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LABOR MARKET STRUCTURE
AND
ECONOMIC GROWTH

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EXECUTIVE SUMMARY

Despite significant economic reforms and restructuring, the economies of many LDCs have failed to resume growth at a rate consistent with a successful absorption of labor. Growing urban unemployment resulting from poor economic performance and a combination of high demographic growth and accelerating rural-urban migrations threatens the political and economic stability of the countries and future prospects for rapid development.

It is widely thought that the state through its intervention in the functioning of the labor market is responsible for the failure of this market to clear. Minimum wage laws and other labor legislation are assumed to set the cost of labor at a level incompatible with the matching of supply and demand. Similarly, the state and unions are said to prevent wages from adjusting to market conditions. However, recent research on labor markets suggests that this view may be too simplistic and that there are reasons independent from the actions of the state or unions which prevent labor markets from clearing. The pronounced segmentation of the labor market in many LDCs originated in the needs of emerging industries for a permanent labor force and the different supply prices of two kinds of migrants. The persistence of the segmentation in the face of an apparent urban labor surplus is the consequence of profit-maximizing decisions of modern sector firms which tend to result in a wage rate above the market clearing wage and in a wide differential with informal wages without any state intervention. The use of bargaining power by incumbent workers can similarly result in the establishment of a wage higher than the market-clearing level even without union activity.

Labor markets often do not clear because of an endogenous logic within the labor market rather than the intervention of the state or unions. There exists no a-priori case to change labor legislation in order to reactivate the economy and increase labor absorption. It is, nevertheless, true that in some cases state's and unions'actions have exacerbated the situation in the labor market and have resulted in higher unemployment and worsened income distribution. Whether this is actually the case can only be ascertained by an analysis of local conditions.

The challenge of employment generation for LDCs lies with the employment-output trade-off between the modern and the informal sector. Employment generation policies directed solely toward the informal sector are likely to result in foregone output. The expansion of existing linkages between the two sector could reduce the opportunity costs in terms of foregone output or employment. Subcontracting of modern sector production by small scale firms could provide a first step in this process. However, the success of the strategy requires the recognition of the great heterogeneity of the informal sector in terms of production processes, owners motivations and types of firms. Small scale firms which have demonstrated their capacity for growth offer the greatest potential for future growth and employment generation, provided they have access to financing to meet their capital modernization needs. The expansion of the formal-informal linkages will tend to reduce the segmentation in the market, integrate better the informal sector in the national economy, and eventually provide new market opportunities to small scale firms. By fostering the entry and growth of new firms, it is also likely to decrease oligopoly power in the national economy and increase competition.

1. INTRODUCTION

1.1 For a large number of less developed countries (LDC), the 1980s have been a turbulent decade where exogenous shocks --deterioration of the terms of trade, reduced demand for exports (traditional), debt crisis, and increases in interest rates-- have combined with the limitations of well-intentioned but misguided policies to produce deep and long-lasting recessions.

Despite more or less complete structural reforms, economies, once stabilized, have generally failed to grow at a rate which would allow for a recuperation of foregone real income in the foreseeable future. Too often, demographic growth outstrips economic gains and per capita income keeps on falling. The consequent increase in poverty reverses decades of painstaking improvements in levels of living and threatens the economic and political stability of these economies.

1.2 It is then not surprising that a certain sense of urgency exists in understanding why implemented reforms have failed to meet expectations. Although major macroeconomic imbalances have been or are in the process of being rectified, the sluggishness of many economies suggests that structural obstacles to growth remain to be identified and addressed.

In this context, an investigation of the role of labor markets appears warranted for several reasons:

a) The lack of dynamism of many economies, particularly in what concerns investment, may be related to specific conditions in the labor markets which impede profitability.

b) The impact of the crisis in the past decade has been felt mostly at the level of employment creation. With sustained high demographic growth-- at least in the last two decades-- and rural-urban migrations, deficiencies in job creation can only lead to increased unemployment and poverty.

c) Although a key element in the generation of output, labor has not been a focus of the structural adjustment literature and process[1] . This oversight probably results from the high political sensitivity of the labor issue and the tendency of macroeconomic models to treat labor somewhat as a residual. The latter probably originates in the unease which macroeconomists have in incorporating what is basically a microeconomic-determined variable in a macro framework.

1.3 The investigation of the role of labor markets in the present crisis in LDCs should center on two distinct sets of questions:

a) Are labor markets conditions responsible for the continued depressed state of LDCs' economies? What are the labor market rigidities or constraints which constitute an effective impediment to growth?

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1 Labor markets have been rarely included in the discussions of structural adjustment in the published literature which has been concerned mainly with questions of overall macroeconomic balances. At most, labor issues have been considered part of a wider set of issues grouped under "Deregulation". Only recently does it appear that specific research on labor and structural adjustment has been undertaken. See: Kanbur, Ravi and Dipak Mazumdar, "Labor Markets in an Era of Adjustment", Draft Proposal, The World Bank, 1988

b) Are these rigidities/constraints of a nature such that (i) they can be removed or dismantled in the short to medium term (ii) there is much to be gained by their removal?

The quest for answers to these questions is impeded by some weaknesses in the main theoretical tradition of economics, namely neoclassical theory. While neoclassical theory is unmatched in its ability to identify deviations from efficient resource allocation, its formulation in terms of comparative statics does not prepare it well for analyzing the dynamic linkages which permit growth. In other words, neoclassical theory may identify the necessary conditions but not the sufficient conditions for growth. In addition, the lack of a "grand unification theory" between the macroeconomic and microeconomic branches of the neoclassical tradition leaves a theoretical gap into which the question of the relationship between labor market conditions and overall macroeconomic behavior squarely falls.

1.4 An additional difficulty in the task at hand is the relatively small body of theoretical and empirical work done on labor issues in LDCs. The development of models in labor theory depends on the ability to test them empirically. The nature of these models requires disaggregated and micro-level data, which can only be gathered from regular employment and household surveys. In most LDCs such surveys are conducted with extreme irregularity, processed slowly and often lack sufficient technical standards to yield reliable data. As a result, the large majority of the labor literature, theoretical or empirical, is concentrated on the conditions of labor markets in OECD countries. In the case of LDCs with regular employment survey, one witnesses a significant increase in empirical research: Costa Rica, where households surveys have been conducted with regularity and with high technical standard for at least 15 years is a prime example as are Argentina, Mexico and Malaysia. With respect to the African continent, one can only deplore an acute dearth of literature on labor issues, a probable consequence of a lack of regular and reliable employment and industrial surveys.

1.5 However, some of the insights from the recent theoretical literature may be applicable to a preliminary overview of the structural conditions of labor markets in LDCs and the limited country-specific empirical research may be transferable to other LDC cases. While, as already suggested, it is unlikely that a complete answer to the question of the relationship between labor market and growth may emerge, a review of existing literature can help clear out what are the known factors and what are factors which need more empirical clarification.

The next chapter will explain the current state of knowledge about urban labor markets in LDCs and review some of the theoretical explanations for the so-called distortions within these markets. The following chapter will attempt to draw an assessment of the relationship between labor and growth at the present time and to specify the needs for further either theoretical researches or specific country research.

2. THE STRUCTURE OF URBAN LABOR MARKETS IN LDCS

2.1 The Urban Labor Market in LDCs may be most usefully viewed not as a homogenous entity but as composed of at least three different segments: (1) the public sector, (2) the private modern sector and (3) the so-called informal sector. Between these sectors, labor mobility is minimal and identical skills in comparable occupations earn different remunerations. In other words, the labor market in LDCs does not clear, at least in a strict neoclassical sense.

It is tempting and easy for an economist of a strict neoclassical tradition to assign blame for the lack of intersectoral mobility --which prevents equalization of remunerations for similar skills in similar positions-- on some institutionally-imposed regulation rather than a local rationality determined by the specific local conditions of these markets. And, in fact, the segmented labor market theory has had difficulties in being accepted by the main body of economics although it has been always fairly popular among development economists. Recent works provide valuable insights on the mechanisms which led to the emergence of segmented markets and the conditions which allow for the perpetuation of the segmentation.

2.2 Employment in the public sector has grown substantially in many LDCs over the last two decades and the public sector plays a significant role in the labor market both at the level of employment and at the level of wage-setting.

Some of the increase in public employment can be explained by the expansion of the state's role and the need to staff expanding social services. But often public employment has been the result of political calculations either to defuse a latent crisis-- by offering guaranteed employment to university students for example-- or to secure votes. Some of the increase in public employment has also been the result of the increased role of the state in the production of national output through the creation or the acquisition of state-owned enterprises (SOEs).

Events of the 1980s have clearly demonstrated the limitations of this strategy at the macroeconomic as well as the microeconomic levels and the current tendency is a reduction of the role of the state toward its more traditional functions. The structural adjustment in the size of the state implies both the dismissal of workers and sharp reduction in hiring, both potentially contributing to increased unemployment unless the private sector --both formal and informal-- can increase job creation to compensate for this increase in the labor supply. The issue of employment creation in LDCs, for the foreseeable future, rests squarely within the private sector and the constraints it faces.

2.3 The Urban Private Labor Market is composed of two distinct sectors:

a) The primary sector (modern or formal sector) with relatively high wages, good working conditions, stable employment and substantial returns to human capital variables such as education and experience.

b) The secondary sector (informal) with opposite characteristics.[2]

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[2] The publication of "El Otro Sendero" (The Other Path) by Hernando De Soto in 1985 has helped popularize the concept of informality and focused attention and assistance on the informal sector. However influential this work is, it should not lead us to forget the pioneer works on segmented markets fom the late sixties by academic economists and development specialists, some of whom will be mentioned in this text.

Empirical studies have documented the fact that income differentials between informal and formal sectors are only partially explained by differences in human capital and that for equal skills, sectoral differentials can be as high as around 50 percent.[3] The two sectors show different patterns of wage and employment adjustment to the business cycle: formal sector wages tend to be rigid or sticky while employment respond to demand; in the informal sector, wages are flexible and employment tends to remain constant. The organization of production also differs between the two sectors: the highly-structured labor organization of the modern sector and its high capital output ratio can be contrasted with the very fluid labor-intensive organization of production in the informal sector.

The high wage in the formal sector is often identified today with the operation of labor laws and/or unionism. But while in a particular market the institutional factors may determine the point --for example the size-class of enterprises-- above which the formal sector extends, it cannot be said that the formal sector owes its existence to institutional regulations. Historical studies of labor markets show that the relative wage levels of regular workers in large scale modern industry had been established well before the era of trade unions or government legislation.[4] It is also true that in many LDCs where the substantive effects of labor unions and government legislation are limited even today, wage levels are still relatively high in the formal sector. Rather than exogenous influences creating a dualistic market, the segmentation is a result of endogenous forces within the market with the institutional regulation only constituting the official recognition of these factors.

2.4 The experience of many LDCs may be summarized in a conceptual framework[5] in which the dualistic urban labor market is seen as emerging from the existence of two different classes of rural-urban migrants with two supply prices.

Temporary migrants move to the city for short periods without severing their ties with the rural economy in search of a supplementary income during time of slack in their main rural activity. On the other hand, permanent migrants moving to the city with their family face the combination of higher living costs in urban areas and the loss of the immediate family support network. Consequently, they have a higher supply price for their labor than temporary migrants.

Without a differentiated demand for labor, little incentive would have existed for family migrations as long as the agricultural sector could supply individual migrants. The emergence of modern industry and the need to train workers in modern work methods and technology required a stable labor force and therefore justified paying a higher supply price. In several African nations after independence, the state was anxious to promote the creation of a stable urban labor force to support its industrialization effort, and instituted minimum wage laws to such effect. In East Africa, in particular, policy decisions to use a minimum wage system based on household rather

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3 See Souza P. and V. Tokman, "The Informal Urban Sectors in Latin America." International Labour Review, Vol. 114, No. 3, November-December 1986, 355-365.

4 See, for example:

D.Mazumdar "Labor Supply in Early Industrialization: The case of the Bombay Textile Industry." Economic History Review, August 1973, 26, 477-96.

Y. Yosuba, "The Evolution of Dualistic Wage Structure" in Hugh Patrick Ed., Japanese Industrialization and Social Consequences", Berkeley, 1976.

5 See Dipak Mazumdar, "Segmented Labor Markets in LDCs" , American Economic Review, Papers and Proceedings, May 1983, 254-259.

than individual needs as a stimulus to the creation of a permanent work force find their origins as far back as the Carpenter Committee on Africa Wages (1953).[6]

The differential between informal and formal workers did not emerge as a result from unionization but as the reward for a very specific labor characteristic: the willingness to remain permanently employed in an urban occupation.

2.5 While this conceptual framework explains the emergence of the dualistic labor markets as a consequence of profit maximizing decisions, it does not provide an explanation for the perpetuation of the segmented labor market. Given that rural-urban family migrations have increased over the last two decades and that many countries have already accomplished their demographic transition from rural to urban societies, one would have expected that there would have been a downward pressure on formal sector wages and a tendency toward equalization of formal and informal sectors wages.

For a while, the failure to give a consistent explanation to the causes of the maintenance of an apparent disequilibrium in labor markets led to a certain dissatisfaction with the segmented labor market theory. In recent years however, this theoretical approach has experienced a reemergence following new empirical and theoretical developments.[7]

The new theoretical developments succeed in explaining the specific oddities in the labor market structure in LDCs but also in industrialized nations without necessarily resorting to the "deus ex machina" of the intervention of the state. The state is only a secondary actor which by its interference may intensify the differential between formal and informal sector, but does not create it.

2.6 The existence of different wage rates for similar occupations and levels of education, experience and skills is a symptom of a non-clearing labor market. It is in the non-market clearing tradition that two very promising theoretical developments have emerged recently. Each of these approaches can explain the two stylized facts about LDCs labor markets, the failure of wages to equalize across the informal and formal sectors and the apparent wage rigidity or at least stickiness in the formal sector.

a) Efficiency Wage Theories present a framework in which the profit-maximizing wage for firms may be higher than the market clearing wage.

b) Insider-Outsider Theories posit that employed workers have an inherent advantage over outsiders which they can put into use during wage negotiations. Although this approach allows for a significant role of unions, unions are not a necessary element in the theory.

The Efficiency Wage approach places labor market power (in terms of wage and employment decisions) squarely in the hands of the firms. The Insider-Outsider theories, on the other hand, assumes that it lies at least partially with the workers. Although apparently diametrically opposed, the two approaches are in fact compatible as it will be seen in the brief following descriptions.

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6 See appendix C in: Dipak Mazumdar, "Microeconomic Issues of Labor Markets in Developing Countries: Analysis and Policy Implications", EDI Seminar Paper # 40, The World Bank, Washington

7 See Williams T. Dickens and Kevin Lang, "The Reemergence of Segmented Labor Market Theory", American Economic Review, Papers and Proceedings, May 1988.

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2.7 It is well known that productivity is extremely difficult to predict ex-ante. In particular, studies have shown that productivity does not solely depend on abilities revealed during performance tests. In practice, employment contracts do not provide precise specifications of productivity and limit themselves to specifying the attributes of a job which can be monitored objectively and cheaply.

The premise of efficiency wage theories is that employers have less information about the productivity of each individual worker than the workers themselves and that under this uncertainty they make unilateral wage and employment decisions. Firms use their wage offers as a screening device for productivity.

The economics of assessing product quality through product price have been explored and yielded a substantial literature[8] which approaches the issue from two different angles:

a) adverse selection in which product characteristics are imperfectly monitored.

b) moral hazard in which the activities of the agents are imperfectly monitored.

Efficiency wage theories as investigations of the relation between wage (i.e. price) and output performance (i.e. productivity or quality) rely on the same tradition and categories.

2.8 In the adverse selection version of efficiency wage theories, the productivity of individual workers cannot be monitored perfectly and, as a consequence, the individual wage cannot be directly related to the individual performance.

Two distinct approaches to this uncertainty problem have emerged:

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8 See in particular:

Arrow, K. 1963 "Uncertainty and the Welfare Economics of Medical Care, American Economic Review, 53.

Akerlof, G. A. 1970, "The Market for Lemons: Qualitative Uncertainty and the Market Mechanism, Quarterly Journal of Economics, 84.

Stiglitz, J. E., 1987 "The Crisis and Consequences of the Dependence of Quality on Price", Journal of Economic Literature, 25.

a) The "productivity differential models."[9] The firm cannot distinguish ex ante between high-productivity and low-productivity workers and even after hiring them has difficulty in distinguishing among the two types of workers. Since workers'skills are not entirely firm-specific, the first uses a high-wage offer as a signalling and screening device: the higher the wage offer, the higher the quality of workers likely to be attracted to it.

b) The "turnover models."[10] The firm cannot distinguish ex ante between workers likely to leave --"quitters"-- and workers likely to stay on the job. Since the firm incurs costs related to its hiring, in particular training, it wants to minimize its turnover. By setting a high wage, the firm reduces the individual worker's incentive to leave and therefore the costs associated with turnover.

The adverse selection approach also helps explain why contrary to what had been hypothesized in the Harris-Todaro Model[11], the probability of an informal sector worker being hired in a formal sector firm is low compared to fresh entrants in the urban labor force[12]. Modern sector firms use employment history in the formal sector as information and an indicator of the ability to perform in a similar environment in their evaluation of a prospective worker and thus reduce the uncertainly in their hiring decision. Employment in the informal sector may constitute a stigma in that it may signal that a worker has been rejected previously by a formal sector employer or that the work experience does not fit the highly-structured work environment of the modern firm. For the new entrants in the labor force, formal firms have no information about their likely performance --either positive or negative-- which can be derived from past employment. It is unlikely, however, that firms engage in hiring practices without some information or systems which create negative rewards for poor performance. The moral hazard version of efficiency wage theory suggests that firms have developed ways of coping with the performance uncertainty.

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9 See:

Malcolmson, J.M., 1981, "Unemployment and the Efficiency Wage Hypothesis", Economic Journal, 91, 646-866.

Weiss, A., 1980, "Job Queues and Layoffs in Labor Markets with Flexible Wages", Journal of Political Economy, 88, 526-538.

10 See Stiglitz, J.E.:

a) 1985, "Equilibrium Wage Distributions", Economic Journal 95, No. 379, 595-618.

b) 1974, "The Efficiency Wage Hypothesis, Surplus Labour and the Distribution of Income in LDCs", Oxford Economic Papers, 28, 185-207.

11 See Harris J. and M. Todaro, 1970, "Migration, Unemployment and Development: A Two-sector Analysis", American Economic Review, 60, 126-42.

12 In a study of Delhi labor markets and rural-urban migrations, Biswajit Banerjee indicates that "in 1967 new arrivals were four to six times more likely to get formal sector employment than those who had entered the informal sector in 1966". See: "The Role of the Informal Sector in the Migration Process: A Test of Probabilistic Migration Models and Labor Market Segmentation in India", 1983, Oxford Economic Papers, 35 (3), 399-422.

2.9 In the moral hazard approach, workers' productivities depend on their effort on the job which cannot be measured directly by the firm. The firm can reduce its uncertainty about prospective workers by hiring from a limited pool of prospective workers recommended by their present employees who are unlikely to suggest the names of suspected "shirkers" for fear of endangering their own position. The newly hired worker is also more likely to apply himself to his job because of the bonds --familiar or social-- with other workers.

In more general terms, three different versions of this approach have been presented:

a) The "shirking models."[13] The punishment for "shirking" is either suspension or outright dismissal. The magnitude of the punishment depends in part on the difference between the foregone firm wage and the alternative income after dismissal, not to mention the cost of job search. By offering a high wage, the firm increases the punishment and induces more effort on the job.

b) The "search models."[14] By increasing their wage offer, firms ensure that the on-the-job search for an alternative job is not worthwhile and workers apply more effort to their job therefore raising their productivity.

c) The "sociological models."[15] In this version, effort is directly related to the perception the workers have of their treatment by the firm. If they perceive that they are treated "fairly", they are more likely to apply themselves more at their jobs. By offering a "gift" --a wage premium-- above the required minimum, the firm can raise group work norms and productivity.

2.10 In the efficiency wage models, a rise in a firm wage offer is associated --counterintuitively-- with an increase in profits. Because of uncertainty, the firm tends to restrict the pool of labor from which it chooses its workers and the profit-maximizing wage --at which the marginal revenue associated from a wage increase is equated to the marginal cost-- may be higher than the wage level which would clear the market. There are probably potential workers willing to work for a pay between what they earn in the informal sector and the pay of the firm's incumbents but firms perceive that their hiring would lead to a decline in marginal revenues greater than in marginal cost.

This strategy may not be limited to modern firms. However only firms with complex production processes may have incentives to apply it since they are more likely to have to invest in training costs. In practice, the higher productivity of the modern firms --a consequence of their high capital-output ratio relative to informal firms-- helps maintain the wage differential with the informal sector.

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13 See:

a) Calvo, G.A. and Wellisz, S., 1978, "Supervision, Loss of control and the optimum size of the firm", Journal of Political Economy, 86, 943-952.

b) Shapiro, C. and Stiglitz, J.E.,"Equilibrium Unemployment as a Worker Discipline Device", American Economic Review 74(3), 433-444.

14 See Snower, D.J., 1983, "Search, Flexible Wages and Involuntary Unemployment" Discussion Paper No. 132, Birkbeck College, University of London.

15 See: Akerlof, G.A., "Labor Contracts as a Partial Gift Exchange," Quarterly Journal of Economics, 84, 488-500.

Finally, although these behaviors have been quite well explored at the micro level, much less work has been done at the macro level and the implications are quite unclear. It is clear that in some ways, by reducing the pool of potential labor, firms end up competing for each others workers and that the process of wage increase must have its limits. If all firms have similar marginal revenue curves then the limit is predetermined. But if firms have differences, does the process lead to a concentration of firms?

2.11 Insider-outsider theories have a common point with efficiency wage theories: both theoretical approaches' point of departure is the observation that firms find the turnover of their employees costly. The turnover costs in terms of training and the search for employees generates an economic rent in the sense that the firm is willing to pay a premium to avoid a given level of turnover. In this case, however, full-fledged employees, "insiders", have the power to capture some of this rent. Different insider-outsider theories have focused on different aspects of the turnover costs:

a) Hiring, firing and training costs[16] which include expenses of advertising, screening, negotiating labor contracts, severance pay, costs of possible litigation, training programs. In the absence of workers' market power, the firm may be able to shift some of these costs to the workers by reducing its wage offer. But once the firm has acquired a stable labor force the balance of power may shift to the workers especially since some of the costs such as training and firing increase gradually with a worker's length of tenure within a firm.

b) Cooperative behavior among workers.[17] Workers can cooperate and raise productivity, or harass one another and lower productivity. When insiders feel their position threatened, they may refuse to cooperate with newly hired workers who replace dismissed ones and a productivity loss may result. As a result not only is the firm reluctant to switch employees --for cheaper ones for example-- but also outsiders may be unwilling to replace insiders. Unions are but a way to formalize and reinforce this potential behavior.

These various costs yield an inherent advantage to insiders over outsiders during wage negotiations. Hence, it is again possible that the formal sector wage may remain substantially higher than the informal sector wage.

2.12 The existence of a non-market-clearing wage in the formal sector is therefore not necessarily due to legal regulations but may be the consequence of the fact that "labor markets differ from a competitive market in several characteristic ways, in particular the importance of formally and

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16 See:

a) Sindbeck, A. and D. J. Snower, 1986, "Wage Setting, Unemployment and Insider-outsider Relations," American Economic Review of Economics 76, May 1986, 235-239.

b) Solow, R., 1985, "Insiders and Outsiders in Wage Determination," Scandinavian Journal of Economics, 87(2), 143-159.

17 See: Lindbeck, A. and D.J. Snower, 1985, "Cooperation, Harassment and Involuntary Unemployment," American Economic Review 78(1) March 1978, 167-188.

informally enforced standards of propriety in wage determination and the prevalence of physical and social barriers to perfect mobility."[18]

However the intervention of the state may exacerbate these "natural" tendencies of the labor market, particularly in what concerns the formal sector. Although instruments such as minimum wage and job security legislation may have been intended as tools of a strategy toward the creation of a stable and qualified labor force, or redistribution of income from profits, they may have overshot their mark. As a consequence, it is possible that the stable and qualified labor force may be smaller than in the absence of state intervention or that the redistributive aspects of labor legislation may only benefit an even more reduced segment of the population. If it is so, then the state's actions have had a perverse effect and produced a result opposite the intended goal. But actual counterexamples to this extreme and bleak scenarios exist. The existence of a widespread system of minimum wages and wage indexation did not prevent Brazil from experiencing a prolonged period of vigorous growth in GDP, exports and per capita income during the 1970s and part of the 1980s. The difficulties encountered by the Brazilian economy in recent years are generally blamed on fiscal mismanagement reflecting long term dispute for political power within the society.

It needs to be emphasized that there exists no a-priori case for changing labor legislation as a necessary step toward an economic reactivation. The relevant element is not the existence of the legislation but rather the magnitude of its impact which can only be ascertained by a case study of the local conditions.

2.13 The question of the magnitude of the differential between the "unfettered" wage rate and the minimum wage level is central to the issue of the impact of wage legislation on employment creation. But equally relevant is the question of whether the minimum wage legislation matters at all, i.e. whether it is in fact binding and, at least in the modern sector, no worker can be paid less than the legally mandated minimum.

The experience of this author suggests that at least in Latin America numerous cases can be found where minimum wage legislation is either non-binding --in the sense that failure to enforce it results in numerous violations-- or irrelevant because in the formal sector most workers earn more than the legal minimum. The last point brings to mind the fact that, if one assumes rational economic agents, there is no money illusion and the relevant component of the minimum wage is its real level. In the event of the fast inflation and in the absence of appropriately timed adjustments, the real level of minimum wage can be eroded very fast. In many countries of Latin America, for example, the minimum wage has lost ground in real terms relative to the average salary. Under these circumstances, although the minimum wage may appear binding in nominal terms, the growing real term differential with the industrial wage suggests that in fact it is becoming irrelevant.

2.14 An additional issue concerns the non-wage labor costs (NWLCs) other than direct remunerations which include fringe benefit payments, mandatory social welfare contributions to various funds, payroll or employment taxes and other items such as non-regular bonuses and "thirteenth month." Some of these costs have their origins in traditional modes of labor compensation: the "thirteenth month" popular in Latin America has always been a bonus for employees at Christmas time and may in fact be considered as disbursement of forced savings. Others are newer developments and result from the development of social legislation.

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18 McDonald, Ian M. and Robert Solow, "Wages and Employment in a Segmented Labor Market," Quarterly Journal of Economics, November 1985, 1115-1135.

In Africa, these NWLCs represented in 1985 between 9% (Zambia) and 18% (Zimbabwe) of labor earnings as compared to a range of 25% (Peru) to 33% (Argentina) in Latin America, and 15% (Pakistan) to 33% (Sri Lanka) in Asia.[19] The wide range in the weights of NWLCs between countries is probably matched by an equally wide range of levels of compliance.[20] A low NWLC weight with strict enforcement may have more impact on the average cost of labor than high NWLCs with loose compliance.

Among NLWCs, one may include the costs associated with legislation which aims at promoting job stability and effectively grants tenure to workers after a given period of employment. Typically, after the worker has completed a probationary period and is granted tenure, dismissal for any other reason than professional misconduct is subject to the payment of a compensation which increases sharply with the number of years of tenure.

In itself, this type of legislation is not necessarily wrong. In the absence of unemployment insurance, it protects workers who have acquired firm-specific skills from short-term business fluctuations and forces the firm to use a longer term horizon for its hiring and firing decisions after a probationary period. In practice however, the probationary period is often extremely short and the compensations to be paid for dismissing a tenured worker is prohibitive.

As a result, firms tend to hire very few permanent workers and depend on a stream of temporary workers hired for a period slightly less than the probationary period. As a result, hiring costs increase and productivity of these transient workers is likely to be less than for permanent workers. A pernicious effect of this type of legislation is the potential for destruction of productive assets. If a firm faces a drop in demand for its product leading to a temporary but severe deterioration of its financial balance, its survival may hinge on the dismissal of a number of its workers. If a large proportion of the firm's labor force is made up of workers with rather long tenure, the cost of dismissal may be so prohibitive that it could lead to the immediate destruction of the firm. The firm may then have no other option than to continue operations with full staffing of productive positions and further the deterioration of its financial balance. If demand does not pick up soon, the firm may no longer have the financial strength to take advantage of an eventual upswing in the business cycle and may disappear. In such a case, productive capital is lost and all workers may find themselves unemployed, most probably without compensation from their bankrupt ex-employer.

2.15 This summary of the conditions of labor markets in LDCs would be incomplete without a mention of the role of traditional social structures and customs in the functioning of these markets. The economic literature on discrimination which flourished in the 1970s[21] attempted to explain the persistence of an apparently irrational behavior in the labor markets. More recently the investigation of this type of behavior has extended to types of social customs other than

19 See: Riveros, Luis A., 1988, "International Comparison of Wage and Non wage Costs of Labor." Draft, Macroeconomic Division, Country Economics Department, World Bank, Washington, D.C. Table reproduced in D. Mazumdar (1988).

20 In a previous study, this author has found that in the case of Guatemala in 1983, despite NWLCs representing a legal minimum of 19.6% of labor earnings, they constituted only 13.5% of labor earnings on average and a peak of 14.5% for firms of more than 50 employees. See: "Guatemala 1970-1985: A Deteriorating Status Quo", Report to USAID/LAC/DP, May 1988, Table No.D-17.

21 See: A.H. Pascal ed., Racial Discrimination in Economic Life, D.C. Heath, Lexington, 1972.

discrimination.[22] Social customs may persist despite the associated existence of pecuniary opportunity costs even though it is to everyone's individual economic advantage to disobey them. The micromotives of individuals fearful of the consequences of breaking the accepted rules of behavior help maintain the existence of the social custom, provided that the cost of disobedience such as loss of reputation be sufficiently high. These cultural considerations are particularly relevant in the case of LDCs still in the throes of their economic and social transition from agrarian societies to industrialized nations. The social and cultural patterns from the old mode of production tend to reproduce themselves in the new urban environment.

This is particularly true of the patterns of division of labor between genders. The female household-centered responsibilities in the old order preclude the need for education which would have expanded marketable skills. In the new urban environment, although conditions are different and marketable skills are valuable, females tend to get less education than males and consequently tend to be concentrated in low skill occupations or positions requiring traditional skills. In the formal sector, women are heavily concentrated into a few sectors such as textiles and electronic assembly. In the informal sector, women constitute the majority of unpaid family workers and ,when remunerated for their labor, they occupy the lower earning subsectors. However, differences in human capital cannot fully explain the concentration of women in some activities nor their earnings sharply lower than men in both formal and informal sectors. This discrimination against women is the most evident symptom of a slow cultural transition from the rural mode of production to the urban industrial environment.

2.16 In recent times, the informal sector has often been portrayed as a kind of an economic vanguard and salvation against the sclerosed economies of many LDCs. Without diminishing its role in employment and income generation in particular during the crisis of the last decade and without denying its great dynamism, it may be useful to take a less sanguine view of the informal economy and to recognize some of its weaknesses.

The technological backwardness of the informal sector is generally assumed to be the consequence of the segmentation of capital markets. There is little doubt that the most dynamic elements of the informal sectors may be held back technologically by the unavailability of sufficient credits. But it may be argued that there are social and cultural factors which come into play in the make-up of the informal sector. In many ways, informality is more than the result of a distortion in resource allocation and replicates in urban areas the social and productive structure of the rural subsector from which the majority of its members originate. From farming on small family plots to petty commerce or other type of small productive activity, the change can be seen as nothing more than a switch in the type of self-employment. For many, the informal sector constitutes a transition not toward modern sector employment as in the narrow interpretation of Harris and Todaro but between rural and urban/industrial modes of production.

The social and economic complexity of the informal sector mixes true growth-oriented entrepreneurs with traditional businesses and individuals striving for economic survival. The challenge consists in making available the opportunities for growth so that the potential of entrepreneurs be realized and the modernization of the sector completed.

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22 See: Akerlof, G.A., " A Theory of Social Custom, of which Unemployment may be One Consequence", Quarterly Journal of Economics, June 1980, 749-775.

3. SEGMENTED LABOR MARKETS AND EMPLOYMENT GENERATION

3.1 Strategies for employment generation which focus exclusively on one sector tend to be affected by an employment-output trade-off.

Modern production methods used by large scale firms provide the most effective use of capital for output growth. However the recognized existence of an "employment lag" in the modern sector implies that the output elasticity of employment is significantly less than one, in other words, increases in output are not matched by increases in employment. Employment strategies based solely on the formal sector are either not going to be very effective or lead to foregone output growth.

It would then appear that the informal sector with its labor-intensive production techniques offers the most promising opportunities for employment generation. In addition, the low initial cost of an informal sector position relative to an equivalent position in the modern sector provides an incentive for directing all employment-generating initiatives toward the informal sector.[23] However absorption of labor into the informal sector to raise employment would lower average productivity in the economy and would be inconsistent with potential maximum output growth. Moreover one should wonder if such a strategy would not be the equivalent of trading long term economic development goals for short term gains in employment. Despite its great entrepreneurial dynamism, the informal sector is nevertheless characterized by its poor capitalization and its backward technology. The informalization of the economy may appear as an attractive and affordable solution to the employment problem in LDCs, but it runs the risk of reinforcing the negative traits of the informal sector and delaying the technological modernization of the economy.

3.2 An exclusive reliance on one sector or the other appears to yield a less than optimal outcome and a dilemma in the guise of the employment-output trade-off. However the existence of linkages between informal and modern sectors could provide the means of a strategy which would make joint use of the strengths and characteristics of each sector.

The informal sector is not a mere substitute for unemployment, a transitory staging area before formal sector employment. If it were, any increase in demand for labor in the formal sector would result in an equivalent decrease in employment in the informal sector. In the last few years, the informal sector has been recognized as a very specific mode of production with socially adequate factor proportions used in the process of production since labor is used at a maximum without exerting heavy pressures on capital or foreign exchange. However, there is a lack of agreement as to the degree to which the informal sector is integrated in the economy. Unfortunately, despite increased interest in the role of the informal sector, budgetary constraints during this decade have curtailed the surveys which could have thrown a light on the interrelationship between formal and informal sectors.

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23 In Peru, in the early 1980s, the average capital per worker was estimared at US$430 for the informal sector and $10,000 in the modern sector. See: Suarez-Berenguela, Ruben, "Informal Sector, Labor Markets and Returns to Education in Peru", LSMS Working Paper #32, The World Bank.

3.3 From a theoretical point of view, the situation of the informal sector in relation to the modern sector can be either one of autonomy or one of integration. Each type of relation can further be described as either benign or exploitative.[24]

a) The autonomous informal sector: the benign view.
Under this perspective, the informal sector is basically a closed system with almost no linkages to the rest of the economy. Proprietors and family members as well as their employees work for each other and by each other's goods and services. Although autarchic, this system can lead to a surplus which is mostly reinvested in home improvements and new construction.

b) The autonomous informal sector: the exploitative view.
The informal sector under this perspective is characterized by the lack of access to stable resources of production which imply that informal activities can only be limited to those relying on residual resources while being excluded from the possibility of technological progress. In the product markets, informal firms can only penetrate the segments of the economy where minimum size or prospects are not attractive to the larger firms of the formal sector. In time, once the market has been established formal firms can use their resources to invade the market and push informal firms out toward other activities.

c) The integrated informal sector: the benign view.
In this perspective, the informal sector has complementary linkages and exports various types of goods and services to the formal sector. It also impacts from the formal sector for its consumption and for its production. Its growth is related to the performance of the rest of the economy.

d) The integrated informal sector: the exploitative view.
In this case, the informal sector depends overwhelmingly on the formal industry for the provision of essential raw materials (either domestic or imported). For these inputs, informal firms pay higher prices than formal firms because they do not have the necessary financial or market power for concessions or rebates. On the other hand, they are not able to pass on these added costs to their informal sector consumers because of the intense competition, and are equally forced to charge lower prices than their formal competitors. All surplus generated in the informal sector is then extracted from it and the project of autonomous growth are non-existent.

3.4 In practice, one has to recognize that the interrelationship between formal and informal sector is a lot more complex than the simplified models of the theories. Studies have shown wide differences in the level of dependence of informal firms on inputs produced in the formal sector between products. As an example, in Dakar in the early 1970s,[25] around 80% of furniture producers, most of automotive repairmen and metalworkers using iron-based products relied on the formal sector for the supply of their inputs. On the other hand, most shoe repairs and leather workers and most of those working with glass and aluminum got their supplies within the informal sector through secondary sources. As to the formal sources of inputs for informal firms,

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24 A more detailed summary of these perspectives can be found in: Tokman, Victor, "An Exploration into the Nature of Informal-Formal Sector Relationships," World Development, 1978, Vol. 6, No. 9, 1065-1075.

25 See: Gerry G., "Petty Producers and the Urban Economy: A case Study of Dakar." WEP Urbanization and Employment Research Program, Working Paper No. 8, ILO, Geneva, 1974.

similar studies have also shown wide differences in purchase from wholesalers or retailers among different economic sectors.

On the output side, it is also true that both informal sector workers and formal sector workers avail themselves of informal output. The propensity to consume informal sector goods and services probably varies inversely with household income. It is also possible that informal goods consumption by formal sector workers increases at least temporarily at the beginning of an economic downturn: as formal and informal sector goods are not perfect substitutes, decreased incomes may force a shift in consumption from the formal sector goods toward the cheaper -- and lower quality-- informal sector goods.

Whatever the exact nature and magnitude of the linkages between formal and informal sector, it is clear that the informal sector is not a closed system but exists in a kind of symbiotic relationship with the formal sector. The development of the informal sector depends very much on the form adopted by the formal sector because each mirrors the other and constitutes the different elements of the same system.

3.5 The existence of linkages between the two sectors may constitute a key element in the design of strategies and policies aiming at promoting employment while avoiding the pitfalls of the employment-output trade-off.

At the present time, these linkages seem to be mostly limited to intersectoral sales of intermediary goods by modern large scale firms and consumption goods by informal sector firms. However, in some countries, subcontracting agreements between modern firms and small scale firms have begun to alter the traditional dichotomy of formal and informal markets. Vertical subcontracting arrangements, or "maquilas", which generally consist of small scale firms carrying out specific processing work or production for larger firms have grown quite rapidly in Latin America and Asia in the last decade. These arrangements tend to transfer work traditionally done within the large firm to an outside small firm and typically involves relatively low-skill labor-intensive tasks resulting from the ability to fragment the production process in such a way that different tasks can be done by different firms. Assembly work in the garment industry and for basic electric or mechanical components seems to make up most of the activities under these arrangements.

These activities have sometimes an exploitative character of these arrangements, especially toward labor and women who generally represent the largest share of the labor force in the subcontractors and are still limited in scope. Nevertheless their existence and their growth over the last few years suggest that formal and informal activities are not necessarily either conflicting or completely unrelated but that they can be linked. The expansion of informal-formal linkages could lead to the diversification of markets for firms of both sectors, accelerate the technological modernization of informal sector firms and increase competition within the national economy.

3.6 There are some technical and financial obstacles to the autonomous expansion of informal-formal linkages. The volume of output and therefore of demand for inputs from a large scale modern producer is likely to be out of the technical capability of the average small scale producer. In many cases, the "pooling" of outputs of several small scale producers require from the part of the large sector firm costly management and monitoring to ensure proper quality.
A first step toward attempting to resolve this bottleneck for expansion of informal-formal linkages is the recognition of the high degree of heterogeneity between the economic units of the informal sector. The informal sector can include activities as diverse as household workers, petty commerce, autorepairs, artesanry and occupational status ranging from unpaid family workers to self-employed and small entrepreneurs. This diversity reflects different motivations for entering the informal sector and the degree of success one may have had. A small business owner with several employees has demonstrated his/her entrepreneurial activity and his/her

capital accumulation perspective. On the other hand, many others such as those in sidewalk sales or in some forms of self employment are working out of a logic of survival and do not have much prospect of self-generated growth or capital accumulation.

The dualistic approach, formal vs. informal, followed up to now needs revision. The concept of informality which denotes a set of activities characterized by easy entry and low capital cost is too broad to adequately represent small firms which are on the more labor-intensive segment of the same production function as the large firms. It is therefore suggested that, instead of a dualistic approach, a three-sector model be used.[26] While the modern sector remains the same, the informal sector is now seen as composed of a Small Scale Sector (SSS) which includes the aforementioned firms and a Residual Sector.

3.7 A realistic and effective employment-generating strategy could then aim at improving and expanding the linkages between the SSS and the modern sector. Most of the firms in the SSS have already proven their ability and offer themselves as a preselected sample of firms with future growth potential and therefore sources of employment. The potential of these firms would not amount to much if they cannot overcome the technical and financial obstacles which prevent their modernization and the development of closer linkages with modern sector firms.

The means toward a greater integration of SSS firms into the modern economy passes through their ability to invest in productive structure which in turn rests on their ability to use the resources of the financial system. In many LDCs, the segmentation in the labor markets mirrors a similar dichotomy in the capital markets at the level of credit availability and costs. Large financial institutions loan readily to large investors with established credit history and with assets which can be readily evaluated. For small scale investors, these credits are scarce and only available in the best of cases after providing costly multiple guarantees. As a result, small investors tend to rely on personal or family savings at the true opportunity cost of money while large firms benefit from a cost of capital kept artificially low as a stimulus for investment. The combination of availability of credit and costs result in a wide difference in capital-output ratios between formal and informal firms.

The issue of segmented capital markets goes beyond the issue of fairness. The existence of the segmentation reinforced by the financial policies of the state biases the investment decisions toward capital-intensive processes while artificially preventing small businesses from investing in productivity-enhancing technologies. The labor-saving investments of large firms and the labor-intensive techniques of the small scale firms does not result in a zero-sum game. Allocative inefficiencies on both sides simply imply that the national productive potential remains unfulfilled and that the nation is poorer as a whole because of foregone income.

3.8 Subcontracting is a modality of fomenting expanded linkages between formal and informal sector which appears to offer a good likelihood of success under certain circumstances. It is an arrangement which provides cost-reducing alternatives to large scale firms. By subcontrating out the labor-intensive portion of their production process, large scale firm can shift the risk of economic downturns to their subcontractors and avoid being burdened by permanent employees during a recession. Subcontracting could also effectively become a check to insider power by increasing the production alternatives.

However, the potential advantages to subcontracting for large scale firms can only be transformed into effective demand for informal sector output if small scale firms are able to meet

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26 For an example of a three-sector model, see: William F. Steel and Yasuoki Takagi, "Small Enterprise Development and the Employment-Output Trade-off", Oxford Economic Papers, 1983, 35, 423-446.

the technical standards, volume and price requirements of the modern firms. The informal entrepreneur needs to solve a double constraint: demand will not materialize until the fixed capital requirements have been met and large capital investment is risky unless demand is guaranteed. To meet this challenge, it is essential that small scale enterprises have access to credit to finance capital improvements and increase working capital.

3.9 The expansion of linkages between formal and informal sector is consistent with the current trends of economic reforms. While it is a challenging task to set in motion , it has the potential to provide a valuable positive contribution to the transformation of the economy of many LDCs. At the minimum, it offers opportunities for greater employment and wider distribution of the benefits of growth but it also presents much broader prospects.

By enfranchising a new set of firms and integrating them in the industrial economy, the linkages also offer the prospect of fostering competition in economies too often burdened by some form of oligopoly power. In addition, the technological transfers inherent in the investments necessary to meet the requirements of modern production can accelerate the modernization of the small scale sector and allow them to take advantage, develop new markets and eventually even compete directly with modern firms.

In the long run, the greater integration of the informal sector should decrease the dualistic nature of the economy.

4. CONCLUSIONS

4.1 The large wage differentials between urban formal and informal sectors should be seen as endogenous responses to labor demand and supply conditions in LDCs. In neo-classical sense, they do not present an issue of distortions or inefficiency. However, direct institutional effects on labor markets from the state or from unions could further increase the wage gap between sectors beyond its equilibrium level. In that case, the results are likely to be reduced employment in the formal sector and a distortion in factor proportion toward capital.

It may be more useful to view the implications of labor market segmentation in terms of welfare and income distribution. The dualistic structure of the labor market creates a privileged class of workers who is able to claim a larger share in the high value added of the modern sector and can succeed in denying access to new entrants but remains a minority in the total urban work force. The employment-lag in the modern sector limits the possibility of increasing the proportion of the labor population included in the high productivity sector and enjoying its benefits. In addition to the potential intervention of the state which can further widen the wage differential, modern sector workers may also be able to reap a portion of the rent accruing to their firm from either market power or protection from foreign competition both of which encourage wage and price inflation.

As it can be surmized from the discussions in the previous pages, the labor market structure in LDCs under best circumstances is not conducive to improvements in income distribution and may actually lead, under current conditions, to a worsening. The lack of labor mobility between the two sectors prevents the equalization of wage rates and fosters the reproduction of each class within its own segment of the market, denying individuals opportunities other than those which have always been available.

4.2 If one accepts that view, then one may conclude that the policy focus on the informal sector should not lead to the informalization of the economy. Under the current recessionary conditions in many LDCs, this process is already occurring autonomously. Instead, a long term strategy should aim at counteracting the potential trends toward income inequality among classes and among manual workers.

The informal sector with its low initial investment appears to offer an attractive solution to the employment problem in LDCs. But unless policies directed toward the informal sector include a strong element of promotion of the technological and managerial modernization of the informal sector, they will only result in reinforcing the current trends. The current emphasis on job creation rather than income generation may be understandable under the present circumstances but it runs the risk of trading off long term objectives for short term gains.

ANNEX A

SCOPE OF WORK

BACKGROUND

During the past several years, the Africa Bureau of AID has been engaged in an intensive effort to assist governments in the region to improve their analysis and implementation of economic and related policies. This effort has included both project interventions in the form of technical assistance and studies, as well as non-project assistance to provide general budgetary and foreign exchange resources to governments to assist them with the implementation of policy reforms.

One area which has received relatively little attention in this effort has been policy reforms affecting labor markets. In large part, this omission has resulted from a heavy emphasis in marketing, where, to the extent that wage labor is important, it is relatively unregulated in most countries. Many USAID missions are now beginning to be concerned about the ability of their host countries' economies to absorb rapidly growi-- labor forces in the agricultural sector. A shift of focus ra--es questions about the role of and prospects for wage employment.

A second source of increased concern about labor market questions is recent literature on the sequencing of adjustment. In our interpretation of this literature, its principal conclusion is that, in the process of freeing markets to respond to price signals, it is important that other markets not be sending wrong signals. This implies that factor markets should be liberalized at the outset of a liberalization process so that, when goods and services markets are liberalized they will adjust to actual factor scarcities rather than artificial scarcities produced by the legal or regulatory environment or collusive arrangements in factor markets.

It should be obvious that reform of labor market law and regulation is likely to be extremely controversial. Far more than in most economic policy question, the idea that such regulation is harmful to its supposed beneficiaries is likely to be counter intuitive to policy makers and to the public at large. Moreover, because of the political sensitivity involved, USAIDs are likely to deal with labor market policy issues only if they appear to be of major importance as a constraint to economic development.

The output sought from this contract is a review of recent published economic literature to determine the degree to which the questions presented here have been addressed, with respect to Africa, but also with respect to other parts of the world. We wish to understand both the theoretical issues involved, their quantitative importance, and the analytical techniques which have been employed to understand these questions.

ARTICLE I - TITLE

Program Development and Support (Project No. 698-0510.23).

ARTICLE II - OBJECTIVE

To prepare a review of published economic literature on the effects of labor market law and regulation on the rate of economic growth, the distribution of income and the availability of wage employment to women and ethnic minorities.

ARTICLE III - STATEMENT OF WORK

The purpose of this contract is to prepare for the use of REDSO/ESA and its client missions, a review of published economic literature, including masters and doctoral theses, related to the effects of labor market law and regulation on the rate of economic growth, the distribution of income, and the availability of wage employment to women and ethnic minorities. The output will take the form of a review paper of approximately 20 pages outlining the analytical approaches which have taken to the analysis of these issues, the empirical conclus ons which have been reached, and principal conflicting conclusions or unresolved issues. In addition, the contractor will prepare an annotated bibliography summarizing, in approximately half a page, the lines of analysis, empirical approach, and principal conclusions of each work reviewed.

It is anticipated that the work required under this contract will require approximately six person weeks of effort by a development economist familiar with labor market issues in developing countries. It is expected that the work will proceed as follows:

A. Week one: Using standard bibliographic sources, the contractor will prepare a list of published materials, including masters and doctoral thesis relating to the question of the impact of public policies related to labor markets," should be interpreted to include, at a minimum, minimum wage laws, restrictions on the discharge of employees, compulsory social insurance payments, laws which require or promote union membership or membership in a professional or political organization as a condition of employment, laws which promote or require the employment of members of particular ethnic or religious groups, etc. Where appropriate, the contractor will arrange to purchase books and theses for purpose of review which will become the property of REDSO/ESA at the conclusion of the contract.

B. Weeks two through five: The contractor will review and prepare a brief summary of the published item identified in the first week. That review will include a summary of the theoretical issues addressed, empirical approach and data utilized, principal conclusions, and unresolved issues identified.

C. Week six: The contractor will prepare a type written paper of approximately 20 pages summarizing the various analytical approaches which have been taken, empirical approaches, principal conclusions, and unresolved issues.

ARTICLE IV - REPORTS

After completion of the work during the sixth work week, the contractor will prepare a type written paper of approximately 20 pages summarizing the various analytical approaches which have been taken, empirical approaches, principal conclusions, and unresolved issues. The completed report should be sent to:

Chief, Analysis and Planning Division
REDSO/ESA
U.S. Department of State
Washington, D.C. 20520-8900

ARTICLE V - RELATIONSHIPS AND RESPONSIBILITIES

Technical Directions during the performance of this delivery order will be provided by Eugene Morris, USAID/Nairobi Kenya, pursuant to Section F.3 of the contract.

ARTICLE VI - TERM OF PERFORMANCE

A. The effective date of this delivery order is 8/18/89, and the estimated completion date is 10/20/89.

B. Subject to the ceiling price established in this delivery order and with prior written approval of the Project Manager (see Block No. 5 on the Cover Page), contractor is authorized to extend the estimated completion date, provided that such extension does not cause the elapsed time for completion of the work, including the furnishing of all deliverables, to extend beyond 30 calendar days from the original estimated completion date. The contractor shall attach a copy of the Project Manager's-approval for any extension of the term of this delivery order to the final voucher submitted for payment.

C. It is the contractor's responsibility to ensure that the Project Manager-approved adjustments to the original estimated completion date do not result in costs incurred which exceed the ceiling price of this delivery order. Under no circumstances shall such adjustments authorize the contractor to be paid any sum in excess of the delivery order.

D. Adjustments which will cause the elapsed time for completion of the work to exceed the original estimated completion date by more than 30 calendar days must be approved in advance by the Contracting Officer.

3B D102 54-1 3D701 18 10/18/89 16:36

HAND DELIVERY 20036 AID
ALAIN S. THERY, ECONOMIST
INTERNATIONAL SCIENCE AND
TECHNOLOGY INSTITUTE, INC.
1129 20TH ST. N.W.
WASHINGTON, D.C. 20036

1. IN RESPONSE TO YOUR FAX OF OCTOBER 12, 1989, REDSO APPROVES THE REQUESTED 30 DAY EXTENSION OF THE DELIVERY DATE UNDER DELIVERY ORDER NO. 45 OF IQC NO. PDC-0000-1-45-6134-00 IN ACCORDANCE WITH ARTICLE VI, PARAGRAPH B OF THE DELIVERY ORDER.

2. WE ALSO FOUND YOUR COMMENTS ABOUT THE NEEDS FOR FURTHER RESEARCH INTERESTING. OUR INTENTION IN THIS WORK ORDER WAS TO BEGIN AN INITIAL INVESTIGATION OF AN AREA WHICH, AT LEAST IN THE AFRICAN CONTEXT, APPEARED TO BE UNEXPLORED, TO SEE IF IT SHOULD HAVE A HIGHER PRIORITY IN OUR ANALYSIS AND POLICY DIALOGUE ACTIVITIES. WE WOULD VERY MUCH APPRECIATE YOUR THOUGHTS IN THE STUDY ABOUT NEEDS AND PRIORITIES FOR FURTHER RESEARCH. REGARDS.

EUGENE MORRIS, CHIEF, PROJECT OFFICE
REDSO/ESA
C/O AMERICAN EMBASSY
TELEX NO. 22964
NAIROBI, KENYA 30118/L1188

ANNEX B

CONSULTED SOURCES

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
AMERICAN ECONOMIC REVIEW	X	X	X	X	X	X	X	X	X	X	X	
DE ECONOMIST			X	X	X	X	X	X	X	X	X	
DEVELOPING ECONOMIES			X	X	X	X	X	X	X	X	X	
DEVELOPMENT AND CHANGE			X	X	X	X	X	X	X	X	X	
ECONOMICA	X	X	X	X	X	X	X	X	X	X	X	
ECONOMETRICA	X	X	X	X	X	X	X	X	X	X	X	
ECONOMIC INQUIRY			X	X	X	X	X	X	X	X	X	
ECONOMIC JOURNAL	X	X	X	X	X	X	X	X	X	X	X	
EUROPEAN ECONOMIC REVIEW					X	X	X	X	X	X	X	
IMF STAFF PAPERS	X	X	X	X	X	X	X	X	X	X	X	
INTERNATIONAL LABOR REVIEW	X	X	X	X	X	X	X	X	X	X	X	
INTERNATIONAL STUDIES QUATERLY						X	X	X	X	X	X	
JOURNAL OF ECONOMIC LITERATURE	X	X	X	X	X	X	X	X	X	X	X	
JOURNAL OF DEVELOPMENT ECONOMICS	X	X	X	X	X	X	X	X	X	X	X	
JOURNAL OF ECONOMIC STUDIES	X	X	X	X	X	X	X	X	X	X	X	
JOURNAL OF INTERNATIONAL ECONOMICS	X	X	X	X	X	X	X	X	X	X	X	
JOURNAL OF LABOR ECONOMICS	X	X	X	X	X	X	X	X	X	X	X	
JOURNAL OF MACROECONOMICS	X	X	X	X	X	X	X	X	X	X	X	
JOURNAL OF MODERN AFRICAN STUDIES			X	X	X	X	X	X	X	X	X	
JOURNAL OF POLITICAL ECONOMY	X	X	X	X	X	X	X	X	X	X	X	
JOURNAL OF POST KEYNESIAN ECONOMICS						X	X	X	X	X	X	
JOURNAL OF PUBLIC ECONOMICS	X	X	X	X	X	X	X	X	X	X	X	
OXFORD REVIEW OF ECONOMIC POLICY							X	X	X	X	X	
QUATERLY JOURNAL OF ECONOMICS	X	X	X	X	X	X	X	X	X	X	X	
REVIEW OF INCOME AND WEALTH					X	X	X	X	X	X	X	
REVIEW OF ECONOMICS AND STATISTICS	X	X	X	X	X	X	X	X	X	X	X	
REVIEW OF ECONOMIC STUDIES	X	X	X	X	X	X	X	X	X	X	X	
SCANDINAVIAN JOURNAL OF ECONOMICS	X	X	X	X	X	X	X	X	X	X	X	
WORLD DEVELOPMENT	X	X	X	X	X	X	X	X	X	X	X	

In addition to these joournals, an index of doctoral dissertations(with their abstracts) was consulted.

ANNEX C

SELECTED BIBLIOGRAPHY

SELECTED BIBLIOGRAPHY

Bhagwati, Jagdish N. and T.N. Srinivasan:
"On Reanalyzing the Harris-Todaro Model: Policy Rankings in the Case of Sector-Specific wages", American Economic Review, June 1974, 64 (3), 502-508.

De Soto, Hernando:
El Otro Sendero, Editorial Diana, Mexico, 1987 (translated as The Other Path).
Study which popularized the concept of informability in policy circles.

Dickens, Williams T. and Kevin Lang
"The reemergence of Segmented Labor Market Theory", American Economic Review, Papers and Proceedings, May 1988.

Dornbusch, Rudiger and Mario Henrigue Simonsen, Eds.
Inflation, Debt and Moderation, The MIT Press, 1983.
A thorough review of indexation experiences with particular emphasis on labor markets in section I and II.

Edwards, Sebastian:
"Terms of Trade, Tariffs, and Labor Market Adjustment in Developing Countries", World Bank Economic Review, May 1988, Vol 2 #2, 165-185.
A three-good model (importables, exportables, and non-tradables) is used to analyze labor market adjustment to terms of trade and tariffs changes under various assumptions about wage flexibility.

Greenwald, Bruce:
"Adverse Selection in the Labour Market", Review of Economic Studies 1986 LIII, 325-347.
Adverse selection and the creation of barriers to labor mobility.

Hansen, Bent:
"LDC Labor Markets: Applications of Internal Labor Market Theory", Industrial Relations, Spring 1983, 22 (2).
An attempt at extending labor market theory to the stylized facts of LDCs.

Krishna, Raj:
"A Three-Sector Time Series Model of the Labor Market in India", World Bank Staff Working Paper #637.
Using 1959-1979 data, simulation of a three-sector labor market model (agricultural, formal and informal non-agricultural).

Lindbeck, Assar and Dennis J. Snower:
The Insider-outsider Theory of Employment and Unemployment, The MIT Press, Cambridge MA, 1988.
A complete review of insider-outsider theory and its implications for policy of two of the major theorists in the field.

Mazumdar, Dipak
(a) "Macroeconomic Issues of Labor Markets in Developing Countries Analysis and Policy Implications", EDI Seminar Paper #40, The World Bank, Washington, DC.
An in-depth review of factors which influence the structure and functioning of labor markets in LDCs.

(b) "Segmented Labor Markets in LDCs", American Economic Review AEA Press and Proceedings, May 1983 254-259.
A short summary of the implications of dualistic labor market structures which also presents a fresh viewpoint.

McDonald, Ian M. and Robert M. Solow:
"Wages and Employment in a Segmented Labor Market", Quarterly Journal of Economics, November 1985, 1115-1141.
Impact of business variations in a dualistic economy with various assumptions about wage flexibility.

Portes, Alejandro with Maurice Castells and Lauren A. Benton Eds.
The Informal Economy Studies in Advanced and Less Developed Countries, Johns Hopkins University Press, Baltimore, MD, 1989.
A collection of studies on informability in industrialized capitalist economies, LDCs and socialists countries, the attempt at integration in a coherent framework is not quite successful. Nevertheless the book challenges accepted views and a presents a rich and complex panorama of informality.

Sachs, Jeffrey
"Wages, Flexible exchange rates and Macroeconomic Policy", Quarterly Journal of Economics, June 1980, 731-747.
A discussion of the Mundell-Fleming model focusing on the issue of whether real exchange rates and real wages can be changed by movements in nominal exchange rates.

Srinivasan, T.N. and Jagdish Bhagwati:
"Alternative Policy Rankings in a large open Economy with Sector-Specific, Minimum Wages", Journal of Economic Theory, December 1975, 11(3), 356-371.

Steel, William F. and Yasuoki Takagi:
"Small Enterprise Development and The Employment-Output Trade-off", Oxford Economic Papers 35, 1983 423-446.
Analysis of the potential for small-scale enterprise development for developing labor while numbering output growth in LDCs.

Stiglitz, Joseph E.:
"The causes and consequences of the Dependence of Quality on Price", Journal of Economic Literature, March 1987, Vol XXV, 1-48.
A review of the literature on quality and information in economic theory with the implications for macroeconomics and LDCs.

Suarez-Berenguela, Ruben M.:
"Informal Sector, Labor Markets and Return to Education in Peru", LSMS Working Paper #32, The World Bank, Washington.
A critical review of the informal sector literature applied in Peru.

Tokman Victor E.:
"An Exploration into the Nature of Informal-Formal Sector Relationships", World Development, 1978, No.9/10, 1065-1075.