to regain an acceptable growth path.

I. Projecting Senegal's response to the January 1994 devaluation

Table VII.7 breaks down Senegal's trade during the period 1988-1990, the balance of

[85] Adda [1992], critiquing Coquet and Daniel in the same issue of the *Revue de l'OFCE*, notes that, while devaluation may trigger demonetization, the latter can and does occur in the absence of devaluation and in some cases precisely because of a refusal to devalue.

payments for 1988-93, and gives IMF *Direction of Trade Statistics* aggregate export and import data for 1988-93 Table VII.8 gives estimates of Senegal's actual current account deficit through 1993 and IMF projections through 1996 in the wake of the devaluation.

Clearly the Fund is not expecting the realignment to bring about a rapid improvement in Senegal's current account. The deficit before official grants is projected to peak in 1994 at about $600 million, declining by about $120 million in 1995 and only $30 million in the following year.

Very likely the Fund sees little room for compression in the import bill, only about one-sixth of which comprises nonfood consumer goods. Moreover it is unlikely to attribute substantial upward potential in the near future to the three items presently accounting for half of Senegal's exports, namely groundnut products, phosphates and fish Over time the improved incentives will induce some increased production of export crops, although this will involve more imports of fertilizers and pesticides and may also induce some shift of land use from food crops to export crops, depending in part on the effect of price increases for imported food.

In developed countries it usually takes two years to reap the full benefits of a devaluation. In developing countries, where the benefit depends on structural change or interaction with investments, the full gestation period for the gains from devaluation is likely to be considerably longer.

The authors agree with Adda [1992] that CD posed the wrong question in asking--and answering in the negative--whether FCFA devaluation could be expected to restore the FZ's trade balance in the short run. The imperative, Adda argues, was to initiate a change in the structure of production over the long run. The corresponding policy question, which Adda and the present authors likewise answer in the negative, is not whether devaluation will accomplish this by itself, but whether any alternative set of measures could have accomplished it had the 50 FCFA parity been maintained.

The January 1994 devaluation was indispensable to help Senegal fulfill two major objectives of a medium-to-long-term, rather than short-run, nature: (i) to achieve equilibrium in its balance of payments--meaning an ability to attract sufficient capital inflow to sustain the desired deficit on current account; and (ii) to provide a basis for the continuing increase in exports required to support a rising per capita income.

To get exports onto a satisfactory long-term growth path, and attract capital into export production, Senegal needs to reach a wage level in the formal industrial sector low enough to enable it to compete in some set of labor-intensive industries. The wage level measured in foreign currency must be competitive with wages in other developing countries after allowance for differences in productivity, transportation and energy costs, taxes, regulatory costs and a risk-return combination that will overcome investment inertia Changes in Senegal's labor law now under discussion should increase productivity as well as reduce regulatory vexation for potential entrepreneurs.

In the short run, exporting and import-competing manufacturers can benefit from devaluation only to the extent that they raise productivity and/or have excess capacity. Thereafter further gains require investment. In March 1994 the IMF was projecting the virtual disappearance of Senegal's overall balance of payments deficit by 1996, notwithstanding maintenance of a

Table VII.7 - SENEGAL: TRADE AND BALANCE OF PAYMENTS, 1988-93

(figures in US$ million unless otherwise indicated)

Trade data according to World Bank

EXPORTS	1988	1989	1990	Percent 1988-90	1991	1992	1993
Groundnut products	115.8	149.8	160.9	17.6			
Crude oil	73.8	112.9	132.2	13.1			
Refined oil	0.3	0	0	0			
Oilcakes	41.3	33.5	27.2	4.2			
Seeds	0.3	3.4	1.5	0.2			
Phosphates	79.3	75.5	70.2	9.3			
Fish	172.9	164.9	199.8	22.1			
Fresh fish	122.5	116.0	141.0	15.6			
Canned fish	50.4	48.9	58.8	6.5			
Cotton	18.1	20.1	22.4	2.5			
Salt	9.1	6.0	8.8	1.0			
Fertilizers	4.0	5.0	6.6	0.6			
Petroleum products	46.3	37.3	25.7	4.5			
Chemical products	64.1	72.1	89.3	9.3			
Other	196.1	187.8	237.6	25.6			
Re-exports	57.1	56.4	69.8	7.5			
Total exports (fob)	762.8	774.9	891.1	100.0			
IMPORTS							
Food, beverages, tob.	310.6	329.5	364.0	27.9			
Rice	67.5	93.4	77.6	6.6			
Wheat	13.1	21.3	40.4	2.1			
Other foodstuffs	201.4	189.7	216.7	16.9			
Petroleum	133.6	130.7	158.7	11.7			
Other consumer goods	201.4	188.1	216.7	16.8			
Capital goods	167.9	159.9	187.3	14.3			
Intermediate goods	340.8	337.6	407.3	30.1			
Entrepot adjustment	-6.7	-4.7	-18.4	-0.8			
Freight & insurance*	137.7	137.0	157.9	12.0			
Total imports							
c.i.f.	1147.6	1141.1	1315.6	100.0			
f.o.b.	1009.9	1004.1	1157.7	88.0			
Trade balance							
X(fob) - M(fob)	-247.1	-229.2	-266.6				
X(fob) - M(cif)	-384.8	-366.2	-424.5				

* Included in individual line items.

Trade data according to IMF *Direction of Trade Statistics*

Exports f.o.b.	591	754	783	827	738	637
Imports c.i.f.	1080	1534	1615	1267	1293	1197
Trade balance (including insurance and freight on imports)	-488	-780	-832	-440	-554	-560

Balance of payments according to IMF *I.F.S.*

Current account						
Exports f.o.b.	679	759	912	824	832	723
Imports f.o.b.	-956	-998	-1176	-1114	-1200	
Trade balance (f.o.b.)	-277	-240	-264	-284	-368	
Services: Credit	476	471	563	560	592	
" : Debit	-529	-500	-573	-572	-607	
Income: Credit	15	27	23	23	26	
" : Debit	-223	-222	-259	-258	-228	
Unrequited transfers: Private	6	6	29	28	37	
" " : Official	271	260	265	265	280	
Current account (deficit: -)	-261	-198	-216	-238	-268	
Capital account						
Private investment	2	0	0	0	0	0
Resident official sector (net)	204	4	31	58	140	82
Other	-60	32	-43	-33	21	75
Balance before financing	-115	-163	-228	-180	-107	-148
IMF (net)	-6	6	-28	11	-44	-27
Exceptional financing	114	175	246	172	151	167
Other	7	-18	10	-2	0	8

Table VII.7 (continued)

Sources:

Trade data from World Bank [1991b. Statistical Appendix Tables 26 and 28].

IMF *DOTS* trade data are given in billions of CFA francs in IMF [1994c. 472] These figures have been divided by average annual CFA/$ exchange rates given in Table VII.8 below. Balance of payments data are given in dollars in the same source

Notes:

Substantial discrepancies between World Bank and balance of payments trade data, on the one hand, and *DOTS* data on the other, should be noted The *DOTS* data contain major gaps

Capital account - the "Resident official sector" and IMF entries are both net of loan amortization payments "Exceptional financing" refers primarily to debt rescheduling

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continuing current account deficit close to $500 million.[86] It was clearly counting on the devaluation, along with complementary incomes policy and fiscal and monetary measures, to attract a substantial inflow of private capital.

At the time of writing (November 1994), only scattered data are available on Senegal's and the other countries' response to the devaluation. Announcing a new ESAF arrangement for Senegal on August 29, the IMF referred to "encouraging signs of expansion in tourism and exports, coupled with significant capital inflows" during the first six months following devaluation [87] November *IFS* data show exports for this period 15 percent ahead of the same period in 1993, and 8 percent ahead of the first half of 1992. The same comparison for imports shows declines of 8 and 12 percent, respectively.

CPI data, available through April, peg the devaluation's immediate inflationary impact at 26 percent; as of August the Fund was not modifying a projection, announced six months earlier, putting the full-year rise at 39.1 percent, trailing off to 7.8 and 2.5 percent in 1995 and 1996 respectively.[88]

According to the November *IFS*, Senegal's net foreign asset (NFA) deficit, equivalent to -$704 million at the end of 1993 as shown in Table VII.1, nearly halved by the end of July. In FCFA terms, NFA rose from -207.5 billion francs to -99.3 billion (old FCFA equivalent). Senegal's deficit with the French Treasury had shrunk from the -$460 million equivalent shown in Table VII.1 to -$77 million equivalent.[89]

Côte d'Ivoire experienced an even more striking improvement of its foreign balance, cutting its NFA deficit from -515 billion CFA francs (December 31st) to -75 billion (old FCFA equivalent) at the end of July and virtually eliminating its French operations account deficit of $1.5 billion equivalent. WAMU as a whole switched from negative NFA of -FCFA 426 billion

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[86] IMF 1994a 71

[87] IMF 1994a· 296.

[88] IMF 1994a: 71 & 296.

[89] These figures and those in the following paragraph are computed as described in the notes to Table VII.1. Sources are country pages in IMF 1994c.

Table VII.8 - SENEGAL: GDP AND BALANCE OF PAYMENTS, 1991-1996

(all CFA franc amounts at old FCFA 50/Ffr rate)

	---estimated---			---projected---		
	1991	1992	1993	1994	1995	1996
Exchange rates	--avg. for 12 months--			--as of 12.31.93--		
FCFA/$	282.1	264.7	283.2	294.8	294.8	294.8
$/SDR	1.368	1.408	1.396	1.374	1.374	.374
Gross domestic product						
Projected real growth rate	1.2%	2.9%	-2.0%	2.4%	4.7%	4.8%
Nominal GDP:						
CFA billion	1,629	1,676	1,643	1,682	1,761	1,846
$ million	5,774	6,332	5,800	5,706	5,974	6,261
Current account deficit						
After official grants:						
CFA billion	58.0	71.0	86.3			
$ million	205.2	268.2	304.8			
Before official grants:						
Ratio to GDP	8.9%	9.3%	9.9%	9.8%	7.8%	7.3%
CFA billion	146	156	163	165	137	135
$ million	516	589	574	559	466	457
Overall BOP deficit						
SDR million	-129	-59	-156			
$ million	-176	-83	-218			

Sources:

Exchange rates IMF [1994c: 4, 470].

GDP growth rates as estimated or projected in IMF [1994a. 296] Nominal GDP - 1991 figure equal to World Bank [1993 242] dollar figure times 1991 FCA/$ exchange rate; 1992 figure calculated by multiplying 1991 figure by 1 + estimated growth rate, and so on successively for 1993-96

Current account deficit· after official grants - dollar figures in IMF [1994c. 472]; FCFA figures = dollar figures times exchange rates in first line; before official grants - percentages of GDP given in IMF [1994a 296] are applied to respective FCFA and dollar GDP series.

Overall BOP deficit SDR estimates given in IMF [1994a. 71] Dollar equivalents obtained by multiplying SDR series by $/SDR exchange rate series.

at end-1993 to a positive (old) FCFA 64 billion at end-July 1994, reversing its overdraft with the French Treasury from -$726 million equivalent to a surplus of $1.1 billion.

The IMF source gives BEAC data only through May 1994; as of that time the MUCAS states had nearly halved their negative NFA, from -231 billion FCFA to (old) -FCFA 118.2 billion, while reducing their collective French operations account deficit from the -$644 million equivalent shown in Table VII.1 to -$192 million.[90]

In the summer of 1994 IMF Africa Department director Touré publicly praised the CFA governments for "keep(ing) control over wages in the public sector at large", and observed that most governments that had been in arrears in paying civil service salaries had resumed regular payments.[91] In addition, he noted

- "a fairly quick deceleration of the inflation rate" in March-April, although some countries that were still controlling prices to the detriment of state enterprise and budget accounts would have to let them catch up;
- new arrangements for distributing pharmaceuticals, with heavier stress on generic drugs, might push some of these prices back down;
- "a rapid shift in consumption patterns toward local and regional products, with beneficial effects for price performance";[92]
- producer response to the new price incentives was leading to "rapid growth in traditional and nontraditional exports";
- "tourism has also rebounded considerably in a few countries";
- "expansion of intraregional trade and a reversal of trade flows with neighboring countries outside the franc zone"; and
- "rapid reconstitution of real cash balances, which has significantly improved the liquidity of banks".

J. Managing the devalued CFA franc

The parity of 100 FCFA having been established, the question arises: if future inflation and/or lagging productivity once more makes the CFA economies uncompetitive, should the FZ members be prepared to go through the same deflationary contortions to uphold the new rate as they did the old one? In the authors' view, if the FZ members want to follow the growth model of the newly industrializing countries in Asia, the lesson is. there are things governments can do to promote industrialization--and perhaps even more things they can do to hinder it--but one of them is *not* to defend an exchange rate against clear market signals that it is overvalued.

Instead, the authors propose a new decision-making structure in the BCEAO and BEAC that

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[90] The two monetary unions' substantially more favorable movement *vis-à-vis* their French Treasury operations accounts than their NFA positions is explained by the new IMF loans and credits on which most of the member countries had drawn by the respective dates An IMF drawing counts as a liability *vis-à-vis* a country's NFA but can be used to reduce the country's overdraft with France.

[91] IMF 1994a 269-70

[92] This is corroborated by an August feature in the *New York Times* [French, 1994].

will enable FCFA parity to be modified in response to market signals without it being a traumatic experience requiring emergency summit conferences in Paris and various CFA capitals. Obviously it is impractical to get seven (or, harder still, thirteen) member states plus France to agree to each shift in a floating exchange rate. Instead, the two central banks should establish offices of exchange rate analysis and staff them with professionals who are qualified to follow market developments and make an ongoing assessment of their respective areas' competitiveness.

Taking into account the advice of this staff, the banks' management would then decide whether and how to intervene to dampen speculative peaks and troughs. These decisions might be subject to review by a subcommittee of finance ministers (who are, of course, in turn subject to direction by their presidents). In one way or another this model is followed by nearly all the high-growth countries listed in Table VII.6.

The authors see no reason why a flexible management of the FCFA exchange rate should be inconsistent with any of the benefits of the FZ. As long as France maintains the operations account, the FCFA will remain as convertible as the French franc itself, with the same potential for short-term changes in value.[93]

If one decides to hold a quantum of assets in French francs, one has no guarantee that the assets will buy as many dollars in a month's, week's or even day's time as they will today. But one is confident of being able to convert them on any given day at a price 'not very far' below the preceding day's price, say 5 percent at most. Thus the system protects one from catastrophic loss, and it will work likewise for the FCFA once this has assumed a value that the market trusts.

In the authors' view, the continuing opposition to flexible exchange rate management on the part of the FZ authorities reflects adherence to an outmoded doctrine more than a rational evaluation of costs and benefits of alternative policies. The doctrine is inconsistent with France's management of her own exchange rate *vis-à-vis* several key trading partners, and also carries with it an implication that the ex-colonies, even with French participation in decision-making, may not be competent to operate a modern floating-rate regime such as has become well established in the Asian NICs and towards which several non-FZ African countries, including neighbors and competitors of the FZ, are making significant progress.

American officials stationed in the FZ report increasing initiatives from senior local counterparts to obtain information about modes of operating alternative exchange rate regimes. The authors believe this to be a fruitful area for technical assistance through USAID as well as other donors, including multilateral agencies not constrained by French opposition. Of greatest use, in their opinion, would be working visits by FZ officials to other low- and middle-income countries where floating pegs of one kind or another are institutionalized and the role of foreign exchange parity as a political football is steadily diminishing.

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[93] An issue of management of the operations account is the amount of foreign exchange equivalent that the French treasury requires the FZ central banks to maintain in the account in the form of CFA francs. The level is presently fixed, meaning that the amount of CFA francs varies with the French franc exchange rate, with corresponding expansionary and contractionary implications for the member countries. Relaxation of this requirement would ease monetary management for the countries, while posing a modest additional foreign exchange risk for France.

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CHAPTER VIII

EXCHANGE RATE MANAGEMENT IN UGANDA

Jeffrey D. Lewis and Stephen D. Younger

A. Introduction

For much of the last two decades, civil and political disorder in Uganda has prevented most issues of economic management, including exchange rates from receiving appropriate emphasis. The implications from an economic standpoint have been disastrous. This outcome is all the more unfortunate inasmuch as, at the time of independence, Uganda was one of the more prosperous economies in SSA, and had been identified by many observers as a likely frontrunner in the region's development.[94]

Uganda is an agrarian economy, with agriculture accounting for 51 percent of GDP in 1991 [World Bank, 1993]. A single crop, coffee, accounts for about two-thirds of export earnings. Civil conflict together with disastrous economic policies created an uncertain environment for Ugandan coffee and other agricultural producers, generating near-stagnation from the late 1960s to the mid-1980s. A second major export crop, cotton, was practically wiped out. Per capita GDP in 1991 was measured at $170, fourth lowest for 160 countries for which the World Bank's *World Development Report - 1993* gives estimates, and less than 60 percent of the estimated level in 1960.[95] Only since the mid-1980s, with the restoration of a more stable political environment, has economic policy again moved to the forefront of the political arena, and Uganda has begun to show signs of achieving its potential.

The task confronting Uganda is formidable. In agriculture, where it should have a strong comparative advantage, the structure of world supply and demand has shifted significantly, with low-cost suppliers such as Indonesia undercutting traditional coffee exporters. The challenge for policy makers is not to discover a miracle policy package that will make up for years of decline, since no such panacea exists. Instead, the objective must be to establish and maintain macroeconomic stability that in turn will allow the Ugandan economy to grow and adapt to the current economic environment. The pursuit of appropriate exchange rate policies is an indispensable part of this effort.

Uganda has made considerable progress on this front. After a false start in the early 1980s, the resurgence of economic reforms since 1988 has produced an open, competitive foreign exchange market that can serve as a model for other reforming economies. In this paper, we review these reforms and consider exchange rate policy issues still facing the authorities, including the challenge of maintaining the changes already introduced.

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[94] Most famous of these predictions is that of Winston Churchill, who called Uganda the "pearl of Africa", and predicted it would experience prosperity that would be the envy of other nations in the region

[95] World Bank, *Accelerated Development in Sub-Saharan Africa*, 1981, p. 143, gives GNP per capita in 1979 dollars, along with average annual growth rate during 1960-79. We have traced the growth path backwards to a per capita GNP of $301 in 1960 (also 1979 dollars).

B. Historical Background

Economic performance

The tragedy of Uganda is compounded by the fact that the country started out with so much potential. At independence in 1962, Uganda was in the upper half of African economies, and in the first years after independence, exhibited signs of living up to its potential.[96] Uganda's industrial sector was at roughly the median level for African countries and exported a few manufactures (particularly textiles).[97]

But this bubble of prosperity burst during the 1970s under the regime of Idi Amin. The political repression and social chaos that characterized this period wreaked havoc on the economy. Per capita GDP declined by 40 percent during the 1970s, exports and imports fell by more than half, and government spending moved away from human and physical infrastructure towards increased military outlays.

In 1981 the Amin regime was ousted and Milton Obote reassumed power. While his government adopted a recovery program and made some progress towards stabilizing the economy, the political and human rights environment remained unsettled. By 1983 the short-term gains from the recovery program had played themselves out, civil war loomed, and economic mismanagement returned. Government spending priorities remained skewed towards defense and security, so that by 1985 real government spending on education and health was only 27 and 9 percent, respectively, of 1970s levels [World Bank, 1993].

In July 1985 Obote was ousted, but civil war continued, further lowering coffee exports and industrial output. The National Resistance Army (NRA) formed a government that was compelled to focus its initial efforts on consolidating its military position and restoring civil order. Early efforts at economic management were ill-advised and counter-productive. These included revaluing an already overvalued currency, increasing real government salaries, price controls, and establishing government monopolies for key commodities.

As a result, the already severe macroeconomic disequilibria worsened further. However, the government recovered from its false start, and in 1987 adopted a comprehensive Economic Recovery Program (ERP), renewing it in 1990. The ERP, developed under the scrutiny of the IMF and World Bank, featured the standard elements of stabilization and structural adjustment programs in Africa and elsewhere, pointing towards greater reliance on market forces via structural and financial reforms, exchange rate and trade liberalization, and dismantling of marketing boards and agricultural price controls.

The effect of these measures has been positive During the ERP's first three years, GDP growth averaged around 6-7 percent, in part reflecting a "peace dividend" from restoration of domestic security and resumption of normal economic activity after nearly two decades of turmoil. Growth tapered off in 1991-92 as the government struggled to control inflation, but resumed in 1993. GDP rose by 7 percent in fiscal 1992/93 while inflation was a negative 0.6 percent (year-end basis). With active support from the donor community, the NRA government

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[96] The exercise described in footnote 4 gives Uganda rank No. 16 among 37 African economies in 1960.

[97] World Bank [1981], p. 145, has Ugandan industry accounting for 13 percent of GDP, halfway down the list of 30 SSA countries for which data are available.

has continued to move forward with the ERP. Much of the difficult task of economic stabilization has been accomplished: inflation is under control, foreign exchange is allocated through a competitive interbank market, trade flows (both exports and imports) have been liberalized, and the budget deficit (after grants) was only 3.4 percent of GDP in 1992/93.

Notwithstanding these successes it must be recognized that Uganda still faces major problems Restoration of macroeconomic stability neither guarantees sustained growth nor recovers the ground lost in two decades of decline. Uganda now faces the challenge of rebuilding its economy in an international context where the world price of its key export crop has fallen to historic lows, and where the task of entering world markets in non-agricultural sectors is complicated by the emergence of new competitors in Asia and Latin America.

C. Exchange Rate Management

Exchange rate policy up to 1981

Uganda maintained a fixed official exchange rate (OER) until 1981. The rate was adjusted only once during 1950-1971, while the 1970s saw two adjustments amounting to a 12 percent nominal depreciation, notwithstanding inflation of over 100 percent per year by 1980. The resulting massive overvaluation encouraged a large parallel foreign exchange market [Martey, 1987]. In 1980, the parallel market rate was over 30 times the OER.

This disequilibrium both reflected and contributed to the miserable economic performance of the Amin years. In the agricultural export sector, although the world prices of both coffee and cotton more than tripled during the 1970s, their share of Uganda's export earnings declined to less than one-third. Export volume of coffee dropped 43 percent and that of cotton fell from 78,000 to 2,300 tons [Martey, 1987].

Import-substituting industry also suffered, facing not only an overvalued exchange rate but also a distorted tax structure such that, by 1980, sales taxes on domestically produced goods were, in many cases, higher than the total tax burden on comparable imports. Also, official policy urged many skilled residents and business people (especially Asians) to leave the country. As a result, real value added in manufacturing fell almost 60 percent and its share in GDP fell from 8.6 to 4.3 percent. [Martey, 1987].

Figure VIII.1 shows the extreme level of export taxation facing Ugandan coffee producers during the 1980s. The top line shows the f.o.b. dollar price of Ugandan robusta, multiplied by the parallel exchange rate, a rough indicator of a competitive f.o.b. market price in shillings. The second line gives the dollar price multiplied by the official exchange rate, while the lower line represents the official producer price.

The difference between the two lower lines corresponds to domestic taxation and the Coffee Marketing Board (CMB)'s operating costs. The distance between the two top lines measures implicit taxation of exports associated with the overvalued exchange rate.
Throughout the 1980s producers received only around 17 percent on average of the border price (valued at the parallel exchange rate]. While part of the discrepancy is due to explicit taxes and the CMB's inefficient operation, in several years that amount is dwarfed by the implicit tax from overvaluation. Such radical differences in prices presented strong incentives for smuggling, and in some circumstances withdrawal from production.

With the grossly overvalued OER, even tight foreign exchange controls could not prevent a

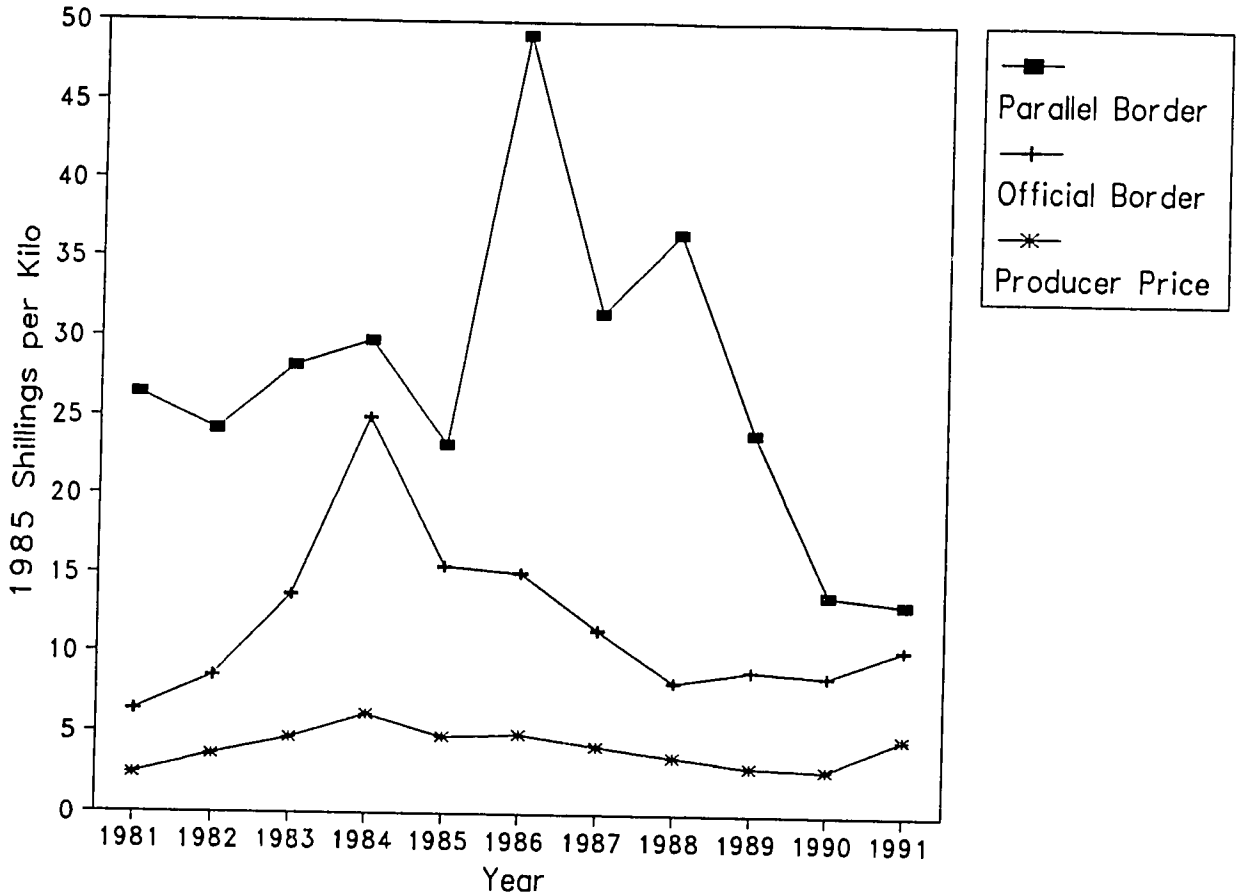


Figure VIII.1 - COFFEE PRICES IN UGANDA, 1981-1992

hemorrhage of foreign reserves, which fell to only two weeks of imports at the end of the decade. BoP deficits were also financed partly by accumulating external arrears, which exceeded $158 million, or 40 percent of the value of exports, by the end of 1980 [Martey, 1987].

Exchange rate policy from 1981 to 1984

The return of the Obote regime in mid-1981 brought a dramatic shift in exchange rate policy and macroeconomic management as a whole. Liberalization measures included movement towards a more market-determined exchange rate and elimination of many exchange controls. The new policy began with a discrete devaluation, followed by a crawl culminating in the introduction of an auction system.

In June 1981 the new administration devalued the shilling's official value by 90 percent to Sh 78/$, letting it crawl further to Sh 100/$ by July 1982. During the 12-month period, while the parallel market premium declined from 3000 percent to 360 percent, the shilling remained grossly over-valued. The authorities feared the political consequences of further devaluation to an equilibrium rate at a level they could not predict.

To address both of these concerns, Uganda adopted a temporary dual rate system,

maintaining an overvalued official exchange rate (Window I) for "priority" imports while organizing a foreign exchange auction (Window II) to determine competitively a second, floating rate. Once this second market had stabilized at an apparent equilibrium, the authorities intended to steadily devalue the official rate until the two converged

The central bank acquired foreign exchange from export of crops with official producer support prices (initially coffee, cotton, tea, and tobacco; later only coffee and cotton), from official grants, and from official borrowing. The Window I rate was determined daily. based on the preceding day's rate plus an increment intended eventually to unify the two rates. This rate was basically pegged to the dollar, and was applied to petroleum and other "essential" imports as well as debt repayments.

Bidders in the Window II auction were the commercial banks, acting as agents for importers. Foreign exchange surplus to Window I needs were released to the auction, where a minimum amount of dollars to be supplied was announced each weekend. The system was that of a "second price" auction,[98] whereby bidders submitted bids between Monday and Thursday. On Friday, foreign exchange would be distributed, starting with the highest bidder and working downward, until a bid or set of equivalent bids was reached for which not enough foreign exchange was available. This *marginal bid* would become the auction exchange rate, and all other successful (higher) bidders would be allocated foreign exchange at the marginal bid rather than their individual bids.

In June 1984 Window I transactions were transferred to Window II and a unified rate of Sh 320/$ was established, from which point all transactions took place through the auction system. Initially the Window I rate was roughly one-third that of Window II. When the rates were unified, Window I had to rise only 8.8 percent to equal Window II, which was still only 60 percent of the parallel market rate. The exchange rate determined at auction was a function of the previous week's rate and the current week's demand for foreign exchange, with last week's rate playing the major role The import-weighted average of Window I and II rates, i.e. the real effective exchange rate, depreciated by 42.6 percent from August 1982 to May 1984. [Martey, 1987].

Monthly bids ranged from $2.7 to $21.4 million, averaging $13 million, while the number of bidders averaged 1,000 per month. More than 80 percent of bidders were successful at one time or another during the dual rate regime, but only two-thirds of the total value of bids was satisfied. In the first year, merchandise imports accounted for 73 percent of demand, while another 18 percent represented "miscellaneous" requests, mainly from Uganda's foreign embassies. Government transactions such as imports of goods and services and loan repayments were not generally sensitive to the price of foreign exchange, but demand within the auction was clearly responsive to the exchange rate. The auction thus represented a close approximation to consumer preferences, and transactions began to shift from the parallel market into the official system, sharply depressing the parallel market premium. As the system functioned more smoothly, residents became more confident and greater amounts of foreign exchange were surrendered to the central bank.

The shift to a more competitive exchange rate regime brought several improvements in the

[98]See McAfee and McMillan [1987] for descriptions of second price auctions.

economy. The government passed on the higher exchange rate (more Sh/$) to the farmers by increasing producer prices, which rose between 15 and 52 times up to 1984. Coffee, accounting for over 95 percent of export earnings in 1981-82, rose in price by an average of 65 percent per year. This increased output and reduced smuggling, raising recorded exports.

The devaluation's impact was bolstered by a 48 percent gain in the terms of trade, largely due to higher world coffee prices. The combined effect was a 66 percent rise in the dollar value of Uganda's exports.[99] In addition, the liberalization policies including the exchange rate reform attracted increased grants from bilateral donors, IMF and World Bank loans and credits, and debt relief in the amount of $242 million during 1981/82-1982/83 The bottom line was a shift in the balance of payments from a deficit of $132 million to a surplus of $44 million. Gross official reserves grew slightly and external arrears fell from $204 million to $58 million. Domestic absorption expanded with a rise in imports.

On the fiscal side, higher receipts from trade taxes improved the revenue picture, while some expenditure restraint took place in response to higher domestic prices following devaluation. The deficit declined from 75 percent of expenditure (on a commitment basis) to 15 percent. Monetary restraint ensured that the devaluation took effect in real terms--domestic credit increased only 18 percent during 1981/82-1983/84 (as opposed to 60 percent in 1980/81 alone), annual inflation dropping from 80 percent to 20 percent. The net result was 7 percent average annual growth of GDP, up from two percent during the 1970s.

Mid-1984 to 1987: civil conflict and economic retrogression

Notwithstanding the nascent economic recovery of the early 1980s, civil strife continued and intensified in Uganda. As the Obote regime came under increasing pressure, it lost control of the budget, undermining some of its earlier successes. By 1985, the NRA was poised to overthrow Obote, which it managed to do in early 1986.

The NRA immediately dismantled most of the economic reforms, reversing many of the gains achieved up to mid-1984. The period 1984/85-1987/88 saw a 170 percent average annual increase in the CPI [IMF, 1994] as increased military spending was financed by monetary and fiscal expansion. The OER failed to keep pace with inflation, and the real effective value of the shilling doubled (i.e the sh/$ REER fell by 50 percent). Parallel market activity increased, the premium rising from 13 percent in early 1984 to roughly 480 percent by late 1986 [Toh, 1991].

The high inflation overtook official producer prices, depressing real producer prices for coffee and cotton by around 35 percent. Despite continued high world prices for Ugandan exports, low producer prices and the unfavorable exchange rate once again drove down output of exportables. The balance of payments deteriorated and real GDP fell sharply. In the foreign exchange auction, monetary expansion pushed up the rate, and the authorities chose to abandon the auction system rather than accept its sobering judgment about the value of the shilling. In 1986 Uganda returned to a control regime with a fixed (and grossly overvalued) exchange rate.

The Economic Recovery Program

The NRA's return to statist economic policies yielded predictably poor economic results. Recognizing this, and hoping to restore the flow of donor support, the government changed course and in 1987 undertook a major policy shift under the Economic Recovery Program

[99] Unless otherwise indicated, changes cited in these two paragraphs took place over the three-(fiscal)-year period 1980/81-1983/84.

(ERP). The ERP's objectives were to restore internal and external balance, lower the inflation rate, eralize the reign trade and excha e regimes, improve public sector resource use and resto conomic g wth [World Bank, 1 8]. Initial results were favorable, largely due to resumption of economic activity as the civ war subsided.

The target GDP growth rate in the ERP's first year (1987/88) was five percent, while inflation was targeted at 90 percent Liberalization measures included a 77 percent devaluation of the shilling A currency reform created a new shilling at 1:100, and imposed a 30 percent conversion tax on all outstanding currency and bank deposits.

In the export sector, domestic price distortions lessened as producer prices for traditional exports, including coffee, cotton, tea, and tobacco, were raised, that for coffee going up 182 percent. Noncoffee exporters were allowed to retain and trade foreign exchange earnings at market rates in foreign exchange bureaus which, though not legalized, were allowed to trade openly, thus formalizing the parallel foreign exchange market. The government did however try to channel foreign exchange to "priority" sectors under a misnamed "open general licensing" system

On the fiscal front, petroleum prices were adjusted to reflect shilling depreciation and provide additional revenue Notwithstanding a stated policy of fiscal austerity, civil service wages were raised to compensate for a modicum of past inflation, and development expenditures were increased fourfold. Higher revenues were achieved through improved coffee sales, higher taxes and improved collection. A sharp decline in public sector borrowing allowed for increased credit to the private sector and higher net foreign assets.

In the ERP's first year GDP grew by 6.7 percent. Much of this was due to postwar recovery by agriculture, but industrial output rose 15 percent and investment rose from 8 percent of GDP to 12 percent, due mostly to increased public capital spending. Inflation of 188 percent, while lower than the previous fiscal year, was more than double the target. As a result, the shilling appreciated by 280 percent in real terms despite the 1987 devaluation.

Failure to control inflation was due both to exogenous factors--notably difficulties in marketing coffee under international quotas, a shortfall in aid receipts, and high debt service obligations--and to declining fiscal discipline. Defense outlays rose, partly on account of the Kenya border conflict, as did expenditure on refugees, civil service compensation, and a campaign to beautify Kampala for a Preferential Trade Area conference. Revenue was hurt by a 21 percent decline in export earnings, although noncoffee revenue rose because of inflation and improved tax administration. The net outcome was a balance of payments deficit of $93 million, $40 million of which was covered by arrears.

In the second year (1988/89), the government modified its policies to allow for longer adjustment periods on account of Uganda's structural constraints, especially lack of infrastructure and large liquidity overhang. Monetary policy became more active and devaluations of the OER more frequent. An initial realignment devalued the shilling by 60 percent to Sh 150/$. Producer prices for many crops were increased. Net bank credit to government was reduced by Sh 5 billion, while allowing for an expansion of credit to the private sector.

The devaluations lowered the parallel market premium, as shown by the two bottom rows in Table VIII 1 and the two steep declines in the left portion of Figure VIII.2, but inflation persisted, the shilling remained highly overvalued and foreign exchange was rationed to importers. However non-coffee exporters were partially protected by a retention scheme that

Table VIII.1 - UGANDA: EXCHANGE RATES, 1987-1993

	1987 Jan	1987 Dec	1988	1989	1990	1991	1992	1993
Nominal exchange rates								
Official (OER), December	14	60	164	370	531	915	1214	1148
" , year-average		45	106	223	430	734	1134	1195
Parallel market (PMER), December	117	258	447	751	769	1184	1249	1183
" " , year-average		159	414	573	698	936	1237	1217
Auction, December							1036	1112*
" , year-average							1018	1052*
Real effective exchange rates (May 1987 = 100 except for auction rate)								
Official, December	34	66	80	106	141	178	165	140
" , year-average		73	63	74	118	155	168	157
Parallel market, December	191	189	146	751	136	154	113	96
" " , year-average		181	175	573	127	132	123	106
Auction, December (Feb '92 = 100)							83	82*
" , year-average (")							88	82*
Premium, nominal PMER over OER or auction rate (%)**								
December	736	330	173	103	45	29	21	6*
Annual averages		424	364	163	64	29	22	16*

Source:

Taken or computed from table of monthly average exchange rates prepared by Central Bank of Uganda (processed).

Notes:

* The auction was suspended in November 1993, hence year-end figures for 1993 correspond to October and annual averages are for January-October.

** The premium [(PMER/OER - 1)*100] is calculated with reference to the official exchange rate up to February 1992; from reintroduction of the auction it is calculated with reference to the auction exchange rate.

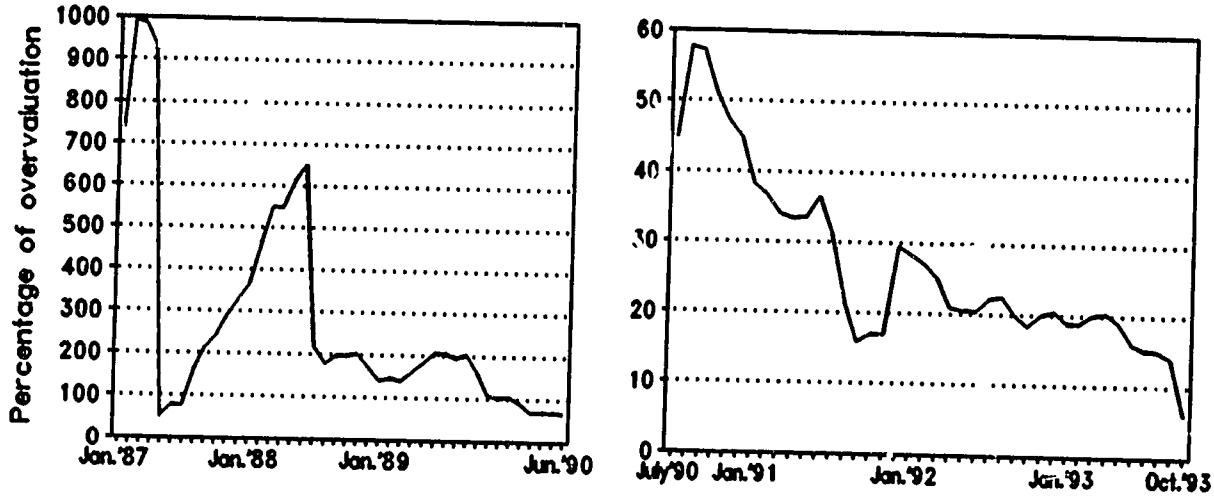
allowed them to import goods for their own use, effectively rewarding part of their export proceeds at the scarcity value of foreign exchange rather than the official rate.

Probably a more significant reform than the devaluations was the tacit acceptance of the parallel market through the "no forex" import scheme that allowed traders with their own funds, purchased in the parallel market, to obtain licenses for about $100 million worth of imports annually in 1987/88 and 1988/89. In those years, export proceeds remitted to the central bank met only two-thirds of the demand for nonproject and nonpetroleum imports, the balance coming from official donors and the parallel market.

Redoubled reform efforts: 1990 to the present

While recognizing that the OER was too low and that a devaluation would benefit the balance of payments and overall economic efficiency, the authorities resisted due to fear of inflation. However, the collapse of international coffee prices in 1989 tipped the balance in favor of

Figure VIII.2 - UGANDA: PERCENTAGE SPREAD BETWEEN PARALLEL MARKET AND OFFICIAL OR AUCTION EXCHANGE RATES, 1987-1993



Note Data through January 1992 represent parallel market exchange rate (PMER) divided by official exchange rate (OER), less unity, times 100. From February 1992, when official foreign exchange auction was reintroduced, OER is replaced in denominator by auction rate (AR)

reforms to shore up the balance of payments. In July 1990 new measures were introduced to liberalize the trade and foreign exchange regime, while protecting the government's access to cheap imports.

Under these reforms foreign exchange bureaus were legalized, thereby granting official santion to the formerly tolerated parallel market. By mid-1991 there were 37 independent bureaus and 11 run by banks. The bureaus traded roughly $100 million annually, between one quarter and one third of total imports. Given the ubiquity of the parallel market and the "no forex" scheme, the incremental effect of this reform on incentives for importers and exporters was unimportant. But the move did signal the authorities' recognition of market-determined exchange rates.

In fact, the bureau rate's most important role was to serve as a target for the OER, as the authorities agreed that the gap between the two rates should be closed, albeit gradually. Convergence of the two markets became an important goal for exchange rate management in this phase of the reforms, as it had been during the 1981-84 liberalization.

Beginning in October 1989, the authorities raised the OER aggressively, re-establishing within two months the real rate in effect at the time of the currency reform (May, 1987) and achieving a further 80 percent real depreciation of the shilling over the following two years. Concurrently, the parallel spread, exceeding 200 percent in mid-1989, gradually closed to around 30 percent in mid-1991 (see bottom rows of Table VIII.1 and both sections of Figure VIII.2). Despite the concern that more rapid devaluation would accelerate inflation, CPI growth fell from 262 percent in 1988 to 71 percent and 26 percent in 1989 and 1990, respectively. As Kasakende and Malek [1994] argue, because foreign exchange continued to be rationed in the official market, the OER remained an inframarginal price during this period, with little impact on domestic prices.

By late 1991, however, the situation in the foreign exchange markets appears to have

changed, though neither the government nor its donors recognized this at the time. Throughout this period, the authorities took the continued existence of a parallel premium as evidence that the official exchange rate remained overvalued. While this is true in a trivial sense, Kasakende and Malek [1994] show that further nominal devaluation could not close the remaining gap of about 20 percent

Instead, that premium reflected *structural* differences between the two markets, i.e. it was an equilibrium spread. In particular, the "rules of the game" in the two markets differed such that foreign exchange bought in the bureau market was more valuable, for several reasons. First, the official market allowed only imports of non-luxury merchandise, while importers with bureau funds could legally import a wider range of goods, including luxuries and a number of services Moreover, with less stringent reporting requirements in the bureau market, it was easier to break the rules and use bureau funds for prohibited transactions (such as capital export).

Second, imports in the official market had to comply with a variety of documentation requirements (e.g. SGS inspection and payment via letter of credit). At the prevailing high interest rates, financing these payments prior to receiving the goods was costly. Finally, because of less stringent requirements for bureau imports, it was easier to evade import duties by using foreign exchange from that market.

In sum, foreign exchange purchased from a bureau was a more flexible commodity with fewer non-price costs than foreign exchange purchased in the official market. The higher equilibrium price for bureau foreign exchange reflected a legitimate "premium" associated with these desirable features. Hence the authorities could not eliminate the bureau premium simply by raising the OER. Instead, in order to unify the official and parallel exchange rates, they had to eliminate the regulatory differences between the markets, i.e. change the rules of the game.

Kasakende and Malek [1994] provide econometric support for this argument, but there is another, more obvious clue that the official rate was not overvalued. Beginning in late 1991 and continuing throughout 1992, Uganda had available a growing pool of foreign exchange offered by donors for import support By mutual agreement these funds could be used only for non-luxury, merchandise imports subject to the same documentation requirements as the official market In fact, the government's rules for the official market reflected the donors' interest in supporting "essential" imports as much as it did the government's own interest in this regard.

Increasingly, however, these resources were going unused. There was, in essence, an excess supply of foreign exchange for the official market; clear evidence that the OER was not overvalued given the existing rules. Unfortunately, not recognizing this fact, the authorities continued to devalue the shilling. Ironically, after having little impact on prices during the long period of (often substantial) devaluations, these smaller devaluations probably contributed to the higher inflation rate for 1991 and the first half of 1992, because the OER had been at the market clearing level and each further depreciation pushed the bureau rate upwards.

The return of the auction

The beginning of 1992 saw frustration within both the government and the donor community over (i) the market's apparent refusal to unify the exchange rate at an equilibrium level, and (ii) the shortfall in utilization of donor assistance in the official market. Recalling the success of the previous auction system, the government decided once again to channel its supply of foreign exchange through such an arrangement. The hope was that the auction rate would quickly

converge on an equilibrium exchange rate (which everyone expected to be higher than the current OER) and, at the same time, do a better job of distributing fast-disbursing donor support

Actual events, however, did not fulfill these expectations. In the first weekly auctions, most bids came in very close to, in some cases even below, the previous OER, and the shilling would have had to *appreciate* significantly to allow sale of the programmed amount of foreign exchange. Rather than allow this to occur, the authorities exercised their right to establish a reservation price below which bids would not be accepted. Importers quickly caught on that this price was based on the preceding week's clearing rate, plus a slight premium, and either bid accordingly (if they were willing to pay that much for foreign exchange) or withdrew altogether.

As a result, weekly sales averaged about $2 million rather than the $3.5 million that had been expected. Moreover the auction rate rose very slowly, by only 5 percent in the first 12 months and 6¼ percent in the first 19 months through September 1993, although October 1993 saw a 5.6 percent jump in apparent anticipation of the unified interbank market. As shown in Table VIII.1 and Figure VIII.3, in real terms the auction rate declined by close to 20 percent over this period, dropping 16 percent in the first three months alone. The table and graph also shows that the auction rate did not close the gap *vis-à-vis* the bureau rate Notwithstanding efforts to tinker with the administrative rules for the auction, this state of affairs persisted through 1992.

By early 1993, the authorities realized they had misinterpreted the state of the official foreign exchange market and recognized that successful unification presupposed addressing the regulatory distinctions between the two markets. As of October, 1993, all imports, whether financed through a bureau or the auction, became subject to the same documentation--for imports worth more than $2500 this included an SGS inspection prior to shipment and local reporting requirements for statistical and tax collection purposes. Interestingly, the spread between the two market rates shrank dramatically in that month, from 14.1 to 5.9 percent (see Figure VIII.2), as it had in March 1992 when the Revenue Authority improved its customs enforcement. In November the two exchange markets were unified in a new interbank market.

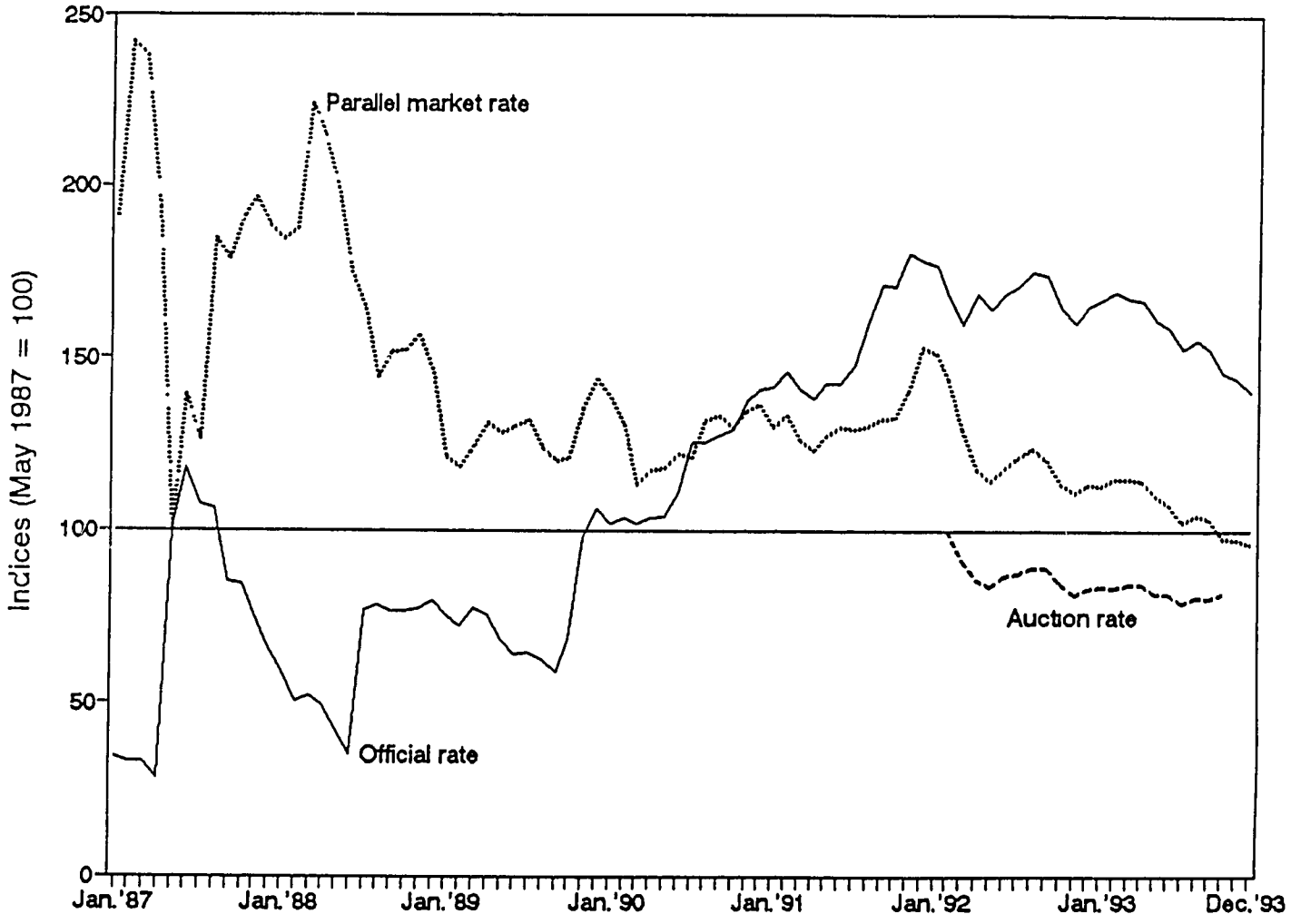
D. Issues in Exchange Rate Management

On the surface, it appears that Uganda, like Ghana and Zambia, is approaching successful completion of its effort to liberalize the foreign exchange market, at least for current account transactions. As a result, one would expect Uganda to be facing similar policy issues--notably whether, when and how to liberalize capital transactions, and how to smooth fluctuations in the exchange rate, reflecting vagaries of speculation rather than underlying economic conditions, that threaten to undercut investment and production by compounding the uncertainties facing investors and producers. Closer inspection reveals, however, that Uganda faces knotty structural problems that differ from those of Ghana and Zambia. This section focuses on the set of problems peculiar to Uganda.

Donor support, counterpart funds, and the budget deficit

From 1989 to 1992 the government aggressively devalued the shilling in order to raise the real effective (official) exchange rate--the annual average for the later year is 2.3 times that for 1989, and Figure VIII.3 shows the 1992 maximum to be almost triple the 1989 minimum. As a result, the structure of incentives changed radically. Coffee farmers were insulated from the

Figure VIII.3 - UGANDA: REAL EFFECTIVE EXCHANGE RATES, 1987-1993
(Sh/$, deflated by Ugandan CPI/trade-weighted index of foreign prices)



dramatic decline in world prices and import-competing firms received considerable price protection at a time when quantitative import restrictions were being lifted. Moreover non-traditional exports begin to show signs of life, despite extremely tight credit conditions in recent years. During 1991-92 average non-traditional exports were more than double the 1987-1989 average, notwithstanding poor weather in 1992.

On the other hand, for reasons that have more to do with fiscal problems than foreign exchange policy, the authorities have allowed the real exchange rate to *appreciate* considerably since late 1992 Table VIII.1 shows the parallel market REER declining from 154 in December 1991 to 96 in December 1993, and the official REER from 178 to 140. This development has unavoidably dampened exporters' incentives.

Despite substantial improvements in fiscal management, including increased tax collections and reduced spending, most notably on the military, Uganda continues to run a fiscal deficit of around 4 percent of GDP after taking account of foreign grants. In recent years, donors have been more than willing to finance the deficit through counterpart funds. That is, the donors provide foreign exchange in the form of grants or program (non-project-related) loans. The central bank then sells the foreign exchange to importers, either through the auction or, currently, through commercial banks in the interbank market. The shilling proceeds of these sales, the counterpart funds, are then passed on to the treasury for general budget support.

This mechanism is applied in many in African countries. In circumstances where the exchange rate is overvalued (and foreign exchange consequently rationed), it presents no problems. In Uganda, however, the shilling had depreciated to the point--i.e. foreign exchange had become so expensive--that demand for the donors' foreign exchange was less than the amount offered. While this made sense in terms of balance of payments policy--Uganda, after all, desperately needs a long-term export promotion strategy--it presents serious problems on the fiscal side. A shortfall of foreign exchange sales limits the counterpart funds available to the government, forcing it to confine public expenditure to unacceptably low levels.[100] The government lived with this restriction up to 1993, but then began to allow the exchange rate to appreciate in order to increase the flow of donor import support and thus counterpart funding for the budget.

By implication, then, the government is treating improvement of the fiscal situation as Uganda's most pressing macroeconomic management issue, and letting fiscal concerns dictate exchange rate management. While improving the fiscal situation is unquestionably an important medium-term goal, use of exchange rate policy to achieve it is misguided. The authorities need to think carefully about the disincentives for export and import-competing producers embodied in such a policy and its implications for medium- and long-term development strategy.

The need to continue rehabilitating Uganda's public services cannot be doubted, and expenditure is still modest in comparison with needs. Probably the greatest scope for controlling the budget deficit is to be found in a sustained attack on tax evasion. The government is aware of this, and is actively seeking to improve tax collection. Because this depends to a considerable extent on recovery of the formal sector of the economy, where income and sales taxes are

[100] Financing the deficit through money creation is inflationary and violates credit ceilings agreed with the IMF. In addition, the money supply bears such a small ratio to GDP (about 9%) that little revenue is available from seignorage.

levied, it cannot be accomplished overnight.

Options to increase demand for foreign exchange

We have seen that, in the short run, the government faces a dilemma: either it accepts exchange rate appreciation to obtain counterpart funds for sorely needed public expenditure, or it forgoes expenditure in the name of export promotion. To resolve this problem the authorities need to identify means of increasing the demand for foreign exchange other than by making it cheaper, i.e. they must shift the demand curve outward so that more foreign exchange is demanded at any given exchange rate.

Foreign reserve accumulation

The simplest way to shift demand is for the government, via the central bank, to accumulate foreign exchange reserves. That is the normal practice in an economy where the authorities are attempting to forestall appreciation of the domestic currency. In Uganda, however, the use of nonproject donor funds is limited to buying merchandise imports and associated services. The funds cannot be used to accumulate reserves. Little "free" foreign exchange is available for such purposes. (See the discussion of debt service below.)[101]

Further current account liberalization

A second way to increase the demand for foreign exchange is to further liberalize imports of goods and services. The government has made progress in this direction, but maintains a list of prohibited "luxury" goods, a restriction that donors also apply to use of their balance of payments support [102] Moreover most invisible payments not tied to a merchandise import remain banned or subject to a dollar ceiling. Relaxing these restrictions would improve the efficiency of resource allocation by moving domestic prices closer to opportunity costs (border prices). Many Ugandans believe that continued liberalization would be more effective than lowering the exchange rate in raising import demand. Why then are these restrictions maintained?

One reason is that donors themselves, lacking confidence in the market's ability to allocate resources efficiently, feel compelled to direct aid resources toward "priority" uses.[103] This is inconsistent with the same donors' insistence that African governments rely more extensively on market forces. Indeed, much of the increased aid to reforming economies such as Uganda's can be seen as a reward for liberalization.

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[101] It is worth noting that reserve accumulation by the central bank risks decreasing the real exchange rate through domestic inflation Any purchase of foreign exchange increases the shilling money base unless the shilling proceeds are sterilized There are very few instruments available to do this in Uganda. See Chapter VI on Ghana in this volume and also Younger [1992a] for a discussion of this problem.

[102] Since many government officials are sympathetic to these restrictions, it is not clear whether imports would rise if the donors stopped insisting on them. It is also not clear how limiting the restrictions are in practice--for example, a Mercedes-Benz is apparently not considered a luxury good.

[103] An example of this logic is the often-heard argument that Uganda is borrowing this foreign exchange, so it must ensure its ability to repay it when the loans come due Even if we ignore the fact that the funds Uganda is receiving are either grants or loans with a large grant element, this argument expresses no confidence in the markets' ability to recognize the future demand for foreign exchange and invest in such a way as to exploit it once it arrives.

On the other hand Uganda, like most SSA countries, faces pressures that are often used to justify resort to foreign exchange controls. Important among these are the political and other risks, discussed in Section IV.B above, that encourage wealthier residents to diversify their portfolios by moving their assets overseas, despite higher real interest rates at home In the opinion of the authors of this chapter, such measures are usually counterproductive; indeed it is not at all clear that removal of existing exchange controls would affect the capital account negatively. Kasakende and Malek [1994] estimate that about $200 million per year is flowing into Uganda from private sources as confidence in the reform grows By diminishing the risk of inconvertibility, removal of controls might increase this flow.

Section IV.B also points to the ease of evading controls on capital export. Service payments are particularly difficult to value objectively, and thus subject to over-invoicing. Hence control of capital export necessarily involves control of service payments.

The ban on import of "luxury" goods cannot be defended on the same grounds. Market prices can be identified as easily for luxuries as for other goods, often more easily than for capital equipment. Rather than seeking to deny well-off residents the pleasure of consuming goods that the popular majority cannot afford, one generates much more social welfare by levying appropriate excise taxes.

Allocating nonproject aid to debt reduction or service payments

A third option for increasing demand for foreign exchange is to allocate nonproject aid to debt reduction or service payments, above and beyond the rescheduling operations already underway. In 1992/93 Uganda's debt service ratio (service payments on foreign public debt divided by exports) before rescheduling was 0.83, down from 1.28 the preceding year. External arrears in mid-1993 totalled $286 million, down from $609 million a year earlier. Debt service due in 1993/94 is estimated at $160 million, compared with coffee exports of $104 million in 1992/93. During the next four years it is projected to stay in the $120-130 million range.

Cleaning up Uganda's foreign debt is a prerequisite to long-run development. As long as the country maintains arrears, full participation in international trade is not possible, and Ugandan firms and individuals will suffer from higher costs and discriminatory treatment.

Any portion of the pipeline of nonproject aid allocated to nonrescheduled debt service would release government revenues otherwise allocated to that use. This would enable the government to increase expenditure and/or reduce its domestic borrowing, thereby releasing credit to the private sector and/or enabling the banking system to increase foreign reserves. In any case downward pressure on the real exchange rate is avoided To the extent the aid is allocated to debt reduction or debt payments that would otherwise have to be rescheduled, downward pressure on the exchange rate is once again avoided and Uganda's creditworthiness is enhanced, hastening the country's return to normal commercial relations.

This option is unlikely to meet with opposition from the Ugandan authorities, but it would require a significant change in donor regulations governing balance of payments support.

E. Conclusions

After a false start in the early 1980s, in 1987 Uganda initiated a radical reform program to liberalize the foreign exchange market. That program has succeeded in creating the environment for market determination of the exchange rate. While a few import restrictions remain, the

trading system is now one of the most open in Africa.

Still, Uganda continues to face serious problems of foreign exchange management. Because for many years coffee was virtually the only export, the dramatic decline in its world price had an equally dramatic effect on Uganda's foreign exchange revenues. While donors have provided balance of payments support to make up much of the lost income, those funds are not as valuable as coffee proceeds because they must be used for (non-luxury) merchandise imports to the exclusion of debt service and/or reserve accumulation

This has left the government in the odd position of having a large pipeline of donor foreign exchange while lacking revenue to meet its debt service obligations. Further debt reduction is needed if Uganda is to regularize its international transactions and acquire foreign reserves to use as an instrument of exchange rate policy.

Equally obvious is the need for expansion and diversification of exports. Here it is *fiscal* policy that poses a problem for the foreign exchange regime. The need to augment domestic revenues with counterpart funds from sale of nonproject aid has driven the government to accept a significant reduction of the real exchange rate, counteracting its efforts to promote exports and import-substitutes. In essence, there is a complex tradeoff between two goals, achieving a sustainable balance of payments and rehabilitating infrastructure and public services. The problem is one that foreign exchange management alone cannot solve. Rather, it calls for a substantially increased tax effort, particularly in the area of broad-based consumption or income taxes. But that can only take place over several years.

In sum, despite substantial progress in reforming economic policy during the ERP, the years of political and economic turmoil that preceded it left Uganda with enormous structural problems, including a narrow export base and an annual foreign debt service liability roughly equal to exports of goods and services. The government is tackling these problems with commendable vigor, but adequate solutions can only be expected over a long-term horizon. In the meantime, Uganda must make difficult choices as it addresses a variety of desirable goals with a limited set of policy tools.

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Table VIII.2 - UGANDA: LONG-TERM MACROECONOMIC INDICATORS

	GDP Growth	Real Official Exchange Rate	Parallel Exchange Rate Premium	Real Exports (1985 $)	Consumer Price Inflation	Government Expenditure /GDP	Government Surplus /GDP
1971	9 7	6.6		660		19.7	-7.3
1972	9.8	6.9		684		21.4	-7.9
1973	-9.0	6.1		631		16.2	-6.6
1974	3.2	6.2		567		16.9	-9.5
1975	-6.4	4.7	619	419		14.8	-5.5
1976	5 8	4.9	778	546		14.3	-5.0
1977	2.0	2.9	528	871		9.7	-2.6
1978	-4.7	2.0	916	476		9.3	-0.2
1979	-12.0	1.3	810	521		6.1	-3.5
1980	-3.7	1.1	921	367		5.7	-2.9
1981	4.5	6.9	316	241	108 1	4 8	-3.8
1982	5.8	6.3	183	358	49.7	10.5	-3.7
1983	7 9	10.2	106	375	23.9	11.1	-2.2
1984	-5.5	13.8	19	405	42.8	12.4	-2.4
1985	0.7	14.0	50	348	132.3	13.2	-2.6
1986	1.1	5.8	227	407	168.7	12.6	-2.8
1987	6.5	7.6	174	335	238.1	12.5	-2.7
1988	7 7	8.2	344	257	183.6	11.0	-0.9
1989	7 0	11.1	168	255	90.2	11.4	-1.3
1990	4.5	13.3	60	158	33.2	14.2	-4.0
1991	3.4	17.1	35	150	28.1	20.0	-4.7
1992	2.2	18.7	21	151	52.5	18.1	-7.9
1993	5.9		16		6.1	17.3	-4.6

Table VIII.3 - UGANDA: RECENT POLICY REFORMS AND ECONOMIC PERFORMANCE

	1985	1986	1987	1988	1989	1990	1991	1992	1993
I. Policy Indicators									
Fiscal Deficit (incl foreign grants)	3 9	4 8	4 5	3 6	3 8	3 9	6.2	4 5	3.8
Government Current Expenditures	9.5	8 3	7 2	6 9	6 8	7.3	10.6	9.0	8 1
Government Capital Expenditures	3 8	4 3	5.4	4.0	4 6	6 9	9 3	9.1	9.1
Money Supply (annual percentage change)	153	149	93	218	124	50	42	43	33
Real Interest Rate (percent)	-51.9	-48.0	-56 0	-53 4	-8.3	7 4	9 3	-8 2	16.0
Real Effective Exchange Rate (index, 1987=100)	135	128	100	111	130	213	278	300	..
Parallel Exchange Rate Premium (percent)	150	288	77	652	206	66	35	21	16
II. Performance Indicators									
GDP Annual Growth Rate (in real terms, percent)	2.0	-1 2	6 0	6.9	7.6	6 0	3.5	2 2	5.9
Investment/GDP	5 8	8.0	9 7	8.9	9.4	12.0	14.2	13 8	14.2
CPI (annual percentage change)	157.9	161.6	199.7	196.2	61 4	33.2	28.1	52 5	6.1
Non-coffee exports (million $)			29.7	8.5	27 3	44.1	58 0	44 6	
Gross External Reserves in Months of Imports	2.0	1.3	0.7	0 6	0.4	0.8	1.5	2 2	2.5
III. Debt Indicators									
Debt Outstanding/GDP (percent)	32.3	32.4	39 3	33 5	42 8	73 8	100.4	95.6	83 9
Debt Service/Export of Goods and Services (percent)	44 5	44.3	51.0	61.2	84.1	95.4	110.2	105.5	90.5
IV. Other									
Terms of Trade (index, 1987=100)	164	123	100	102	96	71	64	53	51

CHAPTER IX

EXCHANGE RATE MANAGEMENT IN ZAMBIA

Jeffrey D. Lewis and Malcolm F. McPherson[104]

A. Introduction

The idea of using the exchange rate as a policy tool has always been contentious in Zambia [105] In the first years after independence in 1964, the economy was buoyant--productivity was rising in most sectors, exports were growing, and savings and investment were large shares of national income, reflecting profitable conditions in the mining industry and conservative fiscal and monetary policies of the government [106] Through 1971 net foreign assets did not drop below 3.6 months' equivalent of goods and services imports[107], and external public debt was less than ten percent of GDP.

These circumstances led policy makers to oppose any tampering with the official exchange rate (OER), fixed at the equivalent of K1=$1.40 since 1949.[108] This view was reinforced by the labor unions, which were powerful in Zambia due to dominance of the copper industry and their position in it, and were hostile to any measure perceived as reducing real wages. As will be shown in this chapter, the persistence of this attitude played a major role in the decline of the Zambian economy

That decline began in the early 1970s, when the economy was squeezed by a combination of shocks--the oil price increase, lower copper output, an increase in transport costs, and a falling copper price. Barring an offsetting increase in Zambian productivity, these developments imposed a reduction in income, which could most easily have been effected by a real

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[104] The authors are grateful for helpful comments from James Duesenberry and Clive Gray. Responsibility for remaining errors is the authors'.

[105] This point is made in SIDA [1989]. King [1991] noted that resistance to changes in the exchange rate predates independence. Most policy makers believed that devaluation could not help the economy Ironically, it was the devaluation of the pound sterling in 1949 that led to the boom in the copper industry that provided the basis of Zambia's modern economic growth [Baldwin, 1966].

[106] From 1965 to 1970, the budget deficit averaged -.4 percent of GDP Over this period, the Government accumulated cash balances at the central bank. Its domestic borrowing was minimal.

[107] Computed from kwacha values in IMF [1993· 762].

[108] Zambia's currency, the kwacha, was introduced after independence at a parity of K1 = ten UK shillings.

devaluation. Instead, the government allowed the kwacha to revalue and productivity fell.[109] The resulting external and internal imbalances were financed by foreign borrowing.

Despite the clear signs of economic crisis and, from 1978 on, the country's inability to service its external debt, the Kaunda administration continued implementing a policy of socialist development through state take-overs and other forms of market intervention. Changes in this strategy were made reluctantly and then only after major economic damage had occurred. The OER was finally devalued several times, but every adjustment was too little and too late, and received minimal support from other policy instruments. The election of a new government in October 1991 created an opening for new economic management and introduction of a realistic exchange rate policy. Nevertheless, it was not until early 1994 that exchange controls were finally removed.

This chapter examines exchange rate management in Zambia since independence. Section 2 provides the historical background. Section 3 examines the main pressures confronting the economy, the role of the exchange rate in them, and patterns of exchange rate management. Section 4 discusses options for improved exchange rate management. Section 5 reviews the lessons from Zambia's experience. Section 6 has concluding comments. An annex gives a chronology of exchange rate developments.

B. Historical Background

Zambia's economic performance over the last 25 years has been heavily influenced by decisions about economic strategy taken in the late 1960s. In a series of speeches between 1968 and 1975, President Kaunda set Zambia on a path towards state dominance of the economy.[110] This was formalized with the creation of the Second Republic in 1972, when the United National Independence Party (UNIP) became the only legal political party. Economic decisionmaking was politicized and economic performance subordinated to ideological considerations.[111] The dominance of the "Party and its Government"[112] persisted until Kaunda and UNIP were

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[109] The mining production index (1985=100) reached a post-independence peak of 144 7 in 1976. By 1992, the index was 82.3, a decline of 43 percent Over the same period, mining sector employment fell by 11.3 percent, implying a decline in labor productivity in mining of almost a third. Productivity declines were even more dramatic in other sectors (Sources Central Statistics Office and Bank of Zambia).

[110] The four key speeches were: Mulungushi Rock (April 1968) foretold Government involvement in the economy [de Gaay Fortman, 1969]; Matero Hall (August 1969) announced government's purchase of a majority share in the mining industry [Faber and Potter, 1971]; Mulungushi Hall (November 1970) foretold nationalization of the commercial banks, nationalization of land and newspapers was announced at UNIP's June 1975 national convention [*Zambia Daily Mail*, 1975]

[111] A pervasive theme was economic nationalism, which sought to insulate the Zambian economy from external influences by minimizing contact with the rest of the world [Tordoff, 1977] Themes such as "self-reliance", "economic independence", and "growth from own resources" became catch-phrases These ideas, which provided the basis of state intervention in many other African countries [Nyang'oro, 1989], were prominent in all of Zambia's published multi-year development plans [Kayizzi-Mugerwa, 1990].

[112] The system's official designation.

defeated in the multi-party elections of October 1991.

The Second Republic pushed the economy into a sharp decline. Between 1972 and 1990, Zambia was transformed from Sub-Saharan Africa's third richest country into No. 18 out of 40.[113] In effect, the wealth of an entire generation of Zambians was dissipated, turning the country into (using Krugman's term) a "ward of the international community" [Krugman, 1989: 184] Summary indicators of this collapse can be seen in Table IX.1.

Table IX.1 - ZAMBIA: INDICATORS OF ECONOMIC PERFORMANCE, 1972-1991

Decline in per capita income	-48%
" in formal sector employment	-2.3%
" in mining production	-47.9%
Increase in foreign debt (bill.)	$6.4 (849%)
Loss of kwacha's $ value	99.2%
Increase in consumer prices	20,940%
Average deficit as % of GDP:	
...Budget	12.5%
...Balance of payments	10.7%

The next three tables trace the development via annual series. Table IX.2 shows the stagnation of real output and formal sector employment, sharp decline in mining production, rapid money growth, explosion of external debt, and extraordinary acceleration of income velocity of money during the past six years. These are outcomes of, or reflected in, chronic budget and balance of payments deficits, high inflation, decline in the investment/GDP ratio mirrored by a rise in consumption/GDP, and measured capital flight (indicated by growing offshore bank deposits of Zambian residents) as given in Table IX.3.

Presenting the variables most directly related to the exchange rate, Table IX.4 shows wide swings in the copper price and dollar receipts from copper exports, overvaluation of the official exchange rate that surpassed 400 percent in 1989, and until 1993, a large real interest rate differential between Zambia and world financial centers as represented by the United Kingdom.[114] Figure IX.1 dramatizes the copper market's volatility, while Figure IX.2 illustrates the exchange rate overvaluation.

The data portray a major economic tragedy.[115] Zambia's physical infrastructure deteriorated; health, education, and other social services regressed; international creditworthiness collapsed; capital flight and currency substitution intensified; and the economy de-industrialized,

[113] Based on estimated GNP per capita, 1972 data from World Bank [1993c: 2], 1990 data from World Bank [1992c: 218-19 and 285 (for countries with less than one million population)]. The two countries ahead of Zambia in 1972 were Gabon, an oil exporter, and Seychelles

[114] Although there may be some dispute about whether uncovered interest rate parity holds between developed market centers and developing countries, the large real interest rate differential between Zambia and world financial centers made pressure on the exchange rate inevitable.

[115] More data could readily be assembled. Many studies have documented the economic retrogression in Zambia The United Nations annual quality of life index shows Zambia near the bottom in most dimensions [United Nations 1993: 103,136] See also Iliffe [1987]; Seshamani [1990]; and World Bank [1993a]

Table IX.2 - ZAMBIA: OUTPUT, EMPLOYMENT, MINE PRODUCTION, MONEY SUPPLY, VELOCITY AND EXTERNAL DEBT, 1965 TO 1993

Year	GDP (1985 prices)	Formal employment ('000)	Mining production 1985=100	Money supply (K mn)	Income velocity of Money	Ext. debt ($ mn)
1965	5252	296.1	136.4	107.5	6.20	155
1966	5070	324.3	117.2	145.3	5.51	157
1967	5359	344.1	122.1	169.4	5.38	195
1968	5772	354.2	132.6	218.7	4.86	210
1969	5946	328.3	151.1	281.5	4.67	247
1970	6157	343.0	139.6	355.6	3.43	654
1971	6151	365.6	130.6	318.5	3.71	689
1972	6706	367.9	143.2	341.1	3.95	758
1973	6657	373.4	140.4	410.8	3.87	823
1974	7098	384.9	146.4	440.7	4.28	957
1975	6913	393.5	132.8	493.7	3.21	1353
1976	7209	368.8	144.7	623.5	3.04	1525
1977	6872	370.5	135.2	698.7	2.84	2341
1978	6905	367.0	135.6	639.4	3.52	2585
1979	6700	373.9	115.8	832.2	3.20	3047
1980	6901	379.3	125.3	907.1	3.38	3266
1981	7321	373.7	114.0	978.7	3.56	3633
1982	7119	366.5	120.7	1309.3	2.75	3709
1983	6980	364.2	118.5	1454.2	2.88	3805
1984	6955	365.2	108.1	1703.8	2.89	3826
1985	7072	361.5	100.0	2101.8	3.36	4639
1986	7111	360.5	86.0	4061.8	3.19	5700
1987	7098	365.8	84.3	6265.6	3.13	6508
1988	5555	369.4	85.6	10125.8	2.22	6709
1989	6787	371.8	85.4	16727.5	3.59	6873
1990	6546	377.0	83.0	27389.7	4.51	6600
1991	6412	379.3	74.6	48327.0	4.85	7190
1992	6235	410.2	82.3	96169.6	6.71	6870
1993	6487	397.0	76.6	199266.2	9.26	6933

Sources: IMF, 1992: 756-759; IMF, 1993: 582-585. World Bank, 1977: Table 9.01. GRZ, Ministry of Finance, monthly serial.

with the share of agriculture in GDP increasing.[116] [117]

[116] This is perhaps the most dramatic index of Zambia's economic disintegration. Typical of countries such Zaire today, and Ghana and Tanzania during their periods of economic decline, it is the opposite of the trend in countries with positive GDP growth [Syrquin and Chenery, 1989].

Table IX.3 - ZAMBIA: INFLATION; DEFICITS, INVESTMENT AND CONSUMPTION AS % OF GDP; AND DEPOSITS HELD ABROAD, 1965 TO 1993

Year	Budget balance % GDP	Bal.of pay. curr.acct. % GDP	Rate of inflation % p.a.	Gross dom. investment % GDP	Total consump. % GDP	Deposits abroad ($ mn)
1965	3.6	9.3	8.1	24.3	60.1	
1966	3.8	6.3	10.2	28.9	56.9	
1967	-4.3	1.1	5.0	30.8	63.0	
1968	-9.9	-0.2	10.8	32.4	60.7	
1969	2.7	25.8	2.4	18.1	48.6	
1970	1.9	6.3	2.7	29.6	56.8	
1971	-16.4	-15.0	6.0	37.3	64.8	
1972	-13.0	-11.0	5.1	35.3	63.1	
1973	-16.7	5.3	6.5	29.2	55.0	
1974	3.4	0.5	8.1	36.4	54.1	
1975	-21.5	-29.3	10.1	40.5	79.0	
1976	-14.2	-4.7	18.8	23.8	71.1	
1977	-13.2	-8.6	19.8	24.7	77.9	
1978	-14.4	-10.6	16.3	23.9	79.5	
1979	-9.1	1.1	9.7	14.1	76.9	
1980	-18.5	-13.8	11.6	23.3	80.7	
1981	-12.9	-18.5	13.0	19.3	93.2	
1982	-18.6	-14.6	13.6	16.8	92.1	230
1983	-7.8	-8.1	19.6	13.8	87.4	240
1984	-8.4	-5.6	20.0	14.7	81.5	210
1985	-15.2	-15.3	37.3	14.9	84.6	360
1986	-21.6	-19.7	54.0	23.8	77.4	280
1987	-10.0	-11.0	45.6	13.9	85.0	360
1988	-15.4	-6.0	54.7	11.4	83.8	400
1989	-9.6	-3.2	128.7	9.9	85.5	420
1990	-7.6	-2.5	111.0	15.4	85.3	420
1991	-6.5	0.1	111.0	13.5	88.4	440
1992	-2.2	-2.5	191.2	13.5	96.8	420
1993	0.9	-2.7	138.3	n.a.	n.a.	385

Sources: IMF, 1992: 756-759, 1993: 582-585, 1994: 51. GRZ, Ministry of Finance, monthly serial.

These outcomes were inconvenient for the UNIP government. According to the prevailing

[117] Agriculture's larger share in GDP did not imply improvement of Zambia's capacity to feed itself. The failure of the Second Republic's agricultural policies was highlighted in 1991 when Zambia experienced its worst drought in half a century, and food production declined approximately 40 percent. With minimal amounts of grain in store and no "free" foreign reserves, a major disaster was averted only by approximately one million tons of food aid

Table IX.4 - ZAMBIA: COPPER PRICES AND EXPORTS, EXCHANGE RATES AND REAL INTEREST RATE DIFFERENTIAL, 1965 TO 1993

Year	Copper price, London (cents/lb)	Copper exports ($ mn)	Exchange Rates: Nominal (K/$)	Exchange Rates: Real (base '85) (K/$)	Exchange Rates: Parallel (K/$)	OER over-valuation (parallel/ nom. - 1) %	Interest rate diff. Zambia-UK (% points)	RER index ('85=100)
1965	58.11	479	0.714	2.04			-5.4	75
1966	69.32	645	0.714	1.91			-8.1	70
1967	50.95	608	0.714	1.87			-4.0	69
1968	56.15	723	0.714	1.76			-8.1	65
1969	66.44	1014	0.714	1.81			-1.2	67
1970	64.04	954	0.714	1.87			-1.1	69
1971	49.02	630	0.714	1.83			0.8	68
1972	48.58	687	0.714	1.81			0.7	67
1973	80.58	1072	0.652	1.64			-2.8	61
1974	93.23	1303	0.643	1.66			-0.3	61
1975	56.10	734	0.643	1.65			5.4	61
1976	63.64	965	0.713	1.63			-8.1	60
1977	59.41	817	0.790	1.60			-5.9	59
1978	61.92	747	0.800	1.50			-10.1	55
1979	89.49	1131	0.793	1.51			-5.0	56
1980	99.12	1106	0.79	1.53	1.3	64.9%	-4.8	56
1981	79.05	878	0.87	1.64	1.4	61.2%	-8.0	61
1982	67.21	922	0.93	1.64	1.4	50.8%	-9.8	60
1983	72.23	846	1.25	1.91	1.6	27.9%	-15.1	70
1984	62.46	691	1.79	2.38	2.3	28.2%	-14.5	88
1985	64.29	733	2.71	2.71	8.8	223.2%	-22.7	100
1986	62.13	598	7.30	4.83	10.5	44.1%	-24.6	178
1987	80.79	807	8.89	4.19	15.0	68.7%	-24.4	154
1988	117.93	907	8.22	2.61	30.3	268.4%	-29.9	96
1989	129.15	1233	12.9	1.87	109.4	747.9%	-46.5	69
1990	120.72	1055	29.0	2.10	121.6	319.5%	-41.0	77
1991	106.07	895	61.7	2.42	134.2	117.4%	-29.1	89
1992	103.62	867	156.3	2.12	204.1	30.6%	-52.1	78
1993	86.89	734					25.5	

Sources: IMF, 1992: 756-759, 1993: 582-585. GRZ, Ministry of Finance, monthly serial. UNDP and World Bank, 1992: Table 3-7. Bank of Zambia records (unpublished).

ideology, state intervention was supposed to make Zambia economically and financially "independent".[118] The reverse happened.

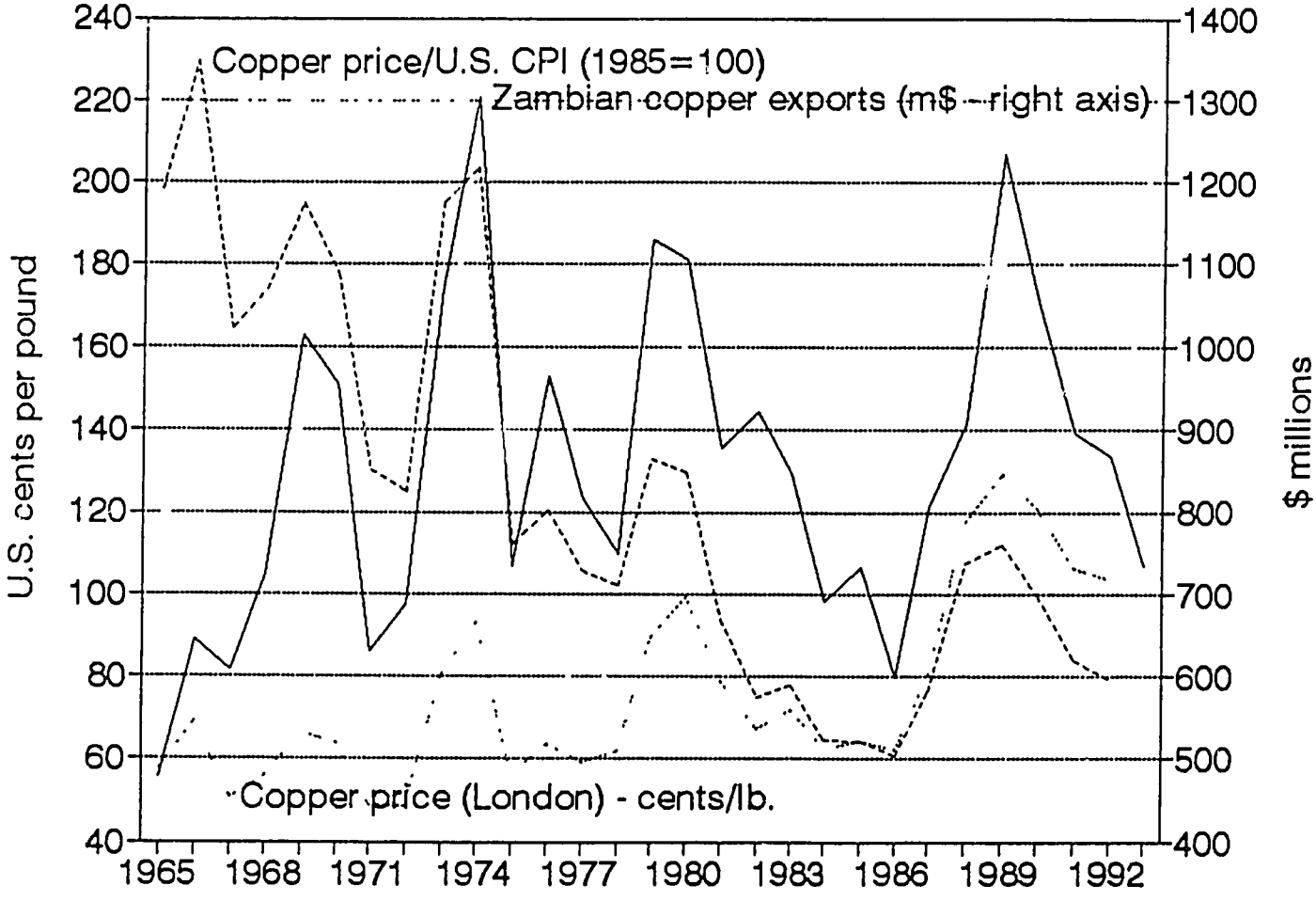
The adverse effects of state intervention were compounded by poor economic management. Economic policy comprised a series of *ad hoc* reactions to periodic crises. Worse, the "Party and its Government" took economic decisions that proved to be highly destructive.

Several stand out. The redemption of the Zimco (Zambia Industrial and Mining Company) bonds in 1973 left the country critically short of foreign exchange.[119] Even though Zambia

[118] Kaunda [1969] and Martin [1972].

[119] These bonds were floated to finance the nationalization of the mining companies. They had been trading in London at a steep discount, yet in 1973 the government redeemed them at face value

Figure IX.1 - NOMINAL & DEFLATED WORLD COPPER PRICES AND ZAMBIAN COPPER EXPORTS



began to default on its external debt as early as 1978, official borrowing continued. The break with the IMF in May 1987 served no useful purpose. Finally, reckless public spending in 1991 as UNIP sought to retain power pushed the country to the brink of hyper-inflation. This last episode further aggravated Zambia's relations with the international community[120], and left the newly-elected government with a devastated economy.

Kaunda and his supporters repeatedly blamed the economy's performance on external shocks [121] These were indeed numerous and included the cost of reconstructing the Mufulira mine, which collapsed in 1970, the sharp swings in copper prices; the 1973 and 1979 oil price increases; recurrent drought; the fiber optics revolution, innovations in the machine-tool, automotive and defense industries, and higher rates of copper recycling, all of which lowered the demand for copper; development of low-cost copper deposits in Bougainville and Chile, transport disruptions due to civil wars in Zimbabwe, Angola, and Mozambique; and the anti-apartheid campaign.[122]

The negative impact of these factors on Zambia has been widely recognized.[123] However the government magnified it by responding with further state intervention, ill-advised external borrowing and refusal to adjust.[124] Outside warnings went unheeded.[125]

In sum, economic adjustment was not a priority for President Kaunda, the Party or its government. Schemes to "revive" the economy were introduced in 1978, 1981, 1984, 1985 and 1989, but none was sustained. External shocks served as a convenient scapegoat for the unwillingness of Zambia's leaders to change their policies.[126]

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[120] The World Bank and IMF suspended their Zambia programs in late 1991 for non-performance.

[121] The document presented to the Paris consortium in May 1984 [GRZ, 1984] is one of many examples.

[122] GRZ documents overlook favorable shocks, which also occurred The reopening of the Zimbabwe border in 1978 and the end of civil war there in 1979 greatly eased transport bottlenecks. Closure of the Bougainville mine during the 1980s gave a boost to the copper market One could also mention the sustained boom in the Pacific Rim countries, raising world demand for copper; the decline in oil import costs and interest rates from the mid-1980s; progressive softening of aid terms; the new (1991) IMF Rights Accumulation Program, with Zambia as the first beneficiary, and political rapprochement in Mozambique and South Africa

[123] Martin [1972], Dresang [1975], Shaw [1976], Markakis and Curry [1976], World Bank [1977. Vol.1], GRZ [1984], Kayizzi-Mugerwa [1988], SIDA [1989· Ch. 2], Gulhati [1989], Mwanakatwe [1990], Fardi [1991], and Bates and Collier [1992].

[124] Neither President Kaunda nor any other policy maker have explained how further intervention and public borrowing were supposed to deal with the economy's imbalances. By contrast, government documents highlight the need to curtail borrowing and make the necessary real adjustments [GRZ, 1984 and 1989].

[125] A 1975 IMF mission termed the government's development strategy unsustainable The same point was made by Seidman [1974], Shaw [1976], World Bank [1977], ILO [1977], and McPherson [1980] Perceptive comments on Zambia's debt strategy came from Markakis and Curry [1976: 413-414].

[126] King [1991] notes that colonial leaders, as unwilling to change their policies as the post-colonial leadership, also used external events to mask the economy's structural problems However, the colonial objective was to prevent the economy's wealth from being widely shared. Following independence, state intervention was seen as

The change of government in 1991 created an opportunity for re-direction of Zambia's economic policies, including exchange rate policy. Many changes have been made However the process has been hampered by economic instability, limited local and foreign confidence in the economy, an inefficient and demoralized civil service, and weak economic institutions.

C. Issues Affecting the Exchange Rate

This section examines the economic policies pursued by the Zambian government, including its approach to exchange rate management. It concludes with a discussion of recent economic events and progress in rationalizing the foreign exchange market.

Economic policy issues

Even under "normal" circumstances, Zambia's overwhelming dependence on copper, lack of petroleum resources, landlocked position, and recurrent droughts, would impose tight constraints on economic policy:

- Apart from illustrating the copper market's volatility, Figure IX.1 shows a marked downward trend in the real price arising from technological change, substitution in consumption, and new low-cost sources of supply
- The government has attempted to insulate businesses and consumers from sharp changes in the relative costs of energy by subsidizing petroleum, however the resulting increment in the budget deficit and inflation has imposed a heavy burden on the economy.
- Zambia's distance from its major markets increases the weight of transport in export and import costs. The disruptions to established routes through Angola and Zimbabwe beginning in the early 1970s augmented these costs.
- In agronomic terms, much of Zambia is marginal for the staple crop, maize, and crop yields and animal productivity are low by international standards.[127]

While each of these constraints has an exogenous element, appropriate policy choices could have reduced their burden on the economy. Unfortunately the government took a weak hand and played it poorly Copper price fluctuations were of less consequence when foreign exchange reserves were adequate and external debt was small; transport costs were relatively lower when effective competition existed and road and rail routes were well maintained[128]; rising energy prices would have been more readily accommodated had pricing at market level obliged both low- and high-priority users to conserve; and the impact of drought was less severe when farm productivity was rising, private sector storage was encouraged, the public sector had the financial resources needed to import, and farmers were encouraged to grow agronomically

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the means of giving the population access to resources [Baldwin, 1966; Markakis and Curry, 1976; World Bank, 1986; and Good, 1989].

[127] USDA [1990: 545-548] and World Bank [1992]

[128] A key part of the current recovery effort has been a donor-led initiative (with more than 30 separate projects) to reconstruct the road system and rehabilitate the railway network.

suitable crops.[129]

In summary, external factors have been important but do not provide a permanent excuse for poor economic performance.[130] In fact, the external factors became critical only when former safety margins were eliminated. Tables IX.2 and IX.3 show the Zambian economy beginning to unravel in the early 1970s. The situation could have been arrested then if the government had changed its policies, particularly if it had avoided the extreme overvaluation of the real exchange rate that came about. Subsequent developments largely reflect these unfortunate choices [World Bank, 1977; McPherson, 1980; and Good, 1989].

Exchange rate management

Zambia has tried numerous approaches to exchange rate management. It has experimented with single fixed rates, dual fixed rates, a crawling peg, an auction, a float with the central bank offering discounts on tied balance of payments support, and, most recently, full liberalization.[131] The annex to the present chapter gives a chronology. Leading up to Section 4's discussion of how to improve exchange rate management, the present section highlights problems that arose with each of the approaches and pressures that forced the transition to a different regime.

Determining a period when exchange rate management began to unravel in Zambia is somewhat arbitrary. There were numerous precursors--growing state involvement; erosion of accountability under the one-party state; and revaluation of the kwacha as the oil crisis hit. However, the most serious persistent pressures, requiring systematic policy response, emerged during the early 1970s.

The collapse of the Bretton Woods monetary system during 1971-73 coincided with several of the economic shocks cited above, and occurred against a background of rapid growth of public sector employment and rising budget deficits. Rapid urbanization brought with it a structural increase in import demand, adding further pressure to the trade balance. Food production grew slowly under heavy taxation of agriculture through "cheap food policy"[132] and

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[129] In their pursuit of "financial independence", Zambia's policy makers rejected the notion of comparative advantage. This was evident in the strategy of import-substituting industrialization and the quest for "food security" [World Bank, 1977]. The approach reached an extreme in the maize sub-sector where inter-regional and -seasonal price uniformity was promoted, reinforced by a ban on maize exports. The policy encouraged farmers to grow maize in all regions, ignoring local comparative advantage based on agronomic conditions, transport differentials, and seasonal storage needs. As shown by the 1991/92 drought, the policy detracted from food security and added yet another dimension to Zambia's external dependency.

[130] This point has been made in several contexts [Gulhati, 1989; Mwanakatwe, 1990, and King, 1991].

[131] The authorities have set a variety of exchange rates, each corresponding to a special program such as the "no-funds" market, which permitted imports of all commodities except a short negative list, and an "individuals'" rate, at which any individual could sell (but not buy) foreign exchange Broadly, Zambia's "dual" system has consisted of an official market with multiple rates, and a parallel market This study maintains that focus by emphasizing the official and parallel markets.

[132] Agriculture has been subjected to heavy implicit taxation since independence through low producer prices, undercutting farmers' incentives [World Bank, 1977 and 1992a, Kydd, 1986] and augmenting the rural-urban exodus.

protracted drought.[133]

During 1973-75 the Zambian authorities revalued the kwacha against the US dollar by 11.1 percent (in nominal terms).[134] This move was unwarranted by the economy's capacity to generate and sustain a balance of payments surplus, particularly in view of the dramatic reversal of the fiscal picture in 1974-75, the budget balance shifting from +3 4 percent of GDP in the first year to *minus* 21.5 percent in the second (Table IX 3) The corresponding shift in the balance of payments current account was from a surplus of 0.5 percent of GDP to a deficit of 29.3 percent.

The appropriate response to such imbalances was a combination of policy adjustment and finance. The government chose finance alone in the hope that copper prices would recover.[135] It devalued the kwacha by 18 percent in 1976 and 10 percent in 1978, but since these changes achieved no significant real devaluation (see Table IX.4 and Figure IX.2)[136], they did not respond adequately to the deterioration of Zambia's external accounts Moreover, without support from policies to reduce domestic absorption[137] and raise productivity of the export sectors[138], the effects of the nominal devaluation were dissipated.

From 1978 to 1982, the kwacha was allowed to depreciate ten percent in real terms even though external debt rose rapidly--43 percent in four years--and payment arrears mounted. It was only under pressure from the donor community (and as a precondition for an IMF credit) that the government devalued the kwacha by 20 percent against the SDR in early 1983. The RER was then allowed to rise gradually against a basket of currencies, devaluing the kwacha in real terms by about 35 percent up to mid-1985.

This "gradualist" approach to exchange rate adjustment did not reverse the economy's decline. The budget deficit remained large--15.2 and 21.6 percent of GDP in 1985 and 1986, respectively---and foreign debt rose by 54 percent during 1982-86. The RER remained overvalued and the premium on foreign exchange in the parallel market averaged 223 percent

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[133] The period 1979-84 saw chronic under-supply of food and imports of maize totalling 878,000 tons or 16 percent of total production Zambia had hitherto been self-sufficient in maize.

[134] Due to relatively low inflation in Zambia, the real effective exchange rate appreciated by slightly less, about 9 9 percent [IMF, 1992 718, 756].

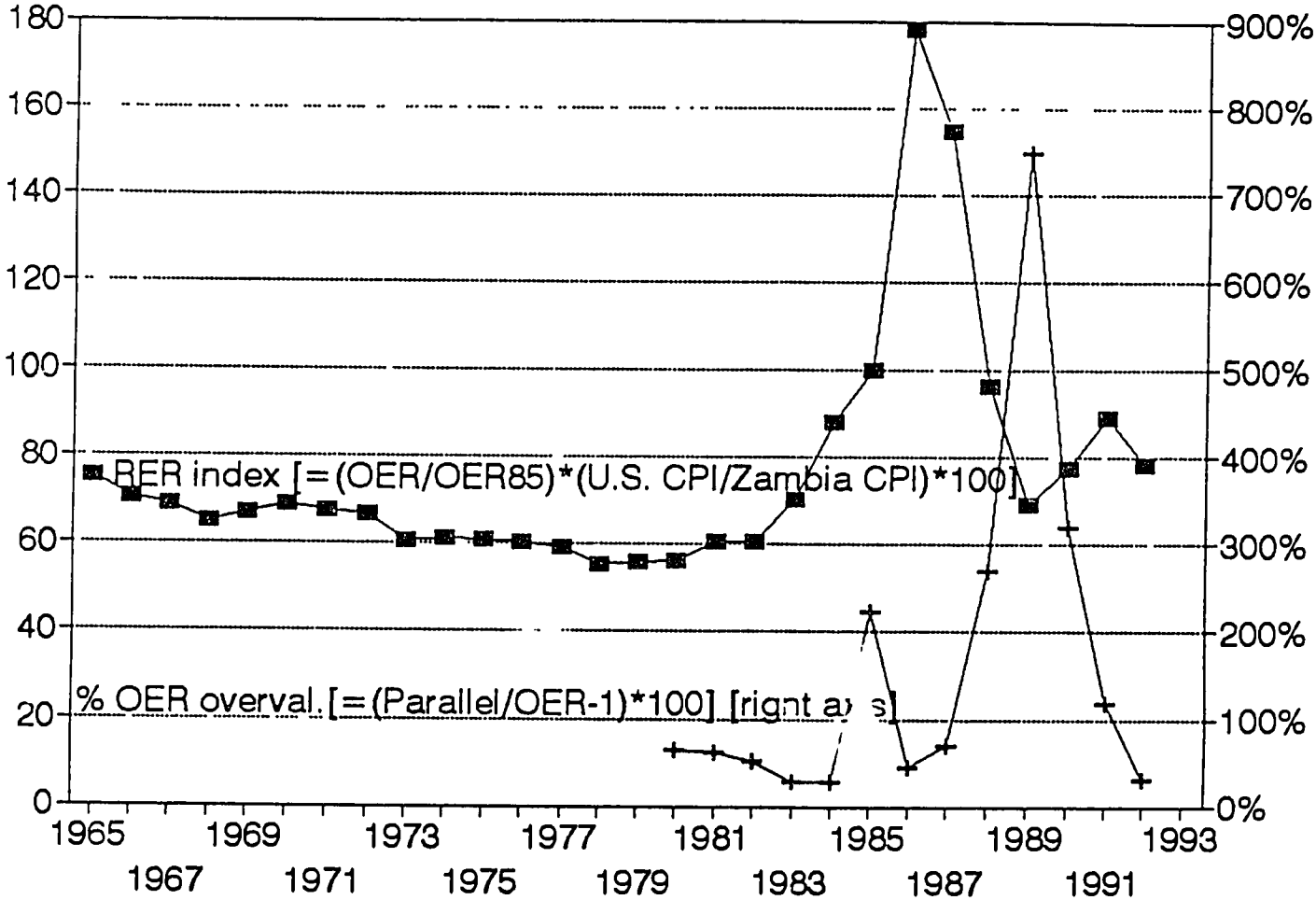
[135] The period 1974-79 saw no cut in public expenditure and consumption or any significant effort to enhance revenue collection In 1975 the government increased its borrowing from the domestic banking system by 16.6 percent of GDP, raised $425 million (17.9 percent of GDP) in "extraordinary finance" from abroad; and used $108 5 million (4.6 percent of GDP) in reserves and credit with the IMF [IMF, 1992. 758-759].

[136] The table shows the kwacha appreciating in real terms from 1976 (K1 81=$1) to 1977 (1.54) and 1978 (1.48), and remaining stable or depreciating insignificantly in 1979 (1 48) and 1980 (1.56).

[137] With a reduction in absorption, domestic prices will rise in response to devaluation until real incomes decline sufficiently to reduce the demand for imports

[138] The opposite occurred The fiscal system deterred investment in mining [O'Faircheallaigh, 1986], and local control of mining led to a major deterioration in management Over-staffing became the norm and labor productivity declined sharply (see footnote 73)

Figure IX.2 - ZAMBIA: EXCHANGE RATES, 1965-1992
(RER index [1985=100] and percent overvaluation of OER)



during 1985.

By 1985 the economy was in deep trouble. In October the government negotiated a stabilization and structural adjustment program with technical and financial support from the IMF, World Bank, and other donors. Among other things, the program involved introducing a floating exchange rate through a weekly foreign exchange auction run by the Bank of Zambia (BoZ). The auction was to be supported by trade liberalization, other deregulation of economic activity, and improved fiscal and monetary controls.

The performance of the auction from its inception in October 1985 until President Kaunda canceled it in May 1987 has been widely discussed [Kayizzi-Mugerwa, 1988, SIDA, 1989, and Aron and Elbadawi, 1992] Initially it achieved its primary goal of providing a market-based and depoliticized mechanism for allocating foreign exchange. The kwacha lost 56 percent of its nominal value (dropping from K2.2 to K5/$1) at the first auction, following which, from October 1985 to June 1986, it drifted downward, the REER remained stable, and the premium on the parallel market was almost eliminated [SIDA, 1989: 60-66, and Aron and Elbadawi, 1992: 111].

The auction's success was short-lived. The government failed to implement other components of the adjustment package, leading several donors to delay disbursements. The budget deficit increased to 21.6 percent of GDP in 1986, accelerating monetary expansion, inflation and depreciation of the kwacha in the auction. Influential Zambians began to believe that the auction was *causing* rather than reflecting macroeconomic instability. To offset "excessive" depreciation, the auction procedures were modified in July 1986.

This initially caused the kwacha to appreciate, but as doubts about the sustainability and fairness of the auction mounted, depreciation set in once more. The supply of foreign exchange allocated to the auction was reduced, a pipeline of unfulfilled obligations emerged, and the parallel market reappeared.[139]

The auction's termination in May 1987 was due largely to the government's continued unwillingness to accept the consequences of limited resource availability, both domestic and foreign, for relative prices. The auction did not fail--rather, it worked too well! The problem was that it provided evidence, unacceptable to the Government, that the economy was deteriorating at an accelerating rate.[140]

Upon terminating the auction the government set the OER at K8 to the dollar (compared with an auction rate of K22 in the final week) and re-instituted foreign exchange controls and import licensing through the Foreign Exchange Management Committee (FEMAC).[141] FEMAC

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[139] The auction initially narrowed the premium on the parallel market without eliminating the market itself

[140] Hindsight indicates that the changes in the auction system were part of a deliberate effort to undermine the reform program and discredit its supporters At the time the auction was abandoned, the entire pro-stabilization economic management team (including the Minister of Finance) was sacked. Their replacements were party loyalists opposed to reform [Callaghy, 1990 294-5, West, 1992]

[141] The rate of K8 was chosen by whim and bore no relation to the economy's productivity, debt-servicing capacity or future prospects [SIDA, 1989. 78-90]. Even though much of the evidence presented to it showed that the rate was unsustainable, a conference of the Economic Association of Zambia nevertheless endorsed the government's action [Banda et al., 1988].

allocated foreign exchange according to an importer's assessed "capacity" and previous import record. Having rejected price as the basis for allocation, the government once again opened the door for "access" and rent-seeking to dominate the system.[142]

In its first nine months of operation, FEMAC allocated approximately 40 percent of available foreign exchange. The copper company (ZCCM), the oil importing authority (ZIMOIL), Zambia Airways, and the agricultural marketing board (NAMBOARD) were given "priority" access to foreign exchange outside FEMAC [SIDA, 1989: 67-8]. Two factors increased the supply of foreign exchange to FEMAC applicants during this period:

- a temporary increase in copper prices[143], and
- a drop in the government's own demand for foreign exchange as Zambia, following Peru, decided unilaterally to withhold external debt payments.

Exchange rate management reverted to its earlier pattern of *ad hoc* adjustments. In November 1988 the kwacha was devalued from K8 to K10 to the dollar. It was then pegged officially to the SDR, and depreciated slowly until May 1989, when as part of a new standby agreement with the IMF it was devalued from K10.8 to K16, and then adjusted regularly (first monthly, then weekly).

The IMF and World Bank pushed for a faster rate of crawl, but the government resisted. As a compromise, in February 1990, when the crawl had reached K22 to the dollar, a two-tier exchange rate was adopted, with the "official" rate (primarily for conversion of copper earnings and import of oil and fertilizer) set at K22, and a second rate, initially set at K40, applying to other exports and commodity imports through the open general licensing (OGL) system.

The dual rates were merged in April 1991 as part of an economic recovery program adopted in mid-1989.[144] However the unification did not work. A second "retention" market was created, based on the export retention scheme introduced in 1983. Under this arrangement non-traditional exporters were permitted to retain 50 percent of their receipts to finance own imports or sell to third parties through an official inter-bank "retention market".

By the time the new government took office in late 1991, the exchange market consisted of several channels ("no funds", "retention", OGL, official, "market", and parallel) featuring a variety of rates The challenge facing the government was to rationalize--i.e. liberalize--this system in ways that complemented the broader program of economic reform.

In January 1992 the "official" exchange rate was devalued by 30 percent and the retention rate raised to 100 percent. This effectively moved 50 percent of non-traditional exports from the official market to the retention market. At the same time the BoZ shifted a similar amount

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[142] These practices were documented in Crown Agents [1991]

[143] Substantial excess demand for foreign exchange existed. Demand for import licenses exceeded the number issued by a factor of 5 to 10 [SIDA 1989.69] and the parallel market premium averaged 475 percent in 1988 and 1989 [UNDP and World Bank, 1992 Table 3.8]

[144] The New Economic Recovery Programme calls for the exchange rate to play a ".. pivotal role in spurring growth in non-traditional exports, reducing reliance on imports, and ensuring that scarce foreign exchange resources are allocated efficiently" [GRZ, 1989. 6]. There is no acknowledgement that this implied a substantial depreciation of the kwacha.

of outflows (mostly service payments) to the retention market.[145]

Under pressure from the Ministry of Finance (MoF), liberalization continued. The crawl accelerated, and October 1992 saw the introduction of an exchange bureau system (Zambian law uses the French translation "bureau de change", which will appear throughout this chapter). From December 1992 the copper company was allowed to sell at a "market" rate derived from the average rate determined in the bureau de change market The January 1993 budget speech gave approval for 100 percent remittance of profits and announced that all exchange controls would be removed.

Due to the BoZ's unwillingness to relinquish those controls, the latter move took a full year [146] The central bank defended its position with two arguments--the economy was too unstable, and relaxation of exchange controls would cause capital flight.[147] It provided no detailed analysis or evidence, either from Zambia or other countries, to support these arguments.

The BoZ agreed to a modest relaxation of the controls in July 1993, but the government wanted to go further and a BoZ/MoF subcommittee was formed to develop procedures for removing them altogether. In October 1993 it recommended removal of all exchange controls except for transitional arrangements in three areas: copper earnings, external debt payments, and "large" capital items. The January 1994 budget speech announced elimination of all exchange controls.[148]

The current economic situation

As of mid-1994 the Zambian economy is fragile but improving. The copper price dropped

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[145] This reaction typified the BoZ's preoccupation with the gap between the official and retention rates Concerned primarily with whether this gap was narrowing or widening, the Bank paid less attention to the broader question of whether the overall policy of multiple rates reinforced by controls was sustainable. Indeed, up to that point, the Bank and its staff did not foresee that exchange controls would ever be lifted The Bank's focus would have been relevant if, as some observers claimed, the retention rate was a market-determined equilibrium exchange rate In fact, continuing restrictions on access to these funds reinforced the premium in the parallel market.

[146] The Exchange Control Act of 1965 and accompanying regulations vested power over virtually all foreign transactions in the Minister of Finance, who delegated it to the BoZ. The Bank interpreted this power broadly "Authorized dealers" were instructed to operate in a way that would "...facilitate administration of the [Exchange] Control so that it may serve its objective of conserving and increasing the country's foreign exchange resources with the least obstruction to trade and its financing" [BoZ, 1981. 2]. Unfortunately for the Zambian economy, the Bank ignored its own instructions!

[147] BoZ [1993 9-11] argues· "The repeal of the Exchange Control Act would lead to massive capital flight, at least in the short-run, considering the current instable macroeconomic conditions and the rapidly declining value of the kwacha. The basic requirements for the total abolition of exchange controls are. (a) a reasonable macro-economic stability, (b) a deep and efficient inter-bank exchange market, (c) availability of sufficiently large (free) exchange reserves on a sustainable basis to enable the Central Bank to become an active market participant and to 'intervene' in the market effectively, and (d) a well-developed and efficient supervision system for monitoring exchange market operations on an on-going basis." Had the government accepted these "requirements", exchange controls would not have been lifted

[148] As a transitional measure, the Minister of Finance has authorized the BoZ to purchase ZCCM's foreign exchange earnings at market-determined rates and to supervise the foreign exchange operations of financial institutions (powers formerly conferred by the Exchange Control Act)

sharply in April 1993 but has since recovered to its highest level since 1989. Projections for the next decade suggest that it is unlikely to rise significantly above 90 cents/lb. (in 1993 prices). Since ZCCM's costs exceed this level the company requires fundamental restructuring to be profitable.

Agricultural production rebounded strongly in 1992 after 1991's poor harvest. Combined with sharply higher nominal interest rates in 1993, the drought created financial difficulties for many farmers who had come to depend on covering annual operating costs at highly negative real interest rates. Agriculture, too, is undergoing long overdue adjustment.

Key elements of economic reform have been delayed A civil service reform scheduled to begin in 1992 was launched only in November 1993 Parastatal restructuring has also moved behind schedule. Finally, major benchmarks agreed with the IMF (reserve money, net credit to government) have been regularly breached due to the government's inability to control monetary aggregates.

The donor community, whose aid exceeds $1 billion per annum, has become more demanding. The state of emergency in effect from March to May 1993 was seen as a retrograde step for a country that had just restored democratic rule [149] At the December 1993 Consultative Group meeting in Paris, donors made their support conditional on government action against drug-running and corruption among Cabinet members, a move widely applauded in Zambia The Cabinet was re-shuffled in January 1994.

These events raised uncertainty about 1994 donor support levels, pushing up the exchange rate and forcing a tightening of credit.[150] In effect, much donor good-will earned by Zambia's return to multi-party democracy has dissipated.[151] Economic performance and good governance are essential to continued donor support.[152]

In its favor, the government has responded with numerous reform measures--price controls have been lifted[153], maize marketing liberalized, a major tax reform is well advanced, a few parastatals have been sold and others are in the process of liquidation, inflation is coming

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[149] Full details about the state of emergency and the "zero option" plan (wherein opposition leaders urged the overthrow of the government) have yet to be made public. Some prominent opposition politicians were charged with sedition, legal proceedings continue The immediate impact of the episode was to undermine donor support.

[150] In December 1993, the Statutory Reserve Ratio was raised to 32 5 percent (from 23 percent) and the Liquid Assets Ratio was raised from 35 percent to 50 percent.

[151] Without donor support the budget would collapse. Expenditure in 1994 is programmed at K686 8 billion, including K124 8 billion of foreign-funded capital expenditure and K115 billion in external debt service (interest only). Donor rescheduling of debt amortization and arrears, which is off-budget, is worth another K565 billion.

[152] Following GRZ steps to deal with drug-running and corruption, donor attention has shifted to improved tax compliance and reduction of parastatal losses.

[153] The last remaining controls applied to petroleum products. The 1994 budget speech directed ZIMOIL to charge market prices.

down.[154] The Treasury Bill tender and market sales of foreign exchange by the BoZ are now firmly established. Moreover elimination of exchange controls affirmed the government's commitment to liberalization.

The government now has the instruments to deal with the type of instability that affected the economy and the exchange rate throughout 1993. To place this point in perspective, it is useful to recount the main events of the year.

The principal economic objective in 1993 was to bring inflation under control. To do this, the government introduced a cash budget, and observed the ceilings. However, unprogrammed BoZ lending to parastatals through May caused inflation to accelerate[155], rapidly depreciating the kwacha As Table IX.5 shows, from K359 in December 1992 the dollar rose to K545 in May 1993. Interest rates, determined through the Treasury Bill tender after January 1993, rose as well. From 107 percent in December the compound annual yield on 91-day bills rose to 348 percent in July

Once the growth of credit was brought under control, the kwacha began to appreciate in July. From a June peak of K551 the dollar fell to K348 in September, representing a real kwacha appreciation of 52 percent since December. The government was widely blamed for the appreciation, but in fact it had not manipulated the rate. The appreciation was an outcome of the government's success, for the first time in more than two decades, in controlling the growth of credit.

MoF/BoZ measures to bring the growth of reserve money under control began to take effect in late May, although, due to price momentum, inflation remained high in June (15.8 percent) and July (12.6 percent). By August the credit squeeze had brought inflation down to 2.5 percent; it averaged 0.7 percent in the next three months, turning negative in November.

For holders of kwacha-denominated financial assets, the change in inflationary expectations commenced in July By this time the market-determined compound annual yield on 91-day Treasury Bills was around 340 percent. The sharp drop in inflation accompanied by much slower decline in Treasury Bill rates caused the real rate of interest to rise dramatically, reaching 181 percent on 91-day Treasury Bills in September. At that point increased demand for Bills pushed their rates sharply downward, yielding an average rate of 112 percent (92 percent in real terms) in the fourth quarter.

These developments reflected a sharp contraction in the supply of both reserve and broad money. After rising 92.9 percent during January-May, nominal reserve money went up only 3.4 percent during June-September; in real terms it declined over the whole period. Relative to its December 1992 level, real money supply (M2) fell by 8.9 percent over the next five months, and a further 18.9 percent up to September 1993. This was the essence of the credit squeeze.

While consumers and some officials welcomed the kwacha's appreciation, it soon became

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[154] After reaching 138 percent for 1993 as a whole, inflation was 38 percent on an annual basis from August 1993 to March 1994, and continues to decelerate

[155] The bulk of the credit went to ZIMOIL to cover the deficit incurred because government held its prices well below oil import costs In effect, government gave Zambian consumers access to "cheap" petrol at the cost of higher overall inflation and a sharply depreciated kwacha

Table IX.5 - ZAMBIA: RECENT EXCHANGE RATES, INFLATION AND INTEREST RATES

	Exchange rates (period average)		Inflation rates		Real exch. rate index (Dec.1992 = 100)	Treasury Bill rate 91-day % per an.
	Official (K/$)	Market (K/$)	Monthly (%)	Annual (%)		
1992						
Jan	95.8		14.9	429.5	68	
Feb	125.0		15.1	440.6	77	
Mar	133.8		13.7	366.8	72	
Apr	140.8		5.6	92.3	72	
May	148.3		6.4	110.5	71	
Jun	160.8		7.4	135.5	72	
Jul	173.3		2.2	29.8	76	
Aug	180.3		8.2	157.5	73	
Sep	195.1		10.2	220.8	72	
Oct	219.7	330.6	7.1	127.8	75	
Nov	242.5	321.5	6.8	120.2	78	
Dec	359.4	342.0	15.2	446.3	100	158.6
1993						
Jan	385.8	376.0	10.1	217.3	97	115.1
Feb	445.2	430.0	12.7	319.8	100	162.6
Mar	503.4	536.0	9.2	187.5	103	258.4
Apr	513.9	527.3	14.4	402.5	92	286.0
May	545.8	545.5	8.8	175.1	90	287.7
Jun	532.8	565.8	15.1	440.6	76	321.9
Jul	494.9	566.2	12.6	315.4	63	347.5
Aug	458.4	508.6	2.5	34.5	57	277.8
Sep	347.7	456.3	3.7	54.6	42	209.7
Oct	352.7	373.2	0.1	1.2	42	163.7
Nov	410.3	406.6	-1.6	-17.6	50	108.9
Dec	647.4	600.5	4.1	62.0	76	106.8
1994						
Jan	635.8	671.6	6.1	103.5	70	126.4
Feb	650.8	687.9	4.9	77.5	68	146.9
Mar	669.4	688.7	2.0	26.8	69	109.6

Source: GRZ, Ministry of Finance, monthly serial. Interest rate is compounded annually.

clear that the exchange rate was overshooting. The credit squeeze could not be sustained since major enterprises, especially ZCCM and commercial farms, were nonviable at the appreciated

exchange rate.[156]

The exchange rate remained flat in October, then a reversal of expectations took hold in November, accelerating towards the end of the month so that the real index in December averaged 81 percent above its September value even while remaining 24 percent below the December 1992 level (see Table IX.5).

As of mid-1994 the government has strengthened its ability to dampen short-term exchange rate fluctuations. The real interest rate is positive and the Treasury Bill market is functioning well. The BoZ has established a foreign exchange trading desk and has deepened its appreciation of the importance of stable policies.[157] Furthermore, it successfully tightened liquidity in November by raising the liquid assets and statutory reserves ratios. These measures, combined with a positive response to donor concerns over Zambia's governance, have helped slow the rate of exchange rate depreciation. As of March 1994, exchange rate movements were within acceptable bounds.

D. Improving Exchange Rate Management

The government's record of testing and then soon abandoning different exchange market regimes has made the Zambian public and business community wary of its capacity for exchange rate management. This section examines options for further reform.

Basic constraints

Exchange rate policy in Zambia has operated under severe constraints, some of which constitute outright handicaps. First, the government has lacked clear economic objectives. It has sought to make the exchange rate serve various objectives--subsidizing imports, keeping capital "cheap", reducing inflation, lowering debt service costs, providing evidence of a "strong" economy, and forestalling union wage pressure. Several of these objectives are inherently contradictory, yet the government gave no clear indication of its priorities.

Second, because past efforts to manage the exchange rate were unsuccessful, current and future options are limited. For instance, since the foreign exchange auction is regarded as having failed, memories will have to dim (or the idea will have to be re-packaged) before it could be tried again Similarly, because the economy performed so poorly when the exchange rate was fixed, the argument that a fixed exchange rate can be used as a nominal anchor lacks credibility.

Third, at more than 25 percent of GDP, actual and anticipated donor aid supports the kwacha

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[156] There has been much second-guessing as to why government did not foresee the overshoot and begin to "ease off" earlier. Given the past ten years of inflation, the MoF and BoZ did not want to ease the credit squeeze prematurely. Their hesitance was reinforced when October's inflation rate, widely expected to be negative, turned out to be 3 7 percent. Moreover, having previously exceeded the IMF's reserve money and net claims on government ceilings, they made a special effort to meet the September benchmarks. This required a further withdrawal of liquidity from the system. The recent jump in inflation (6 1/4 9 percent in January/February 1994) is evidence that the situation remains volatile.

[157] Some of the panic in the foreign exchange market was triggered when BoZ sales changed sharply. During three weeks in November-December 1993, the BoZ sold $17 million, $6 million, and $11 million, respectively, providing conflicting signals to market participants.

at a higher value than the market equilibrium that would prevail without this inflow.

Fourth, fluctuations in the exchange rate exercise a ratchet effect on inflation, prices rising as the kwacha depreciates but not fully adjusting to any subsequent appreciation.[158] This mechanism, which will become less pronounced as the fluctuations diminish, has left the kwacha currently over-valued. (Retention of purchasing power parity would have dictated a nominal rate of K810 in December 1993, compared with the observed range of K600-650.)[159] Since any depreciation puts initial upward pressure on prices (see Section IV.A), the ultimate pass-through of the devaluation depends on the broader economic environment and how far government policies accommodate this ratchet effect.[160]

Data and policy responses

Reforming economic policy in the absence of timely and reliable data is a futile exercise. Up-to-date information is needed to implement and monitor the impact of policies. In Zambia, up to late 1992, data on key macro variables were available only with a long lag, in some cases several months. Current series on exchange rates, money supply, reserve money, foreign exchange purchases and sales, foreign exchange reserves, and so on, did not exist.

Beginning in late 1992 the situation improved significantly. This occurred for several reasons. First, without the staff being aware of it, the government had missed IMF program benchmarks, and senior MoF staff were determined to change the situation. Second, MoF and BoZ officers were assigned full-time to "get on top" of the data and given technical support for the purpose. A data monitoring committee was formed, met daily and has fulfilled its objective. Third, computerization of key BoZ/MoF operations (notably loans and investments and the Budget Office) began to yield more timely and better quality data. And fourth, three IMF missions in rapid succession (October and December 1992 and February 1993) helped government staff develop key series. The monitoring exercise built on this data base.

Improvements in the data have continued. Most of the information needed to track developments in the economy is now available on a daily basis, including reserve money, net claims on government, government revenue, expenditure and daily bank balances, foreign

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[158] This topic relates to the more general fear of a "devaluation-inflation" spiral, to which all governments are sensitive. Recent Zambian experience shows that such a spiral is not inevitable if the budget deficit is kept under control and credit is not allowed to accommodate rising prices. These controls were not in effect when the auction system was in place The SIDA study noted that. "...with the benefit of hindsight it is clear that by early 1987, the expected one-time inflationary consequences of devaluation had not been contained. They had, instead, been exacerbated by loss of control over the fiscal deficit which, in turn, was being financed by equally uncontrolled growth in money supply These effects, in a highly liquid yet stagnant economy -- constrained mainly by the shortage of foreign exchange--were driving the kwacha down precipitously" [SIDA, 1989: 12].

[159] The rate in December 1992 was K359, the rate of inflation (December to December) was 139 percent, and inflation in Zambia's trading partners averaged approximately 6 percent (taking into account price rises of 14 percent in South Africa and over 25 percent in Zimbabwe); (1+1.39)/(1+1 06)*359 = K809

[160] The pass-through is also affected by the importance of the parallel exchange market and an economy's level dollarization. The greater this market's role and the higher the premium it pays over the OER, the less a devaluation of that rate will affect prices, since much of the economy already operates at a higher exchange rate. The main effect is to curb "rents" accruing to those with access to foreign exchange at the OER. Dollarization such as has characterized Zambia also diminishes devaluation's impact on prices.

exchange and Treasury Bill transactions, debt payments, interest rates and exchange rates. The timeliness of other series, such as the consumer price index, money supply, the debt stock, trade flows, parastatal arrears, and the balance of payments has improved as well. The data monitoring committee operates a system for verifying data and correcting anomalies.

The improved information flow has enabled the government and BoZ to take a pro-active stance on economic policy.[161] It is no longer left to IMF missions to inform the government where the economy stands and why.

Exchange rate projections and monetary programming

Even with better data, more remains to be done in regard to monetary programming and exchange rate projections. The BoZ's lack of a balance sheet, dating back to accounting irregularities that emerged in 1989, is a major constraint here. Since then the Bank has not produced audited accounts and its trial balances are inaccurate and delayed several months, obliging monetary management to proceed in the absence of a monetary survey.[162] A BoZ effort to explain shifts in bank reserves has run up against large unexplained movements.

In the absence of any locally generated macroeconomic model, the basis of monetary and exchange rate management has been the simple macroeconomic accounting framework underlying IMF agreements. The central relationship in this framework is the impact of government/BoZ operations on reserve money.

While providing a consistent set of fiscal and monetary identities, the IMF framework suffers from a lack of behavioral relations. This deficiency was important in 1993 as the demand for money (and other kwacha-based assets) shifted in response to the transition from high to low inflation. The change in asset preferences was due both to internal factors (changes in the supply of credit) and external factors (changes in expectations about the supply of foreign exchange). The macroeconomic framework lacks a feedback mechanism linking real interest rates and demand for money (and other assets).

Another issue requiring attention is the budget's impact on money and credit, and the effect of exchange rate movements on the fiscal balance. On the revenue side, depreciation raises the kwacha equivalent of aid disbursements, import and export taxes, and net government revenues from parastatal exporters (notably ZCCM); and revenue from trade taxes is expected to be buoyant[163]. On the expenditure side depreciation raises the cost of government imports and debt service.[164] Whatever the net impact, the shift in the fiscal balance has monetary

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[161] Significant improvements in BoZ monitoring, policy formulation and implementation, especially regarding foreign and monetary operations, followed visits in 1993 by officials of the Boston Federal Reserve Bank.

[162] The IMF has repeatedly pressed the BoZ to produce a current balance sheet. The BoZ targeted March 1994 for production of "acceptable" accounts and mid-1994 for monthly trial balances.

[163] This has not been the case in Zambia because of widespread customs fraud. The recent effort to improve tax compliance is designed to change that.

[164] Given Zambia's large debt stock, debt service is a major concern. With present high levels of aid inflow, the depreciation-debt link has minimal impact on the budget. Over the longer term, as Zambia rationalizes its debt arrears and re-joins the ranks of creditworthy sovereign borrowers, special efforts will be needed to prevent debt service from undermining fiscal discipline.

implications. These must be understood and incorporated into the macroeconomic framework.

This reinforces the need for the monetary and fi· ·l agencies to cooperate in identifying and measuring the various inter-relationships and feed-ba. . effects. This need for closer cooperation has met resistance from BoZ managers seeking greater "autonomy". The BoZ can only effectively manage the monetary system if it broadens and deepens this cooperation. A useful step would be for MoF and BoZ to develop a joint framework for projecting short-term exchange rate movements.

Restoring confidence

Because of past instability, it will take time (perhaps years) for the government to convince the general public, the business community, and potential foreign investors of its responsible approach to economic management. Asset-holders are still demanding a large risk premium to hold kwacha-denominated assets--the real annual return on Treasury Bills exceeded 65 percent in March 1994. Meanwhile long-dated instruments are largely stillborn.[165]

In the interim, the government's best option is to abandon all direct controls that it cannot administer efficiently, fairly, and transparently. Exchange control is an area where the authorities have been unable to satisfy any of these criteria. The view that controls have been counterproductive is now accepted in the Ministry of Finance, but not in many other government agencies.

This has two explanations. First, as a hold-over from the Second Republic, whose leaders saw government intervention as the path to development, many civil servants still believe in their ability to make controls work. Moreover, by continuing to blame the economy's problems on external factors (see Section 2), many Zambians have not made the connection between controls and the subsequent economic collapse. Second, disequilibrium in the foreign exchange market, reflected in the parallel market premium, led to massive rent-seeking in the allocation of officially acquired foreign exchange. Those benefitting from the rents have been reluctant to see them disappear.

Among steps taken to restore confidence, the recent containment of inflation, and reintegration of the parallel and official markets through legalization of the bureaux de change, deserve first mention. The 1993 budget statement of intent to repeal the Exchange Control Act led to a *de facto* relaxation of controls. The Treasury Bill tender gave asset-holders access to a high-yield alternative to foreign exchange. The improvements in data monitoring are beginning to show the public that, for the first time in decades, the government is not "flying blind" Finally, the repeal of the Exchange Control Act, although delayed, not only eliminated the last vestige of this distortionary policy but was also a tangible demonstration that government would deliver on its promises.

With Zambia's exchange rate history in mind, it may seem out of place to consider re-fixing the exchange rate. However, several writers argue that a fixed exchange rate, by providing a nominal anchor for the system, creates confidence as a basis for stabilization and renewed

[165] The bulk of Treasury Bills sold are 28-day instruments. The demand for twelve- and 18-month bonds, returning over 100 percent p.a. (real) since September 1993, has been nominal.

economic growth[166]. We shall briefly explore whether this would make sense for Zambia.

The essential feature of high inflation is rapid accommodation of domestic currency variables, notably monetary aggregates, the exchange rate, and the wage rate [Bruno, 1988]. The role of a nominal anchor is to break, or at least modify, the dynamics associated with such accommodation. This is accomplished when a government succeeds in "fixing" one of the domestic currency variables. Alternative anchors are a key monetary aggregate such as reserve money,[167] the public sector wage bill,[168] real interest rates, or a credible commitment to a fixed exchange rate.[169]

The apparent simplicity of the last option is also its major draw-back: fixing the exchange rate (and calling it an anchor) in a system which is not effectively managed, as in Zambia, simply adds to instability. Choosing among alternative anchors is not the same as choosing among alternative strategies for stabilization. The only effective prescription for stability is to contain the budget deficit [Killick, 1987; Bruno, 1988; and World Bank, 1993a]

In essence, the choice among anchors is merely a choice among *targets* against which to measure exchange rate performance. The key is choosing a credible target. Barring a fundamental overhaul of Zambian institutions, particularly the BoZ and the Budget Office, the notion of a fixed exchange rate lacks credibility. Attempting it would undermine, not enhance, confidence.

The exchange rate regime

If a fixed rate regime is ruled out, what alternatives are viable in Zambia? A resumption of the auction that the Kaunda administration canceled in 1987 would be preferable to a fixed exchange rate, but, mindful of that history, market participants would lack confidence in the government's commitment (i) to continue the auction, and (ii) as long as the auction continued, to maintain an orderly supply of foreign exchange to it. The resultant hedges undertaken by participants in order to cover the perceived risks would *de facto* add a large premium to the auction rate. One consequence of an auction system would be persistence of a parallel market.

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[166] See, for example, Welch and McLeod [1993], who argue that the key element in establishing a credible commitment to a fixed exchange rate in Latin America has been prudent monetary and fiscal policies. Other studies show that, given such policies, the choice of exchange rate regime does not have a marked effect on economic performance [Mills and Wood, 1993; Easterly and Schmidt-Hebbel, 1993]. In other cases the choice has been pragmatic. The American government modified its exchange rate system so that it could continue pursuing monetary and fiscal policies that were incompatible with the Bretton Woods regime [Pauls, 1990]

[167] For instance, the growth of reserve money might be held at zero or some low nominal amount. This requires strict control over the public sector deficit, since a major source of reserve money creation is central bank lending to government. In its most drastic form, this type of monetary targeting led countries such as Bolivia (which underwent hyper-inflation in the mid-1980s) to require a "balanced budget" on a daily basis. The government spends today only what it received as revenue yesterday. As noted above, Zambia adopted a cash budget in 1993.

[168] Where the civil service accounts for much of formal sector employment, a wage freeze provides an anchor. This was a key element of successful stabilization efforts in The Gambia.

[169] This was the rationale for the European Union's exchange rate mechanism until it collapsed under the weight of international capital flows.

Indeed any scheme will be suspect that provides a management role for government or the BoZ in the foreign exchange market. Capital flight, currency substitution, and evasion of exchange control restrictions are so ingrained in the Zambian business community that the only regime that can ensure an orderly market is one that minimizes the "tax" (time, paper work, side payments, fees, and risk of arbitrary disruptions) on foreign exchange operations.

By finally eliminating exchange controls in early 1994, the government has attempted to minimize this tax. Asset-holders remain concerned that sharp fluctuations in the exchange rate may still lead the authorities to believe they must "do something". The appreciation of the kwacha between July and November 1993 tempted some officials to intervene, and various interest groups--commercial farmers, ZCCM, and manufacturers--pressed the government to do so. To its credit, it refrained.

Given Zambia's exchange rate history, the only viable option for the foreseeable future is to allow the kwacha to continue floating. It is no coincidence that policy makers in the other two anglophone countries forming the subject of case studies in this volume have reached the same conclusion for their own economies. After traversing a long and tortuous route, they are satisfied that the advantages of a floating regime for confidence, efficient allocation of resources, and transparency outweigh the drawback that the exchange rate may fluctuate in the short run and may overshoot its medium-term equilibrium level if credit is squeezed too tightly.

There is reason to believe that the volatility observed in 1993 was a function of Zambia's transition from a market disturbed by inconsistent government intervention to a largely free one. Already the authorities have helped to settle the market by containing the budget deficit as the primary source of macroeconomic instability. The most effective way of keeping this situation under control would be to retain the cash budget.[170] Complementary measures to lessen the risk of macro instability include tax, civil service and parastatal reform, financial liberalization, and privatization.

Government sales and purchases of foreign exchange for its own use, and the BoZ's need to manage a reserve portfolio, mean that a foreign exchange market cannot be totally free of government influence. The BoZ still has to gain experience in conducting its transactions so as to promote stability of the exchange rate around a market-determined trend.[171] This involves arranging the timing of foreign aid inflows so that they are available to meet debt service commitments, and rebuilding the BoZ's reserves to avoid disruptions in debt service. These measures will help prevent Zambia's external debt operations from adversely influencing the exchange rate and domestic prices.

A program to improve exchange rate management[172]

The preceding sections have shown that improving exchange rate management in Zambia

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[170] The evidence for a conservative fiscal policy as a means of stabilizing the economy is overwhelming [Easterly and Schmidt-Hebbel, 1993].

[171] This is the "modified target zone" system proposed by Krugman [1992].

[172] A program for improving monetary management in Africa proposed by Duesenberry and McPherson [1992] treats sound exchange rate policy as one of its prerequisites. The present volume departs from the axiom that sound monetary policy, which in most SSA economies presupposes basic reforms, is a prerequisite for improving exchange rate management, and *vice-versa*.

presupposes a government commitment to:

- contain the budget deficit, money supply and credit as required to ensure macroeconomic stability. (In the medium term, this requires strict adherence to the cash budget.)
- continue developing a market-oriented financial, trade, and foreign exchange system;
- promote close MoF/BoZ collaboration in realizing the objectives of the economic recovery programme.

These commitments presuppose changes in the financial and foreign exchange system so that:

- interest rates reflect the supply and demand for credit;
- banks and financial institutions are properly and effectively supervised;
- internal and external public debt is rationalized;
- subsidies and open-ended financial commitments to parastatals are eliminated;
- competition is promoted among financial institutions;
- improvements in data monitoring continue; and
- remaining restrictions on international trade and exchange are reduced.

Progress is evident in all these areas. Reforms since early 1992 provide a solid foundation for improving both monetary and exchange rate management. More remains to be done to reduce restrictions on financial markets; strengthen key institutions, notably BoZ and the Budget Office; improve financial supervision; and keep the budget under control. Constructive response to wage pressures will be crucial.[173]

E. Lessons for Exchange Rate Management from Zambia

This review of Zambia's exchange rate management raises the question: how was such a retrograde system sustained for so long? There was overwhelming evidence that the exchange rate regime and other economic policies were causing major economic damage in the late 1970s. Exchange controls were failing to stem capital flight. External debt could not be serviced. The parallel market premium showed the official foreign exchange market to be highly distorted. Large balance of payments deficits were leading to rapid accumulation of foreign debt and external payment arrears.

This information had no discernable effect on economic policy, including the formulation and implementation of economic adjustment. Senior policy makers neither viewed the exchange rate as a key macroeconomic price that taxes some activities and subsidizes others, nor understood the linkages between exchange rate policy and monetary, fiscal, trade, and employment policy.

Over the longer term, exchange rate policy has compounded rather than ameliorated Zambia's economic problems. The experience yields a number of lessons:

Delaying reform increases its costs. Failure to reform the exchange rate system aggravated Zambia's economic imbalances. Adjustments over the past two decades illustrate one mis-step

[173] The GRZ's reaction to the November 1993 report of the President's Commission on Wages and Conditions of Service was encouraging in the event the 1994 budget held salary increases to K12 billion, compared with the K285 billion estimated cost of the Commission's proposals.

after another.[174] The exchange rate should not have been allowed to appreciate against the dollar between 1973 to 1975; devaluations in 1976 and 1978 were too small given the sharp decline in Zambia's export capacity, adjustments in the 1980s were unrelated to the opportunity cost of foreign exchange (as reflected in the parallel market); and instead of abandoning the auction in 1987, the government should have reduced the budget deficit Unification of the exchange market during 1989-91 *via* an accelerated crawl would have required eliminating exchange controls, but this was not done

Moreover, the disavowal of exchange rate adjustment as a policy instrument magnified the crisis atmosphere associated with each episode in which it was finally undertaken as a last resort. When the adjustments were made, complementary measures such as deficit reduction were not effectively implemented.

Resistance to reform is entrenched. Commitment of policy makers to exchange rate reform is inadequate to ensure its success if the main sources of resistance are not identified and neutralized (or "brought on board"). This requires an understanding of the motivation of key participants. Had policymaking responded to the national interest, the exchange rate would have been realigned in 1975, when Zambia's terms of trade deteriorated by 41 percent.[175] Deferring to vested interests, the authorities did not act. As the crisis worsened, adjustments were made only under donor pressure, and then hesitantly and sporadically.

The locus of resistance has shifted over time. Under the Second Republic, the Party, the unions and manufacturers supported the status quo. With the change of government, the central bank became the main obstacle to reform.[176]

Lack of information does not explain resistance to reform. Lack of information about, or detailed analysis of, the economic costs of external imbalance does not explain why exchange market reform was resisted. The overvalued exchange rate was demonstrably harming the economy. Explanations of why a destructive policy persisted for so long in Zambia have to be found in the political economy of controls and rent generation.

Slow liberalization cannot cure large imbalances. The government that took office in late 1991 underestimated the cost that overvaluation of the kwacha was imposing on the economy. Instead of moving quickly to eliminate the distortions, it was persuaded to remove controls slowly and selectively. Major imbalances remained and the reform process failed to win public confidence.

In effect, the authorities failed to register an adequate break with past policies. Specifically,

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[174] Viewed in political economy terms, short-term mismanagement of the exchange rate can be readily explained. Groups enjoying access to foreign exchange at subsidized rates--Party stalwarts, unionized workers, import-substituting parastatals and favored traders--gained from the policy. Over the longer term, the economy's decline has been detrimental to all groups. Moreover the exchange rate distortions have contributed to a marked worsening of income distribution [Fry, 1974 and Iliffe, 1988. Ch.13] Sooner or later the political leadership was bound to be called to account

[175] World Bank [1992d. 662] gives terms of trade indices of 215 5 and 126.3 for 1974 and 1975, respectively (1987=100), 126 3/215 5 - 1 = -0 413

[176] The BoZ's governor was widely viewed as the main barrier to exchange rate liberalization. In fact, resistance was institutionalized in the Bank, and his removal in June 1992 did not make it more cooperative.

they retained the highly inequitable *de facto* tax on legal compliance that, over time, fewer Zambians were prepared or could afford to bear. Selective easing of restrictions in lieu of their abolition encouraged individuals and firms to maintain the arrangements--overseas accounts and use of foreign currency for local transactions--they had pursued in order to evade controls

Admittedly, immediate liberalization of the foreign exchange market would have pushed up prices of a few tradables--most importables were already trading at opportunity cost--but this would have occurred when the exchange rate was K84 to the dollar (November 1991) and not K350, the level when effective liberalization took place in December 1992. The change would also have relieved ZCCM and a few other companies obliged to operate at the official rate from the burden of another year of arbitrary taxation.[177]

Stabilization is not a pre-condition for exchange rate reform. The BoZ continued to maintain that exchange rate liberalization should await stabilization of the economy While Zambia's need for stabilization has been pressing, its absence was no reason to delay reform of the foreign exchange market

The fundamental problem facing the Zambia economy in late 1991 was lack of confidence in the economy itself and in the government's ability to reform it. Confidence cannot be restored as long as government and its agencies (such as the central bank) are perceived as reluctant to eliminate key distortions. A system badly distorted by controls cannot be reformed with those controls still in place. Furthermore, with confidence as low as it was in Zambia, no major actors will believe that reform is in place until the main restrictions have been removed.

Improved supervision is not a pre-condition for removing exchange controls. Another BoZ argument for retaining exchange controls was that it needed time to improve supervision. Acceptance of this view would have made exchange rate reform a hostage to the central bank's inadequacies

Financial supervision is a key central bank function regardless of the existence of exchange control [Goodhart, 1988]. The BoZ should have been much further along in this area than it now is, 25 years after assuming responsibility for exchange control. The urgent need to improve its capacity for supervision is an argument for relieving the Bank of extraneous functions such as exchange control.

Successful exchange rate reform requires complementary policies. Exchange rate reform can succeed only as part of a broad economic adjustment program. Liberalization allows the rate to be market-determined, but does not guarantee its stability. That requires complementary measures to smooth fluctuations in the demand for, and supply of, foreign exchange.

These measures include containment of the public sector deficit at a level that can be covered by foreign aid and does not crowd out private investment, reform of key financial institutions, and conformity of real wage growth to labor productivity. In a word, exchange rate reform and management must be viewed in a general equilibrium context.

A devaluation-inflation spiral is not inevitable. Policy makers in Zambia, as in the other countries whose experience is described in this volume, long resisted devaluation because they feared it might induce a devaluation-inflation spiral. As indicated in Section IV.A, as long as

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[177] The disparity between the market and official exchange rates during 1992 cost ZCCM approximately $15 million per month. No Zambian official interviewed by the authors could explain why such a loss (totalling about $180 million) should have been imposed on the country's leading enterprise.

some domestic prices are influenced by the official exchange rate and do not fully reflect the opportunity cost of foreign exchange, a devaluation will normally lead to a first-round increase in the price level. However, Zambia's own experience in 1993, when monthly inflation fell from 15 8 percent in June to -1 6 percent in November and the kwacha's November-December fall had been contained by March 1994, shows that a spiral need not follow, given adequate control over the public sector deficit and a non-accommodating credit policy

Liberalization increases the risk of overshooting. As noted earlier, the May-October 1993 credit squeeze pushed the kwacha sharply upward against the dollar. Then the threatened reduction in 1994 donor support caused a panic depreciation in November and December. Many observers blamed the floating exchange rate mechanism. In fact, the root cause was lack of confidence. While that situation persists, asset-holders' expectations will remain volatile, providing the potential for further sharp movements in the exchange rate.

In order to curb this volatility the government must maintain its commitment to economic reform and avoid short-term reactions (such as attempting to re-fix the exchange rate) that will undermine confidence Given positive real interest rates, a well-functioning Treasury Bill tender, a transparent and consistent mechanism for BoZ foreign exchange transactions, and retention of the cash budget, the government now has the instruments needed to stabilize prices and ultimately the exchange rate.

No single instrument will suffice to hold that rate rigidly to a level reflecting the medium-term opportunity cost of foreign exchange. But prudent management of the entire package will enable the authorities to counteract any short-run tendency of the nominal rate to move substantially off the trend-line consistent with that level.[178]

Capacity and confidence are essential for exchange rate reform. Zambia's economic history since 1970 provides a case study of government interventions undermining confidence. The government intervened in too many areas, too often, in an arbitrary manner which allowed systematic abuses by vested interests. To protect themselves, asset-holders shifted their assets abroad, used substitute currencies, and conducted transactions through non-formal and parallel channels.

To change this situation, the government must demonstrate its capacity to manage the economy and take explicit steps to regenerate confidence. Given that capacity is necessarily constrained, the most effective approach is to pursue consistent and transparent policies that leave as little room as possible for arbitrary official actions. Pursuit of a cash budget and market liberalization represent such policies.

The cycle of self-fulfilling adverse expectations will be broken when asset-holders have an incentive to change their behavior. Tighter foreign exchange controls will not restore confidence, especially when they are administered by a central bank that has lost the public's trust Continued controls simply add to the premium on foreign exchange; they do nothing to eliminate the premium.

Re-generating confidence will take time. Government must satisfy the market that (i) it is itself convinced that any attempt to reinstitute direct control of the exchange rate would be

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[178] The literature on exchange rate management highlights the limits of central bank discretion Central bank action can influence trends in the exchange rate, but not resist them [Branson, 1983, Cooper, 1985; Humpage, 1986].

disastrous, and (ii) it and the BoZ will limit themselves to influencing the rate indirectly through the market, using such instruments as controlling credit growth, promoting financial competition and removing distortions in the trading system.[179]

F. Concluding Observations

In October 1991, Zambia's newly elected government faced the task of imposing order on an economic system that had been allowed to deteriorate for two decades. There were many obstacles to reform. The country's external debt was unserviced (and unserviceable); key economic institutions had become dysfunctional; macroeconomic data was out of date; many senior officials in the government, parastatals, and unions opposed economic reform; and few Zambians had confidence in the future of the economy. On the positive side, the Zambian electorate had given the government a mandate to change economic policy radically, and the donor community was offering substantial support.

Up to mid-1993 the over-riding concern was whether, and under what circumstances, the economy would stabilize. In 1992, unprogrammed wage awards, subsidies to parastatals and drought expenditure added to instability. Policy makers did not appreciate how sensitive the economy had become to large budget deficits.

In preparing its program for 1993, the government made inflation the principal concern. In late 1992 it floated the currency, shifted to a market-determined interest rate and adopted a cash budget After a shaky start, the economy began to move in the right direction. Zambians have been through similar changes in the past only to see them reversed. It has taken time for consumers and the business community to accept that economic recovery is possible. Many remain skeptical

The speed with which the economy adapts to the new policy directions will depend on how boldly the government pursues them. Final elimination of exchange controls in January 1994 was a positive step. It requires complementary actions, some of which are being delayed. Parastatal deficits (Zambia Airways and ZCCM) are not yet under control. Divestiture/liquidation of parastatals has been protracted. Civil service reform has also been delayed.

The Zambian economy has not experienced a "soft landing". A combination of tight liquidity, high real interest rates and declining real incomes made the exchange rate "overshoot", following which, when asset-holders panicked over threatened loss of donor support, it underwent a sharp correction. These changes placed severe pressure on local manufacturing, agriculture and mining. As with the government itself, two decades of economic mismanagement have burdened these sectors with structural features causing low productivity, and major adjustments are required to make them competitive

Economic reform is never easy. Nonetheless, a decade and a half of evidence from Zambia (and the other countries analyzed in this volume) shows that reform postponed is ultimately more difficult and costly Zambian policy makers made the mistake of letting the costs of adjustment

[179] Although this chapter has focused on domestic variables, the international context should be kept in mind. As a result of the globalization of financial markets, the government and BoZ cannot be effective "players" in the Zambian economy if they attempt to control directly the exchange rate and other financial variables.

deter them, while paying too little attention to the costs of not adjusting. This not only created distortions in the economy, but severely damaged institutions and attitudes An example of the latter is the BoZ's persistent reluctance to relinquish controls which it was not implementing effectively, transparently or equitably, causing it to obstruct rationalization of the foreign exchange market

Elimination of exchange controls has now given Zambia's key economic institutions the opportunity, for the first time in over 20 years, to focus on the macroeconomic policy changes needed to support a liberal exchange rate regime. Some frictions will be encountered. However, the government has finally demonstrated a capacity for basic policy reform. This is encouraging and gives hope that policy reversal and abandoned reform may belong to the past. If that proves to be the case, the Zambian economy will experience economic recovery and long-term growth.

Annex to Chapter IX: Chronology of Exchange Rate Actions in Zambia

1949 Devaluation of pound sterling led to boom in copper industry
1964 (October) Zambian pound fully convertible one-to-one with pound sterling
1965 Establishment of Bank of Zambia to replace Bank of Rhodesia and Nyasaland
1965 Exchange Control Act passed; Minister of Finance empowers Bank of Zambia to administer the controls
1968 (January) Zambian pound replaced by kwacha at rate of K2=Z1
1970 (September) Mufulira mine caves in
1971 Major failure of maize crop
1971 (December) Kwacha linked to dollar
1973 (January) Border with Rhodesia closed
1973 (February) No adjustment when US $ devalued (implied a revaluation of 11.1% against the $)
1975 (September) Copper companies declare *force majeure* due to transport problems
1976 (July) Kwacha linked to SDR after 20% devaluation against the $
1978 (March) Kwacha devalued by 10% against the SDR
1978 (June) first aid consortium meeting for Zambia held in Paris
1979 Failure of maize harvest
1983 (January) Kwacha devalued by 20% against SDR
1983 (July) adjustable peg tied to an SDR basket; implied devaluation of 11%; crawl of 1% per month
1983 Introduction of 50% retention for non-traditional exports
1984 Rate of crawl raised to 2.5% per month
1985 (October) K2.2=$1 Introduction of auction based on marginal bid
1985 (December) K5.7=$1
1986 (June) K7 5=$1 with virtually no parallel market premium
1986 (August) Dutch auction introduced
1986 (December) Budget deficit for year 21.6% of GDP; inflation for 1986, 82.1% (GDP deflator); rate on Treasury Bills, 25% per annum
1987 (January) Auction suspended; exchange rate set at K9=$1
1987 (March) Two-tier system, K9=$1 official, float for remainder
1987 (April) exchange rate K21=$1
1987 (May) Auction abandoned; rate fixed at K8=$1; FEMAC established--combined import licenses and foreign exchange allocation; 10% of net export earnings allocated to debt service
1987 (December) Third party use of foreign exchange with BoZ approval; "no funds" subject only to a negative list; retention funds could be held for 60 days
1988 Open, but illegal, black market
1988 (November) Devaluation by 20% to K10=$1 and linked to the SDR
1989 (January) New Economic Recovery Programme (1989-1993) released; remittances for expatriates increased
1989 (March) No questions asked policy on "no-funds" market
1989 (June) Bank of Zambia agrees that liberalisation would provide positive incentives but

needs time for further consideration

1989 (July) Devaluation by 49% to K16=$1, followed by monthly crawl

1989 (November) Travel allowances increased

1989 (December) Devalued to K24=$1

1990 (February) Open General License system introduced; official rate K22=$1 (for ZCCM, Zambia Airways, Zimoil, fertiliser); "second window" K40=$1 but crawling; exporters formally authorised to sell importers retention funds

1990 (April) Export retention scheme simplified

1990 (July) Guidance from BoZ on operations at market exchange rate

1990 (September) Export licenses issued by commercial banks; export retention extended to six months; travel and education allowances increased

1990 (October) Resident non-Zambians permitted to hold local dollar-denominated accounts

1991 (April) Retention market exchange rate introduced

1991 (May) IMF agrees to Rights Accumulation Programme for Zambia

1992 Major failure of maize crop

1992 (January) Non-traditional exporters allowed 100% retention; official rate devalued by 30% and rate of crawl accelerated (to 8% per month)

1992 (April) Official rate K136=$1; retention K194=$1

1992 (June) Report of Exchange Market Liberalisation Committee -- urges caution

1992 (October) Bureaux de change system introduced

1992 (December) ZCCM earnings sold at "market rate"

1993 (January) Government announces that Exchange Control Act will be repealed

1993 (June) BoZ report on exchange rate liberalisation: urges caution until economy stabilises

1993 (July) BoZ issues A.D. Circular 9/93 which transfers most exchange control to commercial banks

1993 (July) Kwacha reaches K565=$1, begins to appreciate

1993 (August) Rate of inflation falls to 2.5% per month

1993 (August) Inter-Ministerial Technical Committee appoints Sub-Committee on Exchange Rate Liberalisation

1993 (October) Exchange rate K345=$1; real interest rate approximately 4% per month

1993 (October) Sub-Committee completes report; recommends sweeping removal of exchange controls

1993 (November-December) Rapid depreciation of the K/$ rate due to uncertainty over future donor support for Zambia

1993 (December) Bank of Zambia tightens monetary conditions; sharp increase in nominal interest rates

1994 (January) Minister of Finance announces cessation of Exchange Control Act in Budget Speech

Sources: World Bank, 1977; McPherson, 1980; Aron and Elbadawi, 1992; IMF Team, 1992; Zinnes, 1993

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CHAPTER X

MACROECONOMIC AND EXCHANGE RATE MANAGEMENT IN SSA

Chapter IV outlined the main elements in the process of transition from controlled to market-based exchange rates. In most developing and former centrally planned economies that have completed this transition, the authorities have first (i) pursued monetary and fiscal policies that contained macroeconomic instability, and (ii) introduced measures of trade liberalization, before moving to market-based exchange rates by unifying the nominal and parallel market rates

In principle, stabilization, while it greatly facilitates exchange reform and is desirable in order to remove economic distortions and promote growth, is not inherently a precondition to exchange reform because the market can effect a steady devaluation to compensate for inflation and thereby maintain an equilibrium real exchange rate Several Latin American and Asian countries have at times allowed the market to determine their exchange rates notwithstanding rapid inflation

However such periods have tended to alternate with others when official ambivalence about the exchange market gained the upper hand. At that point the authorities have preferred to see the exchange rate as an instrument for combatting inflation, and have interrupted market-directed depreciation of the national currency. This has invariably led without delay to BoP pressure, undermining the process of liberalization.

The lesson for Africa is that, absent a credible commitment to stabilization at the time exchange liberalization is undertaken, there is a serious risk that the process will be interrupted. With insistent prodding from the IMF and donor agencies, most SSA countries have initiated "structural adjustment programs" (SAPs) featuring simultaneous measures of macroeconomic stabilization and trade and exchange liberalization, designed to lead to a market-determined exchange rate within the program's term. Previous chapters have examined in detail the experience of four countries that have modified their exchange rate regimes in the context of such programs. The present chapter summarizes this experience with respect to stabilization and exchange rate reform. It concludes with a summary review of the status of the SSA region as a whole with respect to exchange rate management.

A. SSA Economic Background

On average, the countries of SSA outside the franc zone have been experiencing macroeconomic problems for roughly twenty years, while most FZ countries date their encounter with such problems more recently, to the early 1980s. Soon after independence many SSA countries initiated ambitious public expenditure programs including establishment or expansion of state enterprises. Those programs were often financed by central banks, which either lent directly or provided "refinancing loans" at low interest rates to commercial banks in their role as the nominal creditors.

A number of African countries benefitted from commodity booms in the early or mid-1970s. Non-oil countries' gains were partially offset by higher oil prices as well as accelerated inflation in developed countries. Nonetheless, in many countries the cost of imports generated by expanded public expenditure was covered for a few years by improved ToT. However that

improvement was short-lived, as most commodity prices suffered a relative decline in the late 1970s.

For example, Ghana experienced a fivefold rise in export prices between 1971 and 1978. In spite of the rise in oil and other import prices the ToT improved by 100 percent between 1971 and 1977, but then deteriorated rapidly in the 1980s. Zambia's ToT improvement began earlier and ended quickly but had a heavy impact on policy. Nigeria and the other oil exporters first exploited the oil boom and then underwent severe strains through failure to adjust to its collapse.

Most of SSA's inflation and BoP problems can be traced to some combination of demand expansion and ToT deterioration. In some cases the demand expansion began in response to a favorable ToT shift, and was subsequently not reversed when trade terms worsened. Policy makers chose to interpret changes in external conditions in the most favorable light, regarding a favorable shift as permanent and its reversal as temporary

The appropriate response to the ToT reversal would have been policy reform leading to contraction of demand and adjustment of exchange rates. Instead, many countries in SSA as well as Latin America and elsewhere chose to finance their trade deficits rather than contain them via policy reform The more creditworthy countries supplemented official aid they were receiving on concessional terms by borrowing from commercial sources, but this flow soon dried up and left the countries with unmanageable debt burdens.

Governments also tried to avoid the need for demand restraint or devaluation by administrative measures to suppress inflation and ration foreign exchange. They introduced or increased subsidies for food and energy, often accompanied by rationing, in an effort to hold down the cost of living, especially for urban workers. The BoP gap was covered by tariff increases and exchange control in the form of import licensing and quotas.

Increasing reliance on exchange controls stimulated parallel markets and weakened the impact of exchange rate shifts. When, as often happened, domestic prices continued to rise despite a fixed nominal exchange rate, the premium in the parallel market increased and evasion of the controls became more common. Eventually the price distortions, inefficiencies and corruption resulting from the exchange controls forced devaluation, but not necessarily an end to the control regime. In most cases when inability to enforce the controls compelled governments to devalue, the exchange rate adjustment was too small and not accompanied by the changes in fiscal and monetary policy needed to make it effective.

The early 1980s found most SSA countries heavily in debt and suffering severe BoP stress. Inflation rates were high in most of the non-franc zone countries--86 annual observations by the IMF on 22 countries during 1980-83 average 22.4 percent.[180] Exchange control, universal in the high inflation countries, was accompanied by wide spreads between nominal and parallel market rates. Weighted average SSA GDP growth during the 1960s and 1970s was about 4 percent per annum, but during 1980-91 it was only 2.1 percent, and per capita GNP fell at -1.2 percent p.a. during the decade [World Bank, 1981: 144 and 1993b: 239 & 241].

The SAPs initiated during the 1980s in response to this crisis, rather than focussing on long-term growth objectives, were intended to lay the groundwork for resumption of growth through a variety of institutional reforms and policy changes. Priority was given to restoring a modicum

[180] Unweighted average of percentage increases of consumer price indices [IMF, 1993c: 105].

of solvency in the BoP and minimizing the threat of hyperinflation. Medium-term objectives were price stabilization, exchange rate unification, and real devaluation to provide incentives for export expansion.

The first step in curbing inflation was normally to reduce public sector borrowing from the banking system. Most SAPs also called for higher nominal interest rates to encourage saving and a market-based allocation of credit; elimination of exchange controls, and devaluation or a move to a floating exchange rate.

B. Deterioration of SSA Institutional Capacity for Exchange Rate Management

Implementation of exchange control has required the central bank and finance and trade ministries to micro-manage the allocation of that portion of foreign exchange passing through government accounts They have had to approve all forms of payments including borrowing abroad, debt service, foreign travel, imprest accounts and so on. The market distortions caused by exchange controls have been compounded both by corruption and by bureaucratic inefficiencies associated with institutional decay. Some actors buy their way around the controls, others ignore them by keeping their resources abroad or shifting their local operations into hard currency.

In the growing number of SSA countries that have liberalized their exchange rate systems, the occasion for such micro-management as well as the inefficiencies that have accompanied it have declined substantially. However liberalization has not reduced the need for formulation and implementation of macroeconomic policies designed to maintain a stable environment for production and investment. Availability of up-to-date, reliable data is central to the formulation and execution of such policies. A government cannot constructively affect the economy's direction if it does not know the present position. Timely collection and analysis of data depend on the presence of competent staff in the finance ministry and central bank. In many African countries staff capacity in these agencies has declined in the recent past.

In some cases this can be attributed at least in part to the preference of autocratic policy makers for weak central banks and finance ministries. In some countries, e.g. Zambia's Second Republic, the economic agencies have been subordinated to the "Party". Whether as a result of deliberate undermining or merely an outcome of neglect, real compensation has been depressed by inflation, inducing many qualified staff, some of whom were given postgraduate training abroad in order to strengthen their institutions, to shift into private or parastatal positions or even emigrate. Along with budget cuts and tightness of foreign exchange, diminished accountability throughout the public sector has led to an erosion in the timing and quality of data collection.

Central banks and statistical agencies typically collect and publish basic data with serious lags. The Bank of Zambia has not published audited accounts since 1988 Some central banks take six months to produce a credible monetary survey. Many finance ministry budget departments are no more up-to-date in monitoring the execution of national budgets.

C. Experience of the Four Sample Countries - Summary

Ghana, Senegal, Uganda and Zambia have all made progress towards establishing a base for

effective exchange rate management. There has been progress toward price stability, unification of exchange rates, and a real devaluation sufficient to provide a base for export expansion. However, none of the countries has completed these tasks and the four economies remain fragile. New shocks could seriously disrupt the progress achieved up to now. The current position regarding the three immediate objectives of macroeconomic policy are reviewed below together with some observations on ancillary objectives.

Disinflation

The three anglophone members of our sample--Ghana, Uganda, and Zambia--have suffered severely from inflation during the last twenty years. The lowest 20-year rate has been Zambia's at 2,200 percent, the highest Uganda's at about 20,000 percent, with Ghana falling in between at over 8,000 percent. All three have experienced at times annual inflation rates of over 100 percent, by late 1993 Ghana and Uganda had brought inflation down to 10 percent or less, while in March 1994 Zambia's annual rate of inflation was about 27 percent.[181] In contrast, by virtue of its membership in the franc zone Senegal's cumulative inflation during 1972-92 was limited to 310 percent, modestly above the 267 percent average for industrial countries.[182]

Ghana's CPI rose at an accelerating rate from the late 1970s through 1983. The remainder of the 1980s saw two cycles of acceleration and deceleration; however in 1991 the rate was below 20 percent, and in 1992 only 10.1 percent. The latest drop is due to several factors. After 1983 the growth of bank credit to government was sharply reduced in real terms. The ToT stabilized for a time although they deteriorated again at the end of the decade, by which time official transfers were rising rapidly With the restoration of confidence, private transfers grew even faster, while a sharp rise in demand for money relative to income enabled growth of money supply to exceed that of national output and expenditure, slowing inflation and creating seigniorage for the government.

Eight years of despotic rule by Idi Amin undermined ***Uganda's*** once prosperous economy. Some recovery occurred under the Obote government, which took over in 1981, but progress was interrupted by renewed civil war. After some false starts, since 1987 the NRA government has pursued a stabilization program which has brought Uganda into the ranks of Africa's current top performers. Inflation, peaking at 240 percent in 1986/87, dropped to minus 0.6 percent for the 12 months July 1992-June 1993. Projections for 1994 foresee prices rising below 10 percent [IMF, 1994a: 23]. The disinflation was accompanied by liberalization of trade and the exchange rate (see below).

Uganda's recovery has been accomplished notwithstanding one of the severest ToT declines suffered by an African country. Between 1986/87 and 1992/93 the ToT had deteriorated by about 65 percent, reflecting primarily a fall in the price of Ugandan coffee. Heavy indebtedness coupled with the decline in export earnings brought Uganda's debt service ratio to almost 100 percent in 1992/93.

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[181] Twenty-year inflation rates are calculated from respective country pages in IMF [1993c]; pre-1993 annual rates are given in consumer price table, ibid. 105; 1993 data for Ghana and Uganda relate to the period July-October, taken from respective country pages, IMF [1994c]; 1994 figure for Zambia from GRZ, Ministry of Finance [1994]

[182] Calculated from index for industrial countries given in IMF [1993c: 106-07]

With the help of the World Bank's debt reduction facility the government bought back $153 million of commercial debt at a substantial discount, and rescheduled other debt. A strong recovery of production--GDP rose at an average 5.0 percent p.a. during the five years ending June 1993--coupled with heavy inflow of official and private transfers, reaching 13 percent of GDP in 1990, and forthright action by the government in reorganizing tax collection, downsizing the civil service and demobilizing the military, brought the budget deficit under control The deficit ballooned to 8 percent of GDP in 1991/92 but fell to 3.4 percent in the following year

In rapid succession ***Zambia*** initiated and then abandoned several stabilization programs. Inflation rose steadily during the 1980s, exceeding 100 percent in 1989 and 1990. The new government elected in late 1991 began a fresh round of stabilization efforts. Its first budget, adopted in early 1992, established nominally tight controls over public expenditure and monetary expansion. However, the government proved unable to hold the line on expenditure and inflation accelerated once more.

A second attempt later in the year was more successful. The January 1993 budget statement committed the government to a "cash budget", i.e. zero borrowing from the banking system. Notwithstanding some "fudging", notably build-up of arrears and financing of maize purchases with promissory notes, expenditures were held down. After some slippage in controlling parastatal finance, domestic credit was also contained. The result of the budget and credit crunch was rapid disinflation.

In December 1992 prices were rising at 10 percent per month; ten months later inflation was at a (temporary) halt. The disinflation was assisted by a temporary appreciation of the kwacha (see below). However a reversal of this latter trend in November 1993 led prices to increase by 16 percent (an annual rate of 80 percent) over the following three months.

By virtue of ***Senegal's*** membership in the West African Monetary Union (WAMU) and thus use of the CFA franc, its recent inflation rate was close to (though slightly less than) France's--during 1972-92 France's CPI increased by 335 percent, compared with Senegal's 310 percent, the peak being 31.7 percent in 1975 During 1993 Senegalese prices declined by 0.7 percent. The IMF projects an increase of 39 percent during 1994 in the wake of the CFA franc's January devaluation [IMF, 1994a: 71].

In common with most WAMU members, notwithstanding the low inflation rate, Senegal lost international competitiveness during the last two decades, and pursued a stabilization program designed in effect to devalue the CFA franc's REER. The resulting measures to curtail bank credit and contain the budget deficit pushed the 1992 CPI 7.5 percent below that for 1986, without resulting in a significant boost of exports and leaving the economy in deep recession.

Exchange rate unification

With constant encouragement from the Bretton Woods institutions, all three anglophone study countries have now unified their exchange rates for current transactions by leaving them to be determined by the market, i.e. float. This occurred after extended periods of exchange control coupled with efforts to maintain nominal rates as low as 3 percent of those determined in the parallel market. These regimes, which involved multiple nominal rates, were eventually simplified into dual exchange systems, with one official (preferential) rate and a pseudo-market rate at which current transactions were largely free of controls. Eventually each country raised its nominal rate (local currency units per dollar) far enough to reduce the market premium to a fraction of earlier levels, but unification occurred only when a free market came into being

in which the central bank itself participated and whose rate it applied to official transactions.

Ghana led the way in the unification process, and Uganda and Zambia have subsequently adapted the Ghanaian approach to their own situations. In 1982 Ghana's parallel market rate exceeded 40 times the official rate. The following year, when the CPI was rising by 142 percent, the cedi was implicitly devalued by introduction of bonuses on foreign exchange receipts and surcharges on payments, effectively raising the official rate (cedi per dollar) by a factor of about eight

During the next three years the bonus and surcharge scheme was abandoned and the cedi experienced periodic official devaluations more or less in tandem with inflation, by 1986 reaching a level 33 times the 1982 nominal rate. The real rate was about ten times the 1982 level. In 1985/86 restrictions on import licensing were eased although foreign exchange was still rationed and excess demand supported a premium that averaged around 120 percent on the parallel market [183]

In 1986, as the first step towards officially allowing the market to determine the exchange rate, the central bank initiated auctions of part of the foreign exchange available to it through official channels, notably foreign aid and cocoa export proceeds, as well as the portions of their foreign exchange proceeds which private exporters of gold, timber, etc. were required to sell to it. Participation in the auctions was limited to importers bidding to fulfill their licenses. A cheaper (fewer cedis per dollar) fixed rate was maintained for official transactions and "essential" imports such as petroleum and drugs. The parallel market continue to thrive.

In 1988 the government legalized the parallel market by allowing exchange bureaus to operate, supplying foreign exchange for any *bona fide* imports of goods or services. The bureaus and their suppliers were not required to identify their sources of foreign exchange. At first the bureaus were excluded from the central bank auctions, leading to a significant differential in rates between the two markets (the bureau rates being higher). However in 1990 the auction was reorganized as a wholesaling operation, open to banks and bureaus meeting certain criteria. Banks and bureaus were also authorized to trade foreign exchange among themselves.

In 1991 the (partial) surrender requirement still in effect for exporters was partly shifted to banks, the central bank retaining only cocoa and gold proceeds, which it continued to use for official transactions. A somewhat retrograde step in the same year limited the net open foreign exchange positions of banks and bureaus, requiring them to sell the excess to the central bank or other dealers.

The following year the central bank auctions were terminated, and processing of import applications was shifted from the central bank to the commercial banks. However, with the central bank still retaining cocoa and gold proceeds, the commercial banks could not meet import demand at the official exchange rate, and queues developed. Eventually the central bank began supplying foreign exchange to the commercial banks. With the central bank's active participation in the interbank market, the exchange rate for current transactions was effectively unified.

During the 1970s *Uganda* maintained a fixed official exchange rate with few adjustments even during rapid inflation. When Obote took control in 1981 the parallel market rate was 30 times the official level. The new government devalued quickly by 90 percent and continued with

[183] Mean value of approximate average monthly premia, January 1985-December 1986.

periodic devaluations before and after introducing an auction system in 1982, although ongoing inflation kept the official rate at a fraction of the auction rate.

In mid-1984 the official and auction rates were unified at a level four times higher than the pre-existing official rate. However inflation accelerated with renewed civil war, and in early 1986 the auction was abandoned in favor of new experiments with dual rates. By the time the NRA government took power in 1986 the parallel market premium had reached 1000 percent.

Between mid-1987, when the Economic Recovery Program was launched, and mid-1990, the NRA government conducted step-wise devaluations, retaining a below-market official rate for certain licensed imports while authorizing non-coffee exporters to use their full proceeds for a wide range of imports. Moreover the parallel market was tolerated and permitted to import all except specifically banned commodities.

In July 1990 the government legalized the parallel market by authorizing establishment of exchange bureaus. In early 1992 an auction for donor import-support funds was established, effectively ending official intervention in exchange rate determination. In late 1993 the auction's functions were transferred to the interbank market.

Zambia's effort to maintain a below-market exchange rate (low kwacha value of the dollar) can be said to date from 1971, when the country's BoP suffered its first significant current account deficit (15 percent of GDP). During the two years following the Smithsonian realignments of December 1971, Zambia allowed its currency to appreciate by 11 percent against the dollar. After a modest devaluation in 1976 the kwacha's nominal dollar value entered the 1980s only 8 percent below its pre-Smithsonian level, notwithstanding serious economic deterioration. Devaluation occurred more frequently in response to accelerating inflation after 1980, but the parallel market premium continued to widen.

Under IMF and World Bank pressure the government established an auction in October 1985. This appeared to succeed in arriving quickly at a realistic exchange rate, but the resulting nominal depreciation of the kwacha aroused political opposition, in response to which the government abandoned the auction and reimposed a highly overvalued official rate only 19 months later.

The accelerating inflation forced the Kaunda government into further stepwise devaluations, but when it was defeated at the polls in late 1991 the premium on the parallel foreign exchange market was around 80 percent. The new government undertook a serious effort to liberalize, beginning by authorizing bureaux de change. At the time of writing the bulk of foreign exchange receipts, derived from copper exports and foreign aid, are deposited with the central bank. The bank decides on a daily basis how much foreign exchange it wants to put into the market, and offers this to banks and bureaux de change at a price based on rates observed in the bureaus the preceding day.

The bureaus also buy from private suppliers, but, collectively at least, they are almost always net purchasers from the central bank. There is no formal auction but dealer competition seems to be effective in establishing rates that reflect conditions of demand and supply, subject to the reservation that differentials among rates offered by different dealers point to continuing market imperfections. Again at the time of writing, the central bank was working towards a system of accepting bids for the available exchange each day. Such an arrangement offers two major advantages: firstly, it will eliminate the central bank's dependence on the preceding day's rates (during periods of rapid change this had already generated substantial margins for dealers); and

secondly, it will provide information to the market more quickly and efficiently than occurs through dealers comparing each other's rates.

Almost until the bitter end of the 50:1 FCFA/Ffr exchange rate, exchange rate unification was not an issue *Senegal* and the rest of the franc zone. The premium of less than ten percent observed from time to time in certain markets was attributable to tax evasion and convenience rather than the underlying imbalance between supply and demand. The gap widened in late 1993 as the banks postponed foreign exchange transactions in anticipation of the devaluation; as of the time of writing (late 1994) the hefty realignment--50 percent drop in the CFA franc's value--was considered more than enough to redress the imbalance and no one was yet speculating in anticipation of a further realignment.

Conclusion. All three anglophone study countries have by now eliminated all significant controls on the supply and use of foreign exchange for current transactions. All three eschewed "shock" therapy, seeking instead a conversion lasting several years from an overvalued official rate to a market-determined one.

The preference for gradualism arose from several factors:

1. Maintaining an overvalued official rate eased budget pressure from government imports and payment of debt service;
2. Licensing of imports at the official rate created rents for favored traders and consequent opportunities for corruption;
3. Government officials, nervous about the dynamic response of markets to shocks, are almost always averse to sudden large price changes. Rapid closure of the gap between official and parallel markets, even if highly beneficial to society as a whole, is costly to influential economic actors who have adapted to the old system. Officials seek to avoid friction with these actors and blame for adjustment losses by slowing the reform process.

Clearly rapid adjustment does inflict some real social costs on workers who lose their jobs and consumers who see prices of basic foodstuffs sky-rocket. Insofar as government is not equipped administratively to compensate vulnerable actors, some degree of gradualism may be justified on equity grounds, quite apart from the need to build political support.

On the other hand the elaborate licensing schemes that the governments used to direct cheap foreign exchange to supposed priority uses did not achieve most of their social objectives. Governments are inherently less efficient than markets in choosing socially optimal uses for foreign exchange, moreover much of the government-controlled exchange that was allocated to such uses was in effect resold at parallel market rates. On balance, the efficiency losses and stagnation which the study countries experienced by delaying exchange rate unification for several years clearly outweighed any benefits of gradualism.

Movement of REERs

This subsection summarizes the experience of the study countries in effecting devaluation of their real effective exchange rates. Each country has made significant progress in this respect, although the experience of each in the transition process has been quite different.

Ghana has been officially embarked on a stabilization program since 1983, and after some false starts has probably succeeded in establishing a more solid basis for development of exports than any SSA country other than Botswana and Mauritius. From 1983 to 1992 Ghana's REER depreciated by 86 percent. This had two results: firstly, the cocoa that previously exited through Ghana's CFA neighbors was lured back into formal trade channels. Recorded 1991 cocoa export

volume was 45 percent above that in 1985; in 1989 it was 62 percent higher, although more recently the declining world price has taken its toll.[184] Secondly, during 1986-91 the dollar value of timber, minerals and energy exports grew by 7.1 percent p.a. while nontraditional exports (NTE) grew at more than 8 percent. The consistent profitability of NTE has attracted significant new foreign investment.

A notable feature of Ghana's stabilization program is that real devaluation and export expansion were not accompanied by a reduction in the current account deficit. As income rose and exchange controls were eliminated, imports expanded faster than exports, and a sharp increase in foreign aid disbursements and remittances of Ghanaians working abroad enabled the country to finance a trade balance that moved from being positive ($61 million) as late as 1986 to a deficit of $470 million in 1992 [IMF, 1993: 373].

Figure X.1 illustrates Ghana's transition. *EXT* and Q^* represent the initial external and internal balance constraints familiar from Figures III.3 and III.5; point *A* represents an *ex ante* disequilibrium position with (i) an overvalued cedi and (ii) a level of real GDP that cannot be sustained without accelerating inflation *Ex post* the economy lands at point *B* with a higher REER (a weighted average of the nominal and parallel market rates) and lower GDP.

The easing of controls tends to increase imports at any given REER, thus pushing *EXT* upward and to the left with fixed financing (dashed line *EXT'*). However in Ghana's case this effect was more than offset by the action of foreign aid disbursements and private remittances in pushing *EXT* down and to the right (heavy line *EXT''*), as any given REER was now compatible with more imports and a higher GDP.

On the side of internal balance, elimination of exchange controls reduced price distortions and the resulting loss of productive efficiency, especially in agriculture. Spare parts and other inputs became readily available to industry, expanding capacity utilization. These changes shifted Q^* to the right (line Q^{**}).

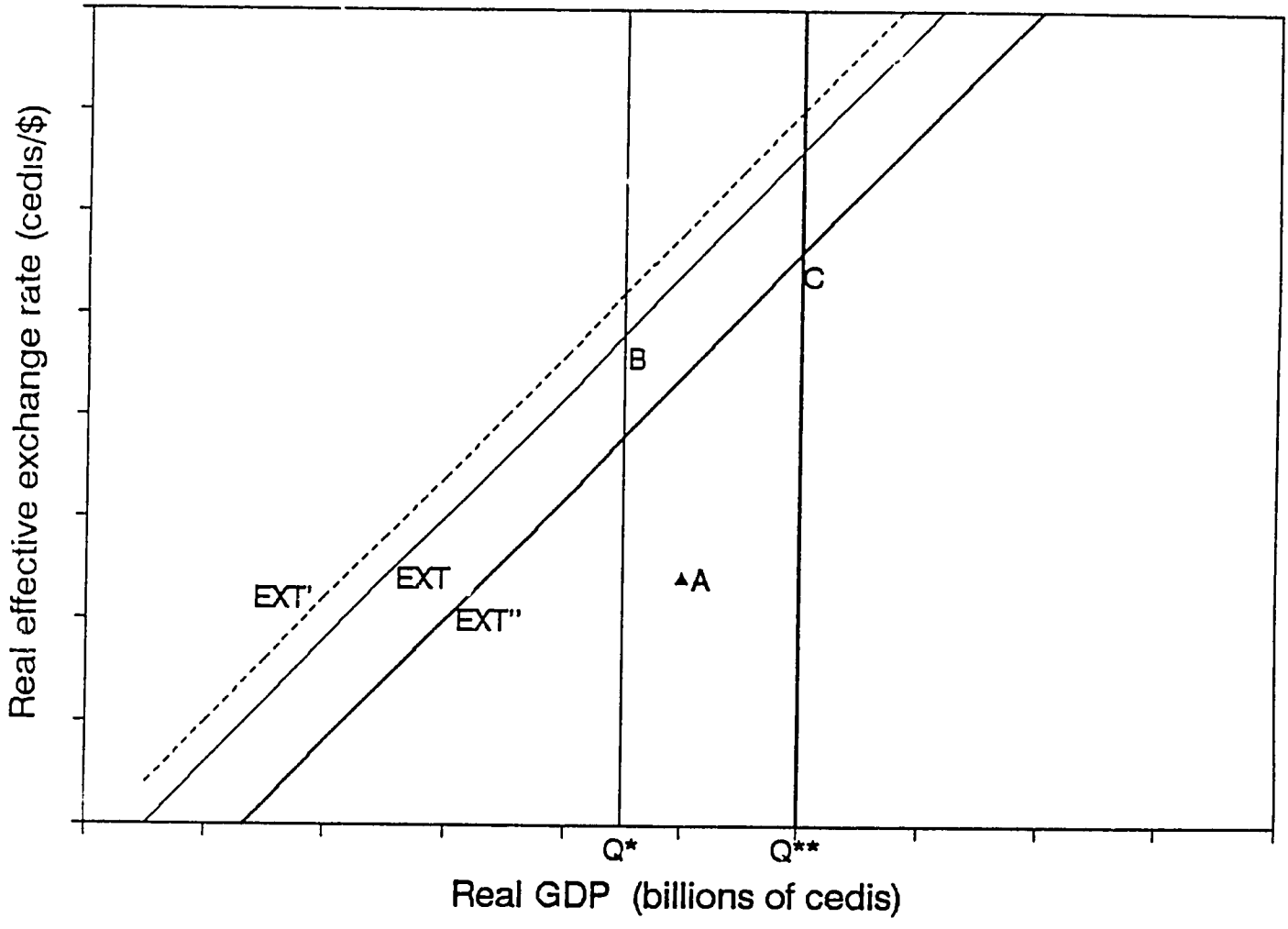
The net result of these policy-induced shifts was to move the economy to point C, representing increased real GDP at a higher REER (the unified auction rate), a reduction in inflationary pressure, an increase in exports and even greater expansion of imports. The higher REER was the net outcome of a real depreciation of the cedi's nominal value, while its value in the parallel market *appreciated* in real terms, bringing a near conjunction of the two rates.

Uganda's exchange market experience exemplifies another set of transitional problems. Like Zambia it brought down both its inflation rate and demand for imports by tightening control of public expenditure and credit. However an unexpectedly sharp compression of imports created different problems. First, the planned inflow of counterpart funds from sale of aid receipts to private importers was so large a share of budget revenue (around 30 percent) that the import shortfall substantially increased the fiscal deficit, violating the performance criteria agreed with the IMF for the deficit and government use of bank credit. Second, low import demand caused the shilling to appreciate, weakening the competitive position of Ugandan tradables producers.

An apparent solution to the first problem would be to relax the ceiling on government borrowing in the knowledge that resources are available to finance imports generated directly or indirectly by the expansion of public sector demand. However, the procedures imposed by

[184] Export volume indices from IMF [1994c: 252-53].

Figure X.1 - GHANA: EXCHANGE RATE REFORM, 1983-1993



donors would not allow use of their aid to finance either public sector imports or an increase in private import demand generated by credit creation. Thus, one would have witnessed a worsening BoP deficit side-by-side with undrawn, supposedly quick-disbursing aid resources.

In sum, the Ugandan experience highlights the presence of trade-offs in exchange rate policymaking. The rate that will enable the government to obtain desired counterpart financing for the budget is less (fewer shillings per dollar) than the optimal rate from a trade and development point of view

During early 1992 *Zambia*'s exchange rate rose in nominal terms but not as fast as prices, so that the real rate *appreciated*. When inflation slowed after mid-year, the kwacha began to appreciate in nominal terms as well and continued to do so until November, when it reversed direction and depreciated rapidly. By January 1994 the nominal rate had risen by almost six times in two years but the real rate was little changed

The volatility of the kwacha exchange rate following unification illustrates some of the problems of transition to a market-based exchange rate. Exchange rates are exposed to upward or downward pressure from a variety of sources--shifts in aggregate demand; changes in food prices; shifts in import and export prices; capital flows, whether induced by differential interest rates or shifts in investor confidence; and so on. Most of these factors operated in Zambia during 1992-93, exerting powerful, often contradictory pressures on the exchange rate. Without attempting a play-by-play account it may be useful to list key factors in the movement of the real exchange rate.

- The slowdown in growth of demand tended to reduce imports thereby making the real rate appreciate;
- a fall in copper prices had the opposite effect;
- the rise in real interest rates tended to make the exchange rate appreciate by:
  - inducing capital flows;
  - leading borrowers to seek credit abroad instead of in Zambia; and
  - depressing imports as firms reduced inventories in response to higher real rates;
- The rise in prices tended to make the *nominal* exchange rate depreciate (i.e. more kwacha per dollar)

Once inflation slowed, high interest rates raised the kwacha's investment appeal, leading to substantial appreciation in nominal terms (fewer kwacha per dollar) during the third quarter of 1993. At its peak in October 1993 the kwacha's real value was almost twice its August 1992 level.

However, it was clear from the resulting squeeze experienced by the national copper company and complaints of other exporters that the October 1993 level was not consistent with underlying supply and demand conditions in the Zambian economy. In other words even though market-determined, it was not a medium-term equilibrium rate. Many observers expected a substantial correction, but when it would begin and how fast and far it would go was a matter of conjecture.

In the event the decline started in November as concerns about near-term foreign aid receipts led traders to anticipate a drop in the supply of foreign exchange. Meanwhile a substantial civil service pay increase and large-scale government maize purchases weakened confidence in the government's anti-inflation resolve. The exchange rate (kw/$) rose slowly at first, then accelerated as expectations were fueled. By March 1994 the market rate was 85 percent above

the October '93 level, although inflation had slowed to about 2 percent per month.

Conclusion. All the study countries have caused their REERs (sh/$) to · *se* since 1985 There is some indication that this has been a region-wide trend. Of 14 SSA countries for which the IMF's *International Financial Statistics* gives REERs, twelve had average REER indices for 1992 (in two cases where 1992 data are missing from the December 1993 *IFS*, for 1991) below 100, with 1985 as the base The unweighted average index for all 14 countries was 77.

The two exceptions were FZ countries, Cameroon (110.0 in 1991) and Ivory Coast (135.5). With the January 1994 realignment of the CFA and Comoran francs, the latter two countries along with nine other FZ countries not included in the aforementioned 14, and Ghana[185], have seen their REER indices dip well below 100. Unless indices for some of the nine non-FZ countries in the 14 have risen above 100 since 1992, it can be said that, of 24 SSA countries for which REER data are available, all have allowed their currencies to depreciate since 1985. Most of the remaining 22 SSA countries (set of 46 cited in Chapter I, less 24) have been the object of IMF and IBRD pressure to let their REERs depreciate, although it is not excluded that some country indices (with 1985 as base) may currently be above 100.

Notwithstanding this tendency, which has caused parallel market premia over nominal rates to decline in most of SSA, many SSA countries still have exchange controls fostering substantial premia (we treat anything in excess of 15 percent as "substantial").

D. Status of 46 SSA Countries - Summary

In its annual report on *Exchange Arrangements and Exchange Restrictions*, the IMF presents a convenient summary of the current exchange and trade regime in effect in each of its member countries (numbering 179 as of October 1994)[186]. Table X.1 reproduces this data for the 46 African countries coming within the purview of our study, effective in most cases as of December 31, 1992.[187] The table classifies country regimes according to the following criteria:

- Acceptance of IMF's Article VIII *versus* Article XIV. Article XIV, covering what the Fund terms "transitional arrangements", is the minimum commitment required of every

[185] IMF's *IFS* does not give Ghana's REER index, but estimates within the framework of the present study show it to have declined well below the 1985 base.

[186] IMF, 1994c vii Data are also given for three nonmember colonial territories, namely Hong Kong, Aruba and the Netherlands Antilles.

[187] The number of countries accepting IMF Article VIII status is up-to-date as of end-October 1994, and the categorization of countries according to basis for determination of exchange rate is up-to-date as of June 30, 1994.

Table X.1 - SUMMARY FEATURES OF EXCHANGE AND TRADE SYSTEMS IN SUBAHARAN AFRICA*

	Angola	Benin	Botswana	Burkina Faso	Burundi	Cameroon	Cape Verde	Cen. Afr. Rep.	Chad	Comoros	Congo	Côte d'Ivoire	Djibouti	Equat. Guinea	Ethiopia	Gabon	The Gambia	Ghana	Guinea	Guinea Bissau	Kenya	Lesotho	Liberia
A. I.M.F. ARTICLE STATUS																							
1. Article VIII													X				X	X			X		
2. Article XIV	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X			X	X		X	X
B. EXCHANGE ARRANGEMENT																							
1. Exchange rate determined on basis of:																							
(a) Peg to:																							
(i) U.S. dollar													X										X
(ii) Pound sterling																							
(iii) French franc		X		X		X		X	X	X	X	X		X		X							
(iv) So. African rand																						X	
(v) composite of currencies			X		X		X																
(b) Limited flexibility with regard to:																							
(i) Single currency	[NOT APPLICABLE IN SUBSAHARAN AFRICA]																						
(ii) Cooperative arrangement																							
(c) More flexible arrangements:																							
(i) Adjusted according to set of indicators																							
(ii) Other managed floating	X																		X	X			
(iii) Independently floating															X		X	X			X		

	Ang	Ben	Bot	B.F	Bur	Cam	C.V	CAR	Chd	Com	C.I	Con	Dji	EqG	Eth	Gab	Gam	Gha	Gui	G.B	Ken	Les	Lib
2. Separate exch.rates for some or all capital transactions &/ or some or all invisibles	X																	X			X	X	
3. More than one rate for imports	X																	X			X		
4. More than one rate for exports	X																	X			X		
5. Import rates different from export rates	X																	X			X		
C. PAYMENTS ARREARS	X			X		X	X	X	X	X	X	X		X	X	X			X	X	X		X
D. BILATERAL PAYMENTS ARRANGEMENTS																							
1. With IMF members		X		X	X		X											X	X	X			
2. With nonmembers of IMF	X																	X	X				
E. PAYMENTS RESTRICTIONS																							
1. Current transactions	X		X		X	X	X		X	X	X	X		X	X			X	X	X	X		
2. Capital transactions	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X
F. COST-RELATED IMPORT RESTRICTIONS																							
1. Import surcharges				X							X	X	X						X				X
2. Advance import deposits																							
G. SURRENDER/REPATR. REQUIREMENTS FOR EXPORT PROCEEDS	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X

Table X.1 - SUMMARY FEATURES OF EXCHANGE AND TRADE SYSTEMS IN SUBAHARAN AFRICA (continued)

	Madagascar	Malawi	Mali	Mauritania	Mauritius	Mozambique	Namibia	Niger	Nigeria	Rwanda	S.Tome & Pr.	Senegal	Seychelles	Sierra Leone	Somalia	Sudan	Swaziland	Tanzania	Togo	Uganda	Zaire	Zambia	Zimbabwe	Total	Percent
A. I.M.F. ARTICLE STATUS																									
1. Article VIII					X								X				X			X				8	17
2. Article XIV	X	X	X	X		X	X	X	X	X	X	X		X	X	X		X	X		X	X	X	38	83
B. EXCHANGE ARRANGEMENT																									
1. Exchange rate determined on basis of:																									
(a) Peg to:																									
(i) U.S. dollar									X															3	7
(ii) Pound stlg.																								0	0
(iii) Fr. franc			X					X				X							X					14	30
(iv) S.Afr.rand							X										X							3	7
(v) composite of currencies				X	X					X			X											7	15
(b) Limited flexibility with regard to:																									
(i) Single currency	[NOT APPLICABLE IN SUBSAHARAN AFRICA]																								
(ii) Cooperative arrangement																									
(c) More flexible arrangements:																									
(i) Adj.acc.to to indics.																								0	0
(ii) Other mg'd floating											X				X	X								6	13
(iii) Indep.float	X	X				X								X				X		X	X	X	X	13	28

	Mad	Mwi	Mal	Mtn	Mrs	Moz	Nam	Ngr	Nga	Rwa	Stp	Sen	Sey	S.L	Som	Sud	Swa	Tan	Tog	Uga	Zre	Zam	Zim	Tot	%
2. Separate ex.rates for capital &/or some/all invis.				X		X	X		X						X			X		X		X	X	13	28
3. > 1 rate for M						X									X			X		X		X		8	17
4. > 1 rate for X						X									X			X		X		X		8	17
5. Import rates diff.from X rates						X									X			X		X		X		8	17
C. ARREARS				X					X		X			X	X	X		X		X	X	X		26	57
D. BILATERAL PAYMENTS ARRANGEMENTS																									
1. With IMF members	X				X	X				X	X			X		X				X	X			16	35
2. With nonmembers																				X				4	9
E. PAYMENTS RESTRICTIONS																									
1. Current transac.	X	X		X	X	X	X		X	X	X			X	X	X		X	X	X	X	X	X	33	72
2. Capital transac.	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	43	93
F. COST-RELATED IMPORT RESTRICTIONS																									
1. M surcharges	X				X		X									X							X	11	24
2. Advance M deps										X	X				X	X								4	9
G. SURRENDER/ REPATR.REQS FOR EXPORTS	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	43	93

* Source: IMF, Exchange Arrangements and Exchange Restrictions - Annual Report 1993, pp. 590-95. Source indicates most data effective as of December 31, 1992. Section A is updated to October 31, 1994, on basis of current notices in IMF [serial]; Section B is updated to June 30, 1994, from IMF [1994b: vii].

IMF member to promote free trade and payments.[188] Accepting the obligations of Article VIII involves an additional commitment to "refrain from imposing restrictions on the making of payments and transfers for current international transactions or from engaging in discriminatory currency arrangements or multiple currency arrangements without IMF approval"[189].

- Exchange arrangement in effect Here there are five main subcategories.
  i. Determination of the exchange rate via peg to a currency or composite of currencies, or more flexible arrangements;
  ii. Separate exchange rates for capital transactions and/or invisibles;
  iii. Multiple rates for imports;
  iv. Multiple rates for exports;
  v. Import and export rates differ.
- Existence or otherwise of exchange restrictions, classified in five subcategories:
  i. Payments arrears,
  ii. Bilateral payments arrangements;
  iii. Payments restrictions on current and/or capital transactions;
  iv "Cost-related import restrictions", i.e. import surcharges and/or advance import deposits.
  v. Surrender/repatriation requirements for export proceeds.

The penultimate column of the table tabulates the number of African countries in each category, expressed in the final column as a percentage of the 46-member universe.

Continued SSA adherence to fixed exchange rates is reflected in the fact that, as of mid-1994, 27 countries, or 59 percent of the total, pegged their currencies either to one other currency or to a composite of currencies. Nor does it follow that all 19 countries described as pursuing "more flexible arrangements" were in fact allowing the market to determine their exchange rates. The three anglophone subjects of case studies in this report are classified as "independently floating", as is The Gambia. Their exchange rates can indeed now be described as market-determined. However Nigeria, Sierra Leone, Sudan and Zaire are also listed as having independently floating exchange rates, notwithstanding the presence of parallel markets featuring high premia.

Of the six countries listed as operating "managed" floats, at least three--Guinea, Guinea-Bissau and Somalia--also have parallel markets with high premia.

Also of significance is the fact that, as of October 1994, only eight SSA countries, or 17 percent of our universe of 46, had accepted IMF Article VIII status. Among our case study countries Ghana and Uganda fell in this group, both having accepted the obligations of Article

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[188] Members operating under Article XIV commit themselves to "have continuous regard in their foreign exchange policies to the purposes of the Fund, and, as soon as conditions permit, they shall take all possible measures to develop such commercial and financial arrangements with other members as will facilitate international payments and the maintenance of exchange stability In particular, members shall withdraw restrictions maintained or imposed under this Section as soon as they are satisfied that they will be able, in the absence of such restrictions, to settle their balance of payments in a manner which will not unduly encumber their access to the resources of the Fund "

[189] This wording figures in announcements in the IMF's biweekly *Survey* indicating a given country's acceptance of Article VIII. See, for example, announcement concerning Ghana in IMF [1994a 107].

VIII in early 1994. The other six countries are Djibouti, The Gambia, Kenya, Mauritius, Seychelles and Swaziland. As regards exchange rate regime, the eight countries include four independent floaters (The Gambia, Ghana, Kenya and Uganda), two (Mauritius and Seychelles) pegged to a composite of currencies, one (Djibouti) pegged to the U S. dollar and one (Swaziland) pegged to the rand

As of end-1992, over half of SSA countries (58 percent) had payments arrears, and 73 percent (33 countries) reported restrictions on current payments.[190] Only three (small) countries--Djibouti, The Gambia, and Seychelles, representing seven percent of the total--reported no restrictions on capital payments.

Moving away from the matter of formal arrangements, it is useful to distinguish four groups of SSA countries with respect to exchange rate management. The first group comprises countries where the bulk of international transactions occur at exchange rates controlled by or through market forces, and exchange controls on current transactions are minimal. Allowing market forces to dominate is not inconsistent with occasional intervention by the central bank, using reserves (or borrowing) in order to dampen volatility, and/or operating on interest rates in part to influence the exchange rate All three anglophone study countries fall in this first group. Uganda and Zambia joined it considerably later than Ghana, and in some ways must be considered as still in transition

A second group of countries is situated at the opposite extreme, characterized by little or no progress in bringing down inflation, retention of broad exchange controls, and high parallel market premia Members of a third group, falling in between the two, have progressed more slowly than the first, in some cases making headway in a stabilization program only to see it interrupted by political instability (e.g. Nigeria). Finally, the fourteen franc zone countries, retaining their long-standing pegged exchange rate, still guaranteed by France, at a new level that should at least initially attract resources into tradables production, constitute as before a group apart.

[190] Three of the 33 countries, Ghana, Mauritius and Uganda, subsequently (between January 1993 and April 1994) assumed Article VIII status, meaning that they would now presumably be categorized in the IMF table as having dropped restrictions on current payments.

CHAPTER XI

CONVENTIONAL ARGUMENTS AGAINST DEVALUATION

The object of the present chapter is to summarize arguments that are still heard in Africa against a market-based approach to exchange rate management, and recapitulate evidence that in the authors' view contradicts most of these arguments.

A. Statement of the Arguments

The following five hypotheses/assertions/prescriptions will be reviewed here:

1. A fixed exchange rate *vis-à-vis* the dollar, franc, or some composite of major currencies such as the SDR is the most desirable regime because it establishes confidence on the part of foreign and local investors and stiffens the authorities' backbone in managing fiscal and monetary policy so as to avoid inflation exceeding that of one's trading partners.

2. Devaluation not only pushes up the CPI immediately by increasing prices of tradables, but it has been shown time and again under SSA conditions to nurture an inflationary spiral that undermines the initial impetus to competitiveness and leaves an economy worse off than it would have been had it used other measures to resolve external imbalance.

3. Those who suffer most under devaluation-induced inflation, as well as under measures of demand restraint instituted to control it, are vulnerable groups forced to allocate a large share of their budgets to food. This includes particularly actors in the urban informal economy, persons on fixed income such as pensioners, and landless rural dwellers.

4. Apart from the harm it causes, devaluation does much less good than its proponents allege. Price elasticities of supply of the primary commodities accounting for 90 percent of African exports are low, as are income elasticities of demand for the products in world markets. As the share of manufactures in SSA exports is so low, making them more profitable through devaluation will do little to ease the BoP in the foreseeable future. Moreover SSA manufacturers cannot hope to compete with (i) the Asian NICs, who will not hesitate to use market power to head off penetration by African producers, and (ii) growing protectionism in industrial countries, as a result of which both industrial and agricultural products in which SSA is or could be competitive have become subject to stiff non-tariff barriers.

5. A substantial proportion of residents of any African country will accept a large nominal differential in returns on liquid assets in order to invest them abroad, and no SSA government can realistically expect to establish the conditions of political and economic stability required to induce these residents to choose voluntarily to retain the assets in-country. Accordingly, whatever the regime to which current account transactions are subject, African countries should apply control measures to prevent outflow of capital other than repatriation of capital pursuant to commitments to foreign investors, and should allocate administrative resources to implement such measures.

B. Commentary

1 Superiority of fixed-rate regime

As indicated in the introductory chapter, up to the last generation, fixed exchange rates were regarded world-wide as the norm. Inflation, inconvertible paper currency, and exchange depreciation were universally deplored. Historically, support for fixed exchange rates is linked to support for stable prices. The specie-flow mechanism ensured that no country could maintain a differential inflation for long unless it gave up the gold standard

Current support for a fixed exchange-rate regime in developed as well as developing countries derives from the view that fixed exchange rates imply a commitment to policies consistent with price stability. There are several reasons for this association. First, a fixed-rate regime is more transparent--a movement of the exchange rate outside an announced band is a definite event, whereas fluctuations of a floating rate are subject to widely varying interpretations. Second, the regime appeals to the historical association of fixed rates with "sound money". Third, a government's resolve to combat inflation is reinforced by the view that devaluation after a commitment to a fixed rate represents a failure of economic management.

A government can at any time announce a commitment to a fixed exchange rate. But announcements have no magic. The pre-Depression popular attachment to a hard-money, gold-coin standard no longer provides strong support for a fixed exchange rate regime. International agreements to maintain rates at a certain level have repeatedly broken down after costly efforts to support them.

Everyone agrees that low inflation and stable exchange rates are desirable *per se*. The question is what they cost to attain. An announced commitment to an unrealistic objective does more harm than good. Two different sets of circumstances have led governments to abandon a fixed exchange rate regime after strongly proclaiming their intention to maintain it.

First, a burst of inflation, whatever its cause, can raise prices above those in competing countries. Restoring one's competitive position without a devaluation requires that the initial burst be offset by depressing subsequent inflation below the competitors' level. Even if this proves possible, the benefits from protecting the fixed exchange rate may not be worth the cost in terms of foregone output--especially given the possibility that the cycle may be repeated.

Second, differential inflation is not the only cause of external imbalance. A population's demand for imported products, and world demand for its own products, shifts along with consumer tastes and rates of technological change and appearance of new products that vary among countries. Along with weather-induced fluctuations in harvests, these factors lead to sizable ToT shifts. Competitiveness is also affected by other countries' exchange rate policies. A country's comparative attractiveness to investment capital shifts with the business cycle, comparative interest rates at home and abroad, and political developments within or even wholly outside the country's borders.

When changes are temporary, exchange rate adjustment can be avoided by use of reserves, by borrowing or by a period of demand restraint. Those measures are costly and if they fail there is no offsetting benefit. When the changes are permanent, devaluation is sooner or later inevitable and delay is costly.

When a high ratio of non-tradables prices to those of tradables makes an economy uncompetitive, correcting this distortion quickly will facilitate faster growth over time, even at

the cost of a few points of general price inflation, than a deflationary policy aimed at keeping the CPI nearly constant for a few years or even reducing it. The stagnation that a number of African countries have experienced while following such a policy is analogous to that undergone by Britain in the 1950s and '60s while trying to maintain a fixed exchange rate for the pound sterling.

Experience teaches three principal lessons about fixed exchange rate regimes. First, they should be adopted only when there is strong political support for price and exchange rate stability. Only then can one expect public support for policies that contain demand pressure and for governments that refuse to accommodate inflationary pressure from supply shocks.

Second, for a fixed-rate regime to be beneficial, a country must be able to adjust without devaluation to temporary adverse shifts in the trade balance. To do that it requires substantial foreign reserves and/or borrowing capacity. It must be able to replenish reserves and pay off debt when circumstances are more favorable. There must be political support for a period of demand restraint until trade conditions improve. Finally, the government must be able, during periods of adversity, to resist pressures for protectionist measures that will undermine efficiency over the long run

Third, it is important to know when to give up. Adverse shifts in trade that persist for years can only be offset by depreciation of the exchange rate in real terms, which is tantamount to maintaining a lower inflation rate than one's trading partners. If that is not achieved, devaluation is ultimately necessary and the sooner it is done the better.

Up to January 11, 1994, the most prominent defenders of the fixed exchange rate regime in Africa were those involved in supporting the FCFA/Ffr parity that lasted 45 years (see Chapter VII on Senegal). With the January realignment it can be argued that the African franc zone (FZ) countries have in fact switched from a fixed exchange rate to an adjustable peg. On the other hand the longer the new peg lasts, the more it will once more converge on a fixed rate regime.

In many ways the FZ experience can be regarded as a test of the fixed rate regime under optimum circumstances. Multilateral institutions in two groups of countries--seven in West Africa, six in Central Africa--mobilized far stronger discipline over individual members' demand management than the vast majority of individual SSA country central banks or ministries of finance have succeeded in exercising over their governments. Moreover, standing behind the arrangement was France, with its implicit veto power over any degree of monetary expansion that would lead to unmanageable deficits of the FZ central banks in their operations accounts with the French Treasury.

One result, as already shown, was substantially lower inflation rates in FZ countries than in the majority of non-FZ African countries. However, it was not enough to avoid what IMF Managing Director Camdessus referred to as "the stagnation of the last decade" in his statement welcoming the devaluation [IMF, 1994a: 18].

As for stiffening the resolve of the FZ authorities to resist inflation, the Senegal chapter suggests that determination to adhere to the fixed exchange rate did indeed have this effect, to the extent of forcing Senegal's 1992 CPI 7.5 percent below that of 1986 However it turned out this was not enough to stimulate an upturn by making the economy competitive. Senegal's GDP growth averaged 1.3 percent p.a. during 1989-91; the FZ's largest economy, Ivory Coast, experienced declining total (not merely per capita) GDP for five consecutive years starting in 1987.

Instead of making preservation of parity a goal in itself and imposing drastic deflationary measures to achieve it, early in the 1980s FZ money managers and their French colleagues might more profitably have conducted a benefit-cost analysis to compare the net present value of a deflation policy with that of alternative options A devaluation considerably less drastic than the 50 percent that had become necessary by early 1994, with strengthening of BCEAO/BEAC instruments of monetary restraint--notably the limit on credit to public authorities--would probably have facilitated resumption of growth with less pressure on prices than the 30-40 percent inflation which the IMF is projecting for 1994.

The same observations apply to management of the new, devalued FCFA/Ffr parity. As before, France's guarantee of convertibility will enable the two FZ central banks to defend parity in the short run against the kinds of flows which have caused some countries' floating exchange rates--e.g. Zambia's--to gyrate. At the same time there is a renewed danger that the FZ authorities will treat all capital outflow as movement in search of short-term advantage, and flows responding to a loss of underlying competitiveness will be too long ignored.

The Senegal chapter reports that FZ monetary managers stress the difficulty of getting 13 countries to agree on a new parity. The January 1994 devaluation was several years in the making. Before they find themselves lodged in the same predicament as in the 1980s, we hope that the FZ authorities can develop (i) decision rules by which market signals and cost comparisons can be translated into gradual parity changes, and (ii) institutions qualified to do the analysis and ultimately implement changes without requiring the unanimous consent of 13 presidents.

2 Devaluation and inflation

Short term effects. The short-run impact of a devaluation on domestic prices of tradable goods and services depends on the extent to which pre-devaluation prices are governed by the nominal exchange rate. To the extent prices are so governed, a devaluation causes an immediate rise in prices of tradables, and a cost push from the devaluation tends to induce more or less compensatory wage increases, followed by further price and wage increases. Thus, for a once-for-all realignment to attain a target real adjustment, the nominal devaluation must overshoot the target.

Conversely the more overvalued the pre-devaluation exchange rate, the larger the share of transactions that will have been pushed into the parallel market. The more transaction costs in that market have been inflated by official sanctions, and the greater the share of transactions that currency realignment brings back "above-ground", the greater the probability that a devaluation will not only not be inflationary, but may even lower the average price level.

In Ghana [cf. Kapur et al, 1991] only about 20 percent of transactions in tradables were "above-ground" when exchange rate liberalization got underway in 1983. By contrast, the parallel market in franc zone countries has never been very large, so that the initial price rise following the devaluation of January 1994 should be roughly equal to the share of imports in domestic absorption times the 100 percent increase in the price of foreign exchange.

A monetary and fiscal policy that fully "accommodates" wage and price increases tends to induce a wage-price-exchange rate spiral However, as the Appendix shows, devaluations have not been the principle cause of inflation in SSA countries The appendix also shows that inflationary spirals set off by devaluation have tended to run down even without demand restraint. On the other hand fully accommodated inflationary spirals can last a long time, and

only if a devaluation is accompanied by reasonable demand restraint can its objectives be achieved.

How far inflation will continue subsequent to the initial devaluation-induced price shock (i.e. the jump in import prices) is largely under the government's control. The problem facing policy makers is fundamentally the political one of how to adjust to the changes accompanying currency depreciation. The more support they can mobilize from beneficiaries to counter opposition from those disadvantaged by depreciation, the stronger the measures they can take to restrain inflation.

In the event such restraint is successfully exercised, the initial price rises resulting from devaluation should be viewed as a necessary correction rather than an argument against realignment Any measures seeking to reduce a BoP deficit, whether they operate through quantitative restrictions (q.r.'s--foreign exchange allotments, import quotas and the like) or directly through prices (as with devaluation, taxes, subsidies, etc.), must make production of tradables more profitable, and/or reduce demand for imports and export of capital by making them relatively more expensive

Whether *ex ante* or *ex post*, such measures cannot avoid increasing the ratio of prices of tradables to those of non-tradables. Changing the nominal exchange rate (raising the number of shillings per dollar) that is applicable to all transactions is the only administratively feasible measure that accomplishes this in a nondiscriminatory manner. It does this by raising the local currency cost of all purchases of foreign exchange and by raising local currency revenue from all sales of foreign exchange in the same proportion.

Medium- and long-term effects. A central teaching of economics is that, in the medium and long term, policies that lead to (i) convergence of incentives in different lines of production and (ii) nondiscriminatory pricing of factors of production, including foreign exchange, in accordance with social opportunity cost, will induce greater output at market prices than policies that deviate from those objectives. (Undeniably, some deviations may promote distributional and other social objectives, this is not the place to discuss how much deviation may be justifiable in the circumstances of a particular DC.)

Thus, in the medium and long term, devaluation which reduces differentials among incentives to produce importable *versus* exportable goods and services, and leads to pricing foreign exchange at its social opportunity cost, is anti-inflationary, in SSA no less than any other part of the world. Conversely, maintenance of a fixed exchange rate which prices foreign exchange nominally at less than its opportunity cost, leads to BoP pressure requiring controls and/or tax-*cum*-subsidy packages that invariably augment the variance of production incentives and cause factor pricing to deviate from opportunity cost.

In other words, over the medium and long term, if a country allows its currency to become overvalued, maintenance of a fixed exchange rate will lead to less growth than a devaluation that results in valuing foreign exchange at opportunity cost. Imported products will become subject to increasing rents that vary at the caprice of the q.r. managers, with a direct impact on the CPI. The availability of tradable inputs for public utilities will be constricted, leading to excess demand at rates that typically remain controlled well below opportunity cost. Even if not reflected directly in the CPI, repressed inflation will characterize some branches of the economy.

Many SSA governments wedded to the doctrine of fixed exchange rates have held onto their rates under the foregoing conditions for so long that the adjustment eventually required to restore

a semblance of equilibrium in the BoP was dramatic. Ghana's correction of a 3,000 percent (30 times) overvaluation is an extreme case, but the CFA franc's 50 percent devaluation after 45 years is by no means modest when seen in the light of the insistence of many of its defenders, in France as well as the FZ, up to the last minute, that no devaluation at all was either necessary or desirable It is too soon to measure the impact of the FCFA devaluation on FZ price indices, but it is certainly greater than the cumulative CPI increases resulting from a gradual depreciation, ending in the same new parity, that would have made the FZ more competitive during the 1980s

We conclude that, over the medium and long term, a government's readiness to devalue with whatever frequency is necessary to preserve competitiveness--i.e adherence to a regime somewhere along the spectrum between an adjustable peg and a purely market-determined, floating rate--is *per se* no more inflationary than a fixed rate regime, and under many plausible scenarios is likely to be less inflationary.

3 Devaluation and income distribution: gainers and losers

In time, unless mismanagement of other facets of economic policy derails the recovery, the whole community should benefit from elimination of the price distortions and shortages that so often accompany efforts to maintain an overvalued exchange rate. However, as noted in Section IV A, in the short and even medium term, adjustment towards an EER inevitably brings redistribution of income.

A first round of redistribution results from the initial changes in prices of tradables induced by a devaluation Further redistribution follows from (i) any wage-price spiral induced by the devaluation, and (ii) measures of demand restraint invoked to check the spiral. The short run may even see a fall in output, the outcome depends on how long it takes the positive response of producers of tradables to offset the negative impact of factors (i) and (ii).

Agriculture is still the predominant source of production of tradables in SSA. According to World Bank [1994[191]], in 1992 it accounted for 20 percent of SSA GDP, as compared with 17 percent each for manufacturing and nonmanufacturing industry, and 46 percent for services, the latter being largely nontradable. According to the same source[192], urban areas accounted for 29 percent of SSA's population in 1992, implying that the majority of the population stands to gain from higher producer prices for agricultural commodities.

The CFA franc's January 1994 one-shot realignment of 50 percent creates as close to a laboratory situation for evaluating the impact of devaluation on SSA income distribution as one can hope for All 14 IMF country programs following the devaluation have provided for sharp increases in those producer prices over which the governments concerned have some degree of control.[193] For example, Cameroon doubled administered producer prices following the devaluation.[194]

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[191] Page 167.

[192] Page 223.

[193] Information about IMF franc zone programs in[illegible]uted in 1994 is taken from IMF: 1994b and 1994c.

[194] IMF: 1994b, page 16.

Within two months of the devaluation the president of Niger was reporting that his country's exports of cotton, livestock and cowpeas to its neighbors, particularly Nigeria, had recovered.[195] Obviously the pastoralists and smallholders who account for those products were benefitting. No less interesting is the president's claim that sales of local manufactured products--such import substitutes and/or exportables as cement, sheet metal, soap, perfume and textiles--had shown an immediate positive response. Meanwhile his Beninois counterpart was predicting that the devaluation would energize regional trade in all directions, *inter alia* fostering export of fruits and tubers--likewise products of smallholder agriculture--from the coastal countries to the (Sahelian) interior.[196]

At the same time one would expect the gains of producers of tradables to be at least partially offset, in the short and medium term, by losses for those who consume but do not produce tradables, including a significant share of the urban population. In this vein the IMF franc zone programs detect or foresee a negative impact on purchasing power, primarily of urban groups, arising from the higher food prices as well as prices of petroleum products and public utility rates, notably those for electricity and water. Agreements between the IMF and the governments concerned allow the latter to limit price increases of items of "mass consumption" temporarily through subsidies and/or reduction of indirect taxes.

Comments by FZ authorities in IMF [1994b] show that, for example:

- Benin is keeping its gasoline price unchanged, limiting the increase of water and electricity rates to 15 percent, and "jawboning" selected sellers to hold down their profit margins,
- Niger is "fight[ing] against speculative price increases" and taking measures to ensure an "adequate supply of essential goods";
- All 14 countries are looking to a franc zone Social Development Fund, created with Ffr 300 million of French government aid, to absorb unemployed workers in labor-intensive projects; and
- All the countries are looking to education and health projects already agreed or to be developed with World Bank and bilateral assistance to improve the access of disadvantaged groups to social services.

Partially offsetting the negative impact on urban purchasing power, the IMF reported after eight months that the devaluation had so strengthened government revenues, largely through increased receipts from *ad valorem* customs duties, that several FZ governments previously in arrears in paying civil service salaries had been able to eliminate these.[197]

The following subsections look more closely at the impact of devaluation on food and other prices, and at the social implications of the subsidization of tradables consumption resulting from an overvalued exchange rate.

Food prices. It is low-income groups not producing their own food and typically devoting 50 percent or more of their household budgets to food that feel the immediate price impact of devaluation most acutely. The proportion of tradables in food budgets varies widely across the

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[195] Ibid., page 14

[196] Ibid., page 13.

[197] IMF, 1994a: 269.

continent. It is lowest among nomadic herdsmen, who consume primarily milk and other products from their herds, as well as among sedentary populations subsisting on root crops such as yams and cassava, or local cereals such as millet and sorghum.[198]

Conversely the proportion of tradables is high among populations whose staples are maize or rice, particularly when a country's food policy has landed it in a deficit position that finds it importing one or the other of those cereals. Under such circumstances a devaluation hits the urban informal sector and persons on fixed incomes as well as landless rural dwellers not sharing in revenue from higher food prices. (In African countries that are self-sufficient in maize or rice the ex-farm price typically falls within the wide gap between import and export parity due to transport and handling costs, and may be only marginally affected by changes in currency parity.)

The proportion of tradables is also high among urban populations addicted to bread and other wheat products, since most SSA countries import the bulk or all of their wheat and/or wheat flour. The concern of the IMF and client governments over the impact of devaluation on FZ urban consumers clearly took into account the share of imported rice and wheat in the diets of urban populations in the zone.

To be sure, the current share of tradables in SSA food budgets results in part from government policies that have biased the ToT against local agriculture, directly or indirectly (through currency overvaluation) subsidized imported cereals and other foodstuffs, and thereby accelerated rural-urban migration. One of the effects of a policy of pricing foreign exchange at its opportunity cost is to reduce the bias against agriculture, slow migration and raise the diet share of local foodstuffs. But it takes time to alter mass tastes, and policy makers are naturally averse to reforms that incite food riots.

Public services. The IMF and donor agencies can also accept the concern of African governments about the social effects of an immediate pass-through of devaluation to tariffs of certain public services. A phased adjustment of tariffs, involving interim subsidization of necessities such as water and urban transport--electricity much less so and telephone service certainly not--can be justified as part of the social safety net. All the better if subsidies can be targeted towards low-income groups and the informal business sector, avoiding the fiscal burden of subsidizing upper-income groups and the formal business sector.

Other goods and services. From goods and services where (diminishing) subsidization of the impact of devaluation can be regarded as part of the social safety net, one passes to goods and services where devaluation may pose as large a potential shock to policy makers, but where less sympathy can be expected from the IMF and donors. Two major categories in this connection are (i) personal vehicular transport, involving the cost of vehicles, spares, fuel and lubricants, and (ii) international travel, notably air fares and subsistence abroad

Had many African countries not maintained exchange rates valuing foreign exchange below opportunity cost, a significant share of the urban middle class that has grown dependent on personal automobiles would have chosen to rely on public transport, governments would have invested more in such service, and housing demand would have favored more urban high-rise accommodation relative to single-family units or duplexes in the suburbs. Devaluation always

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[198] "Low" does not mean zero, since there is a nonnegligible cross elasticity of demand with respect to price between these nontraded products and traded cereals.

imposes a painful adjustment on this constituency, to whose interests SSA policy makers pay close attention in order to stay in power. As for air fares and other costs of foreign travel, in much of SSA a smaller but influential elite is accustomed to periodic visits to Europe which are out of reach at equilibrium exchange rates.

Subsidizing the beneficiaries of currency overvaluation. A fundamental characteristic of exchange rate disequilibrium is that those who purchase tradable goods and services at the nominal exchange rate are paying less than social opportunity cost, and are therefore receiving a (hidden) subsidy from society at large, while two large groups in society pay a hidden tax. These are (i) farmers and others who produce tradable goods and services in the absence of protective barriers, and (ii) users of products whose importation is subject to severe q.r.'s, creating scarcity rents. The question in deciding whether to avoid devaluation-induced price shock, or mitigate it through subsidization with public resources, is not whether the shock will force a change of lifestyle on some members of the population, but whether it is justifiable to ask society to continue taxing the latter groups to subsidize the consumption of the former.

To answer this question one must consider the opportunity cost of the subsidization--i.e. the social value that would be generated by letting the market reallocate the foreign exchange in question to users who are willing to pay as much or more than a market-clearing price. Apart from consumers whose marginal utility from additional consumption of tradables properly enters into the social welfare function, one should think of raw materials and intermediate inputs whose importation would allow domestic industry to utilize its installed capacity more fully, reducing average costs, employing more workers and, in some cases, laying a basis for penetration of export markets. One should also take into account the distortions introduced into an economy by administrative measures taken in order to meet BoP pressures, and the impetus accorded to a DC's key objectives by incremental foreign exchange that reduces or vitiates the need for such measures.

In the case of the franc zone the operative constraint is fiscal resources rather than foreign exchange, since France guarantees FCFA convertibility but supranational central banks restrict credit to each member country's public sector in order to avoid rising deficits in their operational accounts with the French Treasury. The opportunity cost of an exchange rate policy making the FZ economies uncompetitive and imposing stagnation on them is thus a shortage of resources to pay market salaries for staff talent, as well as to operate, maintain and expand public services and infrastructure.

The majority of top-level SSA policy makers have short time horizons, and avoidance of conflict with organized groups that are benefitting from subsidized foreign exchange often receives higher priority than solution of macroeconomic problems. Under such circumstances the IMF and donor agencies are obliged to intervene on behalf of the growth and distribution objectives of African economies, and set appropriate conditions for nonproject assistance.

As for demand restraint measures, these impact most heavily on recent rural-urban migrants; other participants in the informal sector whose job opportunities depend on "trickle-down" from wage-earners in the formal sector; and casual labor, both urban and rural, which is employed by public agencies and the private formal sector when monetary and fiscal policy is expansive.

Conclusion. Experience following the CFA franc devaluation indicates that a large segment of the rural population, which includes the majority of the poor in every SSA country, benefits from devaluation, while some low-income urban groups lose purchasing power. However with

support from the IMF and bilateral sources, particularly France, during the year immediately following devaluation the FZ governments have been able to contain the loss suffered by these groups, thereby avoiding a backlash strong enough to derail the program. According to the IMF and the authorities concerned, there are grounds for optimism that any lingering losses of purchasing power will be more than offset by the job expansion and income opportunities generated by resumption of economic growth.

4. Impotence of devaluation in the face of low elasticities

Response of agricultural output. Many writers have attempted to measure the elasticity of output and exports of African countries with respect to one or another measure of the exchange rate. One of the best known efforts in this regard is Balassa's [1990], involving regression of annual changes in the ratios of (i) merchandise exports, (ii) agricultural exports, and (iii) exports of goods and nonfactor services to output, on annual changes in the real exchange rate for 16 SSA countries during 1965-82

Based on 272 country-year observations for the 17-year period, Balassa obtained regression coefficients of 0.88 for (i), 1.35 for (ii), and 1.01 for (iii), all statistically significant at the 1 percent level. In other words 1 percent changes in the RER were associated with changes of 0 88, 1.35 and 1.01 percent, respectively, in the export-output ratios. As Balassa notes, the comparison between the coefficients for (i) and (ii) contradicts the conventional wisdom that exports of agricultural products are less responsive to prices than those of industrial goods. Comparing SSA with developing countries as a whole, the coefficient for agricultural exports was almost twice as high for SSA.

Devaluation's most direct impact on agricultural output is through a proportionate increase in the local currency equivalent of f.o b. export prices, which works its way back to farm-gate. For many export crops, domestic handling costs account for not less than half the local currency equivalent of the f.o b. price. Were these costs to remain constant after a devaluation (admittedly they will not), given handling costs of 50 percent, a devaluation of x percent would increase farm-gate prices by $2x$. For example, if the pre-devaluation f.o.b. price is 100 shillings, then handling costs and farm-gate are each 50; a devaluation of 20 percent raises the f.o.b. price to 120 and farm-gate to 70, which is a 40 percent increase.

Conversely if handling costs consist entirely of tradables, a 20 percent devaluation increases them by 20 percent from 50 to 60, leaving 60 for the farmer, implying a 20 percent increase in his revenue. The actual composition of tradables will lie somewhere in between, leaving the farm-gate price between 60 and 70, for a percentage increase of 20-40 percent.

The net impact on the farmer's profitability depends on his use of tradable inputs. Use of such inputs does not account for a large share of costs of smallholder's crops and herdsman's livestock production accounting for the bulk of African agricultural exports, hence devaluation will not raise total production costs proportionately, and profitability goes up by more than devaluation. In the preceding example, if the farmer buys 10 shillings worth of tradable inputs before devaluation, leaving 40 shillings for non-tradable costs and profit, the cost of those inputs rises by 2 shillings, leaving 60-to-70 shillings minus 12 = 48-58 shillings for non-tradables and profit, an increase of 20 to 45 percent over the initial 40 shillings.

This connection between the exchange rate and farm-gate prices means that the literature on response of various measures of agricultural output to changes in real producer prices is also relevant to our discussion. However for three reasons one would expect aggregate supply to be

less elastic with respect to producer prices than Balassa's export/output coefficient with respect to the real exchange rate·

1. substitutability between domestic absorption and exports of exportable crops;
2. substitutability between production of exportable and nonexportable crops (both (1) and (2) mean that agricultural exports could respond positively even with no change in gross output); and
3. the leveraged impact of devaluation on farm-gate prices, shown in the preceding paragraph.

Bond [1983] estimates short- and long-term elasticities of aggregate agricultural supply with respect to real producer price indices for nine African countries[199] during 1963-81, obtaining average values of 0.18 for the short term and 0.21 for the long term. Oyejide [1990] tabulates estimates by 19 other writers giving short- and/or long-term supply elasticities for some 55 individual crop/country situations (or crop-regions within countries) over periods going as far back as 1920 and ending in most cases by 1970 or earlier. The unweighted averages are 0.57 for the short term and 0.76 for the long term; medians are 0.47 and 0 63, respectively.

A simple numerical example illustrates what these estimates imply about the efficacy of devaluation in closing a BoP gap. According to the World Bank, the export/GDP ratio for SSA as a whole in 1992 was 0.26, while the resource balance (deficit) was -1 percent of GDP [World Bank, 1994: 179]. Eliminating the deficit requires that exports rise by 1/26 = 4 percent.

If the elasticity of exports with respect to the exchange rate is as low as 0.2, a devaluation of .04/.20 = 1/5 = 20 percent will eliminate the deficit.[200] If a country's deficit is twice as large at -2 percent of GDP, a devaluation of 40 percent is required. Conversely if the elasticity is twice as high at 0.4, a devaluation of 20 percent will eliminate a -2 percent deficit. In summary it can be said that the evidence does not support pessimism as regards supply elasticity.

As to whether demand in world markets for SSA's export products is income-inelastic, this assertion receives some support from the fact that coefficients for foreign income variables in Balassa's regressions for the ratios of (i) total exports and (ii) agricultural exports to GDP are not statistically significant. Balassa attributes this to the high proportion of food products in SSA exports, food being subject to low income-elasticity of demand in industrial countries. Specifically as regards coffee, which is a major export from several SSA countries, Balassa notes the role of the International Coffee Agreement (ICA) in determining export quantities during the period studied.[201]

However, excepting markets subject to international commodity agreements, where exports are from time to time influenced by quotas, income-inelasticity of world demand for SSA's current major export products says nothing about individual countries' ability to sell as much as they produce at going prices Since few SSA countries account for a significant share of world trade in any product, they face highly, even infinitely elastic demand lines for their major export

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[199] Ghana, Kenya, Ivory Coast, Liberia, Madagascar, Senegal, Tanzania, Uganda and Burkina Faso.

[200] Elasticity (ϵ) represents the percentage change in exports ($\hat{e}$) divided by the percentage change in the exchange rate ($\hat{r}$). If ϵ = .20 = 04/$\hat{r}$, then $\hat{r}$ = .04/.20 = 1/5 = .20.

[201] The ICA quota system has been in a state of suspension since July 1989.

products. Low income-elasticity of world demand for their existing products does, however, justify pessimism about significant recovery of SSA ToT under the existing composition of exports. This buttresses the argument that SSA countries cannot grow rich unless they develop a capability to export manufactured products enjoying higher income elasticity.

Response of manufacturing output. This brings us to the argument that the current share of manufactures in SSA exports is so low that the benefit obtained if devaluation makes them grow faster is insufficient to offset the costs of devaluation. One's first impulse on hearing this is to recall the Chinese saw about a journey of one thousand leagues beginning with a single step. If future growth depends on industrialization, and industrialization depends on ability to export a significant part of manufactured output, then one must "get the (factor) prices right" in order to kick off the process. Recognition of this fact was a necessary, if by no means sufficient, condition for rapid growth in Asia, which got underway only after the authorities had accepted it and investors were satisfied that they had done so and would act to preserve the incentives associated with a price structure reflecting opportunity costs.

"Elasticity pessimism" frequently goes together with an attitude of defeatism *vis-à-vis* SSA exporters' ability to compete with the Asian NICs and with protectionism in industrial countries. Adherents of this viewpoint should review the literature of the 1950s and early '60s about the prospects for then low-income East Asian countries to compete with Japan and Europe. Many writers at the time were pessimistic about the ability of the Korean and Taiwanese populations to acquire the technical and commercial skills necessary to export manufactures to the United States and high-income European countries. South Korea was usually described as a "basket case" requiring indefinite infusions of official U.S. aid to prevent the population from succumbing to the blandishments of the communist North (apart from the military threat from Pyongyang).

Once the East Asian "Gang of Four" had taken off, many local and foreign observers of five other major East Asian economies--China, Indonesia, Malaysia, the Philippines and Thailand--believed that export-led industrialization would be a much slower process for them inasmuch as Hong Kong, Korea, Singapore and Taiwan had acquired a stranglehold on the markets for industrial products vacated by Japan.

In the event, labor's share in the benefits of the Gang of Four's economic growth was such as to drive up average annual compensation of manufacturing employees to the vicinity of $10,000 in 1990, only about a third of that in the leading industrial countries but three times the top figure (Malaysia) in East Asia's second tier (see Table XI.1). Meanwhile, having created an environment making it profitable for foreign and local entrepreneurs to hire and train low-cost labor and develop outlets for their products (the Philippines so far less successfully than the others), the other five economies are supplanting Gang of Four exports in relatively labor-intensive manufactured lines and thereby attaining impressive growth rates. Closer to home for SSA, Mauritius is doing the same.

Of great significance is the fact that a sizable share of the investment and marketing connections that are enabling the second tier (and Mauritius) to establish themselves in these markets comes from members of the Gang of Four, whose businessmen have found it profitable to manufacture in locations with lower labor costs and, in some lines, unused quotas, or that were not yet subject to quotas.

By now, all nine of the East Asian countries (and Mauritius) face quotas under the Multifiber

Agreement as well as quantitative restrictions on various other exports to industrial countries, but the authorities have avoided the defeatist response of limiting industrial development to state-engineered facilities serving the domestic market behind high protective walls. Instead, they have learned from the ingenuity exercised by their private entrepreneurs and foreign investors in finding ways around the q.r.'s, as long as the exchange rate and other elements of the incentive regime made it sufficiently profitable to do so.

Table XI.1 - AVERAGE ANNUAL COMPENSATION PER MANUFACTURING EMPLOYEE IN INDUSTRIAL COUNTRIES, ASIAN N.I.C.s & AFRICA, 1988-90

(figures in '000 current US dollars)

Germany	1990	38.5
US	1990	33.6
Japan	1990	26.8
UK	1990	25.3
Singapore	1990	10.8
Korea	1990	9.4
Malaysia	1990	3.2
Cameroon	1990	7.3
Senegal	1988	6.4
Congo	1988	5.2
CAR	1990	4.7
Zimbabwe	1989	3.3
Mauritius	1990	1.9
Kenya	1990	1.6
Ethiopia	1988	1.5
Uganda	1989	0.1

Sources: United Nations [1991]; exchange rates from IMF [1994c]. Compensation comprises wages & salaries plus supplements, where given separately For Germany and Senegal, denominator is number of persons engaged.

There is no reason to doubt that rising wage rates throughout East Asia will create an umbrella under which African countries can start to penetrate markets for manufactured exports--provided that (i) SSA authorities can create adequate incentive regimes and convince investors that they understand the need for them and will be able to maintain them, and (ii) SSA wage levels reflect productivity and thus opportunity cost. An appropriate exchange rate is a *sine qua non* for both conditions [Lindauer and Velenchik, 1994· 246-8]. The fact, shown in Table XI.1, that manufacturing compensation per worker in the FZ and Zimbabwe (among other SSA countries) exceeded that in Malaysia as of 1989-90 is largely due to overvaluation of the CFA franc and the Zimbabwe dollar. While showing compensation levels only half that of Zimbabwe, Kenya and Ethiopia also featured exchange controls, parallel foreign exchange markets and overvalued exchange rates.[202]

[202] The table's extremely low value for Uganda is misleading, that the hyperinflation described in Chapter VIII drove down the real value of stated compensation is no surprise, but no manufacturing employer could have retained its labor force without supplementing this, e.g. through benefits in kind.

5. Capital convertibility

As noted in Section X.D, as of end-1992, only three of the 46 African countries covered in IMF [1993]--Djibouti, The Gambia and Seychelles--maintained total convertibility, on capital as well as current account All franc zone countries, even before the events immediately preceding the January 1994 devaluation, maintained nominal capital controls, although theirs were probably the most easily evaded of SSA control regimes. The August 1993 suspension of redemption of CFA banknotes outside the FZ, reaffirmed since the devaluation, did no more than cause a modest rise in the transaction cost of exporting capital from the zone.

Most SSA governments claim to be desirous of attracting direct investment, and offer to permit repatriation of capital and earnings However they also believe that removal of capital controls would (i) induce enough residents to invest their assets abroad to bring about either a loss of real capital or higher interest rates and lower exchange values for local currencies, and (ii) augment volatility in the exchange markets, given the sensitivity of financial flows to changes in expectations about prospects for inflation and other factors affecting returns on investment.

The objectives of encouraging foreign investment and curbing undesirable flows are in some degree at odds First, foreign direct investors (FDIs) want to be able to move funds for operating purposes and for purchase and sale of assets without regulatory complications, but any effort to separate acceptable capital flows from "speculative" ones inevitably generates a heavy dose of "red tape" and creates openings for rent-seeking. Second, the presence of any form of capital controls leads FDIs to perceive a risk that their coverage will be extended, in situations of BoP pressure, to include FDI operations.

The rationale for capital controls assumes that domestic investment opportunities facing SSA residents are inherently riskier than opportunities available to them abroad in the absence of controls or if the controls can be evaded. In a free market, assetholders will invest abroad if the differential risk premium (domestic less foreign) exceeds the differential expected return without taking risk into account. In most SSA countries, risks of political instability, fiscal undiscipline, heavy-handed regulation, corruption, deteriorating terms of trade and periodic crop failure have long been perceived to be high. Even when a high exchange rate appears to ensure a favorable return on investment in export production, the differential risk premium may deter investment, sending FDI investors elsewhere and motivating residents to invest abroad.

As already pointed out in Section IV.B, in the long run this problem can only be solved by persistent pursuit of policies that promote economic stability and assure foreign and local investors of an acceptable expected return. Once risk perceptions have subsided the main rationale for capital controls will largely disappear. Changes in expectations will still induce periodic volatility in exchange rates, which capital controls can do little to alleviate.

Even when agreeing with this view, proponents of capital controls argue against removing them before the stabilization process is completed and confidence restored. In fact, however, capital controls are poorly and unevenly enforced in most SSA countries Wealthy residents hold assets abroad and move funds readily in response to changing conditions and expectations. Indeed, their efforts to export funds and keep them abroad are reinforced by any expectation of more intensive enforcement. Meanwhile, less well-off residents, not as knowledgeable about evasion techniques and/or more law-abiding, face costly barriers in seeking to move their funds. The social and political costs of unequal opportunity are compounded by the corruption that accompanies evasion of controls.

In sum, there is a strong case for getting capital controls off the books in SSA unless they can be made effective for an extended period. A brief "crackdown" only frightens assetholders and exacerbates capital flight.

Dropping capital controls as part of an overall stabilization program involving financial and tax reforms and a liberal regime for direct investment should improve confidence. Some who obeyed the old rules will move funds out, but overall the effect of abandoning weakly enforced regulations should be to reduce the pressure to export capital.

Even so, with or without capital controls, SSA countries with a long history of instability will have to pay real interest rates higher than those prevailing in more developed countries. Moreover, as discussed in Section V.D, they must be prepared to let interest and exchange rates move sharply in response to destabilizing changes in expectations.

The exchange risk associated with bringing foreign funds in for short periods, e.g. for trade financing, can be reduced by allowing banks to offer foreign-denominated deposits balanced by foreign-denominated loans. Another step is for the central bank to offer swaps as a hedging device pending the development of private forward markets.

C. Conclusion: costs of delaying devaluation

Given the close correlation between export expansion and economic growth that has been established by countless studies [see World Bank, 1993], it is undesirable to delay establishing an exchange rate incentive for actual and potential exporters. Experience of numerous African countries under structural adjustment programs has shown that fiscal incentives such as duty drawbacks and export bonuses, representing an effort to establish more favorable exchange rates for exporters while avoiding the impact of devaluation on consumer prices, are not sufficient to induce the desired production response and drive to export.

In most SSA countries both duty drawbacks and export bonus schemes have tended to succumb to fiscal pressures and corruption, and failed to inspire confidence in exporters. Asian and Latin American experience has shown time and again that two things are necessary in order for producers of exportables to satisfy themselves that macroeconomic management will create reasonable conditions for profitability of their ventures· firstly, the government must have maintained for several years a unified or close-to-unified equilibrium exchange rate that has allowed little scope for bureaucratic tampering; and secondly, the exporting community must be satisfied that the authorities have come to understand the need to maintain international competitiveness even when their control of aggregate demand weakens, and have both the intention and the means of managing exchange rate policy accordingly.

A second argument against delaying return to an equilibrium exchange rate arises from the inherent arbitrariness of q r. systems, as a result of which producers who at a given moment are unable to satisfy their demand for inputs at the nominal exchange rate will assign a positive net present value to a strategy of waiting for a time when the supply of foreign exchange eases sufficiently or the system managers can be persuaded or bribed to allocate the requested foreign exchange at a below-market rate These same producers, if convinced that a unified quasi-EER is here to stay, will stop waiting for cheap foreign exchange and proceed with their investment, production and recruitment plans. Thus, postponing the devaluation and continuing to allot bureaucratically determined foreign exchange quotas retards growth.

CHAPTER XI

CONCLUSIONS AND POLICY RECOMMENDATIONS

It goes without saying that no detailed set of prescriptions would apply to every African country, but certain lessons from the experience of the past dozen years and in particular that of our four study countries are generalizable. In the authors' opinion, an objective review of the case studies as well as evidence from other countries indicates that, the further African governments have departed from market-based exchange rates, the heavier the costs imposed on their economies by ensuing macroeconomic imbalances and inefficiencies in resource allocation

At various points in this volume the authors have expressed a strong preference for a management system designed to ensure that nominal exchange rates stay close to levels dictated by supply and demand. At the same time they have not opposed government efforts to counterbalance exchange rate gyrations resulting from exogenous factors, as long as such measures are not distorted into an attempt to hold the value of foreign exchange (in local currency) below its medium-term opportunity cost.

A. General Strategy Recommendations

As the first phase of an exchange rate management reform program the authors recommend a dual approach comprising establishment, as close to simultaneously as practicable, of (i) an orderly foreign exchange market for current transactions, with an EER that clears the market taking into account the anticipated net inflow (positive or negative) of foreign funds; and, in order to lay a basis for regularizing the capital account of the BoP, (ii) an orderly domestic capital market with interest rates that adjust to inflation so as to ensure significant real (positive) values. HIID's earlier companion study [Duesenberry & McPherson, 1992] has examined procedures for reforming SSA capital markets, hence we focus here on the foreign exchange market.

The ultimate goal of foreign exchange market reform, as acknowledged by reform-minded authorities in each of the three anglophone countries forming our sample, is for commercial banks and exchange bureaus to take full charge of the market, meaning that all exporters and other direct recipients of foreign exchange (except the central bank) choosing to convert it into local currency sell it to the banks and bureaus, while anyone desiring to purchase foreign exchange with local currency obtains it from those agencies. At the culmination of the process, exporters and trading companies, even ones owned by the state (if they remain in existence), no longer transfer their foreign exchange proceeds to the central bank, which in turn no longer sells foreign exchange directly to any users, with the exception of the government itself in certain situations.

The exchange rate is then determined by the market, with the banks and bureaus, who track supply and demand in constant communication with one another, filling a role similar to that of brokers in financial markets as they adjust their bid and offer prices to clear the market. It is of course always open to the central bank to depress the price by supplying foreign exchange from its own sources and reserves, or increase it by buying foreign exchange from the

commercial banks. Moreover the central bank can and does monitor the performance of the banks and bureaus in applying exchange control regulations, notably prohibition of certain capital transfers, and can sanction dealers found to have facilitated unauthorized transactions. (How effectively they can prove the occurrence of such transactions is, as we saw in the preceding section, another matter.)

The principal foreign exchange transaction of the government which central banks traditionally continue to manage even after liberalization, is service of the government's foreign debt, for which the monetary authority continues to supply foreign exchange from its reserves, from purchases in the market, from IMF facilities and from program aid. However in principle nothing prevents the central bank from turning this function too over to the commercial banks. In any case liberalization means that the government pays the going market rate for the foreign exchange it uses to make debt payments. In effect there is no longer an official nominal exchange rate, other than an accounting rate which the central bank may establish for government transactions during a limited period of past or future time, as a function of rates recently observed in the market.

Our three anglophone countries have all made progress towards this model, but have not yet reached it. The principal stages of reform they have followed, responding to conditionalities of the IMF and aid donors, have been roughly similar:

1. Periodic discrete devaluations of the nominal official exchange rate, the tendency being to bring the rate proportionately closer to an equilibrium level, without actually attaining such a level;
2. Authorization for certain categories of exporters to retain a proportion of their foreign exchange proceeds for the purchase of imports (in effect, allowing them to realize market value for the foreign exchange);
3. Introduction of an auction system where the central bank sells foreign exchange that it has obtained through (i) control of payment channels for one or more major exports and (ii) IMF facilities as well as program aid from donors;
4. Tacit or formal legalization of private exchange bureaus, with nominal (and easily evaded) restrictions on amounts and stated purposes of transactions; and
5. Development of an authorized interbank market for foreign exchange, involving delegation of residual exchange control procedures to the banks, subject to *ex post* review by the central bank.

Most of the stages have overlapped, to an extent that differs from one country to another.

Each of the three countries is still engaged in a foreign exchange management reform process that can be dated back to 1983 in the case of Ghana, 1985 for Zambia, and 1987 for Uganda. In each case the process has been arduous, involving periodic slippages as fiscal and monetary control weakened, causing inflation to accelerate and inducing official efforts to restrain it by holding back depreciation of the local currency.

The most dramatic slippage occurred in Zambia, where in 1987 the Kaunda government formally abandoned the 1985 program, abolishing the central bank auction and reimposing a nominal exchange rate equal to a third of the dollar's latest auction value. In 1989 the same administration concluded new agreements with the IMF and donor agencies; however in lieu of reintroducing a central bank auction it resorted to more frequent and significant devaluations of the official exchange rate, shifted an increasing share of transactions to the interbank market,

and authorized private exchange bureaus, generating progress towards liberalization that the government taking power in late 1991 has accelerated. In late 1992 the exchange market was substantially unified, with determination of exchange rates being left to the market.

Ghana and Uganda have moved somewhat more evenly to the point where official intervention is now minimal, all sales of foreign exchange having been shifted from central bank auctions to the interbank-cum-exchange bureau market. As soon as the two governments relinquish their residual control over all or a portion of receipts for certain major exports--gold and cocoa in the case of Ghana, coffee in Uganda--a free market for current transactions will have come into being.

B. The Pace of Adjustment

The fact that it took the four study countries so long to adopt more or less market-oriented exchange regimes[203] is explained by attitudes of bureaucrats, politicians and a wider political elite, first on the desirability and feasibility of a market-oriented regime for money and finance as well as for trade and foreign exchange, and second on the pace of change. Some argued for slow change in order to stave off any change at all. Others honestly feared the human as well as political consequences of nominal currency depreciation and other reform measures. In Ghana the *coups d'état* following two early stabilization attempts carried great weight.

Similar patterns of thinking have characterized leaders of other SSA countries currently at earlier stages of the adjustment process. With all due respect for their persuasions, after reflecting on the study countries' trajectories, it is hard to see a net benefit in dragging out the reform process for five or ten years. Where between the extremes of shock treatment and a decade of foot-dragging is the optimum pace of reform? Political as much as economic considerations must determine the answer.

Honest but cautious believers in reform make two arguments about its pace. First, they warn of failures and disruption of production if businesses have no time to adjust to elimination of exchange control and nominal depreciation of the currency.

Second, they assert that movement to a floating rate at one stroke, especially before fiscal and monetary stabilization is underway, provides no basis for market participants to estimate the equilibrium rate, thereby generating a degree of volatility that can do serious economic damage.

Advocates of shock therapy want market-oriented governments to put as much reform as possible into place before adversely affected interest groups feel the pain and mobilize opposition. They also argue that most of the enterprises threatened by reform will fail even if given time to adjust, and that delaying exchange liberalization while anticipating disinflation imposes higher social costs than rapid liberalization.

The less the likelihood that liberalization will be reversed, the stronger the case for shock therapy. In fact, there are numerous instances of a government abolishing exchange controls only to reinstate them after or in anticipation of a coup. A firmly entrenched government that believes in reform can put a program in place quickly and maintain it. Others must be more cautious,

[203] In the case of Senegal this refers to the January 1994 devaluation of the CFA franc, a major market-dictated move. Otherwise the franc zone's exchange mechanism, bearing advantages as well as risks, remains unchanged.

first building a political base to gain support for the fiscal and monetary measures required to make exchange liberalization stick, and also for dismantling exchange controls and accepting substantial increases (more sh/$) in official exchange rates.

It is not necessary to attain single-digit inflation before liberalizing the exchange rate, but liberalization will yield all the better results if a credible fiscal and monetary program for stabilization is in place before or simultaneously with it. Such a program should include arrangements for maintaining positive real interest rates In the short run foreign exchange markets are driven by expectations When liberalization is undertaken with no assurance of progress toward internal stability, exchange rates will be volatile, risking erosion of support for market-based rates.

Countless strategies for graduating from a regime of overvalued official rates with exchange control and parallel markets have been tried in SSA. Complicated schemes involving multiple markets with various kinds of restricted auctions appear to have inspired little confidence among investors and exporters. On the other hand a transition process that seems to have worked in several cases has involved one or two major devaluations bringing the OER close to the parallel market rate, followed shortly thereafter by elimination of exchange controls and full resort to the market. The case of Zambia suggests that these steps can be carried out within a space of 12 to 18 months.[204] Beyond that, little seems to be gained in dragging the process out.

C. Role of External Agencies

Strong encouragement from the IMF, the World Bank and other donors, ranging from technical assistance for program design to weighty financial incentives, has played a role in nearly all SSA reform programs. They have all suffered greater or lesser setbacks as governments have exceeded credit ceilings and failed to meet other policy commitments. However, constant IMF and donor pressure has brought the majority of programs back onto the rails. The question arises: what lessons should donors draw from this experience in modifying their future interventions?

In the opinion of the authors of this volume, in the interest not only of (i) economizing on donor resources and maximizing the amount available for needy cases, but also (ii) imposing discipline on policy makers to favor national interests over those of pressure groups, it is strongly desirable that donors extract policy commitments in the areas of budgetary and financial reform. Such commitments and the donors' use of financial rewards to enforce them have been indispensable elements in the convergence of the study countries on policy regimes that will allow their economies to overcome decades of stagnation and embark on long-term growth.

On the other hand the record shows that a number of IMF and donor programs with SSA countries have incorporated overoptimistic expectations about a government's capacity to deliver on reductions in civil service staffing and pay, consumer subsidies, and curbing of state enterprise losses. Some programs have been suspended when credit ceilings were breached on this account. It is fair to ask whether such programs have done more harm than good.

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[204] To be sure, this does not include nearly a decade of transactions between the Fund and the GRZ, in the course of which the latter adopted, discarded and then resumed halfway reform measures.

This question translates into the following dichotomy. (i) imposing overambitious targets on policy makers may push them further towards a desirable policy regime, even when the targets are not met, than would conditionalities reflecting a more realistic assessment of their capacity; conversely, (ii) the disruptions associated with suspension of aid when ceilings are breached, pending renegotiation of the targets, may lead to greater policy slippages than would result from less ambitious ceilings

In the authors' view no single answer is valid in all country situations. One can replay the Ghana-Uganda-Zambia dramas *ex post facto* and argue that progress would at times have been steadier had the IMF and donors imposed less ambitious targets. On the other hand it is doubtful that any reasonable set of conditionalities would have induced the Kaunda administration to stick to the IMF program negotiated in 1985.

While reversal of the reform process in 1986 was costly to the Zambian economy in the short run, the accompanying events constituted a learning process for current policy makers as well as the budding opposition Resumption of the reform process in 1987 profited from a higher level of appreciation on the part of the political leadership that liberalization was sooner or later unavoidable.

Indeed one can say that events accompanying the trend towards liberalization throughout Africa have constituted a learning process for all actors, including the international financial community as well as domestic and international market participants. The collapse of communism in Central and Eastern Europe and much of Asia has reinforced the belief that *dirigiste* policies underlie Africa's poor economic performance in the 1980s. The Bretton Woods institutions and major bilateral donors impose increasingly strict conditionalities, leaving African governments with ever narrower scope to resist liberalization and financial discipline.

Meanwhile the markets are fully conscious of this tendency, and act in growing confidence that governments will seek to avoid the economic turmoil that would result from suspension of an IMF program, threatening their continuation in power. In many African countries the markets view liberalization as opening up opportunities for profitable investment under much more secure conditions than in the past

In sum, even if one can quibble with details of IMF/donor conditionalities at particular moments, the overall success of the approach cannot be denied. The economic performance of the anglophone study countries has improved substantially in the course of implementation (albeit uneven) of their reform programs, and all three are now poised to achieve respectable rates of growth. Early signals from Senegal and its sister franc zone countries following the January 1994 devaluation are positive

The experience of the study countries illustrates the need for perseverance on the part of the IMF and donors in supporting SSA reform programs, including willingness to provide financial support over a considerable period of time. Had they not been ready to bear with the twists and turns of the respective programs over several years, the initial efforts might have ended up causing the economies more harm than good

The experience also demonstrates that, apart from quick-disbursing program support, whether labeled as BoP assistance, structural adjustment credit, or budget support, donors can increase the chances that liberalization will succeed in a cooperating country by providing funding for (i) improvement of infrastructure and other long-term facets of development, and (ii) assistance to vulnerable population groups negatively affected by policy reform.

Given the high cost of comprehensive aid packages, it can be argued that the IMF and donors should assess the likelihood of a country's persevering in a reform program, and concentrate their resources on the most promising clients. For other countries, minimal aid packages with humanitarian aims, focussing on health, family planning and education, may be more appropriate.

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APPENDIX - INFLATION AND DEVALUATION IN SUB-SAHARAN AFRICA

by James S. Duesenberry[205]

A. Introduction

Sub-Saharan Africa's inflation rates have generally been higher than those of developed countries--World Bank [1994: 163] gives weighted annual averages for SSA of 13.6 and 15.6 percent during 1970-80 and 1980-92, respectively, compared with 9.1 and 4.3 percent for high-income economies. However inflation has varied widely among countries and periods

The franc zone's median inflation rate was slightly below that of France during the 1970s and substantially lower during 1980-92.[206] The remaining SSA countries had mixed records. Some suffered from chronic inflation, some performed well throughout, while others had moderate inflation rates most of the time but suffered occasional outbursts of high inflation.

SSA inflation has resulted from three principal sets of factors:

i. **Nominal Demand**--originating in government expenditure, credit expansion and (to a lesser extent) export growth, translated into monetary expansion;
ii. **Inherited inflation**--working through expectations and efforts of groups such as civil servants and unionized workers to "catch up" with cost of living increases; and
iii. **Price and supply shocks**--changes in world prices of imports, crop failures, and policy shifts, e.g. removal of subsidies.

The observed pattern of inflation in a given country is the result of interplay between price and supply shocks, and changes in nominal demand which sometimes generate inflationary pressure, sometimes accommodate the impact of supply shocks and sometimes dampen their impact. The outcome depends not only on the shocks and movements of demand but also on the structure of the economy. The competitive structure of markets and the political strength of civil servants and unionized workers determine how prices respond to cost-push from devaluation and the ensuing changes in fiscal and monetary policy.

On numerous occasions, more often than not after taking a variety of steps to avoid it, SSA governments have felt themselves obliged to devalue their currencies. Pressure to devalue has arisen from two major factors: first, real appreciation undergone by a currency as domestic prices rose faster than those of trading partners while the nominal exchange rate remained fixed; second, persistent changes in terms of trade.

Many devaluations have been undertaken during periods of continuing inflation, which sooner or later undermined the authorities' intent to depreciate the currency in real terms. Based on this experience, SSA observers often assert that exchange depreciation causes inflation. In fact, most SSA inflation is inherited or results from expansionary fiscal and monetary policies.

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[205] The regressions described in this appendix were carried out by Dan Gilligan.

[206] According to World Bank [1994: 162-63], the median average annual inflation rate for 12 franc zone countries, excluding Equatorial Guinea and Comoros, was 9.7 percent during 1970-80, which compares with France's 10 2 percent During 1980-92 France's rate was 5.4 percent, compared with an unweighted average of 2.8 percent and median between 2.3 and 3.5 percent (maximum. 5.2 percent) for the 12 FZ countries.

It is of course true that exchange depreciation raises prices of tradable goods and services and leads to demands for wage increases and subsidies that may lead to further price increases. The object of this note is to show that, *per se*, the direct and indirect impact of devaluation on prices is unlikely to generate continuing inflation. The note examines the role of devaluation as one among various factors in the inflation process. It argues that, even without monetary restraint, devaluation is unlikely to produce persisting inflation. Moreover, inflationary pressure arising initially from devaluation can be checked by appropriate monetary and fiscal policies.

B. A Simple Model of Devaluation and Inflation

The following simple model can be used to summarize the points made above:

(10) $$P_{ct} = aP_{nt} + (1-a)\cdot E_t$$

(11) $$P_{nt} = A_1 \Sigma w_i P_{ct-i} + A_2(N_t - P_{ct-1})$$

(12) $$P_{ct} = a[A_1 \Sigma w_i P_{ct-i} + A_2(N_t - P_{ct-1})] + (1-a)\cdot E_t$$

where:

P_{nt} is the rate of change of the price of nontradable goods including wages,
P_{ct} is the rate of change in the cost of living index,
a is the weight of tradables in the price index,
N_t is the excess of the rate of change in nominal aggregate demand over the growth of real output. In our empirical estimates N_t is represented by various combinations of current and past rates of growth of money supply (with the real growth rate absorbed in the constant terms),
E_t is the rate of change of the exchange rate,
A_1 embodies the aspects of market structure that determine the response of wages and nontradables prices to past increases in the cost of living, and
A_2 embodies the aspects of market structure that determine the effect of changes in "real demand" on prices.

The movement of N_t-P_t reflects the stance of monetary policy. A zero value indicates a fully accommodating monetary policy, a negative value indicates that monetary policy is restrictive and a positive value indicates that it is not merely accommodating but actively inflationary.

A nominal growth policy that keeps the money growth rate equal to that of real output implies a monetary policy that accommodates no inflation. In other words the term N_t-P_t always equals simply -P_{t-1}. To say that inflation is not accommodated does not mean that no inflation occurs. It simply implies that inflation occurs at the expense of real output

Although the model does not reflect directly the effect of supply shocks other than devaluation, their existence cannot be ignored. It is at least partly reflected in the dummy variables in some of the pooled regressions reported below.

For simplicity the lag term is reduced to P_{ct-1}, so that equation (3) becomes:

(13) $$P_{ct} = A_1 a P_{ct-1} + A_2(N_t - P_{t-1})] + (1-a)\cdot E_t$$

Empirically we estimate:

(14) $$P_{ct} = B_1 P_{t-1} + B_2 N_t + B_3 E_t$$

where:

$B_1 = aA_1 - A_2$, $B_2 = A_2$, $B_3 = 1-a$, and $aA_1 = B_1 + B_2$.

Holding N_t at P_{ct} while setting E_t equal to P_{ct-1} in order to maintain a constant real exchange rate yields:

(15) $$P_{ct} = A_1 a P_{ct-1} + (1-a)\cdot P_{ct-1}$$

or, in terms of the directly measured coefficients,

(6a) $$P_{ct} = (B_1 + B_2)\cdot P_{ct-1} + B_3 P_{ct-1}$$

If $(B_1 + B_2 + B_3) = 1$, the price rise initiated by a nominal devaluation will continue indefinitely. However, if it is less than one, the inflationary spiral launched by a nominal devaluation will gradually slow down in the absence of any new inflationary shocks.

Suppose that instead of full monetary accommodation of price increases, a policy of zero accommodation is pursued. In that case the second term in the price increase equation becomes zero, giving:

(7) $$P_{ct} = B_1 P_{ct-1} + B_3 P_{t-1}$$

The parameters of the model were estimated notwithstanding difficulties imposed by limitations of data, shifting policy regimes and changes in economic structure. Time series estimates were made for a number of countries for several versions of the model, using different measures of the variables and alternative lag structures. The results corresponding to the best fit in a sample of countries are shown in Table A-1.

Cross-section estimates were also made for a set of ten countries for the period 1972-1991. Since the results were similar to those of the time series equations, the two approaches were combined and several variants of a pooled cross section/times series model for 15 countries were estimated for the years 1973-1990. Finally, a pooled regression including four additional high-inflation countries was undertaken.

The following section discusses the empirical work and its implications.

C. Results

Table A-1 gives the coefficients estimated from separate time series for each country. Table A-2 gives estimates from several variants of the pooled cross section/times series regressions. Table A-3 gives the year and country dummies as well as other regression statistics for one of the pooled regressions.

For two reasons the time series coefficients vary widely from country to country. First, given the small number of observations and a modest degree of correlation, one would expect considerable sampling variation even if all the data represented a single process. Second, the

Table A-1

Estimates of components of African Inflation, 1970-92
Time Series Results

Dependent Variable: CPI

	n	Explanatory Variables						Adj'd R^2
		C	M2	M2(-1)	M2(-2)	CPI2	NER	
Botswana	15	0.095 (2.45)	-0.009 (-0.35)	0 002 (0.19)	-0 006 (-0.61)	0.241 (0.77)	-0 103 (-2.19)	0.154
Burundi	19	0.009 (0.18)	0.010 (0.07)	0.352 (2.88)	0.216 (1.65)	-0 094 (-0.29)	0.132 (0 56)	0 229
Gambia	20	0.033 (0.88)	0.018 (0.25)	0.071 (0.80)	0.145 (2.05)	0.143 (1.37)	0.428 (9.34)	0.855
Ghana	20	0.127 (0.38)	0 809 (1.49)	-0.498 (-0.90)	-0.026 (-0 05)	0.513 (1.47)	-0.023 (-0.20)	0.008
Kenya	20	0.106 (2.04)	-0.063 (-0.59)	0.107 (1.01)	-0.112 (-0 99)	0 308 (1.13)	-0 038 (-0.19)	-0.063
Lesotho	16	0.333 (4.84)	0.014 (0.53)	0 019 (0.71)	-0 008 (-0.30)	-1.421 (-2 69)	-0.032 (-0.69)	0 211
Madagascar	20	0 048 (0.68)	0.001 (0.01)	0 152 (0.76)	0 093 (0.46)	0 302 (1.06)	0.108 (0.89)	-0.035
Malawi	20	0.022 (0.38)	0.141 (0.97)	0.168 (1.34)	0.036 (0 26)	0.218 (0.80)	0.270 (1.40)	0.175
Mauritius	20	-0.047 (-0.80)	0.219 (1.83)	-0.009 (-0 08)	0.042 (0.37)	0.326 (1.38)	0.999 (2.94)	0.326
Nigeria	20	0.214 (2.06)	-0.176 (-0.93)	0.376 (1.98)	-0.195 (-1.06)	-0.089 (-0.28)	-0.024 (-0.27)	-0.012
Rwanda	20	-0 006 (-0.17)	0.146 (0.93)	0 344 (2.17)	0 080 (0.44)	0.140 (0.51)	0.347 (2.39)	0 378
Seychelles	18	-0.010 (-0.39)	0.065 (0.51)	0.013 (0.13)	0.043 (0.40)	0.754 (3.75)	0.040 (0.15)	0.643
Sierra Leone	20	-0.133 (-0.87)	0.296 (0.56)	0.998 (2.06)	0.719 (1.50)	-0.533 (-1.37)	0.177 (0.96)	0.703
Sudan	20	-0.126 (-0 62)	0.550 (1.11)	0.032 (0.07)	0.022 (0.05)	0.835 (1.47)	0.178 (0 83)	0.541
Swaziland	19	0.252 (4.24)	-0 122 (-1.55)	0 082 (1.20)	-0.087 (-1.50)	-0.620 (-1.73)	-0 038 (-0.47)	-0.027
Tanzania	17	0.072 (0.79)	-0.067 (-0.31)	0.193 (0.87)	-0.157 (-0.68)	0.827 (3.07)	-0.037 (-0 48)	0.397
Uganda	9	-0.775 (-0.69)	0.321 (0.69)	-0.149 (-0 42)	0.287 (0.70)	-0.066 (-0.13)	1.224 (1.76)	0.060
Zambia	20	-0.018 (-0.28)	0.049 (0.20)	0.412 (1.96)	0.387 (1.58)	0.261 (0.92)	0.215 (1.81)	0.761
Zimbabwe	14	0.092 (1.33)	0.071 (1.35)	-0.001 (-0.03)	0 086 (1.78)	-0.444 (-0.99)	0 426 (3.25)	0 407
Avg. Coeff.:								
All countries		0.015	0.120	0.140	0.082	0.084	0.224	0.301
List of 15		0 089	0 064	0.096	0 030	0 082	0.155	0.269

Note: Values in parentheses below coefficients are *t*-values. List of 15 countries excludes Rwanda, Sierra Leone, Sudan, and Uganda

Variables:

	All variables are year-on-year growth rates of the given indicator.
n	Number of observations (number of years for which data were available).
CPI.	Consumer Price Index.
M2:	Broad money supply.
CPI2:	Average of the consumer price index over the previous two years
NER.	Nominal official exchange rate (local currency unit/SDR).

Table A-2

Estimates of Components of Inflation in Africa, 1970-92[1]
Cross Section - Time Series Results

n	Explanatory Variables: M2	M2(-1)	M2(-2)	CPI2	GDPDF2	NER	DUMMIES	$\bar{R}^2$	Sum of All Coefficients	Sum of Non-Money Coefficients
	Dependent Variable: CPI									
283		0.050	0.033	0.479		0.118	1972-91	0.472	0.681	0.597
		(1.26)	(0.84)	(6.23)		(3.67)				
278	0.137	0.053	0.033	0.439		0.103	1973-91	0.489	0.765	0.542
	(2.93)	(1.34)	(0.84)	(5.69)		(3.23)				
272		0.031	0.024		0.494	0.130	1973-90	0.448	0.679	0.624
		(0.73)	(0.57)		(5.01)	(3.95)				
270	0.104	0.036	0.028		0.461	0.119	1973-90	0.461	0.749	0.580
	(2.57)	(0.89)	(0.66)		(4.64)	(3.63)				
	Dependent Variable: GDPDF									
266		0.029	0.028	0.350		0.168	1973-90	0.527	0.576	0.518
		(0.88)	(0.86)	(4.99)		(6.32)				
265	0.214	0.031	0.027	0.316		0.150	1973-90	0.589	0.738	0.466
	(5.76)	(0.98)	(0.88)	(4.80)		(5.98)				
258		0.021	0.030		0.281	0.184	1974-90	0.495	0.515	0.465
		(0.58)	(0.84)		(3.18)	(6.67)				
257	0.151	0.029	0.035		0.250	0.169	1974-90	0.541	0.632	0.419
	(4.59)	(0.83)	(1.03)		(2.93)	(6.38)				

Note Values in parentheses below coefficients are *t*-values.

[1]List of Countries: Botswana, Burundi, The Gambia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Nigeria, Seychelles, Swaziland, Tanzania, Zambia, and Zimbabwe.

Variables: All variables are year-on-year growth rates of the given indicator.

n: Number of observations (number of years for which data were available).
GDPDF: Gross Domestic Product Deflator.
CPI: Consumer Price Index.
M2: Broad money supply.
GDPDF2. Average of the gross domestic product deflator over the previous two years.
CPI2: Average of the consumer price index over the previous two years.
NER: Nominal official exchange rate (local currency unit/SDR).
DUMMIES: Both year and country intercept dummies were used. A year dummy was constructed for each year by giving the dummy the value of one in the current year and the value of zero for all other years. Similarly, separate dummies were constructed for each country, with the dummy equal to one for each observation for the given courntry and zero elsewhere. The year dummies used in each regression are listed. In all regressions, the Zimbabwe country dummy was excluded in order to avoid creating a near-singular matrix.

Table A-3

Estimates of Components of African Inflation[1], 1970-92

Cross Section - Time Series Result

Dependent Variable: CPI

Number of observations: 278

VARIABLE	COEFFICIENT	STD. ERROR	T-STAT.	2-TAIL SIG.
C	-0.0456	0.0574	-0.7938	0.4281
M2	0.1372	0.0468	2.9329	0.0037
M2(-1)	0.0531	0.0395	1.3446	0.1800
M2(-2)	0.0333	0.0395	0.8426	0.4003
CPI2	0.4386	0.0771	5.6896	0.0000
NER	0.1033	0.0320	3.2275	0.0014
D73	0.0227	0.0578	0.3929	0.6947
D74	0.0877	0.0572	1.5350	0.1261
D75	0.0878	0.0574	1.5292	0.1275
D76	0.0232	0.0565	0.4104	0.6819
D77	0.0811	0.0566	1.4337	0.1530
D78	0.0473	0.0551	0.8590	0.3912
D79	0.0562	0.0551	1.0203	0.3086
D80	0.0729	0.0553	1.3183	0.1887
D81	0.1254	0.0554	2.2625	0.0246
D82	0.0266	0.0555	0.4799	0.6317
D83	0.1074	0.0554	1.9379	0.0538
D84	0.0534	0.0557	0.9590	0.3385
D85	-0.0033	0.0556	-0.0593	0.9528
D86	0.0278	0.0560	0.4959	0.6204
D87	0.0298	0.0551	0.5412	0.5889
D88	0.0771	0.0550	1.4005	0.1627
D89	0.1014	0.0559	1.8123	0.0712
D90	0.0771	0.0566	1.3623	0.1744
D91	0.0369	0.0574	0.6426	0.5211
BOTD	-0.0320	0.0498	-0.6422	0.5214
BURD	0.0053	0.0470	0.1123	0.9107
GAMD	0.0170	0.0463	0.3672	0.7138
GHAD	0.1126	0.0515	2.1836	0.0300
KEND	0.0205	0.0465	0.4408	0.6597
LESD	-0.0053	0.0482	-0.1104	0.9122
MADD	0.0207	0.0468	0.4420	0.6589
MLWD	0.0166	0.0465	0.3582	0.7205
MTSD	0.0001	0.0461	0.0013	0.9990
NRAD	0.0157	0.0465	0.3371	0.7364
SEYD	-0.0126	0.0475	-0.2650	0.7912
SWAD	0.0016	0.0465	0.0340	0.9729
TAND	0.0530	0.0487	1.0883	0.2775
ZAMD	0.1138	0.0477	2.3844	0.0179

R-squared	0.5594	Mean of dependent var	0.1754
Adjusted R-squared	0.4893	S.D. of dependent var	0.1835
S.E. of regression	0.1311	Sum of squared resid	4.1083
Log likelihood	191.3658	F-statistic	7.9848
Durbin-Watson statistic	1.8567	Prob(F-statistic)	0.0000

[1]Country list: Botswana, Burundi, The Gambia, Ghana, Kenya Lesotho, Madagascar, Malawi, Mauritius, Nigeria, Seychelles, Swaziland, Tanzania, Zambia, and Zimbabwe.

processes generating the data differ among countries and from year to year within countries.

There is less but still significant variation in the results of the different variants of the pooled regressions. The correlation coefficients (R^2s) range from about .55 to .65, which is relatively high for regressions on percentage first differences. The coefficients change appreciably in response to changes in specification, but retain the same order of magnitude in all specifications. That the coefficients shift when the price variable switches from the CPI to the GDP deflator is not surprising But the response to a change in the monetary variable deserves more attention.

In all formulations using only lagged monetary growth variables, the indicated elasticity of price change with respect to money growth was quite small, less than 0.1. However, in equations using both current and lagged money growth, price elasticity with respect to current money growth ranged from 0 15 to 0.25 without reducing the effect of lagged money supply

These are short-run elasticities; long-run elasticities reflecting lagged price effect are considerably larger. When current money growth is included, the total long-run elasticity of prices with respect to money growth is in the neighborhood of 0 6, which is less than one might expect even after allowing for a downward trend in velocity and numerous supply shocks affecting prices. Nonetheless, the coefficients of unlagged money growth may reflect the causal influence of current price changes on money growth rather than that of money on prices. In that case our estimated coefficients would be too high.

Initially, the regression coefficients have to be regarded as observations of covariation among the variables rather than as reflecting any well-defined underlying structure determining price movements Going beyond this, the question arises whether the estimates can be regarded as simple tests of consistency between the data and propositions made earlier about factors accounting for inflation.

In this regard we are concerned with the direct and indirect impact of devaluations on the rate of inflation. In particular, we want to know the likelihood that a large devaluation will set off a price-wage-exchange rate spiral that will undermine the initial attempt to achieve a real depreciation. This depends on the magnitude of the coefficients measuring the direct impact on prices of (i) shifts in the nominal exchange rate, (ii) lagged price changes, and (iii) changes in money supply.

Following is our interpretation of the results:

1. Tables A-1 and A-2 indicate that the price level's response to an *X* percent increase in the official exchange rate (OER--Sh/$) is to rise by between 0.1 and 0.2 *X*. The estimate is significant both numerically and statistically but smaller than one might expect based on the share of imports in consumption and domestic absorption in most SSA countries. (This is equally true regardless of whether the CPI or the GDP deflator is used.) In many countries the role of OERs in determining import prices is severely limited by the operation of parallel markets. The coefficient applying to a country with no parallel market would, of course, be substantially larger.
2. The feedback from lagged or inherited inflation is stronger and statistically more significant than the effect of changes in exchange rates. While varying from one regression to another, it is typically about 0.35. The interaction between a price rise initiated by a devaluation and the "feedback" from lagged inflation substantially increases the impact of a devaluation. This impact rises still further if the exchange rate is periodically adjusted to maintain the initial real depreciation. The standard errors of the regression coefficients

are not very large.

3. Needless to say, the monetary parameters play a central role in the inflation process. The regression coefficients relating money growth to inflation in Tables A-1 and A-2 represent first-round responses. They indicate that, in the first year following a change of 10 percentage points in the rate of money growth, with all other variables held constant, the rate of inflation rises by only about 2.5 percentage points However, that initial response is amplified in time by the effect of lagged price increases. Moreover, if the real exchange rate is to remain constant, further nominal devaluations and price rises must occur. At the same time, the rate of price increase does not appear to rise in proportion to money growth. This is partly because, during the period in question, real output was increasing while velocity was decreasing so that average price growth was about five percentage points below average money growth.
4. As noted in Section A, inflation in SSA countries was partly driven by nonmonetary shocks. Our regressions reflect the shocks from official devaluations, though perhaps not very accurately. The pooled regressions do not take explicit note of other shocks but these are to some extent reflected in the "dummy" variables. The high values for the year dummies in 1974-5 and the early eighties must be taken to reflect rising prices of imports, especially petroleum Their direct effect and the associated feedbacks account for a substantial part of the total inflation.
5. The role of nonmonetary shocks is well illustrated by an IMF study of Ghana [Kapur et al., 1991], which looks at changes in food supplies and administered oil prices. These played a significant role in Ghana's inflation and were undoubtedly influential elsewhere. The study's estimates of the price impact of exchange rate shifts is similiar to those reported here. Another IMF study by Joshua Green [1989] is broadly consistent with our results.
6. The pooled regressions suffer from collinearity among the variables and are somewhat sensitive to the exact specification of the variables included. Moreover the results are sensitive to the choice of countries. Table A-1's coefficients derive from regressions which exclude Sierra Leone, Uganda, and Sudan. Those countries, long afflicted by war and/or political disruption, were omitted on account of showing chronically high inflation. Their inclusion changes the estimated coefficients and increases R^2.
7. Table A-2 gives estimates of the coefficients B_1, B_2, B_3 and their sum for a number of different pooled regressions as well as averages of those coefficients for the time series regressions. The estimates of the sum $(B_1+B_2+B_3)$ range from 0.63 to 0.93 but center around 0.75.

Typically, then, a 50 percent devaluation would raise the price level initially about 10 percentage points (taking 0.20 as a coefficient for the direct impact of an exchange rate shift). Equation 6a implies that, without monetary restraint, the inflation rate in the second year would be 75 percent of the previous year's rate. By the end of five years it would have fallen below three percent.

While this result is typical, the inflationary impact of devaluation, if not checked by monetary restraint, could be larger and more persistent for two reasons. First, the initial impact might be greater in a country with no parallel market. If prices of all imports rose in proportion to the exchange rate and carried prices of competing domestic products with them. the CPI might rise

by as much as 30 to 40 percent, although that seems not to be borne out by experience.

Second, taking into account inter-country variation as reflected in the time series estimates leads to the conclusion that, for some countries, devaluation without monetary restraint would set off a persisting wage-price-spiral. In a worst case combining these effects, a 50 percent devaluation might cause a persisting inflation of as much as 20% per year, *provided that monetary and fiscal policy were constantly adjusted to accommodate the inflation.* It is also clear, however, that inflation can be checked if not accommodated by monetary and fiscal policy.

Even allowing for wide variation in individual country circumstances, the price-wage-exchange rate spiral resulting from a devaluation accompanied by unchanged money growth slows down quite rapidly. The feedback from past price increase and continuing adjustment to maintain the new real exchange rate is measured by the coefficients B_1 and B_3. These typically sum to less than 0.5, meaning that devaluation's initial impact decays rapidly in the absence of accommodation. This implies a relatively brief but painful recession. Partial accommodation of the inflation stretches the process out.