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Working Paper 0107

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Abstract

In the 1990's more than 90 developing countries were opening up their telecom sector to private sector participation. However, the labor implications remain one of the least addressed issues. The limited international experience shows that the impact of privatization in the case of the fast-growing telecommunication sector - has been positive and it is reflected in higher wages, job creation, and higher productivity. However, in Lebanon, the labor implications of privatizing the telecom sector are yet not fully addressed. This paper argues that new jobs will be created in the medium term following the inception of Liban Telecom and the subsequent forecasted expansion of the sector. The problem of labor surplus will thus be limited to a couple of years following privatization. The government of Lebanon may be asked to pay what is known as the "Golden Handshake" bonus. However, the major drawback of "over-compensating" is the possibility of driving the skilled employees to opt for early retirement. But the government will be parting with a small percentage of the privatization proceeds, and can reduce the cost further if they were to consider a number of alternative solutions to the early retirement option. Privatizing telecom is very profitable for both the seller and the buyer and more so for the seller if the latter undertakes the process in stages appreciating the value of the divested asset. The big winner should be the economy as a whole, more specifically the Lebanese consumer: the worker, the small business, the farmer, and the industrialist.

I- Introduction

The liberalization of telecommunications (telecom) that started in a few countries in the 1980's turned into a worldwide trend in the 1990's with more than 90 developing countries opening up their telecom sector to private participation. Latin American and Caribbean countries led the group, attracting 52 percent of total private investments in telecom. By 1998, most developing countries had exposed mobile phone service to competition. However, they chose a more cautious strategy with regard to fixed line service. The Middle East was by far the region with the least number of private investment projects: 13 out of 521 projects worldwide between 1990 and 1998, with a total of $2,979 million (mn) or just 1 percent (Izaguirre, 1999).

With privatization sweeping economies worldwide, labor implications remain one of the least addressed issues. This lack of information on the labor impact has exacerbated the fears and concerns of workers and governments and ultimately played a role in delaying privatization. Many observers fear that privatization requires large labor force reductions; otherwise they believe that the process will be unsuccessful.

In the short-run, it is believed that privatization can lead to job losses and wage cuts for workers. The implications of privatization on labor depend on the existing initial conditions (Kikeri, 1997). The initial conditions include the level of overstaffing, qualifications, age distribution, productivity of employees, the fiscal constraints of the state, and the growth potential for the privatized sector or enterprise.

In middle-income countries with rapidly growing economies, measures such as severance payments might be all that is needed to deal with the probable labor shortcomings. The case may not be as manageable for developing countries facing all kinds of fiscal, structural, political, and social constraints. Overall, privatization can proceed smoothly if governments take early steps to inform and involve labor unions and workers in the reform process, help workers to get reintegrated, compensate laid-off workers, ensure workers share in the gains of privatization, and eliminate obstacles to private job creation. Note as well that workers are also consumers and any increase in consumer welfare attributed to lower prices and better services is considered a positive labor implication.

In Lebanon, the labor implications of privatizing the growing telecommunication sector are yet not fully addressed even though the telecom workforce is two times the standard as defined by the International Telecommunications Union (ITU). Furthermore, the average age at the Ministry of Post and Telecommunications (MPT) is fifty-three and the majority of the employees have little or no qualifications, earning a maximum salary of one million Lebanese Pounds (LBP) after 35 years of service. The end result is a low-productive, poorly compensated workforce at the Ministry offering services at higher prices yet below international standards. We should however acknowledge that the fixed-line service has improved but only after the Ministry sub-contracted it in 1994 to a semi-autonomous organization, Ogero, to maintain and operate the network.

The situation of the telecom sector in Lebanon, which is the second revenue-generating source after trade taxes, remains far from satisfactory. This is a sector that attracts political interest but the potential growth given the rapid technological advances necessitates a competent, active, and skilled labor force. Otherwise, Lebanon might miss out on the latest information revolution that could have a significant impact on the overall economic welfare.

The argument is thus for more private sector involvement but the question to be raised is about the expected impact on the Lebanese labor market. In other words:

i. Will there be a social crisis or are the labor implications over-stressed?
ii. What is the cost of the labor adjustments; are there alternative/parallel solutions to early retirement;
iii. and, can the Lebanese government afford the associated compensation?

This paper will attempt to shed some light on the labor impact of privatizing the Lebanese telecom sector by trying to answer the questions raised herein. The paper is divided into nine sections. Section II reviews some of the labor implications in foreign countries and Section III discusses the alternatives available when faced with labor redundancies. Sections IV and V address respectively the telecom sector worldwide, and in Lebanon. The few recent experiences with privatization in Lebanon outlined in Section VI, serve as benchmarks or reference case studies for the telecom privatization process. In Section VII, the paper attempts to quantify the negative labor implications in the worst case scenario and Section VIII outlines a number of alternatives to early retirement that would reduce the amount the government has to pay in compensation cost. Section IX is the conclusion.

II – Literature Review on Privatization and the Labor Implications

a. Overstaffing and Labor Force Reductions

Overstaffing usually occurs in clerical and administrative positions and not in the more technically skilled jobs. In numbers, for example, of the 120,000 people employed in Sri Lanka's public sector, 40 to 50 percent are estimated to be redundant. Overstaffing in some Egyptian steel companies had reportedly reached 80 percent in 1991 (Banerji and Sabot 1994). State telecommunications companies tend to follow the same trend. Employment in Mexico's TeleMex reached 50,000 in 1988 and labor productivity measured by the number of workers per 1000 lines was half the

international standard. In the absence of hard budget constraints in many state enterprises, the government is tempted to hire more employees and often over reward them. On the other hand, Abrahart et al (2000) estimates the share of civil servants (out of the total labor force) to be 8.1 percent, below both the world average of 11 percent and the regional average of 17.5 percent. This low ratio does not estimate overstaffing but reflects a favorable situation for Lebanon with respect to labor surplus in the public sector.

For social and political considerations, involuntary separation is not the policy-makers first choice in addressing over-staffing. If successful, targeting redundant workers is called for in recent literature in order to avoid the outflow of the productive workforce. World Bank studies including Kikeri (1997) also call to make public sector pensions portable, recommend the introduction of separation packages and the freezing of recruitment or the recruitment of specialized skill, and stress the need to maintain labor markets flexible.

In countries that carried out labor reforms early in the process, there was a minimal effect on employment post-privatization. Chile is a case in point where in 1985, 15 years after the initial reforms were carried out, no layoffs were called for in both the telecommunication and electricity sectors. In Argentina, the labor force reduction in the telecom sector accounted for 3 percent after the privatization of ENTel. The labor restructuring, *a priori*, and in phases helped Chile and Argentina avoid a labor crisis when it was time to divest their telecom sector (Kikeri, 1997).

Cases of large employment reductions do exist, though mostly in non-telecom sectors and in countries that lagged behind in the reform process. In December 1996, 14,500 of the 18,000 Brazilian railway employees were terminated. In Argentina, there was a 50 percent reduction in employment in the steel sector, and in 1991 a 79 percent reduction in the national rail company (Shaikh and Abdala, 1996). The aforementioned cases support the hypothesis that large labor force reductions have often accompanied the privatization of state enterprises that were, in the past, heavily subsidized, inefficient, and protected from competition.

b. Real Wages and Employment Creation

In Argentina, real wages of ENTel employees increased by 45 percent in the three years following privatization. Wages for a sample of privatized firms in Mexico increased far in excess of rates elsewhere in the economy.

Similarly, in ten out of the twelve enterprises examined in Galal et al. (1994), workers gained, and laid-off workers were even better off or did not suffer a welfare loss. In Mexico, for instance, Galal et al (1994) calculated the welfare gains for *telefonos* (telecom) employees to be close to 23.5 trillion pesos. Labor productivity increased but consumers were worse off. Their welfare drop was attributed to higher prices caused by the price reforms of 1988 and not the divestiture of the sector. For Chile, the privatization of the Telecom provider – *Compania de Telefonos de Chile* (CTC) – was Pareto improving, as every agent in the economy was better off including workers and consumers. The calculated domestic welfare improvement was 574 billion Chilean dollars, or about five times the estimated value of the privatized enterprise.

Galal (1997) examines the telecom sector in Egypt and expects that the consumers will stand to benefit the most following a reform process that would include private sector participation. Consumer gains will come from reduced prices and a larger selection of services (note that workers of the telecom sector are consumers as well). Moreover, workers as a group will also gain approximately 4 percent of the annual sale of Telecom Egypt, assuming they buy 10 percent of the shares and laid-off workers well compensated.

A comparative and comprehensive study of the pre- and post-privatization performance of 61 companies from 32 different industrial sectors in 18 countries, six of which are developing, shows that two-third of the firms increased employment after privatization and by an average of 6 percent (Megginson et al., 1996). In an earlier study[1] by Megginson, Nash, and Van Randenborgh in 1994, the authors found that employment increased by an average of 2,346 employees after privatization. The surprising result was that the study did not find an employment reduction, not even in the short run. Employment increased for both developing and developed countries in the sample. The mean and median employment increased, almost continuously, from year minus three to year plus three.

In a ground-breaking study, Boubakri and Cosset (1998) reviewed 79 transactions in 21 developing countries – mainly middle income but also including Bangladesh, Jamaica, Nigeria, and Pakistan – and contrary to expectations found that two-thirds of the privatized firms increased employment after sale. These positive trends are also observed in low-income African countries (e.g., only a 2 percent drop in net employment in Zambia). Developing countries have also achieved major gains in telecommunications. Twenty-six Asian and Latin American countries saw

[1] The study relied on the World Bank listing of 149 privatized firms. Only 70 companies were chosen, either because the rest did not respond to the authors' questionnaire or data for them was not comparable. The data was collected in the summer of 1991.

employment increases of 21 percent in newly competitive telecom markets between 1990 and 1994 (Pettrazini, 1996).

In emerging countries, most with strong growth potential in the telecom sector, Wellenius (1997) argues that the concerns of labor can be readily accommodated. Most workers are expected to gain from higher salaries, improved opportunities, and better career prospects. Wellenius cites the Ghana Telecom experience where only 14 percent of the combined telecom and postal employees agreed to leave and were adequately compensated at a cost of only 3 percent of the privatization proceeds.

On a separate note, there is evidence to suggest that the employment decline in public services has been partially offset by an increase in employment in non-traditional telecommunication sub-sectors (e.g., companies providing value added network services, consultancy and training) and in private networks (e.g., intra-corporate networks). It is estimated that a quarter of a million people have been employed by the mobile industry, a telecom sub-sector which did not exist ten years ago (Kelly and Minges 1995).

The paper of Gupta et al. (1999) summarizes the trend in employment following the privatization of a certain sector with a U-curve hypothesis. The paper states that the level of employment in the firm follows a U-shaped trend throughout the privatization process. In the case where there is a decline (increase in unemployment), it will occur in the first two periods (pre and during privatization) and the trend is reversed at some recovery point in a later stage. An important determinant of how soon a sector/enterprise moves up the U-curve is the extent to which the competitive environment changes when privatization occurs.

The U-curve hypothesis also applies to the wage rate. The initial pay cuts, if applicable, are followed by future wage increases or perhaps gains from share appreciation. In the case of the Mexican telecom sector and the Chilean electricity company, workers benefited substantially from share appreciation (Galal et al., 1994). In the case of Turkey, the operating productivity of state economic enterprises is 21 percent, on average, lower than private companies for both labor and capital (Ertuna, 1994). This productivity differential will be reflected in a wage differential favoring the private sector, stressing the expected rise in real wages once privatization occurs.

In theory, and on a general note, it is argued that privatization often causes a move towards performance-based schemes where wages are closely linked to productivity. Such a framework is itself an incentive mechanism that ultimately leads to a more efficient production process and higher wages. However, if a public monopoly is transformed into a private monopoly, that enterprise might exploit consumers, and their welfare would not improve, i.e., not follow the U-curve upward but an L-shaped curve (Vickers and Yarrow, 1991).

The above U-Curve hypothesis may not hold for all sectors and for all types of enterprises. Some enterprises may be viable in the long run only with a permanent reduced workforce; thus, the employment curve will take the L-shape. Others may not even survive under private ownership and market conditions, whatever the level of the labor force. In short, and as Speakman (1999) concludes, labor more often than not benefits from privatization.

c. Methods of Privatization and the Labor Impact

The chosen privatization method serves as an indicator to what social and labor impact is expected following the divestiture of public assets. The largest impact might come in the case of public sales and auctions. The private investor [new owner] is expected to undertake broad restructuring; hence negatively affecting consumers and workers in the short run in the hope of moving up the U-curve and at a fast rate. The investor has a vested interest in the performance of the enterprise in the future.

Negotiated sales to strategic investors is a medium that enables the government to influence the divestiture in order to achieve certain social objectives. The government possesses leverage, protecting workers for a certain period of time but probably at the expense of a lower sale price for the sold enterprise. This method gives the government and the divested enterprise the time needed to move up the U-curve, where ideally, the government sells the remaining shares at the recovery period (as shown in Figure 1). In other words, the social safety net provided by the state is effective during the downward section of the U-Curve -between the partial privatization and the full privatization.

Management or lease contracts are common in developing countries but are rare in the telecom sector. Only eight operation and management contracts with major capital expenditures were signed worldwide in the telecommunications sector[2]. In the case of a lease contract, the “leased” has an incentive to raise prices and cut the workforce since they keep all the extra proceeds net of the lease payment. With regard to management contracts, as long as the manager earns the agreed upon fee, he or she has little incentive to cut the workforce. In other words, the impact on the labor force might be insignificant.

[2] Source: ITU Website

Finally, privatization through restitution – return of nationalized assets to their former owners – was used in Estonia and the Czech Republic. This method does not generate revenues for the state and is expected to have adverse effects on workers and consumers equivalent to the case of public sales and auctions.

III – International Experiences with Labor Adjustments Programs

The often used labor restructuring options are early retirement and voluntary departure programs, transfers or retraining, and as a last resort, retrenchment.

a. Voluntary Departure Programs

Where social safety nets are lacking or when labor laws prohibit outright layoffs, early retirement becomes the more common and viable option. Different countries have diverse experiences with voluntary departure programs, some more generous than others, and some more successful. The timeframe of severance payments could be as short as six month's salary (e.g., the textile sector in Ghana) and as long as three year's salary (e.g., the Jute sector in Bangladesh). Having said this, the number of months is not a sufficient indicator to evaluate the generosity of the severance payment since wages can be low, as is the case in Bangladesh. Argentina's two-year severance payment for its telecom sector averaged $25,000 per worker compared to $5,000 for a three-year compensation of Bangladeshi workers (World Bank website and Kikeri, 1997).

Generous severance payments could succeed in reducing surplus labor on a voluntary basis if the base salary was low or if employees held second jobs. This was the case for Argentina and probably will be the case for Lebanon.

Voluntary departure programs reduce labor opposition and minimize the social shock factor. They are also simple to administer and are preferred over involuntary programs which are hard to design. The main challenge is to set up a policy that is both attractive to workers and financially feasible. Government often overpays and in some cases, the best employees are the first to leave, given the generous severance payments (adverse selection). In addition, negotiating a generous severance program intended to reduce the social impact often becomes a major obstacle to privatization.

Voluntary payment schemes often reward employees based on the length of service and not the social need. A young employee with a family does not do as well as an older colleague with no dependents. Sri Lanka attempted to deal with this issue and introduced a program which was never implemented. Under the so-called Bulumulla Package, workers were to receive half a month salary per each year of employment (backward-looking component) and a compensation for denied service (forward-looking component). The suggested formula was the following:

*Total compensation = (1/2 * month salary * years of service) +*

*[(one month salary * (55 - age)] * [(age/55)*(years of service/30)]*

The forward-looking component is multiplied by a coefficient that increases with workers' age and years in service. This coefficient ensures to a certain extent that young laid-off workers would be adequately compensated but at the same time not overpaid. However, no compensation formula is without drawbacks as opponents to the Bulumulla Package argue that young employees possess the ability and time to adjust, learn new skills, and re-launch their careers, if need be. This option is not available for older workers.

To finance severance payments, four possible internal sources can be thought of. The government can sequester privatization proceeds as was done in Turkey, Egypt, and Tunisia. The privatization can be done in phases, where shares are sold to a strategic investor whose intervention would raise the value of the enterprise and ultimately increase the proceeds from the sale of the remaining shares. The third option is to set aside budgetary funds, as was the case in Peru or to share the burden with the new investors as was done in Pakistan. A fifth source of funding is international organizations such as the World Bank. The Bank has, in fact, become directly involved in financing severance payments and has approved about 50 operations with components supporting labor adjustments.

b. Retraining and Transfers

Retraining is commonly used as a restructuring medium but studies on the impact and the cost-effectiveness of retraining programs are not conclusive (show mixed results) and in the case of developing countries, the evaluation is not available, given the lack of data.

The main criticism of retraining programs is that they are not 'market-oriented' and have been utilized to serve personal or political needs. One way to address this problem is to provide vouchers to private employers so that they can provide on-the-job training. In Cape Verde, private employers were reimbursed 40 percent of the salary of the retrenched worker for up to six months (Kikeri, 1997). This payment contributes to the cost of providing the training and at the end of the six-month period, the employer is then expected to confirm the job and assume the full salary of the employee. As alternative options, workers can be offered the choice between obtaining training or getting the equivalent amount in cash. It is often more profitable to train young employees with basic educational levels and skills than to involve older employees in training programs where the expected return is marginal.

The government could transfer employees from the privatized sector to another public administration subject to legal, technical, and fiscal constraints. The transfer would depend on the ability of the worker to acquire the needed skills and training and on the employment demand in other state institutions. The option of transferring should be exercised in order to eliminate the problem of overstaffing and not to create a surplus of labor in other public organs.

c. Involuntary Departure Programs

Governments try to avoid involuntary departures but unfortunate circumstances force the state or the agent in charge of restructuring to fire redundant staff. There are employees who are entitled to severance payments or an early retirement and there are others who are not (e.g., junior employees). The *restructurer* is often forced to lay-off those who are not entitled to the voluntary retirement package and those who refuse to exercise that option. In Brazil, for instance, redundant railway employees who did not accept the voluntary scheme were laid off with legal entitlements plus a separation package equivalent to 80 percent of the incentive offered under the voluntary program (Kikeri 1997).

IV – The Telecom Sector Worldwide

Vigorous competition existed in the telecommunications markets around the world in the nineteenth century (Petrazzini, 1996b). Close to a hundred years later and after most developing countries nationalized telecom services in the 1960's, it was again proven that public monopolies could not effectively provide quality services and at reasonable prices.

The telecommunication sector has been subjected to rapid technological changes. These advances led to the introduction of competition in areas previously thought of as natural monopolies such as fixed-line services. The technological changes coupled with fast growth reduced production costs and scaled down the size of scale economies needed for an efficient presence in the sector. Privatization has played an important role in the transformation of the telecom sector, a sector that witnessed an increase in its assets by $180bn in the last decade.

Growth in the telecom sector is witnessed even in lower-income countries. Table 1, which groups twenty-nine countries from Latin America and Africa (excluding South Africa), shows that the mainline penetration rate (Tele-density) is increasing in both continents and labor productivity as measured by the employment per line indicator is also increasing. Most of the sampled countries – 9 out of 14 in Africa, 8 out of 15 in Latin America – have not even gone through the privatization process of the fixed line, which promises further and faster growth.

a. Growth Potential for the Telecom Market

The annual growth rate for the telecom sector is estimated at 6 percent whereas the global economy is expected to grow at a 2.8 percent rate. The compounded average growth rate during the 1995-1998 period was 10 percent for Middle Eastern countries and the fixed lines sectors are expected to report a rapid expansion in Egypt, Syria, Morocco, and Palestine. In the Philippines, with competition introduced, the number of additional fixed-lines jumped from 13,000 in 1992 to 199,000 in 1993 and 250,000 in 1994. On the mobile front, cellular capacity is expected to soar in the near future above the current compounded rates of 93 percent and exceeding the growth rates of fixed lines. However, the growth rates for Lebanon and the rich gulf countries are expected to be moderate given the already high penetration rates (MECG, 2000).

Telecommunications is a fast-growing industry, whatever the measurement tool. International telephone traffic, for instance, has been expanding over the last ten years at about 16 percent per year. In the case of China, telephone traffic is increasing at a rate of 70 percent and new telephone lines at a rate of over 20 percent at a time when the GDP is growing at slightly above 10 percent (World Bank Board Seminar, 2000).

In 1994, only 3 million people, most of them in the United States, used the Internet. By the end of 1999, around 200 million people were using the Internet worldwide but only 4 percent of the total were Arabs. Forecasts for the year 2005 place the number of worldwide access at one billion people. Furthermore, by 2002, the global electronic commerce may handle far more than $700bn worth of transactions among businesses and between businesses and consumers (Dewachi, 1999; Shehade, 2000)

Given the aforementioned facts, the telecom sector has become among the first sectors to be privatized. On the one hand, governments want to sell their most profitable sector to gain more revenues and minimize any social impact; on the other hand, investors are attracted to the public asset that is expected to be highly profitable. Reflecting and proving this hypothesis, the share of telecom projects in volume of global privatization has increased from 30 percent between the years 1994 and 1997, to 53 percent in 1998, and to 50 percent in 1999 (Privatization International Yearbook, 1999).

b. The Telecom Sector in the Arab Region

Arab states are joining the telecom revolution but at a slower pace than the rest of the world. As shown in Table 2, the main line penetration rate (tele-density), the most common indicator for telecom performance, has been increasing and at a steady rate throughout most of the 1990's. The same can be said about the Internet and the

mobile sub-sectors in the Arab region, but with higher growth rates than the fixed line network (see Figure 2).

Bahrain, the United Arab Emirates (UAE), Qatar, Egypt (mobile sector), and Jordan are the only five Arab countries that have completed the privatization of their telecom sector. Egypt fixed line was expected to be privatized in the fourth quarter of the year 2000, but to date this has not materialized. Morocco, Saudi Arabia, and Oman could be partly privatized in the next 12 to 18 months (MECG 2000).

Comparing some Arab countries to the rest of the world, including industrial countries, the mobile sector is growing fast and in comparable rates (see Figure 3). However, the mobile network is relatively new to the Arab region especially in Egypt and Oman, a factor that explains the higher growth rates in these two countries. On the other hand, the equal growth rates between Lebanon on one hand and Japan or Germany on the other - the latter with mobile service for a longer period - reflects the "economic differential" between developing and developed countries. In other words, Lebanon's growth rates should have been higher given that this service is only five years old. Economic factors such as market size and the overall economic performance may explain the relative low rates in Lebanon.

V - The Lebanese Telecom Sector

Before examining the internal situation of the Lebanese telecom sector, it is important to determine where Lebanon stands when comparing it to regional states as well as to other developing countries that have undergone reform in the telecom sector. Unfortunately, the data used in the analysis dates back to 1995. A complete and recent data set for all the countries could not be reproduced. Nevertheless the 1995 analysis is relative and remains informative.

a. Comparative Look for the Lebanese Telecommunication Sector

In comparison to countries in the region, Lebanon scores relatively high in one of the efficiency indicators (employees per 1,000 lines), only second best to the high-income countries such as Saudi Arabia and the UAE. The same is true for the overall tele-density indicator. On the other hand, Lebanon is very far behind in most other indicators. The revenues collected per line are relatively insignificant, the waiting period is above ten years, and satisfied demand is very low. More recent data on Lebanon shows an improvement in the waiting period indicator, which now stands at 48 hours in urban areas already equipped with a fixed-line network (see Table 12). Unfortunately, large parts of the country remain unconnected to the network, ten years after the end of the war and 53 years after Lebanon became a nation-state.

The comparison with other developing non-Arab countries shows that the performance of the Lebanese telecom sector in 1995 was below average in both efficiency and service indicators. Even though some of the selected countries have higher per capita income than Lebanon, there is no reason why they should have greater labor productivity. Theory does not predict that richer nations are more productive, all other things equal.

b. Internal Structure

The Ministry of Post and Telecommunications (MPT) is by law the sole supplier of telecommunication services in Lebanon but has sub-contracted OGERO (Organisme de Gestion des Equipements de Radio Orient) to provide customer provision of service, operations, and maintenance of its telecommunications fixed network. Alcatel, Siemens, and Ericsson were also sub-contracted to install up to 1.2 million lines.

The labor force considered in this paper are employees of Ogero, MPT civil servants, consultants to both Ogero and MPT, MPT employees 'on loan' to Ogero, and other contractual employees. Employees of the three foreign companies are not included in this study as their workers are not part of the Lebanese telecom workforce and thus are not affected by the privatization process.

1) OGERO

In Ogero there are slightly above 2,900 employees, 61 percent of them contractual[3], and 39 percent "on loan" from MPT. About 400 or 23 percent of Ogero's employees are highly qualified (university level) with 8 Ph.D.'s and 25 holders of Masters degrees. Close to 180 out of the qualified group are engineers with high technical skills and international experience. The average age of Ogero employees is 37[4] and close to 38 percent are below the age of 29. Only 8 percent are 49 years old or more, a portion of which is expected to retire in the next four to five years.

The post-privatization status of Ogero employees is not really known. However, if the government decides to terminate its contract with Ogero, Ogero will have to lay-off its entire workforce, unless the privatization plan includes a method to absorb these retrenched employees. Note that Ogero employees are not civil servants in the legal sense (not part of the civil service council) and thus compensating them will not follow the formula available to civil servants.

[3] Ogero's own employees (total is about 1,785)

[4] In four to five years the average age in Ogero will drop below 35, (from Interviews with Ogero Human Resources Personnel).

Ogero contractual salaries for employees with experience are higher than the regular civil service pay scale, sometimes by 150 percent. The average wage at Ogero could close to double the average wage of state institutions. Gross salaries at higher-grade levels are substantially higher at Ogero when compared to the Ministry. At the entry level, gross salaries are also higher at Ogero than other state institutions in similar service sectors (e.g., Electricité du Liban) and generally the wages are comparable to the levels in the mobile market. Furthermore, the higher the grade level (i.e., more experience including international and/or education), the larger the gap in wages between Ogero and the other service-providing state institutions.

2) Ministry of Post and Telecommunications

The case at the Ministry is different. The approximate number of telecom employees – excluding employees at the postal department - is 2,860. The average age is 53 years and about 80 percent of employees are above 50 years old, a sharp contrast with the figure for the same age bracket at Ogero (relatively ten times more than Ogero). Since the mid 1980's, the Ministry has not hired new permanent employees, driving the average age higher and the level of expertise and skill level lower.

The majority of the staff is without any higher level education degree (high-school or university). Furthermore, "daily workers" make up 48 percent of MPT employees. They possess very limited skills, and are above the mean age of 53. Note that the daily workers are not considered civil servants and thus have less job security and fewer fringe benefits. The average age of technicians at the Ministry is in the low 50's. No detailed age distribution exists for MPT employees according to their grade level since no computer exists in the human resource department as of this writing.

From the 1,132 MPT employees working with Ogero, there are 54 working on a contractual basis, renewed yearly. These employees receive their salaries from the ministry but their bonuses and compensations from Ogero (An-Nahar, 14/04/2000).

During the early part of 2000, the share of contractual employees is 3 percent, whereas permanent employees make up 49 percent and daily workers 48 percent of the total (see Table 5). A permanent employee with 20 years of service at the Ministry is entitled to choose between two retirement packages - a monthly pension or a lump sum compensation payment. The average compensation runs around LBP30mn to LBP40mn for a long-serving permanent employee but only around LBP10mn for a daily worker regardless of the number of years in service. Furthermore, the daily worker is not allowed the pension plan option. These workers are hired by a ministerial decree and can be laid off as such.

The salary pay scale of the Lebanese government is considered low overall, relative to any other pay scale, even for the higher-grade employees (see Table 6). Moreover, the grades at MPT are compressed into six grades making promotion in real terms difficult and slow moving for the employees.

Salaries for permanent MPT employees for the year 2000 totaled LBP 7,203mn (62 percent of the Ministry's budget). Contractual workers and consultants will thus be paid LBP 1,120mn (10 percent), and LBP 1,710mn (15 percent) will be spent on social benefits. In total, 86 percent of the ministry's budget will be allocated to pay salaries and benefits.

The average wage of MPT employees can be estimated using two methods. The first is the simple average method using figures from the 2000 fiscal budget. The second is guesstimating using the latest salary pay scale.

The share of contractual MPT workers is 3 percent. These experts and consultants earn, on an average and according to the 2000 fiscal budget, LBP 1,226,000 per month or $830. Similarly, the average wage for permanent employees is LBP 426,000 or $284. An additional LBP 50,000 or $34 can be added as an average social payment per employee.

Considering the Civil Service pay scale (including MPT), there are 5+1 grades with 22 steps for each grade level. The six grades reflect the following posts:

iv. Grade 1: Director General
v. Grade 2: Director
vi. Grade 3: Department or Division Head
vii. Grade 4.1: Senior Clerical
viii. Grade 4.2: Clerical
ix. Grade 5: Office Attendants, Guards, Drivers, etc.

Civil servants are promoted one step every two years within the same grade level and can move higher in the grade scale – up to the post of head of department – with the successful passing of a state standard examination. The positions at grade one and two are not subjected to any examination as they are chosen by political authorities. The minister nominates the director and the Council of Ministers appoints the director general.

The number of employees at grades one to three is insignificant, possibly a handful (or slightly more) for each ministry. The overwhelming numbers of employees are grade 4.1 and 4.2 civil servants where the most experienced of them (44 years of

seniority) earns LBP 1.228mn per month – including allowances - or $820. If we are to take the average age of 53at the ministry, and assume that the employee joined the ministry at the age of 21, the employee will be at step 16, making LBP 1mn ($666) if at grade 4.1 and LBP 820,000 ($546) if at grade 4.2. The $600 mean wage can be even lower if we were to assume that a proportion of MPT employees joined the ministry in the their mid-twenties or early thirties (i.e., the average step level is 11 and the salary level between $450 and $553).

VI – The Lebanese Privatization Experiences: A Comparative Analysis

It is important at this stage to address the labor implications as dealt with in the Lebanese privatization law and to examine a couple of Lebanese privatization or semi-privatization experiences. The only benchmark cases in Lebanon are in the postal service, the mobile market, and the special case of Ogero. This comparison would shed some light on how the government plans to deal with the labor implications of the telecom privatization and how the transfer of ownership to private investors affects the labor market, consequently leading to the quantification of the labor adjustment costs.

a. After Privatization: The Government Policy - The Draft Law

According to the telecom privatization draft law and the announced policy of the government, all shares of the company shall be initially owned by the state and the shares will be partially privatized in the early phases of the process. A strategic investor will partner the state in the fixed-line telecom sector. The company shall be granted the license for a period of twenty-five years for the provision of telecommunications services such as basic telephone, domestic and international telex and telegraph, international private line, and the like.

The board of the regulatory body has three months after its inception to determine the fate of employees and workers of the Ministry and Ogero. The board will decide on the conditions of transfers, termination of employment, or any other possible alternative. The board of directors of Liban Telecom (LT) also has three months to adopt a similar regulation concerning the conditions of transfer of the employees and workers of the Ministry and Ogero to the company and their employment.

Permanent MPT employees have priority to join the new company (LT), and whomever decides not to can chose between moving to another ministry or requesting to be transferred to the Civil Service Council. The same applies to MPT employees working on a contractual basis. It is expected that LT will absorb MPT employees below the age of 50, or less than 20 percent of the current workforce at the Ministry.

As for Ogero employees, their status is not yet clear but is being discussed at the Council of Ministers. It is believed that Ogero could ultimately be "joined" to the Ministry, who in its turn will select among the employees and then send the rest to the Civil Service Council. Ogero, as a body, will be dissolved and all the powers and prerogatives previously conferred to it will be transferred to LT, the regulatory body, or the Ministry.

The employees and workers shall be subjected to a training not to exceed six months before the transfer to LT or to the regulatory body. The Ministry may require the previous two bodies to train former MPT and Ogero employees, free of charge, in view of keeping them in their positions or giving them the opportunity to find a job elsewhere.

The employees of the Ministry, and after their transfer, can be suspended from the civil servants status for a period of one year, renewable up to five years. The transferred employees would preserve their compensation rights if they decide not to be reintegrated in the civil service after the five-year period.

b. The Privatization of Postal Service – A Case to Compare

One case to compare with is the privatization of the postal service, formerly a service offered by MPT. LibanPost (LP) is two-third owned by Canada Post Systems Management with Profac, a joint venture between Canadian firms Bracknell and SNC-Lavalin. The other third is held by Qantara Holdings, a Lebanese company. LP has invested $20mn and is committed to invest at least $ 50mn over the life of the 12-year BOT contract. The case of LP is somewhat different than the telecom and may not be a truly representative privatization experience. For one, LP is incurring losses, hoping to break even in its third year. It is competing with firms that operate without a license, and is suffering from the same bureaucracy that inflicts most businesses. Stringent Lebanese customs makes international services for LP not efficient and not profitable.

The amended contract with the Canadian-run consortium stipulates that all MPT employees should be "able" to join the private service provider (i.e., LP), but based upon an assessment of skills. The original agreement however stipulated that the private company would "have" to absorb all postal MPT employees. What has occurred so far is that out of the 976 MPT postal employees, the Ministry retained about 205, another 102 passed the LP examination with 71 agreeing to join the private company. Close to 400 failed the examination and 35 have not been accounted for, most probably they are out of the country. LP now employs approximately 450 (Executive Magazine, 2000). The 205 employees retained by the Ministry are

considered the most qualified and will be in charge of the regulatory body, an organ not yet established. The amended contract relieved LP from paying the salaries of the 205 employees who will be compensated between $1,550 and $3,550 for administrative positions and above $3,550 for top managers and executives (An-Nahar, 06/07/2000).

After more than a year and a half following the privatization of the postal service, both parties involved are not satisfied. LP is operating in 70 out of the 206 postal offices. A number of service firms with no license are illegally competing with LP, and LP is receiving little cooperation from state institutions in order to facilitate its work. On the other hand, close to 700 postal MPT employees have not joined LP and are earning their salaries from the Ministry. The regulatory body is yet not established and the group of 205 is idle. The other 500 are receiving yearly LBP10bn ($6.6mn) in salaries without effectively working or having a real role to play in the new structure.

The experience can be judged as not very successful and alarming if we are to evaluate the labor impact. No matter who is responsible, the end result is negative and does pose a question mark on the readiness of the government in dealing with the implication of divesting state assets. The case of LP is one of the very few privatization experiences in Lebanon. For that reason, the comparison is important even though the sub-sectors (i.e., postal and telecom) are different in many ways. Nonetheless, we are still dealing with employees from the same workforce pool – the MPT.

c. The Mobile and Internet Markets

The next related sub-sector to the fixed-line telephony is mobile and Internet services, both already operated by private companies.

The annual growth of mobile telephony in Lebanon for the 1995-1998 period is close to 63 percent and is just below the regional mean of 70 percent but above the median. The reason behind the relative low expansion rate in Lebanon lies in countries such as Saudi Arabia and Egypt that enjoy huge growth rates and who are statistical outliers in the sample of Arab states. By 1997, and only after two years in operation, the mobile penetration rate reached 12.1 percent, just 4 percent below the fixed line rate. The penetration rates were equalized in 1999, with 782 employees operating the mobile service compared to about 4,700 operating the fixed network.

One of the two mobile phone providers - Cellis - employs 380 Lebanese (new jobs as of 1995) and has created 3000 jobs related to the mobile market, and invested close to $366mn becoming the largest foreign investor in Lebanon (Cellis, 2000). The investment paid off as the employee-per-1000-line leading indicator in the mobile market dropped from 4.8 in 1995 to 1.1 in late 1999. The end result is that jobs were created and productivity increased significantly.

For the other mobile service provider, LibanCell, the employment growth rate stands at 127 percent compared to Cellis' 322 percent. The two companies have created 782 new telecom jobs with an average salary of $1450 (including benefits) in the case of LibanCell. In other words, LibanCell is paying 212 percent more for an employee after 5 years in service than what MPT is paying a 53-year old employee with over 32 years in service. LibanCell has also invested $277mn over the five years since its establishment, out of which local investors spent $42mn.

The example of the mobile market, just five years old, is a solid argument in favor of privatization, even when we are to consider the labor market implications. Jobs have been created, both at the skilled and semi-skilled levels. Real wages are higher and the quality of services provided is comparable to Western levels, and productivity is highest. Putting aside existing problems between the two mobile companies and the government, the two firms are the biggest investors in the Lebanese economy in the post-war period. The possible license or contract to a third or even fourth company will encourage further competition, higher consumer welfare, and more job creation.

In another privately operated telecom sub-sector, there are seventeen Internet service providers (ISP) as of June 2000, three more than in 1998, but seventeen more than in 1995. If there is a slow growth in the number of firms since 1998, it may be due to the expensive and time-consuming licensing process. It takes about a year and a maximum of $26,359 per month to lease an international line. Still, there are 27 pending applications for companies and centers wishing to acquire an ISP license in Lebanon.

Six data providing companies currently operate in Lebanon. They offer local data connectivity and intra-national networking. Monthly charges for a service between Beirut and Saida range from LBP 600,000 to LBP 9.6mn and the connection fee ranges from LBP 2mn to LBP 9.6mn. The cost depends on the bit rate demanded and the distance in kilometers away from Beirut. The license is renewed yearly. This service is also growing, but is faced with red tape and relatively high charges. New companies are not eager to enter the market, and whoever decides to, has to wait to get the license to operate.

Be it ISP companies or intra-national data providers, new jobs are being created by private firms paying higher wages. Redundant MPT employees may or may not find job opportunities in these leading sectors. However, the overall economy stands to

benefit even at the expense of increased structural unemployment among the older, less qualified part of the telecom labor force.

The growth of the above mentioned sub-sectors shows the numerous benefits to the sector and to the economy as a whole when a service is operated or even owned by a private investor. The simple comparison to the situation and structure of the fixed-line service, especially before the intervention of the semi-independent Ogero in 1994, stresses the point raised in favor of privatization.

d. OGERO: A Hidden Management Contract Privatization Experience

Since 1994, Ogero has been responsible for maintaining the fixed line network in Lebanon. Their job description was later extended to include billing and establishing points of sale. Ogero is also responsible for offering new services such as the STAR service. Ogero is a semi-autonomous entity with its own salary scale (approved by the Minister) and employees not included in the civil service.

Ogero operates as a private entity and a younger, skilled, and efficient labor force reflects the degree of freedom accorded to it by the Ministry. New services such as call forwarding, conference calling, clip, and the like have been introduced since 1994. In addition, the waiting period for a new line has dropped from more than 10 years to about 48 hours. Ogero has a customer service office and computerized billing, and by joining efforts with another output of privatization (i.e. LibanPost) plans soon on sending phone bills by mail whenever the Ministry is ready to print the bills.

The wage rate is higher than at the Ministry, sometimes up to 150 percent and comparable to telecom private sector rates (see Section V.b.1). The price level of telecom services offered has dropped compared to the war years including the early 1990's – the pre Ogero period – when at the time there was no fixed price but a negotiable price not determined by market forces.

All in all, Ogero represents a "hidden" privatization experience, where it operates according to something similar to a management contract. It is a transitory experience in preparation for full privatization of telecom in Lebanon and the performance and implications can be safely judged as positive.

e. Before and After – International Experiences

After this investigation of Lebanese privatization experiences, it is worth examining foreign experiences and the overall actual impact of privatization. This comparison could serve as an indicator to what may lie ahead for the Lebanese telecom sector. A growing and efficient sector implicitly implies job creation and higher wages. Productivity increase was in double and triple digits recording 214 percent in the case of Malaysia. Expansion of services measured by tele-density also increased significantly following the divestiture. Chile recorded a 187 percent increase while Singapore's – a developed nation – rate of change was only 13 percent. The evidence from international experience does show an overall positive impact following the privatization of the telecom sector.

VII - Quantify the Labor Implications in Lebanon

Before discussing whether MPT or Ogero employees can join the forthcoming Liban Telecom (LT), one needs to determine how many employees LT can absorb in the initial phase without sacrificing efficiency and if operating at optimal capacity[5]. As previously mentioned, the sector is expected to grow and new telecom jobs will be created. However, the analysis should be extended to include the short-term impact. The state could be slow in transferring redundant workers, as was the case with LibanPost, or it may fail to negotiate a deal with the private investor persuading them to take on the redundant employees for a price.

Thus, before addressing the role of the government in correcting any social disequilibrium as a private firm, what is Liban Telecom's initial manpower need?

a. Labor Redundancies

According to the International Telecommunications Union (ITU), the standard optimal rate for a nation not offering full service is around 3 employees per 1,000 lines. The rate varies across countries depending on the level and amount of services offered. The ratio for Lebanon, and according to the telecom services available, varies between 2 and 4 per 1,000 lines. Taking the ratio of three as an average, the efficient operator then needs 2,100 employees for the 700,000 lines in operation. The line capacity in Lebanon is for 1,5 million. Thus, the maximum number of employees that Lebanon might need in the near to long-term future is 4,500. However, and given the relatively high installation fee for a new domestic line with no international access (LBP 427,000 plus LBP 100,000 as a deposit or $350[6]) and given the harsh economic conditions coupled with a slow expansion coverage, an optimistic expectation would place the number of fixed lines in a couple of years[7] at one million (i.e., a 42 percent increase). Any increase is based upon a higher demand from the new covered rural

[5] Note that LT might be willing to take on additional employees for a price (i.e., discount the sale price of the asset) or if it foresees growth in the near future

[6] The exchange rate is 1,500 Lebanese Pound to the Dollar

[7] In two years, it is expected that the privatization of telecom would be complete and operational

areas but these areas have a low population density and are by and large poor. Fees for other services (e.g., transfer of ownership, moving, new services[8]) are also high thus negatively affecting demand for new lines. Achieving a higher penetration rate in urban areas is not impossible but the expected marginal increase is small, given the current economic recession and because the window for expansion is small.

At any rate, and with an expected one million fixed lines, it is plausible to assume that the optimal number of employees in the immediate short-term (2000-2002) in the telecom sector (operator, ministry, and regulator) is 3,000 workers.

It is also correct to assume that with a rapidly growing sector such as telecom, new jobs will be created shortly after the inception of Liban Telecom. The problem of labor surplus is thus limited to a couple of years between time T (privatization year) and time T+2 or even T+1. Options of "imposing" the surplus on the private investor for a price or for no price are available but are not detailed in this study. For now, this paper will assume that we are operating between time T and T+2.

The total number of telecom employees is approximately 4,745 distributed between the Ministry and Ogero. A hundred more employees were added to the existing total as between now and privatization, the Ministry and Ogero may be "obligated" to hire some additional daily workers. Assuming the optimal number of employees in the new telecom sector is 3,000, there will be 1,745 redundant jobs when privatization is implemented.

Given the aforementioned figures on the average age, education level, and job status, it is plausible to forecast that most of the redundancies will be at the ministry. Recall that Ogero's staff is not only skilled and experienced, but also productive and young. The 1,745 or so employees are thus assumed to have no role in Liban Telecom. It is also safe to state that even if the optimal number of employees necessitates no retrenchment, these workers are not qualified to join LT as they have been out of touch with the technological and administrative advancements made in telecom.

b. The New Labor Structure of the Telecom Sector

The new structure of the telecom sector would include three bodies: The Ministry, the regulator, and the operator.

The downsized Ministry would be mainly responsible for making strategic policy-making decisions. The Ministry would also determine license policy, define universal service obligations and spectrum allocation policy, deal with international affairs, and possibly have some oversight over the regulator. The total labor needed to operate the Ministry depends on the specific job description but should not exceed 100 employees.

The regulator body, expected to be autonomous, needs to recruit specialized and highly qualified individuals in order to monitor the operator (i.e., Liban Telecom - LT) legally, technically, and to determine whether LT is functioning efficiently and serving the welfare of consumers. It is estimated that such a body would need about 50 highly-skilled employees, but given the lack of such skills in the current labor force, the fifty employees would have to be recruited - most of them - from outside the pool of current telecom employees (i.e., not from the 4,745). The group of fifty would include lawyers, technicians, engineers, economists, top managers, and the like. Their main task for lawyers would include ensuring that the private investor is not breaching the contract or violating any anti-trust laws. Economists would be more concerned about welfare impact and consumer protection. Technicians and engineers would be examining whether the operator is providing the agreed upon services efficiently and for the right price.

The third agent in the sector would be the operator or LT. The bulk of the telecom labor force would be employed with this third agent. Liban Telecom, would keep most of Ogero's current employees and a substantial part of MPT employees now "on loan" to Ogero. In other words, most of the 2,900 employees currently with Ogero would keep their jobs in one form or another. LT would be partly owned by a strategic investor (around 30 percent in the initial stages) and the rest by the state. At later stages of the privatization process, when the transition is complete and the socio-economic objectives are met, it is expected that the state would totally withdraw from LT selling its shares to the public.

c. The Labor Adjustment Cost

Assuming that all redundant employees are laid-off and no other options (e.g., transfer) is available and given that the overwhelming majority of the retrenched workers are civil servants at MPT earning low wages (see payment scale), the circulated estimate for the "legal" compensation is below the $50mn mark[9].

In an attempt to better determine the actual cost for compensating redundant employees, I considered that all 1,745 workers would be laid-off. I also assume that

[8] Line transfer from LBP 82,000 to 202,000, transfer of ownership from LBP 200,000 to 400,000

[9] Based upon interviews with experts who conducted studies on that matter and the author's own approximated calculations. The experts chose to remain anonymous since they were connected (indirectly) to the government

these workers are at the MPT average age (i.e., 53 years old), have joined the ministry for all of their professional life (since the age of 21), and are categorized as grade 4.1 employees (highest grade for non-executive positions). This is the worst-case scenario.

Note that civil servants are not compensated unless they have served for at least 20 years; thus they are at step ten and above. The age assumptions are not too far from reality. In addition to Lebanon, Egypt for instance, requires that workers wishing to exercise the option of early retirement must be between 50 and 58 years old and with a minimum of 20 years of experience (Khattab, 1999). To compensate 1,745 telecom employees with 32 years of experience earning each one million Lebanese Pound, the state will have to pay $27.9mn if it chooses a 2-year salary severance scheme. This rough estimation is significantly below the circulated figure of $50mn.

In addition, and if we are to consider the compensation estimated as outlined in Table 11, the total for the 1,745 redundant employees ranges between $11.6mn (i.e., all daily workers) and $46.4mn (i.e., all permanent employees). Alternatively, in 1998, 12,600 employees retired in Lebanon and the total compensation was LBP 134.7bn or LBP10.6mn each.[10] Assuming this average will be applicable for the 1,745 redundant employees, the total payment will be $12.3mn.

Moreover, the Lebanese labor law of 1959 states that civil servants, when laid-off, with at least 20 years of service are entitled to either a month salary for each year in service or a monthly indemnity equivalent to a percentage of the last salary. A 53 year-old employee with 35 years of service and earning the average wage of one million Lebanese Pounds would receive LBP 35mn or LBP 375,000 per month. For 1,745 redundant employees, the total compensation adds up to $40.7mn, that is, assuming all employees are redundant and all chose the lump sum compensation option. The figures are very close to the rough data provided by the MPT (See table 13).

However, and as mentioned before, most of the retrenched employees are expected to be daily workers and from the redundant employees with permanent status, some may choose to get a monthly pension of LBP 375,000. From Table 5, we find that the daily workers make up close to 50 percent of the MPT labor force. If we were to assume that the 1,745 redundant employees are thus equally divided between permanent and daily workers, where daily workers earn LBP 10mn and permanent employees LBP 35mn after 35 years in service, the total "legal" lump sum compensation would add up to $26.17mn.

Whatever the method we might use to calculate the total compensation for laid-off employees, no figure surpasses the $50mn ceiling. Instead, most of the estimates place the compensation cost to be between $25mn and $46mn. For the purpose of the analysis, I will continue to consider the most expensive estimate and assume the labor adjustment cost to be $50mn.

d. The "Golden Handshake"

In theory, and according to Lebanese law, fifty million dollars would be enough to solve the problem of labor surplus in the telecom sector. However, and if we were to consider the current economic situation and the characteristics of the retrenched workers, we will reach another conclusion. The economy is going through a recession. Unemployment is high and job prospects are not too promising for university graduates, let alone for a 53-year old MPT employee with little education and no real skill to make use of. In other words, the state will be paying this 53-year old employee, more likely married and with children now in their high-school/university education level, about $25,000 knowing full well that this person will remain unemployed for the rest of his or her life. On paper, all is legal. The state would have paid what it owes and that will be the end of it.

But, and to be more pragmatic and fair to the laid-off workers, the government of Lebanon is asked to pay what is known as the "Golden Handshake." This bonus option exercised in many countries, could be around a 2-year salary, ranging between 20 and 26 months and could depend on a number of factors such as years in service, family size, and so forth. The major drawback of "over-compensating" is the possibility of driving the skilled employees to opt for early retirement. At any rate, different schemes could be considered, including among others, the Bulumulla package of Sri Lanka. As discussed earlier, countries that underwent privatization offered severance payments equivalent to two or three years of salaries. Again, and given the low wages paid at the Lebanese ministry, this bonus would not be a heavy burden on the government. However, it would help the retrenched worker to start a new business or to invest the money in a stable-earning project. A solid 'guesstimate,' given the data available on wages, employees' grade level, and years in service would value that Golden Handshake at another $40mn or $50mn.

The compensation, now totaling about $ 100mn, may seem too much for the Lebanese fiscal budget. Not to repeat the expected fiscal benefits attributed to privatization, it is worth mentioning that, at least on paper, the government retirement fund should have

[10] Source: National Social Security Fund

the necessary funds already available to pay any laid-off worker. This should be the case with or without privatization. So the first "legal compensation" of $50mn is available and should not be considered a new fiscal burden. This leaves us once more with a $ 50mn compensation bill if the state chooses to lay off all of the redundant jobs and over-compensate them with a Golden Handshake.

e. Valuation of the Telecom Sector

Compensating the labor surplus could be financed from the proceeds of the privatization. This is not a novel or groundbreaking policy as it was proposed and executed in a number of countries (e.g., Turkey, Tunisia). The question to be raised is whether Lebanon should or could follow suit. One key variable that could help answer this question is the expected price tag or value of the Lebanese telecom sector.

Valuing[11] a public telecommunications operator is one of the main steps in the privatization process. The valuation is more likely to be carried out by the buying party when a stake in the state-owned company is sold to a strategic investor. By contrast, when setting up a public offering, the government with the help of a financial consultant carries out the valuation.

One useful method of valuing a public operator is to look at the price paid per telephone line in other countries and use the figures as benchmarks. It is often the case that the value of the line increases as a result of having a strategic partner and so does the price of the share. This was, for instance, the case for Chile and Hungary.

The number of lines is often the main criteria when attempting to value the telecom sector. Certainly there are a number of domestic factors that differentiate one case (country) from the other. Nevertheless and given the similar characteristics shared with other developing countries (e.g., population, living standards, status of telecom sector, etc.), the equity value per line from past privatization cases does serve as a leading indicator in valuing the Lebanese telecom sector. The ultimate price will most certainly depend on a number of other factors such as the legal and regulatory framework and market conditions.

At any rate, and with an estimated one million fixed lines (to be expanded), and if we were to determine a maximum and a minimum value given foreign experiences, the price would range between $850mn and $6.46bn for a million lines. Note that the cases for Estonia and Armenia are not representative, as they are too low. The same applies to Peru where the figures are relatively too high. In Estonia, privatization was mostly done through restitution, a non-revenue generating method. Statistically, they are considered outliers and are thus disregarded.

Thus, it is plausible to assume that the Lebanese government will be parting with a small percentage of the proceeds – a maximum of 5 percent - to finance the $50mn in labor compensation. This figure is based upon the lowest expected sale value and the maximum amount of compensation needed and does not take into account the appreciation of the share value following the joining of a strategic partner. In other words, this is relatively the costliest case with the lowest expectations.

Khattab (1999), in his study on the privatization constraints facing Egypt, claims that excess labor exceeds the 33 percent of the labor force. To compensate this enormous share of redundant employees, he concludes that one-sixth of the proceeds must be sequestered. The Egyptian example is a case of large labor surplus. In Ghana, for instance, laying off 14 percent of telecom employees cost the government just 3 percent of the privatization proceeds.

The $50mn bill is insignificant when we consider the revenues the state is expected to generate from the initial sale of the asset, the subsequent increase in share value following the participation of a strategic investor, and the other revenues generated from taxes and the elimination of subsidies. Note that this relative comparison is only fiscal, and when we are to consider the other non-fiscal implications (e.g., increased welfare, more services, low prices, new jobs), the compensation cost in this worst-case scenario becomes even more insignificant.

f. Total Privatization Revenues – Telecom Sector

One alternative way to determine whether Lebanon can afford the $50mn compensation bill is to review the total sale value of telecom sectors in a number of small and developing countries. This method is not as justifiable as the relative per line comparison but it does shed some light at how much foreign investors are willing to spend in developing countries.

Table 14 shows that the price tag for a partial ownership of a telecom sector in small and struggling economies such as Bolivia and Jamaica was high – a fact which should serve as a informal guarantee that Lebanon will find a strategic investor or that investors will be willing to pay a large sum to finance, among others, the labor compensation bill. Note that these were cases of partial privatization (i.e., prior to the share appreciation) and in cases where the privatization was done over two phases (as envisioned for Lebanon), the sale amount was the largest, given the share appreciation.

[11] To read more about the different techniques of valuing a public enterprise see Khattab (1999).

There are other ways to finance this $50mn check such as lobbying for international support (e.g., World Bank) or setting aside internal budgetary funds. Setting up a social fund, as was done in Egypt in 1991, is a third source of financing. The Egyptian government and international bodies such as the European Union and the World Bank supported the fund. However, the latter three options appear to be least probable in the case of Lebanon, at least in the near future.

VIII – Alternatives (Parallel Solutions) to Early Retirement and The Associated Obstacles

Even if compensating all 1,745 redundant employees with the maximum pay is feasible, the next logical question to pose is how can the state minimize the number of lay-offs and thus reduce the cost of labor adjustment programs?

a. Civil Service Council

In the public sector there are 13,000 vacant positions (out of the 24,000 available), a fact that should make the job easier for the Civil Service Council to relocate 1,745 retrenched employees from the telecom sector. Thus, and even in the worst-case scenario, the government should be able to quickly and 'cheaply' deal with the surplus labor.

There are, however, factors that prove otherwise. The number of daily workers at public institutions, most of whom hold no education degree and are "semi-tenured," is large and these employees are not included as part of the civil service but are in essence occupying posts allocated for permanent civil servants. Thus, and in real terms, the number of vacant positions in the public sector is much less than 13,000.

Secondly, retrenched workers may refuse to work in a different state organ or even in the newly formed company for personal or professional reasons. The worker might be not qualified to do any other job or too old to be retrained for a transfer. A case in point is LibanPost where 71 former MPT employees accepted to join the private operator out of the 250 job offers.

Thirdly, there are the legal aspects of transferring civil servants and other state employees. Retrenched workers may be daily workers or specially appointed employees whose transfer is not a straightforward process. The Lebanese civil service law includes no references on the transfer from the public to the private sector.

Fourthly, the transfer of employees within the public sector has to be based on a set of criteria that in some instances may not favor retrenched employees, thus leaving the government with fewer options: Impose them on Liban Telecom or lay them off.

For all the above reasons and more, one could conclude that even though there are 13,000 vacant jobs and that the option of transfer remains on top of the short list of alternatives available to the Lebanese government, only a portion of the redundant employees would be able to exercise the option of transfer to other state institutions.

b. The Third Cell Firm

The expected third mobile company will be recruiting workers, skilled and unskilled. When faced with two applicants possessing the same level of skill, the private firm would give preference to the applicant who has experience in the telecom sector.

The government, in its turn, can place a license condition on the bidding firms to employ former MPT workers in case where the competing applicants do not outperform the former MPT civil servant. In the case a formal condition is not imposed, the private investor may accept recruiting some MPT employees in order to increase his chances of getting the third cellular license.

The third mobile company option is still hypothetical[12] but if the government decides to give a third BOT contract or license in a year time, it is not difficult to accept the fact that the private firm can absorb some of the redundant employees. In fact, the timing of both events - privatization of fixed-line and the introduction of a third mobile firm – coincides, thus reducing the time gap between one job and the other.

The same logic applies to the two existing mobile firms and to the Internet and data providing companies. These firms have witnessed a consistent and significant increase in their labor force and that trend is expected to continue (see Figures 4 and 5) thus creating jobs for laid off employees.

c. Grace Period Option

As has been done in Jordan and in Morocco, the government could introduce a clause into the privatization law requesting the private firm to absorb all or some of the surplus labor for a specific period of time. This so-called grace period will serve a triple purpose and if it is costly to the firm, there are ways to finance it. The workers will stay employed and the government will save or postpone (to better times) the compensation costs. The private investor will train the redundant workers and after the expiration of the grace period, the investor can confirm the employees or have the right to lay them off without being liable to any compensation. If the workers prove effective, the firm would then be able to utilize his or her service at lower wage rates

[12] The government is expected to pass a law opening the door for companies to submit their bids for a third or fourth cellular contract/license by the end of September 2000, and be operational starting January 2002. (An-Nahar, 4/7/2000)

thus covering the cost of training and the underemployment for the duration of the grace period.

The government may have to discount the price of the asset (i.e., the telecom sector) to provide the investor with the incentive needed to accept hundreds of redundant employees. The firm is taking on some risk and bearing some cost (training cost, opportunity cost, etc.) and has to be compensated accordingly. On the other hand, and with the expected high growth rates for the telecom sector, the private investor should be willing to accept a surplus of workers, maybe for little in return.

d. Subsidized Retraining

Retraining is always a theoretical option to deal with the less-skilled employees facing retrenchment. The case might be applicable for a small portion of civil servants but given the age distribution and the qualifications of redundant MPT employees, retraining is not expected to be very successful in minimizing any negative labor impact. Even if it was believed that a large number of workers stand to benefit, unfortunately Lebanon does not have the capacity and the resources to undertake such a policy route. One viable option is to partially subsidize the cost of retraining carried out by the private investor. Retraining may work for big corporation such as IBM or BMW, as they are well equipped and are always ready to work on improving the skills of their human resources. Subsidized retraining did help a large number of civil servants in Cape Verde keep their jobs. This policy could also benefit a portion of MPT employees.

e. Enforcement and "On-Loan" Options

As a last resort, the government can simply enforce the surplus labor, or a portion of them, on the private investor. This option has been exercised elsewhere – though not successful - with LibanPost. Other private firms, and for different reasons, have been willing to bear that cost. The contract needs to be very clear for both sides so that the agreed upon group of redundant workers are secured with the new firm, are paid according to plan, and no legal loophole exists which will put these workers out of a job.

The government can also impose a fixed number of former MPT workers for a specific period of time. As is the case with Ogero and MPT employees "on-loan" to Ogero, the government and the private investor can share the cost of maintaining the jobs of some redundant employees where, for instance, the government can pay their salaries and the investor will be responsible for overtime or other productivity-inducing bonuses. This later option would give the worker some additional time to find another job and gain more experience, and the government is liable to a less costly early retirement package.

f. Other Obstacles Facing the Alternative Solutions

Besides the obstacles already discussed above, there are a number of other issues which may render the applicability of these alternative solutions more difficult. For instance, the overwhelming numbers of daily workers, not subjected to the entrance exam, were hired during the Lebanese war or for electoral purposes in the post-war period. There are also civil servants who joined the Ministry after political interventions in the Civil Service and in other public institutions. It is expected that laying-off redundant and unqualified workers will face tough political opposition for the same reasons that they were hired for. This constitutes the major obstacle to privatization, more so than the economic factor of compensation and the associated fiscal burden.

Other major obstacles, also not economical, will face the privatization of the telecom sector. Whatever optimal compensation package is offered or whatever fate awaits the redundant employees, ensuring a sectarian balance is essential for the social and political approval of privatization. Unless laid-off employees are equally divided among the major religious sects, it will take a strong and transparent leadership to make the labor adjustment process successful.

The role of the labor unions should not be downplayed as they can exercise their political pressure and slow down the process unless their demands are met and their questions answered. Moreover, Lebanon is a small society and most everyone has access to the political leadership and can pose a problem and affect the social stability if his or her case is not resolved in a fair manner. For the same reason, public opinion and the proactive Lebanese press can play a major role in pushing for or defeating the privatization of state assets.

With all the alternatives to the early retirement option, each alternative facing its own obstacles but succeeding in targeting a small portion of the pool of redundant MPT employees, it is believed that the total number of employees to be compensated as a result of privatization will drop below 1,745, reducing with it the already low but generous cost of compensation.

IX. Conclusion

International experience shows that the impact of privatization on the labor market has been positive and it is reflected in higher wages, job creation, and higher productivity. This is mostly the case for the telecom sector where a fast-growing sector has been undergoing major technological advances.

Privatizing telecom is very profitable for both the seller and the buyer and more so for the seller, i.e. the government, if it undertakes the process in phases thus leading to the appreciation of the share value with time. The proceeds are large enough to cover the cost of compensating labor surplus and in the most generous and socially acceptable scenario. There are numerous and successful labor adjustment programs implemented through out the globe, from which Lebanon can learn.

Privatized enterprises in Lebanon or private firms such as the mobile companies outperform the public sector. They have also created jobs, compensated their employees well, and induced them to be more productive.

In the case of redundancies in the telecom sector, the cost of compensating all of the estimated 1,745 redundant MPT employees is below the $50mn mark, a figure that is manageable even for a struggling Lebanese economy, and the cost (worst case scenario) can be financed using less than 5 percent of the privatization proceeds. The government can reduce that small but generous compensation cost further if they were to consider a number of alternative solutions to the early retirement option. The alternatives include the transfer to other state institutions or to mobile and Internet companies, subsidize the retraining or redundant employees, or simply impose some or the entire surplus on the telecom private telecom operator (i.e., LT).

The case of LibanPost and the negative experience with the former MPT employees calls for a number of actions and policies in order to avoid repeating the mistake when the time comes to privatize telecom and hand over the operations to Liban Telecom. The negative experience with LP illustrates the low level of readiness for the state in dealing with the labor implications of privatization. A clear and well-designed contract ought to be signed with the private operator determining how both parties plan to specifically deal with the 4,745 MPT and Ogero employees. Among the questions that need to be answered are:

x. Will Liban Telecom be asked to absorb all MPT employees; if not, how much and based upon which criteria will LT accept MPT employees?
xi. What is the specific time frame for the transition period; and, who will be responsible for paying the salaries during that period?
xii. If LT is given the right to select a portion of MPT employees, how much and what will the state do with the remaining pool?
xiii. What is the expected work force in LT (initial and forecasted)?
xiv. What are the criteria for dismissal (early retirement)?
xv. How will the state deal with the issue of daily workers?
xvi. What severance package is the state willing to offer retrenched employees?
xvii. Which financing option will the state choose to pay for early retirement: the budget, portion of the proceeds, share with LT, pay in phases, etc.?
xviii. Will there be a specific and autonomous committee or task force in charge of overseeing the transition period and reporting to an agreed upon executive power?

For those political issues, which are considered tedious, the government might let a foreign consultant objectively determine who is redundant, set up the compensation scheme, and then the Lebanese state could add the golden handshake option to show social goodwill.

Privatization of the telecom sector in Lebanon can be a success and profitable to all parties. After all, the big winner should be the economy as a whole, more specifically the Lebanese consumer. The worker, the small business, the farmer, and the industrialist are all consumers. The government can deal with one or two thousand employees that would have soon retired (with or without privatization), but it cannot overlook the welfare of 4 million consumers. It is from this perspective that privatizing telecom should be considered, especially that the maximum cost of the labor impact is relatively insignificant and most of all manageable.

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Figure 1: The U-Curve in Employment and Wages

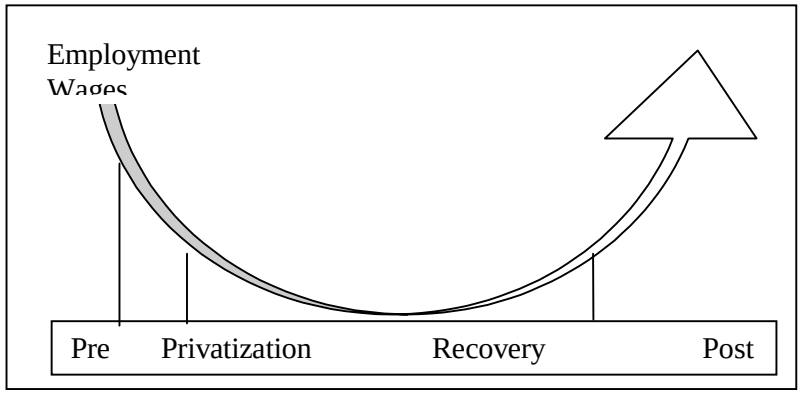
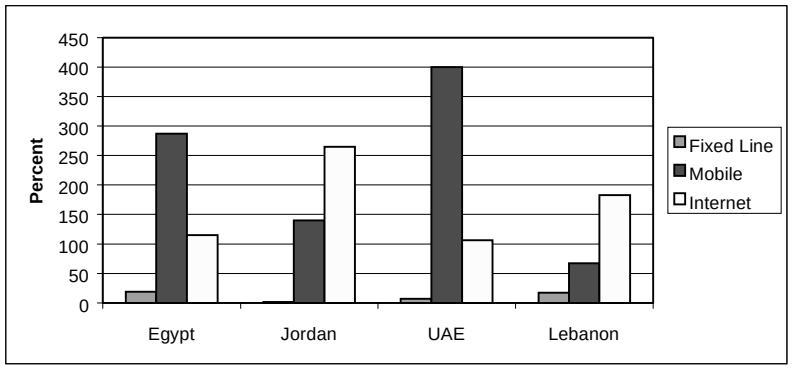
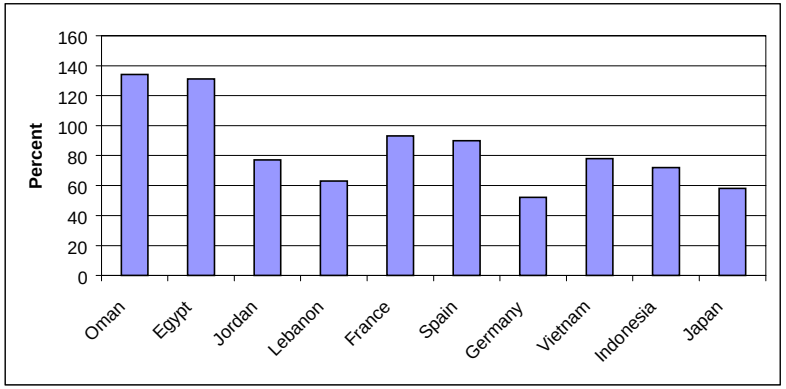


Figure 2: Annual Telecom Growth Rates: Late 1990s



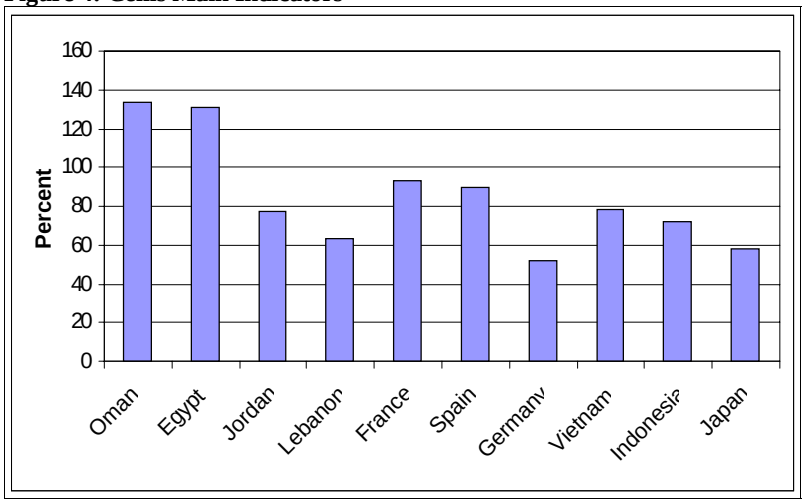
Source: Dewachi (1999), ESCWA Regional Advisor Report

Figure 3: Mobile Annual Growth Rates: 1995-98



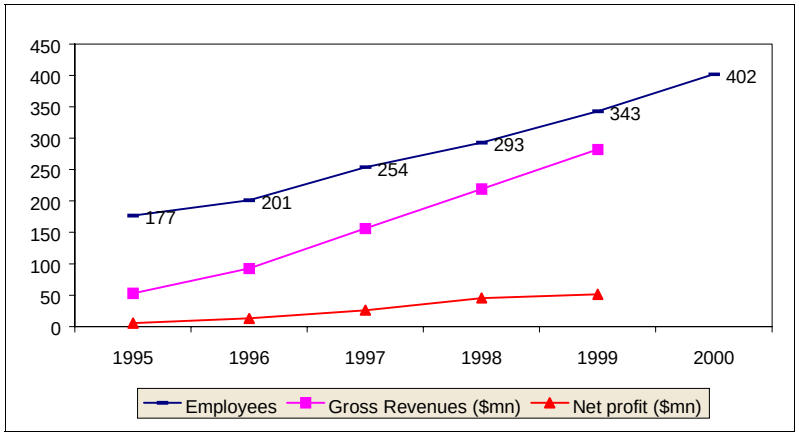
Source: ITU

Figure 4: Cellis Main Indicators



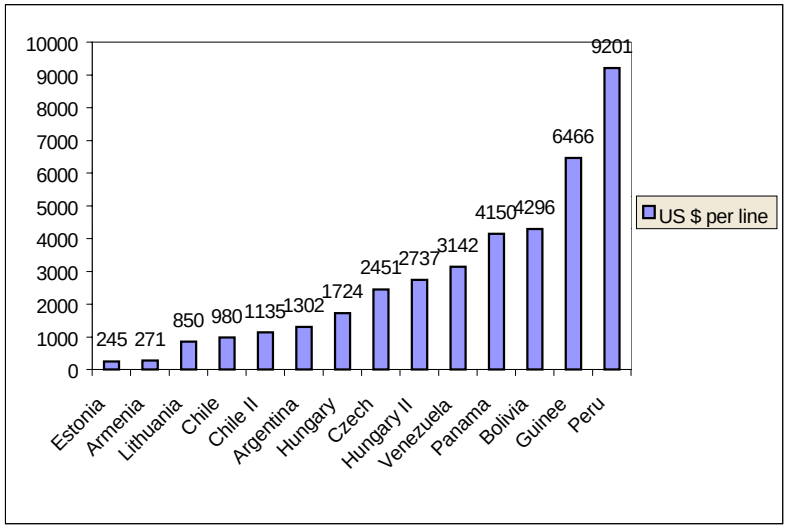
Source: Cellis Brochure, 2000

Figure 5: LibanCell Main Indicators



Source: LibanCell, 2000.

Figure 6: Equity Value Per Line



Note: The case for Chile and Hungary, the second figure (II) is the sale price of the remaining shares after being partially privatized and sold to a strategic investor.
Source: World Bank

Table 1: Telecom Indicators for Latin America and Africa

	Tele-Density (per 100)		Employees per 1000 line	
	Latin America	**Africa**	**Latin America**	**Africa**
1992	7.77	1.48	20	90
1993	8.50	1.72	20	90
1994	9.19	1.95	10	70
1995	9.91	2.15	10	80
1996	10.86	2.45	10	40
1997	11.67	2.94	10	30

Note: Average figures for 29 countries in Africa (excluding South Africa) and Latin America
Source: ITU, *Telecommunications Indicator Handbook*, 1998

Table 2: Main Arab Telecom Indicators

	1994	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**
Tele-Density (per 100 people)	4.3	4.7	5.0	5.7	6.3	6.9	7.3
Approx. mobile cellular subscribers (000s)	220	500	780	950	1,200	1,500	1,750
Approx. Internet host computers (000s)	0	2	5	18	30	60	120

Note: Nineteen Arab countries are considered, including Lebanon, but excluding Palestine and Iraq.
Source: ITU (including the *Arab States Telecommunications Indicators* 1996).

Table 3: Telecom Indicators for Lebanon and Other Arab Countries: 1995

	Lebanon	**Egypt**	**Jordan**	**Saudi Arabia**	**Kuwait**	**UAE**
Service indicators						
Tele-density (per 100)	9.26	3.92	7.24	9.58	22.57	32.11
Waiting period (years)	**> 10**[*]	5.8	8.9	>10	**0.2**	**0**
Satisfied demand (%)	59.3	65	71.8	58.5	99.3	99.8
Efficiency indicators						
Employees per 1000 line	12.8[**]	22.2	12.6	11.9	19.6	8.3
Revenue per line ($)	133	322	718	1,056	716	1,282

Notes: *: The waiting period has dropped significantly to as low as 48 hours in urban areas. **: In 1999, the indicator dropped to 6.8
Source: ITU, *World Telecommunication Development Report*, 1995

Table 4: Telecom Indicators for Lebanon and Other Developing Countries: 1995

	Lebanon	**Jamaica**	**Philippines**	**Chile**	**Argentina**
Service indicators					
Tele-density (per 100)	9.26	8.63	1.68	11.01	14.14
Waiting Period (years)	**> 10**	4.3	5.5	1.2	0.9
Satisfied demand (%)	59.3	59.6	56.7	88.6	90.7
Efficiency indicators					
Employees per 1000 line	12.8	16.9	18.2	6.5	6.4
Revenue per line ($)	133	1,067	759	775	1,023

Source: ITU, *World Telecommunication Development Report*, 1995

Table 5: Employees in the Telecommunication Sector: Year 2000

	Number	**Average Age**
Permanent	1406	
Daily	1380	53
Contractual	74	
Ogero	1785	37

Note: There are talks to change the status of daily workers into permanent civil servants
Source: Ministry of Post and Telecommunications and Ogero

Table 6: Lebanese Civil Service Salary Scale, 1999

Step	Grade 1	Grade 2	Grade 3	Grade 4.1	Grade 4.2	Grade 5
1	2,500,000	1,030,000	860,000	**550,000**	**440,000**	375,000
2	2,600,000	1,090,000	894,000	**576,000**	**462,000**	395,000
6	3,000,000	1,330,000	1,030,000	**680,000**	**550,000**	475,000
7	3,100,000	1,390,000	1,070,000	**710,000**	**575,000**	495,000
11	3,500,000	1,640,000	1,230,000	**830,000**	**675,000**	590,000
12	3,600,000	1,705,000	1,278,000	**864,000**	**704,000**	615,000
16	4,000,000	1,965,000	1,470,000	**1,000,000**	**820,000**	720,000
17	4,100,000	2,030,000	1,530,000	**1,038,000**	**853,000**	750,000
21	4,500,000	2,330,000	1,770,000	**1,190,000**	**985,000**	870,000
22	4,600,000	2,405,000	1,830,000	**1,228,000**	**1,018,000**	900,000

Note: All figures are in Lebanese Pound and include standard allowances (not including medical and educational expenses)
Source: Civil Service Council

Table 7: Charges and Fees for Internet and Intra-National Data Service Providers

Internet Providers/Lease of Int'l Lines			Data Providers (in LBP)		
	Arab + Cyprus	Rest of World	Bit rate	Connection fee	Monthly fee
128 Kbs	$5,133	$5,346	256 Kbps	4,000,000	1,830,000 + 32,000*d
256 Kbs	$9,310	$9,698	512 Kbps	6,000,000	2.150,000 + 64,000*d
512 Kbs	$14,920	$15,542	1,024 Kbps	9,600,000	2,790,000 + 80,000*d
2 Mbs	$25,305	$26,359	2,048 Kbps	9,600,000	4,000,000 + 80,000*d

Note: Effective August 1st, 1998. The monthly fee for data providers has a variable component which depends on the distance (d) in kilometers. The distance between Lebanon and Saida is 40 kilometers thus a 2 Kbps rate will be LBP7.2mn.
Source: Ministry of Post and Telecommunications Website, 2000.

Table 8: Telecom Indicators and the Performance of Ogero

Indicators	1995 (pre-Ogero)	1999 (post-Ogero)
Tele-density (per 100)	9.26	17.45
Waiting period	> 10 years	48 hours
Employees per 1000 lines	12.8	6.8
Revenue per line	$133	$563

Note: Population assumed to be 4 million and the fixed network to include 700,000 operating lines
Source: ITU for 1995; and data for 1999 are the author's calculations based upon 1999 budget report and MPT/Ogero reports.

Table 9: Before and After Privatization: Some Telecom Indicators

Country / (Year privatized)	Tele-density rate (Main lines per100)			Lines per Employee (Productivity)			Revenue per line		
	Pre	Post	Diff. %	Pre (1 yr)	Post	Diff.	Pre (3 yrs)	Post	Diff %
Chile (1987)	4.6	13.2	187	51	153	200	514	775	51
Argentina (1990)	10.4	16	54	57	155	172	558	1023	83
Peru (1994)	2.9	4.7	62	56	131	134	98	175	79
Hungary (1993)	12.6	18.5	47	66	111	68	401	407	1
Malaysia (1987)	6.5	16.6	155	37	116	214	600	629	5
Singapore (1993)	42.3	47.8	13	158	217	37	1107	1777	61

Note: Post privatization figures were taken in 1995
Source: International Telecommunication Indicators Database (1996)

Table 10: Installation Fee for Fixed Lines

	Residential	Residential (International access)	Commercial (International access)
Standard	427,000	427,000	427,000
Deposit	100,000	500,000	800,000
Connection, other	N/A	12,000	12,000
Total	527,000	939,000	1,239,000

Note: Figures are in Lebanese Pound; the exchange rate to the US Dollar is 1,500
Source: Ministry of Post and Telecommunications

Table 11: MPT Retirement Benefits and Options

Type of employee	Compensation	Pension
Permanent employees	30-40 million, (only after 20 yrs of service)	Available (only after 20 yrs of service)
Daily workers	Approx. 10 million	Not available

Note: Approximate estimates based upon interviews conducted at the human resource dept. at the Ministry
Source: Ministry of Post and Telecommunication

Table 12: End of Service Compensation in LBP - After 35 Years in Service

Salary (LBP)	1.2mn	1.0mn	800,000	600,000	300,000
Compensation (LBP)	42mn	35mn	28mn	21mn	10.5mn
Total ($)	48.8mn	40.7mn	32.5mn	24.4mn	12.2mn
Pension	375,000	375,000	375,000	375,000	300,000

Note: Figures do not include medical coverage and future salary increases
Source: RDCL Brochure

Table 13: Compensation Payments for all Redundant MPT Employees: Different Methods of Calculation

Approx. Total	Notes		
$11.6mn	At age of 64	MPT gross estimate	All daily workers
$46.4mn	At age of 64	MPT gross estimate	All permanent employee
$40.7mn	35 yrs in service	1 million salary	All permanent employees
$26.2mn	35 yrs in service	1 million salary	50% are daily workers
$27.9mn	1 million salary		Two-year salary scheme
$12.3mn	Based upon 1998 average retirement compensation		
$50.0mn	Based upon studies conducted by experts		

Table 14: Privatization of State-Owned Telecom Companies: 1984-1996

Country (year)	Amount ($mn)	% Sold	Note
Jamaica (1989)	84	40	Consortium
Bolivia (1995)	610	50	One Italian strategic partner
Greece (1996)	530	8	7% to investors, 1% to employees
Israel (1990/1)	178	24	Domestic public offering
Malaysia (1990/3)	1,287	22	Two-step privatization
Hungary (1993/6)	1,727	67	Two-step privatization
Peru (1994/6)	3,202	62	Two-step privatization

Source: ITU Privatization Survey, Company Reports