Middle East and North Africa

Working Paper Series

No. 19

December 2000

Rationalizing Public Sector Employment in the MENA Region

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The World Bank

Produced by the Office of the Chief Economist

Summaries in Arabic and French

Rationalizing Public Sector Employment in the MENA Region: Issues and Options

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December 2000

* The author gratefully acknowledges the comments of an anonymous reviewer.

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خلاصة

تواجه منطقة الشرق الأوسط وشمال أفريقيا تحديا ماثلا في بيئة سوق العمل فيها المتسم بتضخم العمالة في القطاع العام فضلا عن تشوه أطر الحوافز الذي يفاقم هذا التحدي. وأدى هذا الوضع الى تجزئة سوق العمل الى قطاع عام وقطاع خاص، والى عمالة أجنبية وعمالة محلية في بلدان الخليج العربي. ويمكن استخدام اجراءات مختلفة مستندة الى سياسات لترشيد العمالة في القطاع العام، كما تتيح التجربة العملية الدولية دروسا مفيدة لصانعي السياسات، ولا سيما فيما يتعلق بوضع خطط فعالة بشأن الاستغناء عن خدمات العاملين الزائدين عن الحاجة والمزايا الخاصة بالعاطلين عن العمل، مما يخلق اتفاقا بالرأي بشأن ضرورة ترشيد أعداد العاملين وتقليل الآثار السلبية على الذين يتم اختيارهم للاستغناء عن خدماتهم. الا أن ضمان زيادة كفاءة اعادة توجيه العمالة للقطاع الخاص يتطلب اجراءات متممة لتحسين هيكل الحوافز، فضلا عن أن القيود الاقتصادية السياسية من المرجح أن تكون كبيرة.

Résumé

La région du Moyen-Orient et de l'Afrique du Nord se trouve confrontée à un environnement du travail difficile, caractérisé par un personnel en surnombre dans le secteur public et exacerbé par un cadre incitatif sous-jacent dénaturé. Cette situation a abouti à une segmentation entre l'emploi public et privé et entre la main-d'œuvre étrangère et nationale dans les pays du Golfe. Diverses mesures peuvent contribuer à rationaliser l'emploi dans le secteur public et l'expérience internationale permet aux décideurs de tirer des enseignements utiles, notamment en ce qui concerne l'élaboration d'enveloppes efficaces d'indemnités de licenciement ou de chômage, le dégagement d'un consensus quant à la nécessité de procéder à des compressions, et l'atténuation des effets de sélection négatifs. Assurer un redéploiement plus efficace de la main-d'œuvre vers le secteur privé impliquera, toutefois, l'adoption de mesures complémentaires visant à améliorer le cadre incitatif et il y a tout lieu de penser que les contraintes d'ordre politique seront de taille.

Summary

The MENA region faces a challenging labor market environment characterized by overstaffing in the public sector and exacerbated by a distorted underlying incentive framework. This has led to segmentation along public/private lines, and between foreign and national labor in the Gulf countries. Various policy measures can be used to reduce public sector employment, and international experience provides useful lessons for policy makers, especially with respect to designing effective severance or unemployment benefits, creating a consensus on the need to retrench, and minimizing adverse selection effects. Ensuring a more efficient labor reallocation toward the private sector will require complementary measures to improve the underlying incentive structure, however, and political economy constraints are likely to be significant.

Rationalizing Public Sector Employment in the MENA Region: Issues and Options

I. Overview of Employment Challenges and Policy Objectives in MENA

Examining the employment situation in the MENA region yields a complex picture of the various demand and supply pressures at work and the resulting labor outcomes. Certain patterns emerge, and analyzing them collectively can contribute to our understanding of the region. Generally speaking, the MENA labor market is characterized by a large public employment share, a high degree of segmentation along public-private lines, and demographic pressures that manifest themselves either through rising unemployment, such as in Egypt and the Maghreb countries, or through increasing reliance on foreign workers, such as in the Gulf states. This paper takes a broad look at the employment problems observed in much of the region, and outlines policy options for rationalizing public sector employment. Although it is important to acknowledge that country-specific factors contribute to particular labor outcomes and determine the basket of possible remedies, fundamental trends and the associated policy implications can be discussed collectively.

Within the MENA region, the public sector dominates the structure of economic production. Most countries have an overly large civil service, especially compared to developing countries in other regions, and the state also participates directly in industrial activities through public enterprises.[1] The importance of these two branches of the public sector has direct fiscal implications in terms of a large wage bill. Indirect effects include efficiency costs arising from bloated and unproductive public enterprises subsidized through soft budget constraints, the resulting crowding out of private sector activity, and public-private segmentation of the labor force which is reinforced by distortionary wage and non-wage policies. Demographic pressures in MENA countries contributed to the large public sector, as government employment expanded to provide services to the rapidly growing population and to absorb new entrants to the labor force. Eventually the public sector grew unsustainably large, but workers did not turn to alternative employment in the private sector (in part due to wage rigidities and mismatched wage expectations) and instead became unemployed. Policy makers in the MENA region therefore face difficult challenges with no clear-cut solutions to address the conflicting pressures of public sector overstaffing and excessive government wage bills on the one hand, and unemployment on the other hand.

How can policy makers address this employment dilemma? For the MENA region as a whole, the fundamental policy objectives are three-fold: (i) to increase average productivity in the public sector by reducing overstaffing; (ii) to generate fiscal savings directly through a smaller wage bill and indirectly by stemming efficiency losses; and (iii) to

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1 Although the public sector in MENA is widely recognized to be inefficient and overstaffed, the degree to which this is true is difficult to quantify. The few documented estimates of redundancies (i.e., the share of underutilized workers in total public employment including public enterprises) range from 17 percent in Algeria (Ruppert 1999b) to 21 percent in Egypt (El Khawaga 1993), and even higher estimates of redundancies in the Gulf countries.

promote dynamic, job-creating private sector activity to absorb unemployed labor. This paper does not attempt to justify these objectives, especially in view of the multitude of country-specific factors, but rather takes these objectives as given. From this starting point, the analysis focuses on policy options to rationalize public employment and reallocate workers from the public to the private sector, the challenges likely to arise, and the incentive framework necessary to achieve an effective transfer of labor. There is a strong economic rationale to reallocate underutilized, or redundant, workers from public jobs to more productive activities in the private sector, namely to increase efficiency and overall economic output.[2] Nevertheless, eliminating public sector jobs is universally unpopular and likely to generate political opposition, implying that effective downsizing measures must address political economy constraints as well. The challenge lies in designing appropriate methods to rationalize public employment, and establishing a supportive incentive framework.

The remainder of this paper is organized as follows. Section II describes the magnitude of the problem with respect to demographic pressures and the size of public sector employment, the government wage bill and unemployment. In the third section of the analysis, a range of policy options to reduce public employment is presented. Section IV turns to complementary measures to accompany retrenchment schemes in order to ensure labor reallocation toward the private sector, and the final section concludes by acknowledging the formidable challenges and political economy constraints linked to rationalizing public employment.

II. Magnitude of the Problem

The public sector experience in the MENA region can be broadly characterized as follows. The public sector played a central role in the rapid social and economic development witnessed during the 1970s and 1980s: through an expanded civil service to provide more services (e.g., infrastructure, education) to a growing population, direct investment in economic activities (i.e., creating new public industrial capacity), and at the same time creating jobs in response to labor force pressures. Average population growth rates between 1975 and 1985 were higher in the MENA region compared to the rest of the world, especially in the Gulf countries (Figure 1).

Although population growth subsequently slowed, the translation to slower labor force growth takes some time – on the order of twenty years. During the 1990s, average labor force participation rates rose significantly. Figure 2 illustrates the MENA region's relatively low labor force participation rates, but the increasing trend in the 1990s is consistent with worldwide trends. The apparent decline in the Gulf countries reflects a compositional shift in the share of nationals in the labor force; in fact, participation rates for Gulf nationals increased during this period. For the MENA region as a whole, the combined effect of population growth and greater labor force participation resulted in annual labor force growth that averaged almost 4 percent between 1985 and 1997, compared to less than 3 percent in Latin America and the Caribbean and Sub-Saharan Africa, and closer to 2 percent in other developing regions (World Bank 1999b).

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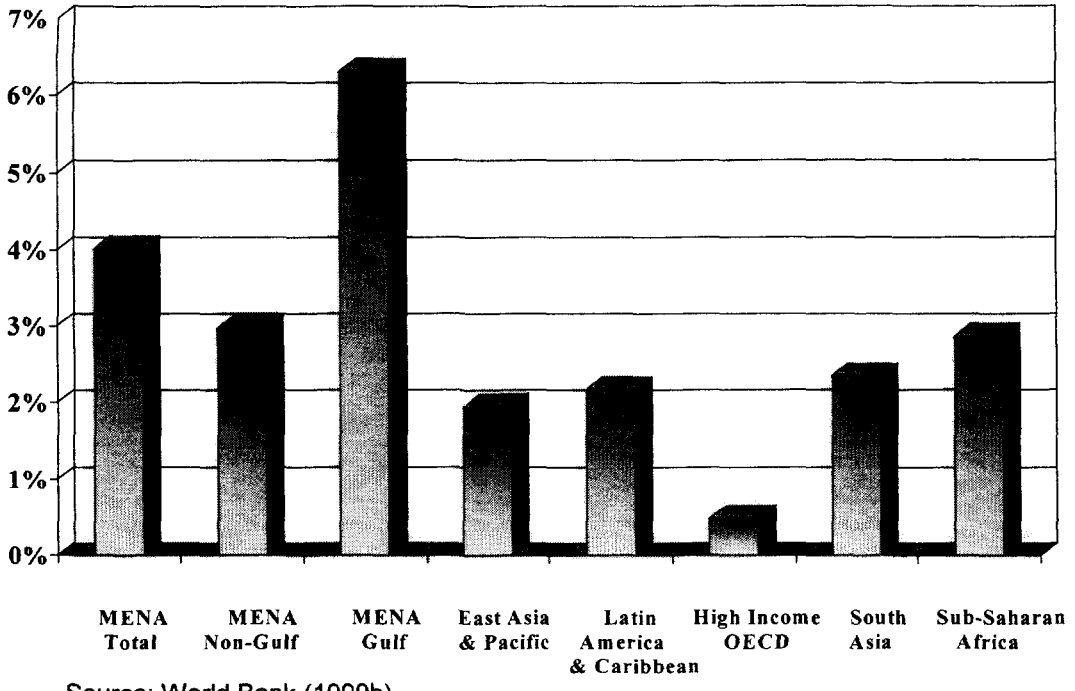
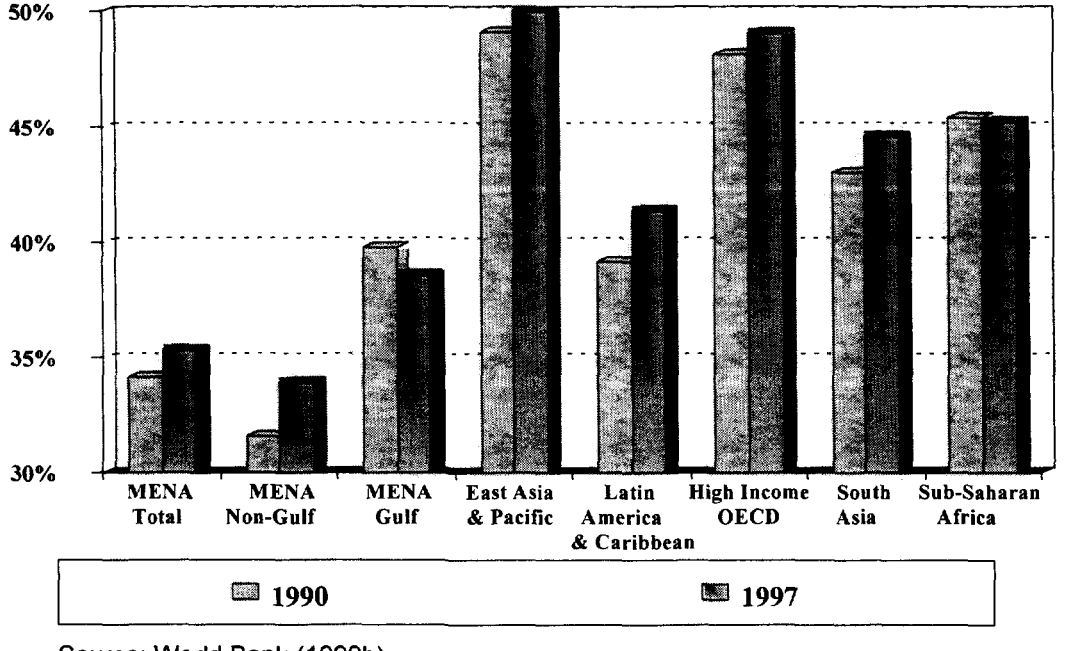
2 The economic definition of redundancy used in this analysis refers to employed workers whose marginal productivity is below their wage.

Figure 1
Population Growth 1975-1985



Source: World Bank (1999b)

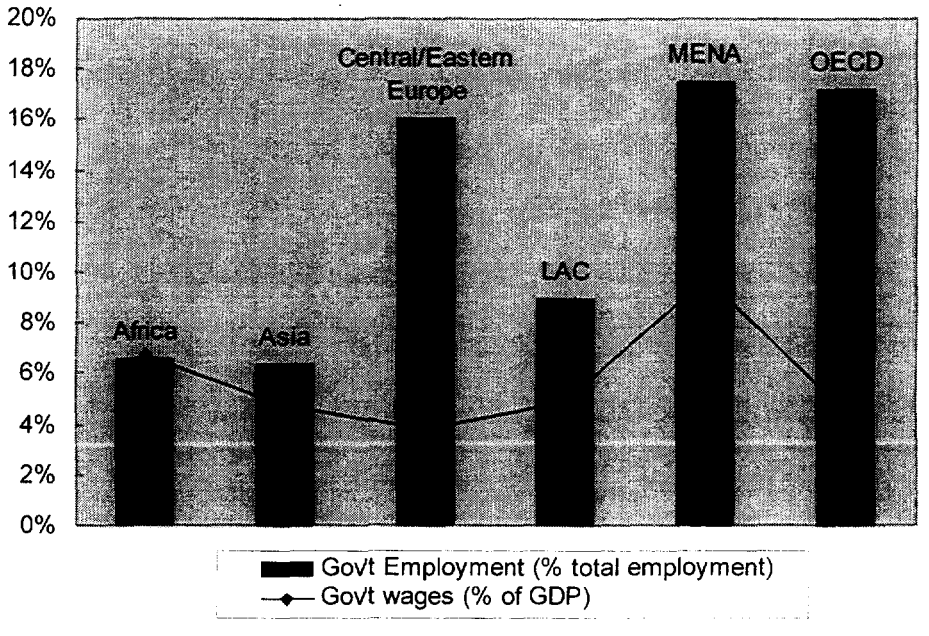
Figure 2
Labor Force Participation



Source: World Bank (1999b)

During the first half of the 1990s, employment growth actually kept pace with labor force growth in the MENA region, but the net contribution to total economic growth was weak, given that most job growth came either from new public jobs despite overstaffing, or from low-wage low-productivity sectors. The resources and/or political will to finance public sector expansion have largely dissipated, however, and public sector hiring was scaled back, at least in relative terms. The result was an increase in unemployment among new labor force entrants unable or unwilling to find jobs in the private sector. Evidence of growing queues for government posts (notably in Algeria, Egypt and the Gulf states) denotes excess supply of labor to the public sector relative to the private sector, exacerbated in large part by wage rigidities that preclude adjustments to clear the labor market. This excess supply is also due to government job guarantees (implicit or explicit) offered to promote educational attainment. In Egypt, for example, the government introduced an employment guarantee in the early 1960s, committing the public sector to provide lifetime employment to anyone with a secondary degree or higher (Assaad 1999). The segmentation of the MENA labor market along public-private lines is reflected by the large share of government employment in total MENA employment and the importance of the government wage bill, both exceeding averages for developing countries in other regions of the world (Figure 3).

Figure 3
Government Employment and Wages in the 1990s



Source: Schiavo-Campo, de Tommaso, and Mukherjee (1997)

The share of government employment in total employment ranges from 7 to 29 percent in MENA countries (Table 1). In some countries, workers' revealed preference for government jobs (evidenced by queuing) is due to higher wages relative to the private sector. In other counties, it is due to non-wage factors such as job security and lower required work effort. Moreover, throughout the MENA region public sector jobs come with significant non-wage compensation through worker protections and social allowances not linked to productivity but instead to personal characteristics (e.g., family allowances based

on family size). Whereas large non-wage benefits effectively act as a mechanism to distribute or redistribute collective wealth to members of the social contract, they are distortionary, thereby contributing to structural rigidities that ultimately reinforce the dual nature of employment.

In countries with relatively small local populations, as is the case in the Gulf states, government jobs are filled by citizens first, and private sector labor demand is met by an elastic supply of imported foreign workers with relatively low reservation wages, reflecting fewer opportunities and even lower wages in the labor-exporting countries. In the Gulf states of Kuwait, Oman and Bahrain, public-private segmentation is compounded by citizen-noncitizen distinctions, wherein the public sector employs Gulf state nationals, and the private sector is dominated by foreign workers. In Kuwait, the situation is particularly striking: public employment represents a third of total employment, but nearly all Kuwaiti workers (around 95 percent) are employed by the state. The private sector, by contrast, is staffed almost exclusively by non-Kuwaitis. These labor outcomes emerged as a result of vast oil wealth which financed public sector expansion and economic growth. As incomes rose steadily, the small Gulf economies relied more and more on foreign labor to meet excess demand in the private sector. Demographic pressures also contributed to public employment outcomes. The introduction of nationalization policies together with explicit or implicit job guarantees resulted in expanded public employment rolls to provide jobs to Gulf nationals entering the labor force.

It is not surprising that the government wage bill throughout the MENA region has reached fiscally unsustainable levels. The most recent World Bank estimates indicate that civil service wage bills range from 6 to 19 percent of GDP (Table 1). In Bahrain, for example, wages and salaries represented over 70 percent of current spending in 1998, absorbing resources equivalent to one-fifth of GDP. Whereas the excessive share of public resources spent on wages suggests a need for fiscal restraint, it is important to note that wage bill savings achieved either through lower employment or wages may have negative aggregate demand effects.

Table 1
Government Employment, Wages and Unemployment in MENA[1]

Country	Government Employment[2] (% total employment)	Government Wages (% GDP)	Unemployment (% labor force)
Algeria	28.7%	8.8%	28.0%
Bahrain	18.9%	19.0%	2.3%
Egypt	26.2%	6.0%	11.3%
Iran	21.8%	10.9%	30.0%
Jordan	13.2%	6.5%	13.1%
Lebanon	7.9%	10.5%	18.0%
Morocco	6.7%	11.9%	16.0%
Tunisia	12.0%	11.1%	15.0%
West Bank/Gaza	16.8%	13.0%	14.4%
Yemen	8.7%	15.0%	30.0%

[1] Data are most recent available, typically 1997-1998.
[2] General civilian government employment excluding public enterprises.
N.B. Unemployment data may reflect some variation in methodology.

Sources: de Tommaso (2000), World Bank (1999b), Bahrain's Ministry of Labor and Social Affairs

The large public sector wage bills observed in the MENA region imply considerable vulnerability to macroeconomic imbalances as a result of fiscal or production shocks. The most striking examples stem from commodity price fluctuations, particularly oil prices. Whereas the oil boom of the late 1970s and 1980s supported rapid public sector expansion in oil-producing countries, as mentioned above, serious fiscal constraints emerged in the early 1990s and again in 1998 due to lower oil prices; the effects were particularly severe in Algeria, where oil represents 95 percent of total exports. Fiscal deficits and/or unemployment resulted, as governments were no longer able to create jobs sufficient to absorb new labor force entrants, and wage rigidities precluded downward adjustment of wages.

Labor market segmentation and wage rigidities in MENA countries are accompanied to varying degrees by unemployment, ranging in magnitude from highs around 30 percent in Algeria, Iran and Yemen, to more modest but still significant levels of 11 percent in Egypt (Table 1). Trends of increasing youth unemployment are observed throughout the MENA region, giving rise to political pressure to defuse a potentially explosive problem. And in an environment of segmented labor markets, this pressure is exacerbated by issues of social exclusion and, in Gulf countries with a large foreign labor force, nationalistic and anti-foreign sentiment toward imported workers.

III. Policy Instruments to Reduce Public Sector Employment

Various instruments are available to policy makers to reduce public employment and induce a labor shift to the private sector. Reallocating workers from the public to the private sector can be handled through push factors or pull factors. As will become evident following the discussion below, a combination of the two is likely to be most effective in generating a new public-private labor allocation that is efficient and sustainable in the long run. The first two objectives of policy makers in the MENA region as laid out in section I, namely to reduce public sector overstaffing and cut the government wage bill, can be achieved through: (i) natural attrition and a concurrent hiring freeze; (ii) accelerated attrition through substantial wage adjustments or benefit cuts; or (iii) retrenchment.[3] These measures may be taken separately, sequentially, or simultaneously.

A. Attrition

Natural attrition rates can be quite high, as large numbers of employees leave public employment to take up private sector jobs, leave employment due to disability, withdraw from the labor force altogether, or reach retirement age. The age structure of public employment can provide some indication of natural outflow rates. In Kuwait, for example, approximately 10 percent of public employees are older than age 50, and the age trend is rising, suggesting a considerable outflow into retirement within the next 10 years (Central Bank of Kuwait 1997). By imposing a hiring freeze, attrition from the public sector could translate into substantially reduced employment levels.

The process of attrition can be accelerated by reducing remuneration. Lower compensation raises the relative appeal of private sector employment, both for job-seekers, through a decline in the reservation wage, and for current public sector employees, through

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[3] The term *retrenchment* is synonymous with layoffs.

a smaller wage differential vis-à-vis the private sector. The result would be a greater supply of labor to the private sector. In fact, allowing real wages to decline through negligible or delayed nominal wage increases less than prevailing inflation rates is typical government practice worldwide, both in developed and developing countries. Eroding real wages is a mechanism to generate fiscal savings and ease inflationary pressure from incomes. If private sector real wages decline as well, such that the public-private wage gap persists, then no sectoral labor shift results. There is at least one major drawback to excessive devaluation of public sector wages, namely a government's need to attract and retain high caliber employees.

Nominal wage cuts imposed on existing employees are likely to be politically untenable, but there are alternative measures to adjust the civil service pay-scale which could achieve sizable wage bill savings. Government grading systems typically set base salary compensation according to the qualifications and experience of new hires, implying some link to work productivity. But this link is dissipated over time when advancement to higher grades depends on seniority rather than performance, as is the norm in the MENA region and elsewhere. Introducing measures that tie promotion to output would create performance incentives, thereby encouraging higher productivity among government workers.

Efforts to reform civil service pay scales risk being undermined by large non-wage benefits which are not linked to productivity and which distort labor decisions. Consider family allowances to civil servants with dependents, where the benefit level is determined by the number of children. In Algeria, for example, the allowance has no ceiling on the number of dependents, and in Kuwait the ceiling is 5; the effect is distortionary, given that workers can choose to increase their remuneration by having large families rather than by increasing productivity through additional education. Non-wage benefits represent the only variable that can be manipulated to reduce total compensation, other than nominal wage cuts and pay-scale reforms to strengthen the link between compensation and productivity. On average, the non-wage benefit premium represents a significant share of total public sector compensation (up to 50 percent). Reducing public sector employment through attrition by cutting non-wage benefits may elicit opposition, especially where unions are strong.[4] An alternative may be to reduce benefits for which the value is not transparent, such as restricting access to health services or reducing the degree of subsidy of available services, although this may in turn harm human capital development.

B. Retrenchment

Lowering public sector remuneration induces labor reallocation toward the private sector via a price mechanism. Alternatively, public sector downsizing could be effected through a quantity mechanism, namely through layoffs or voluntary separations. A necessary pre-condition for involuntary retrenchment is legislation permitting it, and many countries in the MENA region have this enabling legislation (e.g., Algeria, Jordan, Kuwait, Lebanon, Morocco, Tunisia, and Yemen). Where layoffs are not permitted, however, alternative mechanisms exist to get around this obstacle by inducing voluntary separations.

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[4] The strength of unions varies considerably across the MENA region. At one end of the spectrum, Algeria's *Union Générale des Travailleurs Algériennes* represents a majority of the formal labor force and participates in regular tripartite wage and benefit negotiations. In other countries in the region, however, unions have a relatively weak voice, due to restrictions on their activities and/or low membership.

Retrenchment is herein defined to be involuntary in nature and not for cause (i.e., misconduct or poor performance). Because laid-off workers and their dependents incur income losses through no fault of their own but for broader economic reasons, retrenchment is typically accompanied by some compensation to provide income support and thus smooth consumption over the period of joblessness. As such, retrenchment compensation constitutes a *passive* labor market policy. The need for income support arises due to labor market rigidities such as asymmetric information and the contractual nature of labor agreements which hinder workers in immediately obtaining new jobs. Retrenchment packages also serve to reward workers for years of past service to their employer. In addition to the merits of compensation on equity and social protection grounds, there are macroeconomic stabilizing effects as well; large-scale layoffs, even if regionally contained, lead to declines in income that depress aggregate demand.

Faced with the objective to reduce public employment, policy makers can choose from a range of measures in which the following elements need to be defined: total targeted number of layoffs, level of compensation, how layoff costs are financed, and whether there are redistribution or equity objectives. Fundamental to the process of downsizing, these parameters will affect the magnitude of retrenchment undertaken. Retrenchment schemes vary from country to country, and sometimes even within countries.[5] Governments typically adopt a national system that covers the entire formal sector labor force and defines uniform terms and conditions for layoffs and unemployment compensation. Private or union-sanctioned schemes may exist alongside national schemes, or employers may establish their own voluntary retrenchment systems with more generous benefits to employees, thus providing greater flexibility to employers, albeit at a higher cost.

There is no such thing as "best practice" or optimal retrenchment policy. Retrenchment scheme design is usually shaped by the prevailing economic circumstances and/or by the objectives of policy makers. The remainder of this section presents the range of parameters associated with retrenchment mechanisms, discusses the implications regarding employer and employee incentives, and cites evidence from international experience where possible. It is important to note that there is little available evidence from developing countries due to the fact that public sector downsizing episodes have been relatively rare.

1. Mandatory vs. Voluntary

Retrenchment system design varies according to the voluntary versus involuntary nature of job separation at the level of workers. In general, firms or civil administrations undertake retrenchment to increase labor productivity and cut wage costs; this is especially necessary when there are large numbers of redundant workers on the payroll. For the most part, retrenchment schemes are mandatory in that layoffs are imposed by employers, and separated workers are merely passive agents in the decision.

Top-down layoff decisions require employers to choose which workers to retrench. Using what criteria? Firms undertaking significant downsizing to raise average productivity need to establish methods to identify less productive workers for retrenchment. Non-performers, of course, should be fired for cause, eliminating any possibility for severance or

[5] In the United States, for example, each state operates its own unemployment insurance system.

other compensation. Worker productivity is determined by both observable and unobservable factors, implying that employers have incomplete information. Whereas managers should have at least some idea of individual performance, it is not always tenable to rely on personal assessments, especially for very large layoffs. There is therefore a risk that the wrong people will be retrenched, namely productive workers, resulting in a net decline in average productivity. For instance, when retrenchment compensation is linked to tenure or salary, employers have an incentive to lay off more recently hired workers whose retrenchment involves a lower unit cost than more senior colleagues who may be relatively less productive.

In the context of imperfect information, voluntary separations may be used to take advantage of signaling and self-selection with respect to worker productivity. Voluntary schemes are especially useful for achieving staff reductions in jurisdictions where retrenchment is illegal, or where political constraints preclude any possibility of retrenchment. In Egypt, for example, layoffs are permitted only when a firm is liquidated, whereas in Bahrain and Iran, involuntary layoffs are prohibited altogether, even when firms are financially insolvent. Ecuador provides another example where retrenchment is illegal; in order to avoid this restriction, severance packages can be offered to workers on a voluntary basis. When the Central Bank of Ecuador decided to restructure itself and cut its wage bill in 1992, it offered voluntary severance packages at a rate of 1.7 times the average monthly wage per year of service, which proved to be too generous, since more than the anticipated number of workers chose the golden handshake.[6]

Although voluntary schemes facilitate layoffs, they fall prey to adverse selection, as was the case in the 1992 Ecuadorian retrenchment episode (Rama and MacIsaac 1999). Suppose that a firm offers a uniform buy-out option to its employees. Under this scenario, workers with the highest alternative earning power and/or smallest adjustment costs to find alternative employment will choose to be retrenched, resulting in adverse selection. The less productive workers are left behind by the good performers, causing the firm's average productivity to fall, and at a substantial financial cost to the firm (Levy and McLean 1996). This undesirable result is especially likely in the public sector where monitoring of job effort is traditionally weak, as is the link between compensation and labor output. Adverse selection attendant to voluntary schemes typically exhibits an age dimension, especially if retrenchment compensation is tied to work experience and salary history. Voluntary packages may result in the loss of older and better compensated workers, even if they are not specifically targeted. It is notable that this outcome is the reverse of the age discrimination associated with mandatory schemes. The disproportionate loss of more experienced workers may be undesirable and costly, as in Peru's 1993 civil service retrenchment exercise which resulted in the loss of essential skills and was remedied by re-hiring workers at a significant cost (Haltiwanger and Singh 1999).

Problems of adverse selection could be surmounted through a targeted scheme in which less productive workers reveal themselves by choosing a severance package linked to individual characteristics. Assaad (1999) uses micro-level survey data on Egyptian

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6 Rama and MacIsaac (1999) report that a second round of voluntary retrenchment was undertaken by Ecuador's central bank in 1994, in which a more targeted approach was used. Specifically, employees were divided into three groups: (i) essential employees, who were *not* offered severance packages; (ii) redundant workers who were offered packages and informally encouraged to accept them through suggestions that subsequent severance offers would be much lower; and (iii) adequate performers who were given a choice.

workers to gauge productivity using observable characteristics of public enterprise workers. This information feeds into severance packages that are individually-targeted so that workers reveal unobservable characteristics through self-selection. And by offering a series of separation packages that are indexed according to worker-type by education and skill, firms can, in theory, effectively target the desired workers, minimizing the effects of asymmetric information and adverse selection. The results of Assaad's analysis suggest that programs in which compensation is set at some invariant level are more efficient than traditional tenure-linked severance which varies by worker, but a hybrid package consisting of both fixed and variable components performs best of all.

In order to reduce these information rents and mitigate adverse selection, Diwan (1994) argues that by offering workers a range of exit options, workers "self-select" by choosing a package, thereby revealing individual characteristics. Rama (1997) proposes an alternative voluntary severance design that does not require employee-level data and avoids problems of adverse selection while still offering a uniform severance package. Offers can be structured to take advantage of positive signaling by creating incentives for productive workers to stay, for example by offering a better-paying, fixed-term contract to all workers. Productive workers will choose the new contract, but less productive workers will not, since they risk losing more by giving up tenure. The choice reveals information about effort, identifying workers who should be targeted for layoff. If, on the other hand, unproductive workers also choose the fixed-term contract because they fear being laid off, the result would be little change in overall employment, since both desirable and undesirable workers would be retained, but at considerable additional cost to the firm. Alternatively, this could be addressed by offering a choice between a fixed-term contract and a severance cash-out option. (Rama 1997).

2. Lump-sum Severance Payment or Periodic Benefits

Compensation to retrenched workers can be made in the form of severance pay delivered in a lump sum at the moment of separation, or as periodic benefits paid over time. The latter is most common in OECD countries and falls under the rubric of unemployment benefits. Beneficiaries receive a cash transfer that is paid on a monthly or twice-monthly basis, for example, providing income support to those laid off and to their dependents. In the MENA region, Algeria, Egypt, Iran, and Tunisia have national systems that provide unemployment benefits (Table 2).[7]

The optimal periodicity of benefit payment depends crucially on the retrenchment system's administrative capacity. Because some minimum capacity is necessary, less developed countries typically opt for one-time severance pay schemes that are easier to legislate and implement. In the MENA region, most countries have some type of severance requirement (Table 2). Lump-sum severance involves high up-front costs to employers, however, which may discourage layoffs due to liquidity constraints. In Algeria, for example, the law prior to 1994 required employers to compensate laid off workers one month's salary per year of work tenure, up to the equivalent of 15 months' salary, with payment due at the

[7] The welfare states of Western Europe have compulsory unemployment insurance with benefits paid in the form of periodic transfers, and in the United States, unemployment benefits are paid biweekly for up to 6 months. Many of the transition economies of Central and Eastern Europe introduced unemployment benefits during the early 1990s to address unemployment that emerged in the wake of economic liberalization and privatization.

time of separation. Because firms that needed to retrench were already financially constrained, however, the severance costs proved to be prohibitive.[8]

Table 2
Severance Legislation

Country	Level	Maximum	Notes
Algeria	1 month/year tenure	3 months of salary	Prior to 1994, maximum was 15 months salary; current Unemployment Insurance system pays monthly benefits for 1-3 years ranging from 0.75 to 3 times the minimum wage
Bahrain	15 days/year for years 1-3; 1 month for each additional year of service		Full severance for voluntary resignation after 5 years of service; 1/3 for 3-5 years; no layoffs allowed for "economic reasons"
Egypt	None No layoffs allowed, except for firm liquidation		Unemployment insurance pays benefits for 28 weeks at 60% salary; financed by employer payroll tax equal to 2%
Iran	1 month/year tenure for justified dismissal (i.e., for cause), voluntary resignation, disability, retirement		Social insurance benefits available for some period (financed by 3% social security payroll tax)
Jordan	1 month/year tenure; Civil servants entitled to 1 month/year tenure for years 1-10, 1.5 months/year for years >10		Available for voluntary resignation; paid by Social Security Corporation
Kuwait	15 days/year for years 1-5, 1 month/year of service >5 years (lesser amounts for workers paid hourly/ daily/weekly); women upon marriage are entitled to the full indemnity	18 months of salary	This end-of service indemnity is available to all private sector workers at the end of their job tenure, except those fired for cause; voluntary separations for workers with 5+ years tenure qualify for half the indemnity, while shorter tenures do not qualify; no involuntary separation in civil service
Lebanon	1 month/year tenure	10 months of salary	
Morocco	1 week/year up to 5 years, 1.5 wks./yr. for years 6-10, 2 wks./yr. for years 11-15, 2.5 wks./yr. for >15 years		
Oman	NA		
Qatar	3 weeks/year for years 1-5, 4 wks./yr. for years 6-10, 5 wks./yr. for years 11-20, 6 wks./yr. for >20 years		Some portion available for voluntary resignation, depending on tenure
Tunisia	Minimum: 12 days/year tenure (under the Labor Code); Sectoral collective agreements stipulate 15 days-1 month/year tenure	3 mos. salary (Labor Code); 6 mos. (sectoral collective agreements)	Most common severance: 1 month/yr.; unemployment benefits available for 3 months at twice the minimum wage, subject to strict eligibility criteria
West Bank & Gaza	None		
Yemen	1 month/year tenure unless covered by Social Insurance Act (e.g., pension)		Layoffs allowed for "economic reasons"; pending legislation for civil servants

Sources: Ruppert (1999a), Bahrain's 1976 Labor Law for the Private Sector, Assaad (1993), Egypt's 1991 Labor Law, Iran's 1990 Labor Code, World Bank (1994), Jordan's Civil Service Regulations Number (1) of 1998, Kuwait's 1997 Labor Law in the National Sector, Kuwait's 1979 Civil Service Law and Regulations, Lebanon's 1996 Labor Code, World Bank (1997), Qatar's 1962 Labor Code, Tunisia's 1994 Labor Code, Mahjoubi (1994), World Bank (1993), Yemen's 1995 Labor Code

[8] The negligible retrenchment that was actually undertaken before 1994 was also due to soft budget constraints and the required approval by unions (Ruppert 1999a).

With respect to the retrenched worker, a large one-time payment may encourage private saving and investment, potentially injecting resources into local credit mechanisms or financing the start-up costs of new business ventures. Data from the retrenchment exercise undertaken by the Central Bank of Ecuador indicates that large portions of the lump-sum payments (averaging over 40 percent) were spent on physical capital investment which included car or housing purchases and expansion of existing residences, thereby enhancing private savings (Rama and MacIsaac 1999). Claims that laid off workers are rational economic agents who optimize their use of resources suggest that severance pay would be less distortionary than periodic benefits in an adequate institutional setting. However, in the absence of savings mechanisms, large lump-sum payments risk being spent on consumption or unproductive investment, leaving the unemployed without revenue and ultimately straining government safety nets. And for large-scale retrenchment, the associated influx of liquidity may create inflationary pressures or even contribute to bubble phenomena in housing or credit markets, for example.

It is important to consider the political feasibility of the two payment options. Periodic benefits over a long duration may be appealing on grounds of redistribution and social protection, and risk averse workers may prefer a guaranteed income over time, especially in a recessionary environment of high unemployment and uncertainty. On the other hand, severance pay is effectively cheaper in an inflationary environment, since the value declines when amortized over time. Moreover, offering generous lump-sum severance payments helps workers and unions buy into the employer's need to downsize. The relative strengths of these competing factors depend on the policy and economic objectives of the country in question. An interesting counterexample is provided by Algeria, which in 1994 adopted a hybrid payment system consisting of severance equal to 3 months' salary followed by periodic indemnities for up to 3 years (Ruppert 1999a).

3. Level of Compensation

Severance. In its most common formulation, severance pay is proportional to salary history and job tenure, compensating the laid off worker for his/her actual experience and effort already expended. For example, the rate may be set at one month's salary per year of service, as in Algeria, thereby accounting for both salary and tenure (Table 2). Several countries in MENA mandate severance pay to increase with seniority, such as in Morocco, where workers receive a lump-sum equal to 1 week of salary per year of service up to 5 years, 1.5 weeks of salary per year of service for years 6-10, 2 weeks per year for years 11-15, and 2.5 weeks per year for years of service in excess of 15 (World Bank 1997). In Kuwait, there is no involuntary separation in the civil service, but for workers with fixed-term contracts, the labor code defines an end-of-service indemnity equivalent to 15 days' wages for each year of service up to five years, and one month's salary for each year of tenure thereafter, not to exceed 18 months' wages in total. Even workers with a 5 year tenure who resign voluntarily are entitled to some end-of-service reward under Kuwaiti legislation. The Tunisia Labor Code requires a relatively modest severance payment (12 days/year of tenure), but this represents a minimum that is superseded by sector-level collective agreements (Mahjoubi 1994).

As the data in table 2 illustrate, there is a certain degree of similarity across the MENA region with respect to the level of severance remuneration. Examples of more generous severance laws can be found in other regions. In Ghana, for instance, severance is equivalent to 4 months of base pay plus 2 months of base salary per year of continuous

service (Alderman, Canagarajah, and Younger 1996), and in Guinea-Bissau, civil servants are entitled to 10 months of salary per year of service (Chong and Rama 1998).

Severance pay could alternatively be designed to compensate for the costs borne by laid off workers in terms of lost future earnings from years of denied service, such that severance packages would be forward-looking. Fiszbein (1992) examines the enterprise restructuring experience of Sri Lanka and postulates an optimal compensation package that exactly compensates workers for the opportunity cost of being laid off. Compensation packages depend positively on years of denied service (i.e., negatively correlated with age), and on the wage differential between public and private sector jobs, taking into account the probability of finding alternative private sector employment. Using aggregate data, the resulting compensation packages calculated for a range of age profiles were much greater for young workers and quite low for workers near retirement age, and total program costs were twice those under the original experience-linked scheme. In a similar exercise for Egypt using micro-level data on Egyptian workers, Assaad (1999) concludes that compensating workers for income losses could generate program savings of 13 percent.

Unemployment benefits. The design of unemployment benefits depends on the level and frequency of payment and the duration of eligibility. Benefits are set either at a flat rate or proportionally to the retrenched worker's pre-separation salary. So-called replacement rates (i.e., the ratio of benefits to salary) generally range from one-third to near 100 percent, and can be constant or declining over the eligibility period. High replacement rates create disincentives to seek employment. Within the MENA region, Iran and Tunisia have legislation to provide unemployment assistance, but only Algeria and Egypt have systems of unemployment *insurance*, in which formal sector workers participate through a mandatory payroll tax specifically for unemployment benefits (Table 2).[9] In Egypt, where layoffs are allowed only when an enterprise is liquidated, there has been negligible enterprise restructuring in practice, and therefore modest use of this legislation (Assaad 1993). This means that within the MENA region, Algeria alone has a functioning unemployment insurance system under which significant retrenchment has occurred. The Algerian system provides benefits equal to a declining share (100, 80, 60, 50 percent) of some reference wage, which in turn is calculated as the average of the monthly and minimum wages (Ruppert 1999a). The declining replacement rates are intended to encourage job search. Benefits are typically subject to minimum and maximum levels; in Algeria, these are equal to three-fourths and three times the minimum wage, respectively.[10] These formulae reflect the equity objectives of the state by providing a minimum level of income support at the low end, and by not unduly subsidizing high wage earners. The ceiling on benefits also avoids the need for extensive means-testing.

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9 Iran's labor code cites plans to create an unemployment insurance system, but details are currently unavailable.

10 In the United States, benefits are 50 percent of the gross weekly salary, with no maximum or minimum (except that implied by the minimum wage). Some states (unemployment systems vary by jurisdiction) offer a cash-out option, which imitates a lump-sum severance payment, to encourage workers to accept new employment more quickly. Replacement rates are generally somewhat higher in the transition economies of Central and Eastern Europe, ranging from 50-75 percent (see Jackson, Koltay, and Biesbrouck 1995).

4. Duration of Compensation

Whereas severance packages are theoretically paid in a lump sum at the moment of separation, unemployment benefits constitute retrenchment compensation that is paid in periodic installments over time. The duration of benefits varies widely across countries, ranging from several months to permanent income support.[11] Algeria's tenure-linked unemployment insurance benefits range from 1 to 3 years (the latter for those with 18 or more years of work experience), and in practice average close to 2 years. Providing unemployment payments for a short period serves the objective of meeting temporary adjustment costs incurred by the laid off worker in terms of lost income while searching for a new job. Long benefit duration, by contrast, discourages job search and increases unemployment.[12] When retrenched workers remain eligible for unemployment benefits for an unlimited time, benefits resemble welfare.[13]

Much research has examined the job search disincentive effects associated with long-term benefits (Jackman, Pissarides, and Savouri 1990). Aarnio (1993) finds that search intensity fluctuates over the course of unemployment, such that job search efforts are low at the beginning of the unemployment spell or while participating in alternative active programs like training, and rise as the end of benefit eligibility draws near. To avoid search disincentive effects, some of the transition economies of Central and Eastern Europe instituted short eligibility durations;[14] for the most part, however, income support for long periods was a key objective of policy makers in response to the massive job displacement associated with market transition, especially in one-company towns.

5. Financing Retrenchment

One fundamental issue associated with introducing a retrenchment system is how to finance it. The choice of who pays the cost of compensation in turn affects the design of the scheme adopted, the frequency of payment (i.e., severance vs. periodic benefits), and the magnitude of layoffs undertaken. Financing mechanisms also depend on the system objectives.

Payroll taxes. There are three possible sources to finance retrenchment: (i) the government's general budget revenues; (ii) firms; and (iii) workers. In countries where retrenchment compensation consists only of severance pay, the costs are typically borne by firms. Financing unemployment benefits tends to be more complicated, however, in part because compensation must be paid over time. For an overriding objective of retrenching workers to reduce redundancies and increase productivity, particularly in the public sector, direct government financing would be least distortionary vis-à-vis the equilibrium cost of labor, since it would avoid raising taxes on firms and workers. On the other hand, fiscal constraints may preclude this option. Furthermore, raising other taxes generates welfare

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11 In the United States, most states offer benefits for up to 6 months (Hamermesh 1992).

12 There is a large literature assessing the link between benefit duration and unemployment (see, for example, Nickell 1997).

13 This is the case with the dole in the United Kingdom (Jackman, Pissarides, and Savouri 1990), and also in Romania, Hungary and Slovenia, where individuals who remain unemployed following the exhaustion of benefits can obtain a "social benefit" of lesser value (Jackson, Koltay, and Biesbrouck 1995).

14 In the Czech and Slovak Republics, for example, benefits were limited to six months (Jackson, Koltay, and Biesbrouck 1995).

costs, due to the marginal cost of public funds.[15] The most common method of financing unemployment benefits involves a payroll tax that is borne by both employers and employees. In Algeria, the total payroll contribution amounts to 4 percent of the wage bill (2.5 percent is paid by the firm and 1.5 percent is paid by workers), and in Egypt, employers contribute 2 percent of the wage bill. In Iran and Tunisia, unemployment benefits are financed by general social security taxes. In most of the transition economies, by contrast, firms contribute a flat rate tax on the wage bill to a government-controlled Social Fund, which is responsible for financing both the payment of benefits and active labor market policies such as job training and placement programs. It is important to note that although employers bear some or all of the tax burden, these costs are effectively passed on to workers in the form of lower wages.

Raising payroll taxes depresses both labor demand and supply, however, exacerbating the need for retrenchment and ultimately increasing unemployment. In Algeria, introducing the new retrenchment system (including an early retirement scheme) was accommodated both through direct government resources and an increase in total payroll tax rates from 31.5 percent to 34 percent. There is, however, some countervailing econometric evidence from OECD countries that payroll taxes have only a negligible effect on long-term labor supply and unemployment (Nickell 1997).

What specific mechanisms are used to ensure adequate financing of retrenchment systems? For retrenchment schemes financed through payroll taxes, participation is typically mandatory. As a result, the payroll tax is kept very low by taking advantage of the principles of insurance through pooling the risk of unemployment across the entire labor force (at least the formal labor force). If participation in unemployment insurance was voluntary, only those with a greater probability of layoff would participate, creating a pool of workers whose chances of being laid off are highly correlated with each other, such that in an economic downturn, the financial reserves accumulated through payroll contributions would be inadequate to cover benefits for the majority laid off (another illustration of adverse selection), particularly if the retrenchment compensation fund operates on a pay-as-you-go basis. Although this is the most common financial set-up for unemployment systems around the world, alternatives can be designed to create a tighter link between benefits and taxes. For instance, mandatory personal savings accounts could be established to cover an array of future financing contingencies, such as income loss due to disability or layoff, or pension after retirement (which occurs with certainty). This de facto forced savings may have positive growth effects through increased investment, but requires sufficient administrative and institutional capacity and a stable macroeconomic environment.[16]

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[15] Taxation involves significant deadweight losses, which have been estimated in several studies. Most available evidence refers to developed countries: Browning (1987) finds that the marginal welfare cost of a tax on labor ranges from 32 percent to 47 percent in the United States, meaning that to obtain an extra dollar of government spending, between $1.32 and $1.47 of tax revenue must be raised; data from Sweden yield much higher costs ranging from 69 percent to 129 percent (Hansson and Stuart 1983). Developing countries are likely to encounter higher costs due to less efficient tax administration and the use of less efficient tax instruments: Ahmad and Stern (1987) estimate the welfare costs associated with a range of tax instruments in India at 77 percent to 85 percent.

[16] In Malaysia, for example, employers and workers contribute to an Employees' Provident Fund to encourage saving for retirement. The total (mandatory) contribution rate is equal to 22 percent of net wages (as of 1993) and interest earned on contributions accrues to individual savings accounts. Withdrawals may be made in the event of death, incapacitation, or for an optional housing finance scheme. There is no provision for unemployment, however, nor for health care. Singapore has a similar system, the Central Provident Fund, whose total long-term contribution rate is 40 percent of net wages. In addition to

Redistribution. By financing unemployment through individual savings accounts, it is more likely that low-wage or unskilled workers will deplete their earnings, since retrenchment falls disproportionately on this segment of the labor force. As a result, the system may fail to provide adequate protection. Pooling unemployment insurance across the entire labor force avoids the problem of excessively burdening a particular group. Moreover, the structure of contributions and benefits usually achieves a redistribution of income from skilled higher wage earners to workers at the low end of the spectrum, through a flat rate payroll tax on the one hand, and capped benefits on the other. Even if high wage earners are retrenched, their benefits do not exactly reflect the amount of contribution. And by stipulating a sufficient minimum level of benefits, low wage earners can receive payments above the actuarially fair level.

This contribution/benefit design eliminates any regressive income redistribution from low-salaried unskilled workers to highly paid skilled employees, and at the same time provides a minimum level of protection to the affected population. Returning to the example provided by the Algerian unemployment scheme, indemnities are capped at 3 times the minimum wage and the minimum is set equal to three-fourths the minimum wage, thereby generating an income redistribution from higher wage earners to those actually laid off.[17] It is also possible for redistribution to occur along public/private sector lines. If, for example, the government implements a mandatory national scheme and then proceeds to cut public sector employment, private contributors (both firms and employees) bear some of the cost.[18]

Equity. It is important to recognize that the redistribution discussed above occurs solely within a certain sub-group of the population, namely formal sector workers who are covered by the retrenchment scheme. The fact that they are employed, even at the minimum wage, means their incomes are probably sufficient to meet subsistence consumption requirements; furthermore, workers may also receive non-wage benefits such as family allowances. The objective to provide income support as a means of poverty alleviation therefore fails to address the needs of the truly impoverished. As such, retrenchment falls outside the broader issue of equity vis-à-vis the poor. Framed as an insiders versus outsiders problem, retrenchment systems provide additional coverage to those already in the formal sector and therefore covered by protective regulation. The issue of urban bias is also related to questions of equity. Formal sector enterprises are more likely to be located in or near urban areas, where the population already has access to extensive public services in terms of education, health and infrastructure. By targeting retrenchment compensation to formal employees, rural and informal workers are left out of the picture.

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old-age and housing withdrawals, the Singapore system also permits financing of pre-approved investments, hospitalization and other health care charges (Asher 1994).

[17] Additional income redistribution arises from the compression of benefits in favor of lower wage earners by applying the replacement rate to a reference wage calculated as the average of the actual and minimum wages (Ruppert 1999a).

[18] The effect is in fact the reverse under the Algerian system; central government employees make up almost half of the eligible labor force but they are not de facto subject to layoff at present, indicating an implicit subsidy of private sector and public enterprise workers.

Financial viability. In the event that retrenchment systems become insolvent, system parameters can be adjusted to restore financial viability.[19] This can be achieved for instance through tighter eligibility requirements, shorter durations, or lower replacement rates.[20] The U.S. system has an interesting financing feature known as experience rating, through which the financing burden falls on firms with a greater tendency to retrench. Specifically, each firm's tax rate (the employer's contribution) is linked to its layoff history. This measure was designed to discourage firms from undertaking seasonal retrenchment in which workers are fired during slow production periods and subsequently re-hired during peak season. Although it has functioned well in several states, experience rating also introduces negative dynamic effects by raising taxes during periods of reserve shortfall (Worden and Vroman 1991).

Magnitude of layoffs. The primary advantage of experience rating is that it internalizes the cost of retrenchment into firms' employment decisions; in other words, because firms incur some cost, the decision to dismiss workers accounts for these costs, implying that the structure of benefit financing affects the magnitude of retrenchment undertaken. The Algerian system accomplishes similar objectives by requiring firms to pay an initiation fee. Neither system perfectly internalizes the cost of layoff into the employer's decision, however.[21] On the other hand, if retrenchment was financed entirely by general budget revenues, there could be excessive labor turnover. Moreover, firms that need to undertake retrenchment but find it politically undesirable to do so would have no incentive to implement changes in the production process to improve efficiency and eliminate waste, thus exacerbating firms' financial and competitive positions and driving them closer to bankruptcy. This behavior by firms is another illustration of moral hazard arising from information asymmetries and the tenuous link between production decisions and operating budgets for public enterprises. The standard example is given by public enterprises whose soft budget constraints interfere with rational factor/output decisions.

Problems of moral hazard also arise in the context of privatization. The cost burden of retrenchment not only affects the degree of layoffs undertaken, but also may affect employee behavior in firms undergoing restructuring with a view to being privatized or liquidated. The actual method of privatization is germane to behavior incentives. Management-employee buy-outs (MEBOs), for instance, bring workers into the production decisions and create incentives for workers to increase their own productivity, both to improve the firm's overall productivity and to demonstrate their valuable individual contributions. In practice, the merits of restructuring firms prior to privatization (as opposed

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19 This issue is especially germane to the transition economies of Central and Eastern Europe, where Social Funds experienced rapidly climbing outlays for unemployment benefits in the face of massive labor dislocation. Because the Social Funds were responsible for financing active labor market policies as well, these programs were squeezed and effectively crowded out, since severely constrained fiscal accounts precluded a government bail-out.

20 Counterexamples are provided by Poland and Romania, however, which experienced particularly high rates of unemployment and declining living standards early in the transition period: Poland extended its duration maximum from 12 to 18 months in regions deemed to be in particular crisis, and Romania added a "social benefit" provision at a very low level of support (40 percent of the minimum wage, means-tested only), to last 18 months in addition to the regular benefit duration of up to 9 months (Jackson, Koltay, and Biesbrouck 1995). These measures risk negative dynamic implications for the labor market in terms of entrenched long-term unemployment and the associated risk of marginalizing a large segment of the labor force.

21 In Algeria, if a worker quickly finds alternative employment, the old employer is still required to pay the initiation fee, even though the UI fund pays no benefits to the worker concerned.

to leaving any necessary downsizing to the new owners) are outweighed by the net costs incurred by doing so, even when the higher privatization price is taken into account. Several studies conclude that when public enterprises reduce employment in preparation for privatization, the number of layoffs is likely to be greater than those undertaken by new private managers (Kikeri 1996; Galal et al. 1994). The reasons are several. Public sector management's failure to identify unproductive workers for retrenchment and the reliance on uniform, untargeted severance packages result in the exit of productive rather than redundant workers. Furthermore, soft budget constraints allow the total adjustment costs to be passed on, for example, to other social safety net programs. As a result, the real costs of retrenchment are not fully internalized into the layoff decision, leading to higher than optimal downsizing. One strong argument in favor of downsizing prior to privatization is that it provides a clear and convincing signal to potential investors that the government is committed to the reform process.[22]

6. Cost of Retrenchment

Financial cost. The various adjustment costs associated with significant retrenchment episodes are difficult to estimate because they are typically unobservable. It is nevertheless useful to examine one particular cost of adjustment, namely the explicit financial cost of compensation. The unit cost to firms, that is, the cost of retrenching one worker, can be calculated using the system parameters that define severance and/or unemployment benefit payments. In Algeria, for example, firms are required to pay three months' salary in severance plus an initiation fee averaging 5.6 months of salary for each worker laid off. The total unit cost of 8.6 months' salary is equivalent to US$2,055 on average.[23] This figure reflects the marginal financial cost to firms, but represents only part of total benefit financing needs, the rest of which are financed by the payroll tax shared by workers and employers.

The Algerian firm's unit cost of layoffs compares favorably with retrenchment systems elsewhere. In Argentina, for example, involuntary separation of workers in the federal administration averaged US$3,000 per worker in 1992 (Haltiwanger and Singh 1999). Restructuring the public railroads sector using a combination of voluntary and involuntary schemes proved substantially more expensive, however, averaging US$10,000 per worker. In Ecuador, the retrenchment undertaken by the Central Bank was even more costly. The program was initially launched in 1992 as a voluntary severance package, but subsequent criticism and popular outcry over mismanagement of funds resulted in changes to the legal framework and a second attempt to compress labor two years later. Using a numerical objective for total employment, the Central Bank offered a targeted package at a rate of 2 times the average monthly wage per year of service, higher than the 1.7 under the initial program (as mentioned above), but the maximum payment was capped at one-third the level previously allowed. The resulting severance package per worker ranged from US$4,800 to US$12,400 (Rama and MacIsaac 1999).

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[22] If, for example, inefficient public enterprises do not draw any bids whatsoever, it may be worth the added cost of restructuring in order to initiate the privatization process. Rama (1997), Vickers and Yarrow (1991) and the World Bank (1995) address this question of when to retrench within the context of privatization.

[23] A further breakdown between national and local public enterprises yields unit costs of US$2,232 and US$1,531, respectively. For workers eligible for early retirement (i.e., over age 50 with more than twenty years of job tenure), the unit cost is greater, averaging an estimated US$2,733. Conversions from local currency are made at an exchange rate of 55 Algerian dinars/US$, and figures are in constant 1995 prices.

Kuwait has considerably higher unit layoff costs. Under existing legislation on the end-of-service indemnity, severance compensation can be estimated for an average worker by making assumptions about the average length of tenure. Based on evidence of labor force participation, average tenure lies between 10 and 15 years of service; the resulting end-of-service payment would range between 8.4 months of salary at the low end, and 13.4 months of salary at the high end. Given the high wages observed in Kuwait, this translates into extremely high unit costs of US$18,900 to US$30,100 (for 10 and 15 years of service, respectively) for a worker with a secondary school education.

Retrenchment costs are eventually recovered through wage bill savings. Consider the financial break-even period, an alternative measure of system cost. It is defined as the amount of time necessary for the present value of direct financial costs to equal the present value of direct financial gains from retrenchment. The direct financial unit cost was derived above, and financial gains are calculated as wage bill savings.[24] Using a discount rate of 10 percent, the Kuwaiti system's break-even period is estimated to be between 0.8 and 1.2 years, a short period in spite of high up-front costs. The Algerian system (ignoring early retirement) would break even in 0.8 years; this relatively short break-even period is partly attributable to the exclusion of payroll tax financing from direct financial unit costs. The Argentine program has a break-even period of 0.4 years for the federal administration and 1.6 years for the railroad sector, and the retrenchment scheme in Ecuador achieved financial payback in 1.7 years under its 1994 system. Haltiwanger and Singh (1999) calculate the break-even period for 15 retrenchment operations carried out with World Bank support and find an average break-even period equal to 2.3 years. International experience therefore suggests that although up-front financial costs of retrenchment appear to be significant, they are off-set by sizable wage bill savings that quickly cover initial outlays, typically within two years.

Economic cost. Whereas financial costs are readily observable and therefore easy to calculate, the economic cost of retrenchment takes many forms, including output and efficiency losses following improperly targeted layoffs, negative aggregate demand and growth effects from massive layoffs and high unemployment, and depressed labor demand through tax-financing. There are, of course, supporting arguments in favor of reducing public employment. The primary rationale pertains to the potential economic gains derived from restructuring large and inefficient public sectors. This can be achieved by re-orienting the role of the state towards providing public goods and services, where it has a comparative advantage, accompanied by the state's withdrawal from the productive sectors, where private management will result in a more rational allocation of factor inputs. The sum of these production losses and efficiency gains yields a measure of total economic returns to retrenchment.

In an effort to assess economic returns, Haltiwanger and Singh (1999) consider 20 international retrenchment episodes, and use the incidence of re-hiring as a proxy for low economic returns.[25] They find that 40 percent of the operations were characterized by some re-hiring, with significant re-hiring occurring in 20 percent. Heretofore, few attempts

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[24] Svejnar and Terrell (1991) present a discussion of payback periods calculated from the profit-maximizing firm's perspective as well as the social welfare (i.e., GNP-maximizing) perspective.

[25] Although this proxy captures efficiency and output losses that resulted from retrenching the wrong workers and subsequently re-hiring them, it is an imperfect measure that understates economic costs for the following reasons: (i) it does not quantify the problem of retaining unproductive workers after retrenchment, and (ii) it does not include those systems in which re-hiring is prohibited.

have been made to quantify the economic costs of public sector downsizing. Ruppert (1999a) undertakes the problem with respect to Algeria's retrenchment system in which production losses associated with layoffs are partially or fully off-set by efficiency gains from restructuring and reducing public enterprise subsidies. That analysis concludes that Algerian firms may retrench more workers than is socially optimal. Depending on the degree of redundancy (which is unobservable), the resulting net welfare cost is estimated to range from annual losses equivalent to 1 percent of GDP to annual gains of 2 percent of GDP. These examples illustrate that, contrary to the financial savings generated by retrenchment, they may be off-set by low or negative economic returns.

7. Age-Related Retrenchment: Early Retirement

An alternative method of retrenchment consists of offering early retirement at a reduced pension to workers nearing retirement age (e.g., within 5 to 10 years) who meet minimum service requirements. At first glance, this option is appealing for countries with a young population age structure and that want to make room in the public sector for new labor force entrants. In Egypt and Algeria, for example, early retirement was introduced to address the growing problem of youth unemployment in the context of guaranteed public jobs. In practice, early retirement is a very expensive way to achieve this goal, both in financial terms and with respect to production. If replacement workers are hired, the only wage bill savings will come from displacing older and thus higher paid workers with young job seekers who enter at the bottom of the pay scale. However, this does not account for the associated retrenchment costs, either in terms of severance pay or early access to pension benefits. Retrenching workers eligible for early retirement actually increases the long-term liabilities of the government. Moreover, even when replacement workers are not hired, wage bill savings are off-set by the output losses resulting from adverse selection associated with voluntary schemes. This can lead to significant costs if capacity losses are remedied through re-hiring (i.e., the revolving door syndrome).

Other problems plaguing early retirement policy involve the negative financial impact on pension funds due to the reduced contributor base and larger pool of beneficiaries. On the other hand, using the targeting mechanisms discussed above under voluntary severance schemes, it is possible to design a system that targets the least productive workers through signaling. The overall usefulness of early retirement depends on the objective function of policy makers. It may reduce the size of the civil service and lead to moderate fiscal savings in the short run, depending on the structure of pension benefits. Or, it may be a politically expedient method to make room for unemployed new entrants, despite high financial and long-term economic costs. In a young, developing economy where employment problems are structural, however, early retirement schemes are unlikely to lead to sustainable equilibrium levels of employment.

IV. Complementary Measures to Achieve Policy Objectives

The above discussion illustrates the various options to reduce public sector employment and the challenges involved in doing so effectively. Attaining the dual objectives of fiscal savings and dynamic private sector job creation does not automatically result from simply retrenching public sector workers, however. In the first place, retrenching workers comes at a potentially substantial cost. And secondly, measures that reduce public employment do not guarantee the absorption of workers by the private sector.

Market structure in the MENA region, factor price distortions, and segmentation along public/private lines reflect an inefficient allocation of resources. In the Gulf countries, this is exacerbated by the additional segmentation between Gulf nationals and foreign workers. Within this environment, therefore, shedding labor from the public sector does not *ceteris paribus* increase efficiency; removing one distortion (e.g., redundant public employees) while other distortions remain does not translate into a welfare improvement and could in fact be welfare worsening. This is the principle behind the theory of the second best. It is crucial therefore to undertake downsizing only in conjunction with corrections to the underlying incentive framework. In the Maghreb countries and Egypt, discriminatory factor pricing manifests itself in the public-private wage gap and limited private access to credit and therefore capital. In the West Bank and Gaza, uncertain and unreliable access to high-paying jobs in Israel increases the Palestinian reservation wage, giving rise to structural unemployment. And in the Gulf states of Bahrain, Kuwait and Oman, private sector labor demand exhibits a preference for abundant and relatively inexpensive foreign workers over Gulf nationals.

The public sector employment and pay policies that distort the MENA labor market are the result of economic policy choices taken over several decades. The development of the region's oil-exporting countries over the past 25 years was generally financed by vast oil revenues that were distributed to the population through infrastructure and, importantly, education. In Algeria, for example, the state invested oil profits to create a large public industrial sector. In the Gulf countries, the distribution of oil rents led to a sustained rise in incomes which generated demand for goods and services that could not be met by existing capacity and domestic labor resources. The result was a strategic reliance on foreign workers, both skilled and unskilled, to supply the necessary labor to meet growing aggregate demand. At the same time, policy makers adopted employment and wage policies to encourage nationals to become educated and participate in the labor force, mainly by creating well-paid public jobs to absorb new entrants. Egypt and Yemen implemented explicit job guarantees for those with certain educational degrees, whereas in Kuwait, Bahrain and Oman, affirmative action/nationalization policies according preference to citizens acted as an implicit job guarantee.[26] Overwhelmed by the demand for employment, which was exacerbated by distorted pay policies, the public sector became overstaffed at the expense of efficiency. And despite tremendous gains in the general educational attainment level, education systems have struggled to keep pace with the changing skills demanded by globalizing markets.

Effectively reducing public employment using any of the policy instruments presented in section III needs to include changes to the incentive framework as well. Measures to complement retrenchment include: (i) eliminating wage distortions; (ii) rationalizing the role of the public sector; (iii) ensuring a stable macroeconomic environment and adequate institutional setting; and (iv) promoting private sector-led growth.

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[26] In Kuwait, for example, the law (article 10 of the Labor Law in the National Sector, Law No. 38 of 1964, as amended by Law No. 30 of 1995 and Law No. 2 of 1997) codifies nationality restrictions on hiring, such that Kuwaiti nationals are accorded the highest priority for selection, followed by Arab expatriates holding work permits, and finally non-Arab foreigners holding work permits.

(i) Eliminating wage distortions

The wage gap between public and private wages, and between nationals and foreign workers in the Gulf economies, is attributable to several factors, including differences in protective labor legislation and limits on firing workers, large non-wage benefits which represent up to one-half of total compensation, and the missing link between public compensation and productivity, rendering pay increases susceptible to political pressure. In particular countries in the region, additional factors distort labor costs further, such as the requirement that public and private employers in Kuwait finance the military service of Kuwaiti nationals. All of these various compensation features attract job seekers to the public sector. Private sector wages are considerably lower, especially in the Gulf countries that rely on foreign labor not covered by social protection legislation and benefits, and whose low reservation wage reflects sending country conditions, such that only foreign workers are competitive in the private sector. The result is a high degree of labor market segmentation, large public employment rolls and wage bills, public jobs predominately staffed by nationals in the Gulf countries, a private sector dominated by small, informal firms (foreign-owned and -staffed in the Gulf counties), excess supply of labor to the public sector, and disproportionate private sector demand for foreign workers in the Gulf economies.

In order to move toward a well-functioning labor market that is sufficiently flexible to absorb all job seekers (with some frictional unemployment due to mismatch and job search) and equate labor demand and supply at a market-clearing wage, wage distortions need to be eliminated or reduced as much as possible. It is only under these circumstances that public sector retrenchment will improve the allocation of labor to a more efficient distribution. The wage differential can be eliminated through price mechanisms in either the public or private sector or both. The potential channels in the public sector include reducing labor regulation and payroll taxes, cutting wages directly (e.g., for new entrants) or indirectly, reducing or rationalizing non-wage remuneration, and privatizing certain public firms. All of these measures to correct price signals complement labor policy to reduce public sector employment, ensuring a more efficient labor allocation. In the private sector, measures to limit the supply of foreign workers to Gulf countries could be achieved through immigration laws and tighter enforcement of work permits, and the cost of foreign labor could be raised by increasing work permit fees, either to cover the gap vis-à-vis the average wage of nationals, or at least to cover the implicit cost of public goods consumed by noncitizens. These measures would introduce a considerable cost, however, through skills loss and by dampening private sector activity and overall labor demand. Therefore, whereas *national* welfare might be improved by increasing the cost of foreign labor, *general* welfare would decline due to the higher cost of private production and the negative impact on foreign workers and their remittances to home countries.

(ii) Rationalizing the role of the public sector

A more efficient allocation of labor between the public and private sectors could be facilitated by examining the range and quality of public sector activities, and assessing the government's comparative advantage with respect to the private sector. A comprehensive public sector reform program, of which reducing public employment represents only one part, would include correcting obstacles to private sector productivity and investment, eliminating preferential factor pricing and market access, and identifying the human capital needs of the entire economy and making the necessary adjustments to the education

system. Transferring certain activities to the private sector (e.g., through privatizing public enterprises or allowing private competition in service delivery) should raise productivity, free up public resources, and increase labor demand in the long-run, albeit at the risk of higher unemployment and other adjustment costs in the short run.

(iii) Ensuring a stable macroeconomic environment and adequate institutional setting

Whereas public/private distortions play a fundamental role in the labor and goods markets, achieving the objectives of fiscal savings and private sector job growth hinges on a conducive environment in terms of stable macroeconomic balances and pro-growth economic policy. Sufficient and sustained labor demand is necessary for generating employment. The demand for labor, in turn, is determined by the total (domestic and foreign) demand for goods produced by workers. An array of factors influences product demand, including domestic savings rates, foreign investment, international competition, and access to international markets. The extent to which these factors are promoted or discouraged through exchange and trade policy, inflation, interest rates, domestic/foreign investment incentives and effective financial intermediation, inter alia, affects employment levels. Some progress on these fronts was achieved during the mid-1990s in a handful of MENA countries, for instance through structural economic reforms, tariff reductions, and tighter fiscal policy. In oil-exporting countries, this was largely facilitated by an influx of oil profits from high oil prices, whose subsequent drop exacerbated fiscal pressures and macro imbalances (as observed in Algeria, for example). For these oil-dependent economies, potential growth in the non-oil economy is somewhat limited and the economy as a whole remains vulnerable to external oil price shocks, such that budget expenditure and public sector employment are sensitive to developments in the world oil market. A basic strategy for ensuring a stable macroeconomic environment is to diversify economic production away from the oil sector in order to mitigate the risk of negative price shocks.

As stated above, efficiently reallocating workers from the public to the private sector requires a conducive incentive framework. The institutional setting also plays an integral role, namely through instilling confidence in government institutions such as property rights, the rule of law, and principles of good governance. These, in turn, affect the willingness of domestic and foreign investors to enter the market, and are integrally linked to macroeconomic conditions.

(iv) Promoting private sector-led growth

The private sector is central to the MENA region's long-term growth potential. Reducing factor price distortions, rationalizing the role and therefore size of the public sector, and creating a positive macroeconomic and institutional environment would go a long way toward promoting private sector growth. Complementary measures include (i) redirecting the public investment program; (ii) encouraging private investment of both domestic and foreign savings (the latter might be attracted by privatization, but requires an enabling legal framework vis-à-vis the investment code); (iii) revamping the education and training systems to produce graduates with more competitive skills in line with private market demand; and (iv) promoting the start-up or expansion of small-scale firms to create jobs. The latter would directly address employment creation objectives, and could be

facilitated through active labor market programs such as wage subsidies, job search assistance, training and micro credit schemes.[27]

V. Conclusions

Achieving fiscal savings and dynamic private sector growth are not automatic by-products of reducing public employment in MENA. The complementary measures delineated above to correct the distorted underlying incentive framework represent a tall order, and require tremendous commitment by policy makers and citizens alike. The financial resources necessary to implement this ambitious agenda could come from future fiscal savings due to public sector downsizing through attrition and retrenchment. But there are substantial up-front costs associated with retrenchment, namely for severance and/or unemployment benefits. Moreover, retrenchment can inflict severe personal costs that are typically underestimated because they are difficult to quantify. And in countries with an effective guarantee of government employment, retrenchment represents a fundamental change in the role of the state and the existing social contract, given that the distribution of state resources was previously achieved through public jobs and the attendant social benefits. It is therefore not surprising that the question of layoffs is extremely sensitive and politically charged, and retrenchment is only undertaken with great caution by government officials accountable to the public.

On the basis of existing legislation (Table 2), labor markets in the MENA region appear to be flexible in the sense that employers are not constrained in their hiring and firing decisions. In practice, however, retrenchment episodes have been rare (Algeria is the exception). Political constraints can prove insurmountable, even where the enabling legislation for involuntary layoffs exists and the need for layoffs is widely recognized. For instance in Algeria prior to 1994, large-scale layoffs required union approval, which was never granted. And in Tunisia and Egypt, the heavy administrative burden and stringent qualifying conditions have kept retrenchment at negligible levels. Various policy instruments are available to overcome the political economy obstacles to reducing public sector employment, including attrition, reducing real wages and non-wage benefits, offering targeted voluntary severance packages, or reaching collective agreements for unemployment compensation (either severance or periodic benefits). International experience shows that these approaches have had varying degrees of success, and adverse selection and moral hazard problems can be extremely costly.

Whereas retrenchment schemes can be designed to mitigate the adverse selection and moral hazard risks and still achieve fiscal and efficiency gains, rationalizing public sector employment represents only the first of three policy objectives laid out at the beginning of this analysis. It is important to acknowledge that there is no direct causality between eliminating public jobs on the one hand, and reducing government expenditure and creating private sector jobs on the other. Retrenchment alone without addressing the distorted incentive structure and resulting segmentation in the MENA economies would diminish welfare through negative unintended consequences. Complementary measures are needed to reduce or eliminate wage distortions, narrow the scope of public activities by rationalizing the role of the state, promote sound macroeconomic policy and institutions, and encourage private sector growth.

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[27] Whereas active labor market policies are effective in stimulating job creation if appropriately designed, international experience suggests that such programs can be costly, particularly with respect to the benefits they provide (World Bank 1999a).

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