MARKETS IN DEVELOPING COUNTRIES

PARALLEL, FRAGMENTED, AND BLACK

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— *Executive Summary* —

Markets in Developing Countries

Parallel, Fragmented, and Black

Edited by
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Preface

In developing countries, where government intervention is often used as a tool to achieve economic and political goals, parallel markets arise as producers and consumers seek to evade official regulations. By lessening the effectiveness of controls, parallel markets can also diminish the benefits realized when controls are removed. Understanding how these markets work is therefore necessary for predicting the outcome of deregulation. Only recently, however, have parallel markets become direct objects of research.

The book *Markets in Developing Countries* is a copublication of the International Center for Economic Growth and the Harvard Institute for International Development. It is based on papers presented at a workshop sponsored by HIID to address issues relating to the dynamics of parallel markets. The authors investigate the realities of parallel, fragmented, and black markets for consumer and producer goods, labor, currency, and credit in sub-Saharan Africa, the Philippines, and Taiwan. Several chapters delineate the economic and social contribution that parallel markets make in addressing needs not met by formal markets. Other subjects explored in the book include the interaction between government policy and the behavior of parallel markets, the influence of cultural preferences on parallel markets, and the capacity of parallel markets to increase economic efficiency and equity.

Markets in Developing Countries provides insights into an important area of economic behavior. Although little studied or understood, the workings of parallel, fragmented, and black markets constitute an important issue—one that must be considered in designing effective policy reforms in developing countries.

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February 1991

Summary of Conclusions

Parallel, fragmented, and black markets represent deviations from the theoretical ideal of a well-functioning market. Parallel markets arise to evade government controls. Fragmented markets are not unified, even in the absence of controls, so that different participants face different prices for similar goods or services. Black markets, sometimes but not always parallel in structure, are characterized by a distinct implication of illegality. The impact of these markets on policy reform and implementation occurs in a number of ways.

1. Parallel markets generally ameliorate ill-advised policies such as controls over prices or quantities.

    - When a government attempts to control official markets, parallel markets are likely to improve welfare by encouraging increases in output and avoiding real costs of access for consumers. When government attempts to suppress unofficial trading, this action not only makes it more difficult for parallel marketers to serve their useful social function but also adds real costs of enforcement to society's burden.

    - In some circumstances, however, a parallel market can reduce welfare if it does not add substantially to total output and if traders or consumers incur high costs in that market (for example, the groundnut market in The Gambia).

2. Parallel markets offer an escape from bad policies that cannot be reformed.

   - If political or bureaucratic pressures make it difficult to deregulate markets, parallel markets offer a second-best mechanism to allocate resources more efficiently.

3. Controls can be enforced in ways that retain some benefits of parallel markets.

   - Enforcement should be especially lenient on those unofficial traders who also offer substantial quantities at controlled prices on official markets.
   - When government agricultural marketing boards are charged with the task of establishing below-market prices for basic foods, there should be no quantitative restrictions on competitive marketing channels.
   - It may be possible to reduce consumer costs if something approaching a costless rationing scheme can be devised (e.g., supplying ration coupons with entitlements that do not fully exhaust supplies, then allowing competition for the balance of supplies).

4. Models of parallel or black markets call into question some widely held beliefs about government policy.

   - Contrary to conventional wisdom that high government wages lead to high private wages, higher government wages can instead lead to a greater supply of workers—and to *lower* wages—in the private market.
   - In a country where most tax officials are likely to be corrupt, lowering tax rates can lead to a *decline* in revenue (as in India), contrary to the experience with tax reform in other countries.

5. When controls and parallel markets are considered in the context of general equilibrium, linkage effects between markets can yield unexpected results.

   - A parallel currency market in Niger allowed its economy to be adversely affected by the monetary and fiscal policies of its larger neighbor, Nigeria.

   - Contrary to expectations, a relatively small number of illegal workers (in the U.S. parallel market for illegal alien labor) can *raise* legal employment and tax revenue significantly.

6. The existence of parallel markets reduces the expected benefit from deregulation.

   - Until recently, analyses of market liberalization have proceeded as if only the official market matters, in which case deregulation brings net benefits.

   - Because parallel markets are likely to increase welfare under controls, however, the net benefit from liberalization is likely to be smaller than predicted.

7. When markets are fragmented, controls themselves may improve welfare.

   - Controls may drive resources from the formal market into the preexisting informal market.

   - Deregulation will then channel resources back into the formal market without fully incorporating the informal fragment, leaving those who purchase on the informal market worse off.

8. When markets are fragmented, the best policy is to develop new institutions that will integrate markets, and only then to deregulate.

- Studies of informal credit markets in The Gambia, the Philippines, and Taiwan shows that these markets' functions would not be replaced by the conventional banking system in a deregulated market.

- Indonesia developed a successful rural credit system operated by a government bank, integrating rural savers and borrowers into the bank's operations. When the country deregulated its financial sector, the rural customers benefited along with everyone else in the formal credit market. Similar programs should be possible in other countries.

An Overview of *Markets in Developing Countries*

Economists' recommendations for market deregulation are generally based on two assumptions. First, government controls over market prices or quantities are effective. Second, in the absence of controls, markets would approach the competitive ideal: all participants could buy or sell at identical prices. Many different markets exist, however, in which these conditions are not met.

People almost always manage to evade government controls to some extent, and even in the absence of controls many markets are not as unified as competitive models assume. Policy makers must take these deviations from theory into account as they plan and implement market reforms, because an effective policy prescription depends on an accurate specification of market conditions.

Parallel Markets

A parallel market is a structure generated in response to government interventions that create excess supply or demand. For example, if government attempts to control the price of a basic commodity, less of that commodity may come to the official market at the lower, control price, while consumers demand more. This excess demand will spill over into a parallel market, in which consumers will be willing to pay a higher price to obtain the commodity. Market interventions that give rise to parallel markets in developing countries include

- managed foreign exchange rates, engendering parallel and often illegal currency markets
- import licensing, which can create conditions favoring a parallel market in smuggled goods
- controls over interest rates, which may help to generate a curb market of moneylenders and borrowers
- legislated minimum wages and benefits, which can encourage parallel labor markets
- taxation—sales or value-added taxes, import and export duties, payroll and income taxes—that can generate parallel markets if the risks of evasion are not prohibitive.

Parallel markets are not necessarily illegal. They may be allowed or even encouraged. More commonly, however, governments try to enforce price or quantity control by establishing penalties for trading in parallel markets. The welfare implications for buyers and sellers depend on

- the nature of the risk function
- the ways in which consumers get access to price-controlled goods
- the resource costs involved in buying and selling on the parallel market

Detlev Puetz and Joachim von Braun examine the parallel markets in groundnuts and fertilizer among the rural poor in The Gambia, West Africa. They find that Gambian farmers sell some of their groundnuts to the official market even though the price in neighboring Senegal is higher. First, farmers face some risk, as well as higher costs, for cross-border sales. Second, farmers who sell officially also benefit from subsidized fertilizer provided on credit.

Wealth is a determinant of access to both official and parallel markets in The Gambia. When credit is tight, it is the richer farmers who are able to take advantage of the parallel market, in which cash transactions predominate. Seventy-one percent of the wealthiest Gambian farmers, but only 17 percent of the poorest, sold in the cross-border parallel market.

Jean-Paul Azam examines cross-border trade between Niger and Nigeria, especially the parallel market for the Nigerian currency, the naira. The naira is not convertible, but a good deal of illegal or semilegal cross-border trade in goods involves the exchange of nairas and other currency. Changes in price levels in Nigeria, a large country, are transmitted to much smaller Niger through changes in the exchange rate in the parallel market. When Nigeria instituted restrictive demand policies, the price level dropped in Niger, exacerbating the recessionary impact of stabilization policies adopted by Niger's own government. This chapter shows that macroeconomic policy prescriptions can be closely linked to the existence and behavior of parallel markets.

Virtually all contributors to the literature on parallel markets assume that these markets clear. But this assumption is challenged by David Bevan, Paul Collier, and Jan Willem Gunning, writing on the persistence of shortages in rural black markets in Africa. These authors point out that if parallel markets are illegal, the risk of detection prevents normal market mechanisms from working. Sellers are restrained in advertising their goods, seeking buyers, or testing willingness to pay, because these activities increase their chances of being caught. For these reasons, sales are made at prices that leave some consumers with unsatisfied demand. Illegality raises the cost of acquiring information, which prevents the market from clearing.

David L. Lindauer asks whether government salary levels in developing countries are responsible for high wages in the private, formal economy. To the extent that the private sector and the government compete for the same pool of talent, high government salaries could be said to determine wage levels in the private sector. If, however, government decides to pay a wage above the market-clearing level but cannot afford to hire everyone who would work at that wage, the private sector is left to absorb the excess supply of workers. Using a model of the linkage between parallel and official markets, Lindauer shows that the high government wage would have no impact on wages in the parallel market (in this case, the private sector). In contrast, if government policy is to increase employment by hiring more workers, the reduced labor supply will drive up wages in the private (parallel) labor market.

Trien T. Nguyen uses a mathematical model of the U.S. economy to examine the parallel market created by illegal immigrants who are willing to work for subminimum wages. This approach produces the surprising outcome that, even though illegal workers constitute only 1 percent of the work force, their presence *raises* the income of legal workers by 5 percent and increases tax revenues by 11 percent. These effects are attributable to increased overall employment leading to higher private expenditure and to government enforcement efforts that also generate employment.

Fragmented Markets

Even in the absence of controls, markets may be divided into segments in which participants face different prices for goods, services, or factors of production. The simplest reason for price differences is high transportation costs; people farther from the source of supply pay more than those nearby. In this case, however, markets can still be well integrated, so that changes in market conditions in one area are reflected in price changes in other areas. Certain characteristics of developing countries, however, may result in both price differences and a lack of market intermediation between different regions of production.

- For example, grain from a region with an abundant harvest may not flow to a region with a poor harvest because transportation costs are prohibitive; therefore, prices between the excess region and the deficit region remain unequal.

- Poorly developed channels of information can have the same result, if traders' cost of obtaining information about distant markets exceeds the possible profits from trading in those markets.

When market intermediation is impeded by high costs or imperfect information, prices for goods or factors in one region may move independently from those in another region. Such conditions define a fragmented market.

Credit markets in developing countries display characteristics of both parallelism and fragmentation. Parallelism arises from credit market regulations, but informal credit institutions would exist even in the absence of government-created financial repression. For several reasons, one of which is imperfect information about low-income borrowers, banks may ration smaller businesses, traders, farmers, and poor households out of the formal credit market. Instead, local moneylenders and others who can acquire local knowledge at reasonable cost serve smaller, low-income borrowers at interest rates well above those in the formal sector. The resulting credit markets are fragmented.

Parker Shipton describes a highly fragmented informal credit market in the western Sahel, with little intermediation between various transactors. In rural Gambia, where people do not rely on the banking system and where the ethical principles of Islam also affect lending practices, the concept of a percentage interest rate based on the loan outstanding does not always apply; people often negotiate a fixed total amount of interest payments payable over a flexible period of time. An interesting question for the future of financial institutions in this setting is whether the terms of credit transactions will become more regularized when would-be lenders have more opportunity to deposit their savings in interest-bearing accounts.

Pan A. Yotopoulos and Sagrario L. Floro analyze a Philippine rural credit market that appears substantially more developed than the array of transactions observed by Shipton in The Gambia. Yotopoulos and Floro describe a market fragmented into two sets of transactions: trader-lenders who lend to rich farmers and farmer-lenders who lend to poorer farmers. The traders often lend to farmers who are already their customers or suppliers. In a farmer-lender transaction, land is typically pledged as collateral. In both types of transaction, the loan is linked to the primary occupation of the lender, whether trader or farmer.

Tyler S. Biggs describes how small, family-controlled firms in Taiwan—the kind that banks typically ration out of the formal credit market—have been served by a sophisticated set of institutional arrangements through nonbank channels in the informal or curb market for credit. Among the most important of these institutions have been legally sanctioned, postdated checks, which are discounted in a secondary market. Since small and medium-sized firms have played an important role in Taiwan's development, the evidence suggests that the development of the curb market improved the allocative efficiency of credit and was itself crucial to Taiwan's export success.

Both the Philippine and Taiwan studies argue that if government removes interest rate and credit controls, formal financial institutions are not likely to replace or absorb the informal credit market. An expansion of credit through the formal sector may not increase the supply of credit to the borrowers—the poorer ones—who present the greatest risk and are willing to pay the most for loans. The traders, who would receive much of the additional credit, would probably prefer, in turn, to lend to rich farmers rather than to poor ones. If new credit is directed to poor farmers who pledge land as collateral, the rate of land consolidation, through foreclosures, is likely to increase.

In Taiwan, financial liberalization could reduce the total supply of credit and worsen allocative efficiency, in the following way: Deregulation of interest rates would stimulate a transfer of funds from the informal to the formal financial market. Banks, which are inclined to ration credit, would use these funds to expand loans to firms that they traditionally serve. Further, reserve requirements, which apply to banks but not to lenders in the curb market, would reduce total lending.

These cases illustrate how fragmented credit markets can lead to outcomes different from those predicted by models of strictly parallel markets that clear through price changes.

Black Markets

For decades, *black market* was the term of choice for parallel markets and remains in common usage for parallel foreign exchange and goods markets. But the term is not just a synonym for *parallel.*

- First, the term *black market* has a distinct implication of illegality—and not all parallel markets are illegal.

- Second, not all black markets are parallel. *Black* can refer to the market for prohibited goods (such as cocaine or firearms) for which there is no legal market, hence no parallelism.
- Third, *black money* is an expression used, especially in India, to denote income that has evaded taxes or been acquired illegally and held in liquid form. Such funds are derived and then circulated in a *black economy*, a term that is analogous to the notion of the *underground economy*.

Efforts to avoid taxes may give rise to secondary parallel markets. If money earned from unrecorded transactions must be laundered to be useful, it will be offered at favorable terms on credit or foreign exchange markets, thus creating parallel financial markets. If, however, there is no risk in spending money earned from unrecorded transactions or income tax evasion, no laundering process develops, and the parallel markets are limited to tax-evading transactions such as the hiring of workers at wages below the minimum or not paying employment taxes. Thus, income tax evasion, to the extent that no laundering of undeclared income is necessary, does not give rise to a parallel market.

In their discussion of taxes, corruption, and bribes in India, Omkar Goswami, Amal Sanyal, and Ira N. Gang analyze risk and enforcement functions to examine the impact of tax policy when individuals pay bribes to avoid declaring their income. They use a mathematical model, which shows that an increase in tax rates, combined with an increase in the probability of an audit, will increase tax revenues at the same time that it optimizes net revenue to government. This finding is contrary to the conventional wisdom that a decrease in tax rates will increase tax revenues. This model has important implications for efforts in developing countries to reduce fraud in income or customs taxes and highlights the importance, in analyzing black markets, of specifying what determines self-aggrandizing (or economic rent-seeking) behavior.

What Have We Learned about Policy?

The best prescription for government would be to give up its controls, deregulate the market, and seek other means to achieve the economic aims that unfettered markets are able to serve. Such a policy would make parallel markets irrelevant. Failing that, and accepting the inevitability of some controls in most countries, the second-best prescription for government policy would be to relax enforcement of controls and let parallel markets work.

If government is unwilling to give up certain controls, there is still scope for policies to reduce the welfare costs of controls.

1. Government enforcement of controls should be lenient for parallel market traders who also sell substantial amounts at controlled prices on official markets. This would encourage more goods to be offered at official prices. One approach would be to allocate official market quotas to producers and to ignore unofficial market sales if the quotas have been fulfilled.

2. When below-market prices are officially established for basic foods, competitive marketing channels should not be subject to quantitative restrictions. Parallel marketers who can operate within the limits established by official farmer and consumer prices should be permitted to obtain price-controlled produce, thus benefiting both farmers and consumers.

3. Research suggests that consumer costs could be reduced if a low-cost rationing plan could be worked out. Although it is almost impossible to devise ration schemes that eliminate all consumer transactions costs, a practical alternative is to supply ration coupons with entitlements that do not fully exhaust supplies, then allow competition for the balance of supplies.

4. Just as the existence of parallel markets ameliorates the impacts of government market interventions, the benefits of removing controls are reduced by the operation of illegal markets. Once we recognize that parallel markets are likely to increase welfare under controls, we must admit that the net benefit from liberalization is likely to be smaller.

5. When parallelism exists along with fragmentation, it is even possible that market controls improve welfare by driving resources from the formal market into the preexisting informal market, as happens with curb markets in repressed financial systems. In that case, liberalization will channel resources back into the formal market without fully incorporating the informal market (because fragmentation is the result of inherent characteristics of the market, and not of policy intervention). Those who purchase on the informal market will then be worse off.

6. Once parallel markets arise in response to controls, the economy becomes more difficult to manage. Policy analysts and decision makers need to come to grips with the confounding effects of controls and parallel markets on economic policy. There are almost always better ways to achieve government's economic goals than to control prices or quantities.

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