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LEBANON - Pension Reform
An Analysis of the Reform Proposals to Amend the End of Service Indemnity Program under the National Social Security Law

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TABLE OF CONTENTS

EXECUTIVE SUMMARY I
COST ESTIMATES OF THE REFORMS PROPOSALS II
DRAFT LAW PROPOSAL ON GOVERNANCE III
SOME SUGGESTIONS TO IMPROVE THE PROPOSAL IN THE DRAFT LAW IV

I. INTRODUCTION 1

II. KEY PROVISIONS 1
Status Quo -- End of Service (EOS) Indemnity Program 1
Lebanon's Reform Proposals 3

III. MEMBERSHIP INFORMATION 5

IV. PROJECTION METHODOLOGY AND ASSUMPTIONS 6

V. SUMMARY OF PROJECTION RESULTS AND KEY ISSUES 9
Summary of Projection Results 10
Summary of Key Issues 12

VI. COST ESTIMATES OF THE REFORM PROPOSALS 13

VII. ISSUES ON GOVERNANCE OF THE PENSION SYSTEM: COMMENTS ON THE DRAFT LAW FOR AMENDMENT OF THE SOCIAL SECURITY LAW 19

VIII. SOME SUGGESTIONS TO MODIFY THE REFORM PROPOSALS 19
The Mandatory Pillar 20
The Voluntary Pillar 26
Transition Arrangements 26
Administrative Reforms at the NSSF 27
Areas for improvement in investment and cash management 27
Reforms across pillars 30
Advantage of the new arrangements 31
Tax Treatment 31

ANNEX 34

EXECUTIVE SUMMARY

1. The Lebanese retirement income system for private sector workers consists only of an end-of-service lump sum indemnity payment. Lebanon has been engaged in an effort to reform its End of Service (EOS) Indemnity Program for some time. Many reform options have been studied. Two proposals in particular have been the focus of attention – the Draft Law to amend the NSSF Law and a project by NSSF (reviewed by the Caisse des Dépôt et Consignations), referred to as the Master Plan.

2. The Draft Law to amend the NSSF Law aims to convert the existing EOS Indemnity Program to a retirement, disability and death insurance program. It is envisioned that the new program will become a mandatory, single pillar system funded based on capitalization. Assets from the accumulated contributions will continue to be managed by the NSSF. Details pertaining to the required contribution rate, target replacement rate, methodology to determine retirement annuity and the level of the minimum pension guarantee have not been articulated. However, the contribution level will likely be around 15 percent (of which, one percentage point will be allocated for administration expenses, another percentage point will be earmarked for insurance purposes to cover required premiums for disability and mortality exposures, and the residual 13 percent will be accumulated for retirement savings). Under this Draft Law, the NSSF will not undertake any systemic risk except for the cost of providing a minimum guarantee. The government is prepared to guarantee that account balances (including credited interest) would be at least equal to one month for each year of service times the average earnings in the last 10 years prior to an individual retiring.

3. The Master Plan instead refers to a proposed defined benefit scheme that will replace the EOS Indemnity Program. This defined benefit system will have a target replacement rate of around 40 percent to 45 percent of reference earnings for workers with a 30-year career. No specifications were made as to how the reference earnings will be determined. In addition, it was suggested in the Master Plan that the government should provide a minimum pension guarantee for those with incomplete career, although the threshold of such a guarantee was not specified. Some groups suggested that the minimum pension may be set at 150 percent of the minimum wage.

4. Up to now, the EOS Indemnity Program has been financed mainly through the contributions of 8.5 percent of covered wages made by the employers during the year. At the beginning of the year 2000, reserves under the EOS Indemnity Program amounted to over 5 percent of GDP (LL1,391 billion) and generated investment income of some LL40 million in the year. Although the annual payouts already exceeded contribution revenue, the existence of the investment income not only paid for the shortfall in the cash flow, the residual investment income provided a current surplus of some LL19 million at the year-end. However, it was projected that the investment income would be exhausted by the year 2019, when the reserves would be totally depleted. At that point, the contribution rate would have to increase to 12.0 percent in order for the system to be able to continue on a pay-as-you-go basis, and by 2075, the required contribution rate would have to be as high as 15 percent of covered wages.

5. The implicit pension debt (IPD) in Lebanon was already some 17 percent of GDP in 2000 and will increase to well over 25 percent of GDP in 30 years time. This is a fairly significant burden on the government when considering the benefit is on behalf of less than 50 percent of the labor force.

6. In addition to looming financial problems, the EOS Indemnity Program has a variety of issues, including:

- *inadequate retirement benefits.* Under the current system, the maximum total retirement benefits for individuals who have been in the system for 40 years under the same employer is about 30 percent of pre-retirement income. This is rather low by international standards, particularly since no health insurance is provided to retirees. In addition, premature distribution of account balances could further deplete benefits at old age;

- *inadequate portability and equity.* The current scheme harms the economy by discouraging job mobility and produces benefit inequities among similar workers. It discriminates against private sector workers, since only those in the civil service and military systems are covered by a retirement pension scheme;

- *inadequate distribution of risks and responsibilities.* While the program risks are entirely borne by employers during the accumulation period, the NSSF and not employers is responsible for managing the program. This arrangement is a recipe for moral hazard behavior on the part of the administrator (the NSSF). Furthermore, lump sum payouts place the risk of having stable retirement income entirely on the retirees, and any misfortune in investing would leave the elderly unprotected;

- *inadequate funding requirements.* Since employers are not required to set aside funds to finance their residual liabilities, workers from employers that go out of business are left with no protection on this portion of the plan;

- *NSSF contingent liabilities.* If employers do not pay their part of the end-of-service indemnity in 30 days, by law, NSSF must pay it;

- *inadequate coverage.* There are no voluntary schemes which are regulated and supervised which could provide coverage for the self employed, rural workers and Lebanese working abroad;

- *inadequate assistance during periods of unemployment.* Workers can withdraw their balances upon leaving employment, but with increasing penalties the shorter the period of contribution.

COST ESTIMATES OF THE REFORMS PROPOSALS

7. The transition from the existing system to the new scheme poses no problems for new entrants to the work force. However, it involves recognizing the acquired rights of workers who are currently covered under the EOS Indemnity Program and are required to move to the new scheme. Unfortunately, the Draft Law did not spell out how the acquired rights of these workers would be handled. We assumed that each individual would receive a recognition bond the face value of which would be exactly equal to the amount of accumulated contributions. These recognition bonds are assumed to mature at retirement and to earn a coupon rate of 2.5 percent in real terms each year. Our calculations show that there will be a negative annual cash flow until year 2025 and zero thereafter. However, the NSSF reserves would be exhausted by year 2014, which implies that the government would have to finance the cash flow deficits from there on until all recognition bonds mature by 2025.

8. On the other hand, the accumulation of contributions in individual accounts under the new system will grow from about 1.7 percent of GDP in 2003 to reach about 23 percent of GDP in 2075, if managed by NSSF, or about 31 percent of GDP if managed by private fund managers. Finally, our estimates indicate that the guarantee balance in individual accounts that the government is prepared to offer under

the Draft Law is affordable since it would kick in only in near catastrophic conditions -- a combination of extreme negative returns in relation to wage growth and short history of contributory service.

9. The projected annual cash flow deficits under the proposal included in the Master Plan for the NSSF, which converts the EOS Indemnity Program into a defined benefit scheme, are worse than under the Draft Law. The main reason for this result is the proposal to introduce a minimum pension guarantee under this scheme. If the pension guarantee is set at 150 percent of minimum salary, as suggested by some authorities, then the annual cash flow deficits would be 0.5 percent of GDP by year 2005, increasing to 1 percent of GDP by year 2010, to 2.2 percent of GDP by year 2025, and to 4 percent of GDP from 2050 and beyond. However, if the pension guarantee is limited to 50 percent of the minimum salary, then the annual cash flow deficits would be much lower than 0.5 percent of GDP through year 2025 and will increase to about 1 percent by 2050 and thereafter.

10. Clearly, the proposed guarantee replacement rate of 150 percent of minimum wage is simply too high and would impose a heavy burden on the government expenditures. Unless the cost of providing this guarantee is implicitly built into the contribution rate, all the risks would then be borne by the government. If the cost of such a guarantee is being imputed into the contribution rate, then the burden will be transferred to the employers and employees. At the same time, there will be no accountability and incentive for the NSSF to maximize returns within a specified level of risk, since they are shielded from any consequences in spite of poor investment decisions. Under the likely scenario that real rate of return on investments would at least match the real wage growth throughout the accumulation, the required contribution rates to fund a system with an uniform accrual rate of 1.5% per year of service including a minimum pension guarantee of 150 percent of minimum wage would be around 24 to 28 percent. If the minimum pension guarantee were to be reduced to 50% of mininum wage, then the required contribution would decline to about 8 to 10 percent. However, the required contribution for such an arrangement is dependent on five uncertain factors: the length of working life, the real wage growth, the real rate of return on investment, the real interest rate at retirement and the number of years spent in retirement.

11. These results underscore how ambitious and generous the Lebanese proposal is in providing a minimum guarantee pension equivalent to 150 percent of minimum wages (50 percent of average wage). No OECD country provides a normal pension from its mandatory system that is larger than 50 percent of average wage for full career workers (40 years of service). Furthermore, the minimum pension cannot be greater than the minimum wage, as it would distort labor markets. There is no rationale to pay a worker 50 percent more in retirement than when he/she is working. The difference is even higher taking into account the after tax income, for while workers pay social security contributions and taxes out of their salary retirees do not.

12. The projections also underscore the potential political risks of adopting a national defined benefit pension plan in Lebanon. If adopted, politicians and parliamentarians would be under pressure to provide benefits which are not affordable. A country that already has the highest debt burden in the world (over 175 percent of GDP and increasing) is not well positioned to adopt a pension plan which would further increase the country's indebtedness through more future contingent liabilities (thereby increasing the implicit pension debt). This policy could worsen financial market sentiments which would make refinancing of the debt even more difficult.

DRAFT LAW PROPOSAL ON GOVERNANCE

13. In general, the draft law allows the government excessive participation, power and discretion in the management of NSSF. Modern approaches emphasize the need to provide these institutions with as

much independence from government as possible in order to minimize political risks. However, improved governance not only requires independence, but also the adoption of maximum standards of accountability by board members and managers, information disclosure and transparency.

SOME SUGGESTIONS TO IMPROVE THE PROPOSAL IN THE DRAFT LAW

14. The proposal contained in the draft law is a good start but it requires adjustments to improve incentives, efficiency and risk sharing. We would like to propose a program that relies on two fully funded defined contribution pillars – *a mandatory defined contribution pillar* which will provide the options of being either publicly or privately managed, and *a second voluntary pillar* which will be privately managed. One key to the reform program is the adoption of a mandatory pillar with options for its management. Initially, this pillar will have two possible options for its management – public or private management. The publicly managed plan will be administered by the NSSF, and the privately managed plan will be administered by licensed managers who will be regulated and supervised by an agency to be determined in the legislation. Private fund management will be decentralized and managed in segregated trust accounts with appropriate custodian arrangements.

15. Contributions to the mandatory pillar would be 15 percent (same as draft law) of covered wages but it would be capped to 3.5 times the system's average wage, and with an affordable minimum guaranteed benefit linked to the years of contributing services and to the worker's real career average taxable wage. The scheme will ensure portability of benefits by allowing workers to carry with them accumulated benefits, including the minimum guaranteed level of accumulated balances, in their accounts.

16. Risks will be shared between employers, employees and the government. In the publicly managed plan under the responsibility of the NSSF, employees and Government will bear the plan risks. The Government will guarantee the minimum benefits, and its level would be determined aimed at minimizing risks. As in all defined contribution plans, employees will bear market risks, although there is a safety net provided by the minimum guarantee. The fund's plan will be invested mainly in investment grade fixed income securities, domestic and foreign, such as: sovereign securities; asset backed securities (e.g., mortgage bonds), bonds and certificates of deposit issued by banks, and corporate bonds. NSSF will be allowed to outsource fund management.

17. On the other hand, in the privately managed plan under the responsibility of professional fund managers with international reputation on pension fund management, employees, employers and fund managers will share risks. Employers and fund managers will share the responsibility for the guaranteed minimum level of benefits. The fund's plan will be invested mainly in securities (domestic and foreign) to maximize returns for any given risk tolerance. A small proportion of these funds could also be invested in leasing, factoring, and venture capital firms.

18. The voluntary pillar could comprise group (occupational or employer-sponsored shared by matching employer/employee contributions) or individually defined contribution pension plans, employee risk-bearing, privately managed, or fully funded plans.

19. Instead of a single defined contribution account for the worker, this proposal suggests the introduction of two mandatory defined contribution accounts per worker – the Pension Savings Account and the Contingent Savings Account. The Pension Savings Account (solely for retirement income purpose) will accumulate funds that will have to be converted (totally or partially) upon retirement into a life annuity with an accredited life insurance company. The Contingent Savings Account (for unemployment and other life events) will accumulate funds to provide income in times of need as a result

of unemployment and to cover other needs and can be withdrawn as a lump sum. Both accounts will be managed by the same fund manager.

20. The proposed minimum guaranteed benefit takes the guarantee under the Draft Law one step further – instead of the last 10 years of earnings, this proposed guarantee uses the concept of the worker's career average real contributory wage (CARCW). Similar to the Draft Law, the account balance at time of retirement will be compared against the minimum guarantee which is defined as the number of months (x) for each year of service times the CARCW. A guarantee of one month would appear to be plausible with little risk undertaken by the guarantor -- the government in the case of the publicly managed plan, or employers and fund managers if privately managed.

21. This reform will require government commitment on ensuring a sustainable macroeconomic policy framework, financial sector reforms, particularly, establishing regulations and supervision of pension funds, further improvement in regulations and supervision of insurance, securities markets and non-bank financial intermediation (government bond market, assets-backed securities, mortgage bond markets, factoring, and leasing). In addition, speeding up privatization would increase the menu of assets available for domestic investments of fund reserves.

22. This reform, while maintaining total labor costs at about the current level levied by the EOS Indemnity Program, improves workers' old age protection as well as protection of their families by increasing replacement of the pre-retirement wage from a range of 13-30 percent to 47 percent. In addition, it protects the worker's family in case of death or permanent disability. It maintains the current benefit as a minimum guaranteed level, hence workers will not be worse off. On the contrary, chances are workers will be substantially better off. The system will no longer discriminate against workers who change jobs within the private sector, thus contributing to improved efficiency in labor markets. It also improves management of unemployment risks by pre-funding for this contingency while providing either savings for other uses or a lump sum at retirement, which may help to pay for heath care during old age. The proposed system will encourage competition among fund managers, including the NSSF, hence members will benefit from better services. Finally, this program will expand the role of long-term savings in the economy, thereby promoting development of capital markets and growth while making the economy more resilient to interest rates and demand shocks.

I. Introduction

1. The Office of the Prime Minister requested Bank assistance on amending the National Social Security Fund Law which reforms the pension system for private sector workers. In particular, the Lebanese Authorities requested a Bank mission to assess the proposed pension reforms contained in the draft law. A Bank mission composed of Mr. Alberto R. Musalem and Ms. Yee Mun Sin visited Beirut in May 2002. This report presents the assessments of the Draft Law for the Amendment of the Social Security Law as well as various reforms that are being considered.

2. The results presented in this report are based on data provided by staff from the Office of the National Social Security Fund (NSSF). Special data extraction pertaining to historical trends, including average period of contributions, number of claims and amount of disbursements by categories, average contributory salary and age distribution of newly registered contributors, was prepared by NSSF staff under the direction of Mr. Gaston Cordahi, actuary for the NSSF.

3. Due to the size of the database and the capacity of the current information system, most of the data was extracted using random sampling techniques.[1] Other information was derived by extrapolation. As such, the results presented here should be considered as indicative until such time more complete data is available or more refined assumptions can be made pending closer investigation.

4. This report has seven additional sections. Section II describes the key provisions under the current system and the various proposals being considered. Section III reviews the membership information used for this projection exercise. Section IV summarizes the parameters of the projections, including the data source, macroeconomic trends and other projection assumptions. Section V presents the projection results and a summary of key findings. Section VI illustrates the cost estimates of the reform proposals and provides an analysis of the reform proposals. Section VII deals with issues on the proposed governance structure. Finally, Section VIII presents suggestions on how the government's reform proposal might be modified.

II. Key Provisions

Status Quo -- End of Service (EOS) Indemnity Program

5. Private sector employees and contract workers in the public sector (who are not covered under the civil service pension scheme) are covered under the EOS Indemnity Program which provides the benefits listed below. The analysis on the fiscal implications of the various proposals were compared against these provisions.

6. *Eligibility to retire.* The maximum age to be covered under the EOS Indemnity Program is 64. While some employers may allow employees to work beyond age 64, no further accruals are provided under the EOS Indemnity Program although these employees are still covered by the other social security funds (medical, maternity and family allowance).

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[1] Identification numbers of current contributors ending with the digits 5 and 0 were extracted, that is, approximately 20 percent of the whole database. When compiling information on newly joined members, only identification numbers ending with the digit 5 was used, that is, approximately 10 percent of the potential newly joined members.

7. *Eligible Service.* Period of service in which contributions were made on the employees' behalf are counted as eligible service towards calculating EOS indemnity entitlements. Service rendered by those who were employed by the employer at the date of the introduction of the system are counted as past service.

8. *Eligibility for EOS indemnity payment:* 100 percent of EOS indemnity is payable to individuals if (s)he qualifies under any one of the following conditions: (i) completed at least 20 years of service; (ii) attained age 60 or older; (iii) females during their first year of marriage; death prior to retirement with at least six months of service; and (iv) disability.

9. *Eligible earnings.* The monthly earnings used to determine the EOS indemnity is equal to one-twelfth of the taxable earnings in the year preceding the date of entitlement.

10. *Contributions.* No employee contributions are required. Employers are required to contribute on behalf of each employee at the rate of 8.5 percent of the individual's taxable earnings. In addition, the last employer is responsible to pay any shortfall between the individual's entitlement at EOS with the last employer and the accumulated contributions with interest corresponding for the same period of employment. Thus, the effective rate of contribution could be higher than 8.5 percent, and for long career workers with the same employer could even be higher than 14 percent. Compared with data contained in Table 1, Lebanon is in the lower half of the regional distribution of pension plans contribution.

Table 1: Contribution Rates to Pension Plans for Private Sector Workers in Middle East and North African Countries (percent of gross wages)

Country	Employer	Employee	Total
Algeria	7.5	7.5	15
Djibouti	4	4	8
Egypt, Arab Republic	15	10	25
Iran, Islamic Republic	12.54545	3.818182	16.36363
Jordan	9	5.5	14.5
Kuwait	10	5	15
Morocco	6.1	3	9.1
Oman	8	5	13
Saudi Arabia	8	5	13
Tunisia	16	7.75	23.75
United Arab Emirates	17.5	10	27.5
Yemen, Republic	9	6	15

11. *Credited interest.* Contributions are collected from the employers on a monthly basis. Employers with less than 10 employees contribute on a quarterly basis. No contributions are actually remitted by the government on behalf of the contract workers in the public sector. Interest to be credited to contributions are quite opaque and not clearly specified.

12. *Benefits on leaving service.* Depending on whether it is the individual's first or second liquidation, the amount of EOS indemnity entitlement is dependent on years of service, age and the accumulated contributions with interest. The indemnity is payable in a lump sum at date of settlement.

(i) With 20 years of service or more and not yet age 60

EOS indemnity equals contributions paid by previous employer(s) with interest plus one month of earnings for each year of service with the last employer. If the individual resumes work subsequent to his pre-age 60 liquidation, he can only liquidate his subsequent accrual only upon reaching age 60, death or disability.

(ii) Age 60 or older, died prior to retirement or become disabled

a) for first time liquidation – EOS indemnity is determined as (i) above plus half a month's earnings for service in excess of 20 years.

b) for second time liquidation – EOS indemnity is determined as (i) above but adjusted to recognize service since the first liquidation.

(iii) With less than 20 years of service

EOS indemnity is determined as (i) above but reduced in accordance with the schedule shown in Table 2:

Table 2: Reduction schedule

Condition	Percent reduction
Less than 5 years of contributions	50 percent
Between 5 and 10 years of contributions	35 percent
Between 10 and 15 years of contributions	25 percent
Between 15 and 20 years of contributions	15 percent

Source: Consultancy reports prepared by Mercers and Sedgewick

13. *Benefits on total and permanent disability.* Upon total and permanent disability, an individual will receive his accrued benefit, as described above, subject to a minimum of 20 times the monthly earnings.

Lebanon's Reform Proposals

14. Lebanon has been engaged in an effort to reform its EOS Indemnity Program for some time. Many reform options have been studied. Two proposals in particular have been the focus of attention – the Draft Law to amend the NSSF Law[2] and a project by NSSF (reviewed by the Caisse des Dépôt et Consignations), referred to as the Master Plan.[3]

15. Proposal 1. The Draft Law to amend the NSSF Law aims to convert the existing EOS Indemnity Program to a retirement, disability and death insurance program. It is envisioned that the new program will become a mandatory, single pillar system funded based on capitalization. Assets from the accumulated contributions will continue to be managed by the NSSF. Although the Draft Law described some of the overall parameters, many provisions have not yet been decided and were not specified. The following describes the provisions that are known at this time:

16. *Eligibility to retire.* Retirement age under the law remains at age 64. Retirement prior at age 64 is only permitted in case of disability[4] and even then, the individual has to be at least age 60.

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[2] An English copy of the Draft Law to amend the National Social Security Fund Law was provided by the Office of the Primer Minister on February 2002.

[3] A report prepared by Conseil en Organization et en Sytemes d'information (CESIA) was provided by the Office of the Deputy Prime Minister on May 2002, where the proposed scheme designed was described.

[4] Disability is defined as lost of 50 percent of an individual's general capability.

17. *Contributions.* According to information provided by NSSF's Director General (not specified in the Draft Law), the contribution rate will likely be around 15 percent - 16 percent of an individual's pay, of which, one percentage point will be diverted as premium required to purchase insurance to cover death and disability payments, and another percentage point will be allocated to pay for administration cost. The residual 13 percent - 14 percent of pay will then be deposited to the individual accounts to be credited with interest and accumulated to retirement age. The split between employer and employee has not been established.

18. *Credited interest.* The contributions collected from employers will form an asset pool and the NSSF will continue to be its investment manager. The government is prepared to provide a guarantee that the accumulated contribution with interest for every individual (account balance) at retirement will at least be an amount equivalent to one month of pay (average of the last 10 years of service) for each year of contributory service.

19. *Benefits on retirement.* Accumulated contributions with interest in the individual's account will be converted to a life annuity upon retirement. Employees have the right to withdraw up to 25 percent of account balances in a lump sum. Details pertaining to the basis for annuitization – interest rate, mortality assumptions, post-retirement indexation – have not been decided. Also, it has not been determined whether the government intends to privatize or self-insure the annuities.

20. *Benefits on total and permanent disability.* Upon total and permanent disability, an individual will receive his accrued benefit, as described above, subject to a minimum of 20 times the monthly earnings.

21. *Survivor's pension.* Under the Draft Law, the surviving partner of a contributor will be entitled to receive a pension equivalent to 40 percent of the contributor. In case there are surviving children, the pension will be increased by 10 percent for each dependent child up to a maximum of four children with an age limitation. A disabled child will continue to receive the survivor's pension for life.

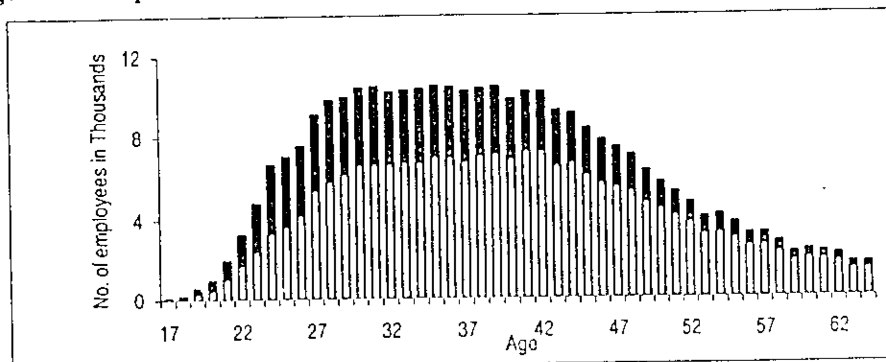
22. Proposal 2. A defined benefit scheme as outlined in the Master Plan for the NSSF (it is unclear whether this proposal would assume a multi-pillar system or a single pillar only).[5] This defined benefit system will have a target replacement rate of around 40 percent to 45 percent of reference earnings for someone with a 30-year career. No specifications were made as to how the reference earnings will be determined. There are at least two proposals on the effective annual accrual rate that will lead to the 40 percent to 45 percent of replacement rate: (i) a single accrual rate of 1.5 percent for each year of service; and (ii) a variable accrual rate of 1-2/3 percent for the first 15 years of service and 1 percent for each year thereafter. In addition, it was suggested in the Master Plan that the government should provide a minimum pension guarantee for those with incomplete career, although the threshold of such a guarantee was not specified. In a meeting with the Director General of the NSSF, it was indicated that the minimum pension may be set at 150 percent of the minimum wage.

[5] This Proposal 2 was apparently put forward through the Social Economic Council under the auspices of the NSSF.

III. Membership Information[6]

23. *Active employees:* A total of 300,845 contributors were reported to be in the system in the year 2000 (205,146 male and 95,699 female). Information available included number of employees segregated by single age cohort and gender. No up-to-date information on the historical number of contributors was available to derive the participation pattern and attrition rates. Figure 1 presents a sample distribution of the active employees in the year 2000 separated by men and women.

Figure 1: Sample distribution of active employees in 2000, male (clear), female (solid)



Source: Data collected by staff from the NSSF

24. *Contributory wage and average length of service:* Random samples of average wage for each single age cohort separated for men and women were extracted from the information system for the years 1994, 1995 and 1996. Information pertaining to the age-earnings distribution was then calculated by expressing the average wage of each age against the average wage of a 20-year old male. Up-to-date information on average contributory wage for the year 2000 was not available. Based on the contribution revenue supposedly collected in each of the years in 1996-1999, it was estimated that average contributory wage would be approximately LL930,000 per month with little or no increase over the period.[7] Information on amount of disbursements and number of disbursements by age cohorts was extracted for the years 1997 to 2001. Based on this information and the estimated average wage in each of these years, the average length of service at disbursement was extrapolated. Figure 2 shows the distribution of age-earnings profile and average length of service at disbursement by single age cohort.

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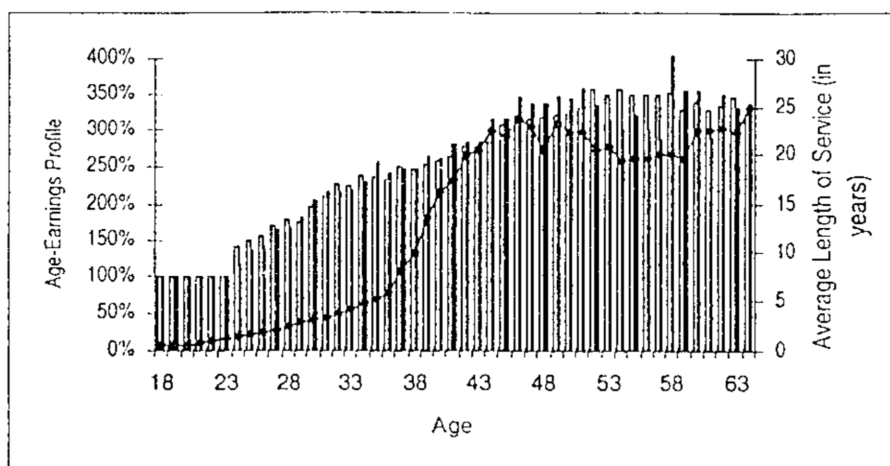
[6] Membership information for the NSSF have been provided by staff at the NSSF via computer printouts, separated into three groups – those employers with more than 10 employees, those with less than 10 employees and the contract workers in the public sector. Three listings giving details of membership counts for the year 2000 were segregated by the year of birth and gender. Details pertaining to profiles of newly joined contributors, including their age at joining, and average wage were extracted from historical records and made available in soft files. Information on the historical inflows into and outflows from the EOS Indemnity Program was summarized in a handwritten sheet for the past six years by exit categories – payments made to those who had reached retirement age, those with more than 20 years of service, those with less than 20 years of service, and those who died or became disabled.

[7] Information on average wage over the years are highly uncertain and must be analyzed and corroborated with up-to-date actual data.

Figure 2: Sample distribution of age-earnings profile (bar: clear for male, solid for female), and average years of service (line)



Source: Data collected by staff from the NSSF

IV. PROJECTION METHODOLOGY AND ASSUMPTIONS

25. The Pension Reform Option Simulation Toolkit (PROST – version 11) is a generic PC-based projection model developed by the Social Protection Unit of the World Bank. This model has been used to analyze and project reform options for the Lebanese EOS Indemnity Program and the proposed pension options.[8]

26. As with any simulation model, the outcome from PROST depends largely on the nature and quality of data as well as on the set of assumptions being used for the simulations. Since PROST has been used in some 50 countries to provide quantitative input for pension policy discussions, its methodology has proven to be sufficiently robust and its flexibility has permitted easy adaptation to specific country circumstances for sensitivity testing and comparisons under a wide range of economic and policy scenarios. In this section, the key assumptions used with the PROST simulations are presented.

27. *Simulation Horizon*: The start of the simulation horizon was 2000 (*base year*), the year for which the most complete documentation was found for all the variables needed for PROST. The ending year for the simulation horizon was 2075 (*end year*) – a period viewed to be of adequate duration to demonstrate the emerging trends of the pension expenditure in most pension schemes.

28. *Mortality Rates*: Age-specific mortality rates (in five-year age groups) including projected improvements in mortality (in five year intervals) for the years 2000-2075 were provided by the World Bank's Population Unit. These mortality rates were used to calculate the probability of dying by age cohort (age 0 to age 85) for both men and women every year during the simulation horizon. Average life expectancies at various ages as a result of the mortality assumptions are shown in Table 3 below.[9]

[8] The PROST model has been developed in VBA and can be used with the Windows 95/98/NT operating systems in conjunction with Office 97 or later platforms.

[9] Mortality tables used are available upon request.

Table 3: Projection of Life Expectancy Changes

	2000	2001	2002	2005	2010	2025	2050	2075
Male								
Life Expectancy: At Birth	69.0	69.2	69.3	69.6	70.2	72.1	74.6	76.7
At Age 20	51.8	51.9	52.0	52.2	52.6	53.8	55.6	57.3
At Age 60	16.3	16.4	16.4	16.5	16.8	17.5	18.8	20.0
At Age 65	12.8	12.8	12.9	13.0	13.2	13.8	14.9	15.9
Female								
Life Expectancy: At Birth	72.4	72.5	72.7	73.1	73.7	75.8	78.8	81.2
At Age 20	54.4	54.5	54.6	54.9	55.4	57.0	59.5	61.6
At Age 60	17.9	18.0	18.0	18.2	18.5	19.5	21.3	22.8
At Age 65	14.0	14.1	14.1	14.3	14.5	15.3	16.9	18.2

Note: (Average Remaining Years of Life Expected at Specific Ages)
Source: World Bank staff calculations based on PROST

29. *Active workforce*: Membership information summarized in Section II for active employees was used as the data for the base year (2000). For the purpose of this projection, it was assumed that there will be no expansion in the coverage under the existing NSSF.

30. *Evolution of the size of the contributors and beneficiaries*: Based on the coverage assumption and the historical exit patterns, Table 4a illustrates the demographics of the NSSF system over the simulation horizon under the status quo. All the reform proposals involve converting the EOS Indemnity Program to pension arrangements, i.e., instead of paying proceeds in lump sums, life annuities will be provided. As such, there will be recurring benefit expenditures under the proposed arrangements. Also, all proposals seem to eliminate the provision of premature payments prior to retirement, it was therefore natural to assume that the length of contributory period under the proposals will increase with time.[10] Table 4b illustrates the demographics under the new arrangements.

Table 4a: System Demographics under EOS Indemnity Program (2000-2075)

	2000	2001	2002	2005	2010	2025	2050	2075
Total number of contributors (in thousands)	307.8	317.7	327.8	360.6	418.1	539.0	575.2	580.6
Male	209.9	217.5	225.4	251.6	298.6	400.0	431.1	435.7
Female	97.9	100.2	102.4	109.0	119.4	139.1	144.1	144.9
Annual number of claims (in thousands)		26.8	26.8	26.8	28.4	32.8	34.1	34.3
Male		15.6	15.6	15.9	17.2	20.1	20.6	20.8
Female		11.2	11.1	10.9	11.2	12.7	13.5	13.5

Source: World Bank staff calculations based on historical patterns of claims under Status Quo

[10] We assume that the number of contributors stay the same but they contribute for a longer period of time under the reformed systems. However, this does not translate to a difference under the status quo, because under the current system, contributors may leave a particular employer and rejoin with another employer, which makes the length of service shorter at exit, but the overall pool remains the same.

Table 4b: System Demographics and dependency rates[11] under the reform proposals (2003-2075)

	2003	2004	2005	2010	2025	2050	2075
Total number of contributors (in thousands)	338.4	349.3	360.6	418.1	539.0	575.2	580.6
Male	233.8	242.5	251.6	298.6	400.0	431.1	435.7
Female	104.6	106.8	109.0	119.4	139.1	144.1	144.9
Old Age Pensioners (in thousands)	58.5	69.2	74.7	102.4	202.4	365.6	370.6
Male	34.7	41.6	46.0	67.6	138.7	256.4	261.5
Female	23.8	27.5	28.6	34.8	63.7	109.2	109.1
Old Age Dependency Ratio	0.2	0.2	0.2	0.2	0.4	0.6	0.6

Source: World Bank staff calculations based on assumed retirement patterns

31. *Macroeconomic assumptions*: Economic indicators (GDP growth and inflation rate) used for years 2000-2007 were based on the information provided by the World Bank team working on Lebanon. The longer term trend was based on the assumption that Lebanon's economy will converge to a steady real growth rate of 5 percent per year by 2010 and that inflation will be a steady 4 percent per year as well. Real wage growth in the short term (2000-2007) was assumed to continue to be depressed, but will gradually catch up to be at parity with the growth in GDP per capita. These economic parameters were used in conjunction with the assumptions concerning the population and the labor force to project the future financial conditions of the pension system. Table 5 summarizes the key macroeconomic assumptions used.

Table 5: Key Macroeconomic Assumptions (percent per annum)

Macroeconomic Trends	2000	2001	2002	2003	2005	2010	2020	2040	2075
Real GDP Growth	-0.5%	0.8%	1.4%	2.0%	3.2%	5.0%	5.0%	5.0%	5.0%
Real Wage Growth	0.0%	-0.5%	0.1%	0.7%	1.9%	3.7%	3.9%	4.5%	5.0%
Inflation Rate	-1.0%	0.5%	4.0%	2.5%	2.7%	3.0%	3.0%	3.0%	3.0%
Real Discount Rate	4.0%	3.9%	3.8%	3.7%	3.5%	3.0%	3.0%	2.5%	2.5%

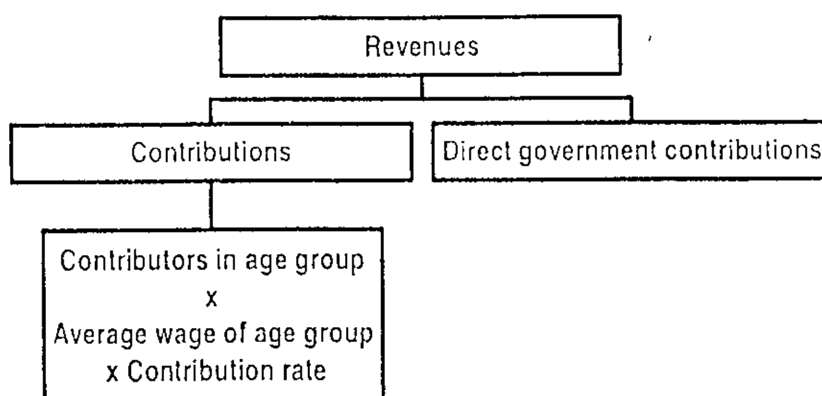
Source: World Bank staff estimates.

32. *Pension System Financial Flows.* In projecting the financial flows of Lebanon's EOS Indemnity Program, revenues and expenditures had to be first determined.

33. *Revenue.* The following chart shows a schematic view on the calculation and sources of revenues. Contribution revenues were calculated based on the prescribed contribution rate,[12] average earnings of each age cohort and the number of contributors in each cohort. Additional employer contributions were provided only on an ad-hoc basis to supplement any deficits.

[11] Defined as the ratio of persons receiving pension benefits to the number of persons contributing to the system. The old age dependency rate used here refers to the number of persons over age 64 divided by the number of persons aged 17 to 64.
[12] Assumed to be 8.5 percent under the status quo and 14 percent under Proposals 1 and 2.

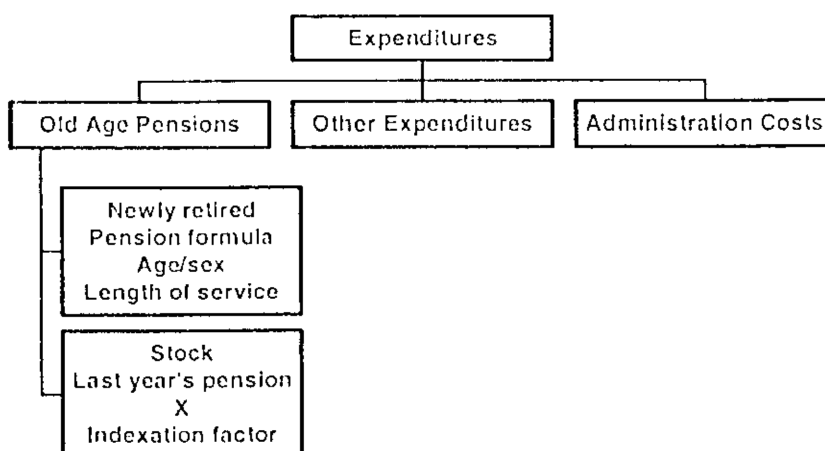
Figure 3: Calculation of Revenues



34. *Collection Rates.* NSSF reported that compliance rate averaged around 80 percent for the private sector employer groups. Contributions with respect to the contract workers in the public sector have never been deposited to the NSSF by the government. However, in view of the size of the contract group (approximately 5 percent of the total), it was determined that a collection rate of 70 percent would be closer to actual funds collected after taking into consideration defaults and amounts in arrears.

35. *Expenditures.* Under the existing EOS Indemnity Program, all expenditures are paid as a lump sum based on the provisions described in Section II. Pension expenditures under Proposals 1 and 2 are calculated based on the formulas described in Section II. Figure 4 shows a schematic view of the determination of benefit amounts and other sources of expenditures under the proposed arrangements.

Figure 4: Calculation of Expenditures



V. Summary of Projection Results and Key Issues

36. It is a widely accepted practice to measure the sustainability of pension systems using various benchmarks. Generally, two benchmarks are particularly relevant:

- Implicit pension debt; and

- Required contribution rate.

37. *Implicit pension debt* (IPD). It is a measure of the present value of projected liabilities under the pension system and covers those who are already receiving payments from the system as well as those who have any acquired rights at a particular date (except under the status quo where all liabilities are considered to have been discharged at the time of exit for those who have left the system). This is a useful indicator to measure the stock of all outstanding liabilities. Also, this is a common indicator used by the international community and fiscal affairs experts when comparing the maturation and fiscal burden of different pension systems. It is important to note that this indicator is highly sensitive to the discount rate used in the calculation (see Table 5 for assumption on discount rate).[13] Hence with the proviso that macroeconomic assumptions are on balance sound and internally consistent, expressing the implicit pension debt as a percentage of the current year's GDP should be a reliable indicator of fiscal burden. Nevertheless, it should still be used with prudence when making comparisons with other pension systems.

38. Another useful indicator to measure the sustainability of a pension arrangement depends on how long the system can manage on a cash flow basis such that expenditures are met solely through contribution revenues, without any additional financing to supplement the cash flow needs. And, if no other financing is possible when cash deficits occur, what might the *required contribution rate* be in order to maintain cash flow balance. This is the rate at which contributions have to be made (regardless of whether it is levied against the employee or employer) in order to avoid subsidy from any external source of funding (including drawing down the reserve) and is often expressed as a percentage of wage bill.

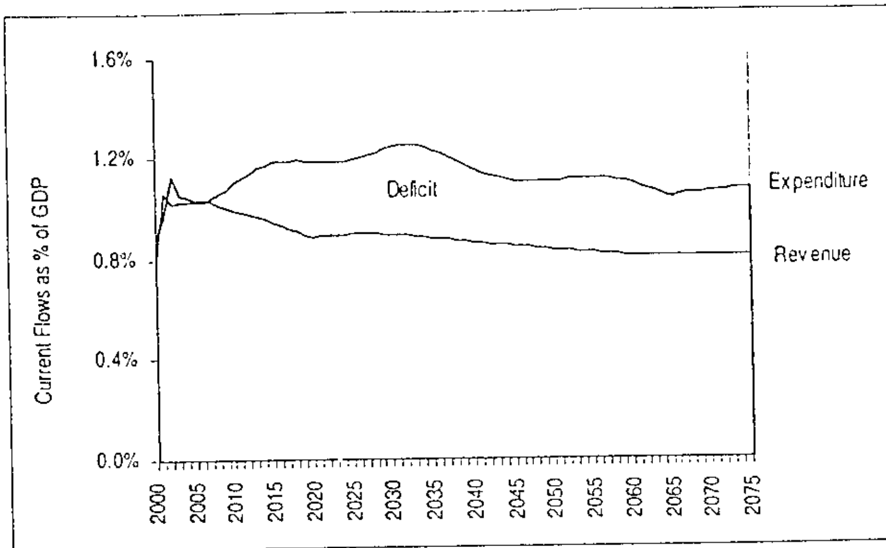
Summary of Projection Results

39. It is important to keep in mind that projections of this nature should not be quoted in absolute terms without proper reference to the underlying assumptions. The purpose of these sustainability benchmarks is to provide a comparison of the relative magnitude of the effects of different pension policy measures under various scenarios.

40. Up to now, the EOS Indemnity Program has been financed mainly through contributions made by the employers during the year. At the beginning of the year 2000, reserves under the EOS Indemnity Program amounted to over 5 percent of GDP (LL1,391 billion) and generated investment income of some LL40 million in the year. Although the annual payouts already exceeded contribution revenue, the existence of the investment income not only paid for the shortfall in the cash flow, the residual investment income provided a current surplus of some LL19 million at the year-end. However, this source of financing (investment income) would be exhausted by the year 2019, when the reserves would be totally depleted. At that point, the contribution rate would have to increase from the current level of 8.5 percent to 12.0 percent in order for the system to be able to continue on a pay-as-you-go basis, and by 2075, the required contribution rate would have to be as high as 15 percent of covered wages.

[13] If real wage growth rates were to increase at a faster pace than the GDP growth rate, or if interest rate were to fall below the GDP growth rate, the size of future IPD would increase even more significantly.

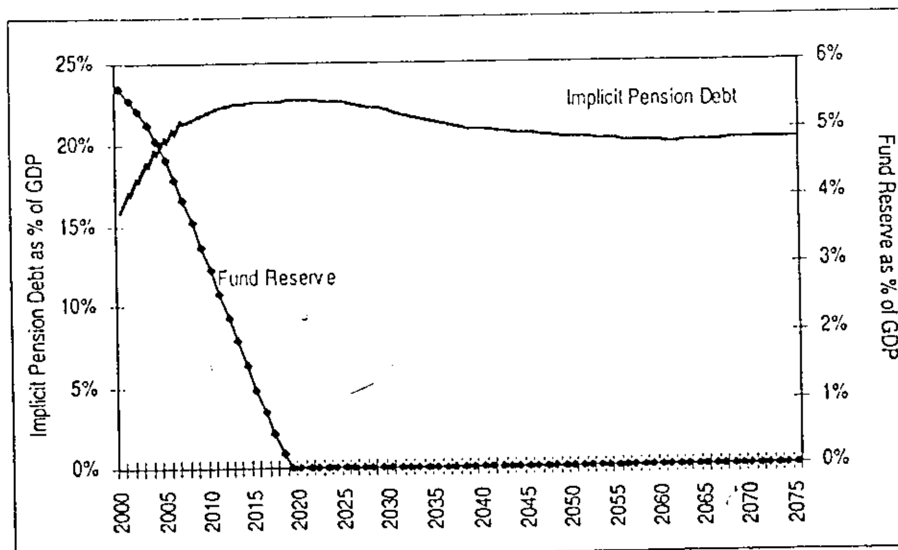
Figure 5: Projected Cash Flow of the EOS Indemnity Program (2000-2075)



Source: World Bank staff calculations based on PROST

41. The declining cash flow position (measured in terms of current revenue income over current expenditures) underscores the long-run cost of the pension promise. When workers pay their contributions, they expect to get a specified benefit in return. The present value of this future stream of expected net benefits is in fact the *implicit public pension debt* (IPD). This is a hidden liability for the government but is a measure of the true cost of the system. Although this IPD depends on a whole host of factors (such as assumptions on GDP growth, interest rates and the real wage growth rates), simulations using the economic assumptions summarized in Table 5 shows that the IPD in Lebanon is already some 17 percent of GDP in 2000 and will increase to well over 25 percent of GDP in 30 years time. This is a fairly significant burden on the government when considering the benefit is on behalf of less than 50 percent of the labor force or less than 10 percent of the population at large.

Figure 6: Implicit Pension Debt and Fund Reserve



Source: World Bank staff calculations based on PROST

Summary of Key Issues

42. The Lebanese retirement income system for private sector workers consists only of an end-of-service lump sum indemnity payment. The government has long recognized that there is urgent need to reform this system. In anticipation of such transformation, it has taken great care to ensure that any new system should be safe, reliable and financially sustainable while embracing the principles of social solidarity.

43. Therefore, it is expected that any reform will address a variety of issues in the current legislation, including:

- *inadequate retirement benefits.* Under the current system, the maximum total retirement benefits for individuals who have been in the system for 40 years under the same employer is about 30 percent of pre-retirement income.[14] This is rather low by international standards, particularly since no health insurance is provided to retirees. In addition, premature distribution of account balances could occur with 20 years of contributions (without penalty) or less (with penalties), which could further deplete benefits at old age and create a burden that the Lebanese economy is unlikely to be able to support in the long run;[15]

- *inadequate portability and equity.* Workers who change employers part way through their careers lose retirement protection to which they would otherwise be entitled from the employer they are leaving. This is particularly true for low-wage earners. In addition, mobility between public and private sector employment is costly to workers. Moreover, it discriminates against private sector workers, since only those in the civil service and military systems are covered by a retirement pension scheme. The current scheme also harms the economy by discouraging job mobility and produces benefit inequities among similar workers;

- *inadequate distribution of risks and responsibilities.* While the program risks are entirely borne by employers during the accumulation period, the NSSF and not employers is responsible for managing the program. This arrangement is a recipe for moral hazard behavior on the part of the administrator. Furthermore, a lump sum payment places the risk of retirement income entirely on the retiree, and any misfortune in investing it would leave the elderly unprotected. This is most likely to be the case with unsophisticated low-wage earners. An active annuity market would improve individuals risk management; however, the risk remains since annuitization of the lump sum payment is not mandatory;

- *inadequate funding requirements.* Since employers are not required to set aside funds to finance their residual liabilities, workers from employers that go out of business are left with no protection on this portion of the plan;

- *NSSF contingent liabilities.* If employers do not pay their part of the end-of-service indemnity in 30 days, by law, NSSF must pay it and initiates legal actions to collect from employers;

- *inadequate coverage.* The system does not cover the self-employed, overseas Lebanese, or rural workers. In addition, it creates disincentives for their participation. Furthermore, there is no

[14] Assumes life expectancy of 15 years after age 65 and a real interest rate of 4 percent p.a..
[15] According to recent data, most pensioners are, in fact, retiring with 15-20 years of service, which implies that the annuitized replacement rate would be only on the order of 13 percent.

voluntary schemes which are regulated and supervised which could provide coverage for this segment of the working population;

- *inadequate assistance during periods of unemployment.* Workers can withdraw their balances upon leaving employment, but with increasing penalties the shorter the period of contribution; and

- *lack of assistance to satisfy other costly needs.* Retirement is a period of hardship in Lebanon due to the inadequacy of existing retirement benefits to help finance other costly expenses.

VI. COST ESTIMATES OF THE REFORM PROPOSALS

44. Lebanon has been engaged in an effort to reform its EOS Indemnity Program for some time. Many reform options have been tabled and studied. *The Draft Law* describes extensive amendments to the existing National Social Security Fund law which envisions transforming the existing indemnity program into a single, mandatory retirement scheme – a system that is employer-based, defined contribution (shared between employers and employees), publicly managed, with a minimum pension guarantee. Most of the amendments dealt with principles on reforming administrative, fund management, and governance issues (Annex, Part I). Details pertaining to the required contribution rate, target replacement rate, methodology to determine retirement annuity and the level of the minimum pension guarantee have not been articulated (Annex, Part II). Further discussions with the NSSF revealed that the contribution level will likely be around 15 percent (of which, one percentage point will be allocated for administration expenses, another percentage point will be earmarked for insurance purposes to cover required premiums for disability and mortality exposures, and the residual 13 percent will be accumulated for retirement savings). Under this Draft Law, the publicly managed system will continue to be administered by the NSSF with no undertaking of any systemic risk except for the cost of providing the minimum pension guarantee.

45. *Proposal by the NSSF* – In contrast to the single, mandatory, defined contribution system proposed under the Draft Law, the NSSF through the Social Economic Council apparently endorses a traditional defined benefit system. One source of information indicated that this pay-as-you-go defined benefit scheme may provide an accrual rate of 1.5 percent for each year of contributions which will be funded using a scaled-premium approach. Provisions under the second-pillar, if any, are not known.

46. In this section, efforts were focused on quantifying the magnitude of the cash flow requirements and the debt burden under variations of the two key reform options. A total of six scenarios are being presented:

Scenario 1 - Provisions based on Proposal 1 in Section II with reserves centrally managed by NSSF
Scenario 2 - Similar to Scenario 1 but reserves will eventually be privately managed
Scenario 3 - Provisions based on Proposal 2 in Section II using a uniform accrual rate with minimum pension guarantee of 150 percent of minimum wage
Scenario 4 - Similar to Scenario 2 but with minimum pension guarantee of 50 percent of minimum wage
Scenario 5 - Provisions based on Proposal 2 in Section II using a accrual rate that declines with years of service with minimum pension guarantee of 150 percent minimum wage
Scenario 6 - Similar to Scenario 3 but with minimum pension guarantee of 50 percent of minimum wage

47. Due to the terms and conditions that are likely to be set out under Proposals 1 and 2, which are pension arrangements, it is reasonable to assume that the specified benefits are payable only upon retirement, disability or death, and that premature payouts would no longer be permissible. As a result, contributory service of those who exit the system would most likely be much longer than under the Status Quo. Table 6 below summarized the net cash flow positions (current surplus/deficits) under each of the scenarios throughout the projection period under the new system. The cash flows refers to the payouts of the acquired rights plus whatever the minimum guarantee requires (excluding the cash flows under the proposed defined contribution arrangements). Also indicated are the years in which the existing fund reserve is expected to be depleted under each of the six scenarios.

Table 6: Summary of current deficits under the new retirement system (excluding the DC)

	2003	2005	2010	2025	2050	2075	Year of Fund Depletion
Scenario 1	(.4%)	(.1%)	(.3%)	(.4%)	(.0%)	(.0%)	2014
Scenario 2	(.4%)	(.1%)	(.3%)	(.4%)	(.0%)	(.0%)	2014
Scenario 3	(.2%)	(.5%)	(1.0%)	(2.2%)	(4.0%)	(3.9%)	2010
Scenario 4	.6%	.5%	.4%	(.2%)	(1.1%)	(1.1%)	2031
Scenario 5	(.2%)	(.5%)	(1.0%)	(2.2%)	(4.0%)	(3.9%)	2010
Scenario 6	.6%	.6%	.5%	(.0%)	(.9%)	(.9%)	2033

Note: (Revenues less Expenditures expressed as percent of current GDP)
Source: World Bank staff estimates based on PROST

48. In all of these scenarios, apart from the projection assumptions outlined in Section IV, all policy parameters for the particular scenario were assumed to remain unchanged throughout the simulation period. In so doing, the long term effects of each policy option could be clearly demonstrated.[16]

49. *Scenarios 1 and 2* – Under Proposal 1 (provisions under the Draft Law), the EOS Indemnity Program will be converted to a new scheme that takes the form of a mandatory, single pillar system funded based on capitalization. The transition from the existing system to the new scheme poses no problems for new entrants to the work force. However, it involves recognizing the acquired rights of workers who are currently covered under the EOS Indemnity Program and are required to move to the new scheme. Unfortunately, the Draft Law did not spell out how the acquired rights of these workers would be handled. The accrual rights estimates should be equal to the last salary times years of service with the last employer plus the balance in the account from previous employment. Due to the lack of data, it was necessary for the purpose of the simulations to estimate the account balances of existing workers at the time of switch over. Calculations were made by assuming earnings had been growing at a real rate of 2 percent each year since 1970, and that interests on these accounts were credited at a real rate of 2.5 percent per year.[17] Each individual would then receive a recognition bond the face value of which exactly equal to the amount of accumulated contributions. Thereafter, these recognition bonds are assumed to earn a coupon rate of 2.5 percent in real terms each year. Under Scenario 1, it was assumed that NSSF would maintain the management responsibility of the reserve funds and would deliver a real return on investment of 4 percent in 2000, dropping gradually to 3 percent by 2010, then stabilizing at 2.5 percent by 2020 and remain constant thereafter. In contrast, under Scenario 2, it was assumed that NSSF would gradually relinquish the investment management responsibility and outsource the asset

[16] To keep things simple, we have not included any behavioral changes in the projections. So the differences shown is due only to the difference in replacement rates and accrual patterns under scenarios 3 and 5 versus 4 and 6.
[17] These calculations have to be validated and refined against each individual participant's contribution history which were not readily available for the purpose of preparing this report.

management function. Research on international fund management have shown that privately managed funds generally outperform their public counterpart.[18] As such, the return on investments under Scenario 2 would likely yield higher returns – assumed to be at a real rate of 5 percent each year starting from 2005. Although expenditures from the pre-reformed system of EOS would be identical (since workers have the same acquired rights), due to the incremental returns that private management would likely deliver, the eventual size of the fund reserve under the capitalization system would deviate substantially under these two scenarios. Table 7 below summarizes the potential size of the expected reserve accumulation under the proposed capitalization system to be introduced for future service under public versus private management.

Table 7: Comparison of potential size of reserves under public vs. private management
(fund reserves expressed as percent of current GDP)

	2003	2005	2010	2025	2050	2075
Scenario 1	1.7%	4.6%	11.0%	23.6%	24.6%	22.8%
Scenario 2	1.7%	4.6%	11.4%	28.5%	33.0%	30.6%

Source: World Bank staff estimates based on PROST

50. Under Proposal 1 (Scenarios 1 and 2), the government is prepared to guarantee that account balances (including credited interest) would be at least equal to one month for each year of service times the average earnings in the last 10 years prior to an individual retiring. Given a net 13 percent contribution rate, the account balance at exit depends on three uncertain factors: the length of contributory period, the real wage growth and the real rate of return on investments. The account balance is thus a random variable, and it is difficult to characterize its distribution. Nevertheless, it would be useful to have some idea of the circumstances under which account balances may fall short of the guarantee using different sets of assumptions.

51. In order to keep things simple, consider the following examples where contributions would be made continuously at 13 percent of wages since joining the system (10, 20 and 30 years), real return on investment (i) would be less than real wage growth (g) by 10 percent, 12 percent and 15 percent per annum. Table 8 summarized the relative size of the account balance vis-à-vis the government guarantee provided by the formula and showed that there is almost no cost associated with such a provision on a deterministic basis. This is because given the prescribed contribution level (tentatively set at 15 percent less 2 percent for insurance and administrative cost purposes), the guarantee would kick in only in near catastrophic conditions -- a combination of extreme negative returns in relation to wage growth and short history of contributory service.

Table 8: Comparison of Account Balances to Guaranteed Amounts Promised by the Government
(based on a net contribution rate of 13 percent per annum)

Contributory years	Investment return (i) relative to wage growth (g) in real terms		
	i = w - 10%	i = w - 12%	i = w - 15%
10	B > G	B < G	B < G
20	B > G	B > G	B < G
30	B > G	B > G	B > G

where B = account balance with interest and G is the government guarantee

Source: World Bank staff estimates

[18] Palacios and Iglesias (2000). "Managing Public Pension Reserves: Evidence from the international experience".

52. *Scenarios 3 and 4* – These are variations of a proposal reportedly tabled by the NSSF. In essence, Scenarios 3 and 4 represent a proposal that converts the EOS Indemnity Program into a defined benefit scheme with a target replacement rate[19] of 40 percent to 45 percent of reference wage (the basis in which reference wage would be determined was not specified in the document provided by the government) for someone with a 30 year career. Under these two scenarios, a 45 percent target replacement would translate to a flat annual accrual rate of 1.5 percent per year of service. The only difference between the two scenarios is in the level of the minimum pension guarantee. Currently, average wage is slightly in excess of three times that of the minimum wage. Although the threshold for the minimum pension guarantee was not officially proposed in the document, the Director of NSSF mentioned that it might be appropriate to set it at around 150 percent of minimum wage. However, analysis showed that a proposed guarantee replacement rate of 150 percent of minimum wage (approximately 50 percent of average wage) is simply too high and would impose a heavy burden on the government expenditures. Even for someone who has completed the average required years of contributory service (30 years according to the proposal) would be eligible to claim the minimum pension guarantee. Unless the cost of providing this guarantee is implicitly built into the contribution rate, all the risks would then be borne by the government. If the cost of such a guarantee is being imputed into the contribution rate, then the burden will be transferred to the employers and employees. At the same time, there will be no accountability and incentive for the NSSF to maximize returns within a specified level of risk, since they are shielded from any consequences in spite of poor investment decisions. Table 9 highlights the required contribution rates to fund a system whereby the pension payable at retirement is defined as 150 percent (and 50 percent) of minimum wage. Clearly, the required contribution for such an arrangement is dependent on five uncertain factors: the length of working life, the real wage growth, the real rate of return on investment, the real interest rate at retirement and the number of years in retirement.

Table 9: Contribution rate required under a savings scheme to pay price-indexed pension

	150% of minimum wage		50% of minimum wage	
Real wage growth	0%	2%	0%	2%
Real return on investments				
0%	28%	37%	10%	13%
2%	18%	24%	6%	8%
5%	9%	12%	3%	4%
Real pension rate at death	150%	150%	50%	50%
Relative pension rate at death	150%	105%	50%	34%

Notes:
1. Plan expenses, disability and survivors' benefits are not included.
2. Inflation is assumed to be 5 percent per year.
3. Workers are assumed to contribute for 30 years and live for 17 years after retirement.
4. Increases in individual's earnings as a result of seniority and merit are not included.
5. Real pension in year of death is defined as pension relative to worker's final year of salary.
6. Relative pension in year of death is defined as pension relative to average wage in the year of death.

53. *Scenarios 5 and 6* – These are yet two additional variations of Scenarios 3 and 4, except that the target replacement rate is arrived at by providing a higher accrual rate for the first 15 years (1-2/3 percent each year), and a lower accrual rate in subsequent years (1 percent each year).

[19] Defined as the ratio of real benefits to real earnings at the time of a worker's retirement.

54. There were no specifications in the available documents indicating what would be the planned level of contributions. Table 10 summarizes the sustainable contribution rate that would be required under Scenarios 3 to 6. Clearly, the high contribution rates required under Scenarios 3 and 5 reflect the unreasonably high minimum pension guarantee (at 150 percent of minimum wage) and would translate into unbearable tax on labor. Scenarios 4 and 6 present the sustainable contribution rate under more affordable minimum pension guarantee (at 50 percent of minimum wage).

Table 10: Sustainable contribution rates to avoid any deficits (2003-2075)

Scenarios	Sustainable Contribution Rate
3	43 percent
4	17 percent
5	43 percent
6	16 percent

Source: World Bank staff estimates based on PROST

55. Table 11 underscores how ambitious and generous is the Lebanese proposal to provide a minimum guarantee pension equivalent to 150 percent of minimum wages (50 percent of average wages). No OECD country in this table provides a normal pension from their mandatory system larger than 50 percent of average wage for full career workers (40 years of service) with earnings of 50 percent of the system average. Furthermore, the minimum pension cannot be greater that the minimum salary, it would distort labor markets. There is no rational to pay a worker 50 percent more in retirement than when he/she is working. The difference is even higher taking into account the after tax income, while workers pay social security contributions and taxes out of their salary retirees do not.

56. This exercise also underscores the potential political risks of adopting a national defined benefit pension plan in Lebanon. If adopted, Politicians and Parliamentarians would be under pressure to provide benefits which are not affordable. A country that already has the highest debt burden in the world (over 175 percent of GDP and increasing) is not well positioned to adopt a pension plan which would further increase the country indebtedness through more future contingent liabilities (increasing the implicit pension debt). This policy could worsen financial markets sentiment which would make refinancing of the debt even more difficult.

Table 11: Total mandatory pension benefits as a percentage of economy-wide average earnings by individuals earning level

Country	Individual earnings, proportion of economy-wide av.		
	0.5	1	2
Australia	35	43	63
Canada	37	43	36
Finland	38	60	120
France	40	72	108
Germany	25	38	65
Italy	36	72	145
Japan	36	53	75
Netherlands	35	70	140
Norway	31	52	74
Spain	44	88	151
Sweden	47	69	131
Switzerland	31	58	69
United Kingdom	25	35	44
United States	29	45	65

Source: Edward Whitehouse

VII. Issues on Governance of the Pension System: Comments on the Draft Law for Amendment of the Social Security Law

57. In general, the draft law provides excessive participation, power, and discretionality to the government in the management of NSSF. Modern approaches emphasize the need to provide these institutions with as much independence from government as possible in order to minimize political risks. However, improved governance not only requires independency, but also the adoption of maximum standards of accountability to board members and managers, information disclosure and transparency. Detail comments are presented in the Annex, Part I.

VIII. Some Suggestions to Modify the Reform Proposals

58. The proposals tabled by the Lebanese government thus far focused on providing an adequate retirement income with a better distribution of risks, making the system more equitable, and improving labor mobility. However, some of the provisions are excessive by international standards and thus severely affect the sustainability of the system. In this section, some modifications to the proposals are suggested so that the provisions will not be overly generous but certainly adequate for all Lebanese. This will ensure that the system will remain affordable into the next century as the Lebanese population ages.

59. While promising an overall post-retirement income of about 50 percent of pre-retirement pay for a full career worker may be reasonable, the risk-sharing arrangement and the associated cost have to be fair and transparent – be it in the form of a defined contribution (where the workers bear the risk), defined benefit (where the employers bear the risk) or via the provision of minimum pension guarantee (where the government bears the risk). The modifications suggested in this section will shift from a mandatory employer contribution-based and risk-bearing, but Government managed, lump sum, partially funded arrangement, to a program that relies on two defined contribution pillars – *a mandatory defined contribution pillar* which will provide the options to be either publicly or privately managed, and *a second voluntary pillar* which will be privately managed. Details pertaining to the two pillars are as follows:

60. *The mandatory defined contribution pillar* to be funded by employer/employee contributions with a minimum guaranteed benefit linked to the years of contributing services and to the worker's career real average taxable wage. Contributions to this pillar will be shared by the workers and their employers to be defined as a percentage of taxable wage up to 3.5 times the system's gross average wage. This pillar will have three possible options for its management – a publicly managed, a privately managed, or a combination of both:

- A publicly managed plan under the responsibility of the NSSF. Employees and Government will bear the plan risks. The Government will guarantee the minimum level of benefits as defined below. The funds' plan will be invested mainly in investment grade fixed income securities, domestic and foreign, such as: sovereign securities; asset backed securities (e.g., mortgage bonds), bonds and certificate of deposits issued by banks, and corporate bonds. NSSF will be allowed to outsource fund management.

- A privately managed plan under the responsibility of professional fund managers with international reputation on pension fund management. Employees, employers and fund managers will share risks. Employers and fund managers will share the guaranteed minimum level of benefits as defined below. The funds' plan will be invested mainly in securities (domestic and foreign) to maximize returns for given risks tolerance. A small proportion of these funds could also be invested in leasing, factoring, and venture capital firms.

- A combination of publicly and privately managed plan where NSSF managed funds would be among one of the available options together with other qualified professional fund managers above. Depending on the investment option, employees, employers, fund managers and the government will share the risks accordingly. The funds' plan will be invested in accordance with the investment charter being adopted.

61. *The voluntary pillar* which could comprise either group (occupational or employer-sponsored shared by matching employer/employee contributions) or individual defined contribution pension plans, employee risk-bearing, privately managed, and fully funded.

The Mandatory Pillar

62. One key to the reform program is the introduction of a mandatory pillar with options for its management. It will be a defined contribution arrangement and fully funded. The publicly managed plan will be administered by the NSSF, and the privately managed plan will be administered by licensed managers which will be regulated and supervised by an agency to be determined in the appropriate

legislation. Private fund management will be decentralized and managed in segregated trust accounts with appropriate custodian arrangements.

63. *Plan selection.* Employers, in consultation with employees, will decide on whether to select the public or privately managed plan where individual accounts will be held. If the employer decides for a privately managed plan, he or she will also choose a particular fund manager. In the future, once supervision is well equipped, a combination of public and privately managed plans would also be available. In addition, funds would be able to be managed by multiple private fund managers. Employers, always in consultation with employees, will be able to switch fund managers when deemed convenient.

64. *Contributions.* The plan will be financed by total (employer and worker) contributions of 15 percent of taxable wages, subject to a ceiling equivalent to 3.5 times the system's gross average wage. Costs pertaining to management fees, term life and permanent disability insurance premiums would be deducted from the contributions up to 2 percent of taxable wages. Management fees and insurance premium will be determined in the market. That is, NSSF and private fund managers will determine their management fees in negotiations with employers. In case management fees and insurance costs exceed 2 percent of taxable wages, employers will top up the difference. But, if they are lower than 2 percent employers will keep the difference.

65. *Collection.* The employer will remit contributions, including deductions through payroll contributions, to the plan. Fees payable as a result of management fees and insurance premiums would be charged against the fund on a monthly basis. Contributions will be due by the fifth day of the month, immediately following payment of salaries. Delays in payment of contributions should invite legal and strict punitive measures. In the case of overpayment, member accounts will be credited with the contribution plus interest at the market rate. The excess payment may be used to pay for collection costs.

66. *The Savings Accounts.* This proposal is a hybrid to the provisions outlined in the Draft Law. Instead of a single defined contribution account for the worker, this proposal suggests the introduction of two defined contribution accounts per worker – the Pension Savings Account and the Contingent Savings Account – to be financed by contributions on taxable wages, up to 3.5 times the system's gross average wage.[20] The Pension Savings Account (solely for retirement income purpose) will accumulate funds that will have to be converted upon retirement into a life annuity with an accredited life insurance company. The Contingent Savings Account (for unemployment and other life events) will accumulate funds to provide income in times of needs as a result of unemployment and to cover other needs and can be withdrawn as a lump sum. Both accounts will be managed by the same fund manager.

67. *Pension Savings Account.* The Pension Savings Account is a savings account solely for the purpose of providing retirement income security and should be co-financed by employer and employee contributions.[21] The account manager will credit to the worker's Pension Savings Account the net amount of contributions of 13 percent of taxable wages (net of management fees and insurance premiums), together with interest and dividends earned. Upon retirement, the worker will be able to receive a pension by converting the accumulated balance in this account either into a scheduled withdrawal program or a life annuity contract with an accredited life insurance company. This conversion will be mandatory up to a specified level of benefit (for example, an annuity that would replace 45

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[20] It is estimated that the average sustainable contribution rate under the EOS Indemnity Program would be around 15 percent of payroll (see Section V) in the long run.

[21] By having employees contribute to the system it is likely to improve overall compliance both in terms of remittance and ongoing monitoring of performance due to increased ownership in the system. The actual split between employer and employees can be determined at a later stage, e.g., 5 percent employee and 10 percent employer.

percent of the last taxable salary), and optional with funds in excess of this amount. These options will ensure that retirement income continues throughout the lives of the worker and his or her spouse and dependent minor children in case of death or disability. It will be necessary to harmonize the respective provisions in the health insurance and family allowance laws to prevent a duplication of benefits. At the time of retirement, those workers without sufficient funds to buy an annuity or a scheduled withdrawal program will be able to withdraw the total balance in their accounts as a lump sum.

68. *Minimum Guaranteed Benefits.* The proposed minimum guaranteed benefit takes the guarantee under the Draft Law one step further – instead of the last 10 years of earnings, this proposed guarantee uses the concept of the worker's career average real contributory wage (CARCW). The contributory wages earned by the worker throughout his entire career (subject to the annual cap) will be put in real terms at the time of retirement by indexing it to price change over the worker's career. Similar to the Draft Law, the account balance at time of retirement will be compared against the minimum guarantee which is defined as the number of months (x) for each year of service times the CARCW.[22] Table 12 illustrates that the reasonable number of months (x) that can be provided is somewhere between two-thirds of a month to two months and a third for each year of service times CARCW, assuming continuous contribution at 13 percent of earnings since joining the system (10, 20, 30 and 40 years), differentials between real return on investment (i) and real wage growth (g) of 0 percent, ±1 percent, ±2 percent, and -5 percent per annum. The ultimate policy decision on the appropriate level of guarantee depends on the confidence on the likely performance of the investment manager whether he can deliver the level of investment return that is required without subsidy from the government. For example, assume the government decides to guarantee that account balances will not fall short of 2 months for each year of service times CARCW. On a deterministic basis and over the long term, there should not be much costs in providing such a guarantee provided that the real returns on investment will exceed wage growth of each worker by at least 2 percent. Similarly, if the government does not wish to assume much risk, and is prepared to guarantee no more than one month for each year of service times CARCW, then even if returns trail wage growth in real terms by as much as 2-3 percent, the cost will be minimal. However, since all three factors shown – contributory years, real investment return and real wage growth – are random variables, it is difficult to characterize its distribution, and hence the ultimate cost for the government in providing such a guarantee.

Table 12: Number of months guaranteed for each year of service based on CARCW (based on a net contribution rate of 13 percent per annum)

Contributory years	Investment return (i) relative to wage growth (g) in real terms					
	i = w + 2 percent	i = w + 1 percent	i = w	i = w - 1 percent	i = w - 2 percent	i = w -5 percent
10	1.7	1.6	1.5	1.5	1.4	1.2
20	1.9	1.7	1.5	1.4	1.3	1.0
30	2.0	1.7	1.5	1.3	1.1	0.8
40	2.3	1.7	1.5	1.2	1.0	0.6

Source: World bank staff estimates

69. If the funds are publicly managed by the NSSF, then NSSF/government will provide the minimum guaranteed benefit for workers participating in the publicly managed system. In cases where the funds are privately managed, employers will provide the minimum guaranteed benefit

[22] The existing system provides a benefit of one month of the last salary per year of contribution. This benefit will be the maximum collected by a worker under one employer. The benefit is lower for workers whose career were with several employers. Hence the proposed minimum guaranteed benefit should be close to the average with the current system. Further calculations would be needed to refine this estimate.

to their employees in the first instance. If they fail to comply in 30 days, the private fund manager will be responsible to cover any remaining gap from its own capital. Fund managers will be able to initiate legal actions against employers to collect amount dues, and this liability should be reflected immediately in the employers' balance sheet. Fund managers that cannot cover the remaining gap in 30 days will be closed and their licenses withdrawn with pension funds being transferred to other fund managers. To further ensure compliance with the minimum guaranteed benefit, once a year fund managers will calculate whether funds credited to employees of a given employer are sufficient to pay the accrued minimum guaranteed benefits. In case of a gap, fund managers should proceed as indicated above to credit the difference in members accounts. In case of switching fund manager, because the employer decided to do so or the employee changed job, the transfer of funds must comply with the minimum guaranteed benefit payment. Any gap will be covered as indicated in this paragraph above. Switching from the publicly managed to a privately managed plan or vice-versa must also comply with the minimum funding requirement.

70. *Sharing benefits*. When in a particular month the funds accumulated in an individual account is over three times the level of the minimum guaranteed benefits, during the following month, a minimum of 50 percent of the return earned by the fund will be credited to the worker's account and the other 50 percent will be distributed between the employees, employer and the fund manager depending on the agreement reached in the management contract.

71. *Retirement age, mandatory annuitization and timing*. Retirement age could be made endogenous. Workers, independent of gender, would be able to retire whenever their accumulated balance in their individual accounts would allow them to purchase an annuity that would replace at least 40 percent of their taxable wage and up to the cap of 3.5 times the system's gross average wage.[23] This level of annuitization will also be the mandated level to all plan members at the time of retirement. Any excess balance in their saving account could be withdrawn as a lump sum. In order to allow better management of risks, plan members could purchase partial deferred annuity contracts starting five years prior to planned retirement.

72. *Life and disability insurance*. Subject to proper competitive pricing from commercial insurance companies, the death and permanent disability benefits could be such that when workers die or become permanently disabled, the survivor(s) or the disabled worker would always receive a refund of the account balances, plus proceeds from the insurance contract.

73. An alternative solution is to define the benefits that the disabled worker, or his/her survivors would receive (this is the case predominant in Latin America). In general, the insurance company provides the funds (less the balance accumulated in the individual account) to purchase an annuity that will provide a pension as a percentage of the worker's average salary.[24]

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[23] Ideally, annuity contracts should determine pensions in real terms.

[24] For example, in Argentina the benefits are: 1) 70 percent of the average salary of the last 5 years for disabled regular workers with contributions in 30 months out of the last 36 months; 2) 50 percent of the same average salary for disabled workers with contributions between 18 and 30 months of the last 36 months; 3) 49 percent of the same average salary for the widow and dependent children of a death worker that contributed 30 months of the last 36 months; 4) 35 percent of the same average salary for the widow and children of a death worker that contributed between 18 and 30 months of the last 36 months. Workers are covered by these benefits from the first day of activity in a new job. For example, a worker employed for 6 months but has contributed regularly enjoys the full benefits; whereas a worker that contributed for 20 years but has not done it in the last year and a half is not covered. There is an exception to the latter, if the worker contributed for 30 years, benefits are received even in the absence of the minimum period of regular contribution.

74. *Survivor benefits.* In Lebanon, survivor benefits are subject to inheritance laws. Best international practice suggests that such benefits should prevail over inheritance laws to lend credibility to the system and protect the beneficiary. Accordingly, it is recommended that upon the death of an active contributor, a disabled person, or a retiree, survivor benefits should be determined as follows:

75. Entitlement. A legal spouse is entitled to a survivor pension with respect to a deceased member if at the time of death the deceased was entitled to a retirement pension or disability pension. Any natural or adopted child under the age of 18 (23 if still in school) who at the time of death was a dependent of the deceased is also eligible to receive a survivor (orphan) pension.

76. The appropriate authorities should determine whether the disability is total (workers lose 50 percent or more of their productive capacity). If the disabled worker opted for a pension, he or she should provide proof of continued disability by getting re-certified as disabled every 2 years by appropriate authorities.

77. Cessation of pension. The entitlement of an individual to a survivor pension shall cease when a surviving spouse remarries or dies. Entitlements to orphan benefits automatically cease when the child attains the age of 18, or 23 if pursuing academic goals. Exceptions to this rule will be considered in the case of a disabled child, where benefits may be paid until death, or in the case of an unmarried daughter, where cessation of benefits will be determined upon reviewing existing legislation and costs.

78. In the case of a disabled individual that opted to receive a pension, the entitlement to a disability pension ceases upon death, recovery from disability, or failure to comply with re-certification rules. Upon the disabled death, eligible survivors will collect pension benefits. Upon recovery from disability, individuals will re-open their retirement and contingent saving accounts; and the insurance company would provide the funds to credit into the retirement account the amount that would have been accumulated should the member had not been disabled.

79. *Harmonization of the pension plan with other benefits.* The survivor and disability benefit provisions presented in this proposal are in accordance with international standards. Thus, it is recommended that the disability and death benefits provided through the health insurance and family allowance programs be adjusted and contributions to these programs be reduced accordingly. This implies that the health insurance and family allowance laws will have to be harmonized with the new retirement law. Furthermore, the base of contributions to the retirement, health and family allowance programs should be harmonized as well.

80. *Contingent Savings Account.* The Contingent Savings Account will be financed by matching employer and employee contributions of 1 percent of taxable wages each up to the same cap. Additional voluntary contributions by the employee are permissible with no further matching contributions by the employer. The Contingent Savings Account's primary purpose will be to accumulate funds to cover the risk of unemployment. Thus, it must reach a minimum balance equivalent to four months of salary while the worker is employed to provide enough protection in the event of unemployment. This minimum amount will have to be maintained throughout the worker's career. Upon losing a job, an unemployed member will be able to withdraw the equivalent of one month's salary every month while unemployed and until the funds are exhausted. In the event that unemployment occurs prior to four months accumulation of funds, the worker will still have the right to withdraw the balance. The worker will be able to withdraw any balance in excess of the minimum amount once every 5 years. At retirement or disability, the worker will receive as a lump sum payment the accumulated balance in this account. This lump sum payment could be used to defray health care expenses during retirement or finance other consumption needs.

81. *Vesting.* All funds contributed by or on behalf of each worker will be immediately vested so that workers who change jobs will not lose any retirement or unemployment protection and even young workers will be sure that the contributions made by their employers are producing future retirement incomes.

82. *Information disclosure.* Fund managers will send quarterly statements to plan participants, informing them of the balance in each of the two accounts (Pension and Contingent Savings), and describing activities and transactions (e.g., initial net asset value, contributions credited during the quarter, and net asset value at the end of each quarter). Furthermore, fund managers should make available to the public annual audit reports and financial and income statements.

83. *Investment policies.* Investment policies were already discussed in Paragraph 59. The NSSF will initially offer plan members only one fund. However, as its fund management capabilities improves it could adopt an scheme similar to that of the Thrift Saving Plan (TSP) of the United States. The TSP offers a menu of funds to its member and outsource the funds management. This arrangement has proven quite efficient since it generates considerable reduction in management fees. On the other hand, private fund managers will offer each employer the choice of three funds from which to choose the composition of their portfolio: fixed income, equity, or growth. The regulator will establish the pace of investment in foreign securities. Initially, funds will be able to invest up to 10 percent of their portfolio in investment-grade foreign bonds and in indexes of shares listed on major stock exchanges, as approved by the regulator. There will be exposure limits by sector and issuer. The precise investment policy and guidelines will be determined by the regulator. Fund managers will use market prices to determine their net asset values at the end of each day, on the basis of which all account transactions will occur.

84. *Occupational schemes.* Initially two occupational schemes will be set up, one for construction workers and another for the tourism industry.[25] These two activities are characterized by high mobility across employers, and thus it is expected that having workers in these two industries contributing to an industry-specific fund will reduce administrative costs. The rules governing the investment and administration of these funds will be equivalent to those governing the other funds, where applicable.

85. *International portability.* All workers contributing to the system and leaving the country will vest their accrued rights and will be reimbursed according to reciprocal pension agreements.

86. **Advantages of the new arrangements.** This reform, while maintaining total labor costs at about the current level levied by the EOS Indemnity Program, improves workers' old age protection as well as protection of their families by increasing replacement of the pre-retirement wage from a range of 13-30 percent to 47 percent.[26] In addition, it protects the worker's family in case of death or permanent disability. It maintains the current benefit as a minimum guaranteed level hence workers will not be worse off, on the contrary, the chances are that they will be substantially better off. The system will no longer discriminate against workers who change jobs within the private sector, thus contributing to improved efficiency in labor markets. It also improves management of unemployment risks by pre-funding for this contingency while providing either savings for other uses or a lump sum at retirement,

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[25] This recommendation was taken from the Hong Kong pension system. There could be other activities that could be covered by occupational funds (e.g., agriculture workers).

[26] Assume real wage growth equal to real interest rate equal to 4 percent p.a. during the accumulation period, and the same real interest rate to calculate the annuity for a worker with a life expectancy of 15 years after retirement.

which may help to pay for heath care during old age. The proposed system will encourage competition among fund managers, including the NSSF, hence members will benefit from better services. Finally, this program will expand the role of long-term savings in the economy, thereby promoting development of capital markets and growth while making the economy more resilient to interest rates and demand shocks. Estimates on the fund accumulation of the Pension Savings Account would be similar to that projected under the Draft Law (see Table 7); whereas fund accumulation of the Contingency Savings Account would be dependant upon the incidence of unemployment and other life events that affect the pattern of decumulation.

The Voluntary Pillar

87. Another key ingredient of the reform program is the introduction of a voluntary second pillar, which could comprise either group (occupational or employer-sponsored) or individual defined contribution pension plans. Fund management will be decentralized and privately managed in segregated trust accounts, and will remain in the custody of independent custodians. This scheme will be regulated and supervised by the same regulator that oversees the mandatory first pillar arrangements. The reform deals with the following additional issues:

- *incomplete retirement system.* Voluntary pension plans are almost nonexistent, which reduces the opportunity to increase old age protection and coverage, and particularly to encourage participation by public sector employees, self-employed, rural workers, and overseas Lebanese;

- *perverse incentive system.* The current system discourages voluntary pension plans while promoting tax evasion, because it taxes the complete salary without establishing a limit on its contributory part.

88. **Proposed reform.** The regulatory agency will regulate and supervise pension plans in the voluntary pillar to ensure that these plans are sound and protect plan holders' assets. In particular, it will ensure that any employer-sponsored plan for employees covers all workers without discriminating among them, that vesting periods are minimum to allow for labor mobility, that fund ownership belongs to plan holders, and that fund management is conducted with proper fiduciary responsibility. To encourage voluntary pension plans, preferential tax treatment for these plans and all other contractual savings instruments will be provided (see Section on Tax Treatment Section below).

89. As discussed above, contributions to the mandatory pillar will be limited to 3.5 times the system's gross average salary. Therefore, employers will be partially relieved of expenses on highly paid employees, and an opportunity will be created for the development of employer-sponsored and individual pension plans. Furthermore, on a voluntary basis, self-employed and overseas Lebanese workers will be able to open individual plans having the same features as the defined contributions plans presented above.

90. **Advantages of the new arrangements.** This pillar will provide additional opportunity to increase savings for old age protection. It will also reduce distortions at the high end of the labor market and promote retention and repatriation of human capital. Furthermore, it may also promote the interest of Lebanese working abroad and the self- employed in saving for retirement in Lebanon. Obviously, this will create opportunities for increasing depth and liquidity in financial markets, particularly through capital market instruments (equity and long-term debt).

Transition Arrangements

91. The transition from the current system to the new two-pillar retirement income system poses no problems for new entrants to the work force. However, it involves recognizing the acquired rights of workers contributing to the present end-of-service indemnity scheme who will switch to the new system. The reform will require that all workers switch to the new two-pillar system. However, workers older than 55 or near retirement at the time of the reform will be given the option of claiming their benefits as a lump sum from any or all of the pillars.[27]

92. All workers will have their acquired rights calculated. These acquired rights are directly related to the length of service in the existing system times individual gross wages at the time of transition. The first pillar accounts will be credited with the full value of workers' acquired rights. Furthermore, the first pillar acquired rights credits will be split into the two first pillar accounts, as follows: 87 percent to the Pension Savings Account and 13 percent to the Contingent Savings Account. The acquired rights will be financed from the end-of- service indemnity reserves of the NSSF and, in case of a shortfall, from employers as well. Further discussions on financing may be required to finalize the details and financing arrangements of the transition. Existing occupational plans would also have to be merged within the new two-pillar framework, and transition issues relating to such mergers would need to be quickly resolved. However, it will not be possible to simply ask employers to settle the balance of their accrued liabilities under the old system. While some employers could be in a financial position to settle their accounts, the great majority of them however will not be in condition to do so. Therefore, shifting all workers to the new system will imply that only the new contributions to the system will be changed, but accrued benefits under the old system will be settled in the same way as they are being settled currently. This means that the full benefit of the new system will be received only by new workers entering the system, and benefits will be lower for workers already in the system with the lowest benefits for those near retirement. However, all workers will be better off under the new system.

Administrative Reforms at the NSSF

93. Under the proposed scheme the NSSF will confront competition from private fund managers. Hence, modernization of the NSSF is critical to improving the retirement income system. The reform package will include several steps to strengthen administration of the NSSF: reforming administrative procedures, upgrading management information systems and computerization, appropriate training of the staff, improvements in data collection and reporting, regular external auditing and actuarial analysis of NSSF-administered programs, information disclosure, periodic reporting to Parliament, changes in investment operations, segregation of reserves for each of its administered programs, and improvements in cash management.

Areas for improvement in investment and cash management

94. The NSSF manages the largest portfolio in Lebanon. Its assets represent about 8 percent of the gross domestic product of the country (Table 13). Moreover, as the NSSF-served population ages, the number of pensioners will rise, so that earning the highest possible return consistent with prudent risk-taking will become increasingly important.

95. Particular issues that need to be addressed at the NSSF include:

[27] The precise age limit will be determined upon analysis of the benefit of switching versus staying in the system for different ages and years of service.

- *excessive concentration of investment power.* The NSSF is the largest contractual savings institution in Lebanon. It owns about 85 percent of long-term financial assets in the economy. Such a concentration of assets under single ownership inhibits the long-term development of Lebanese capital markets. Fortunately, this impact has not yet been felt because of the limited investment policy of the NSSF. However, the potential for problems remains;

- *excessive exposure to Government liabilities.* The NSSF's investment portfolio has been invested about 90 percent in Treasury bills. Excessive exposure to any single issuer does not correspond with prudent fund management principles;

- *below-market rates of return.* The NSSF credits members' accounts with arbitrarily low rates of return. This implicit taxation must be eliminated to ensure long-term financial sustainability of programs managed by the NSSF and reduce labor market distortions.

- *inadequate investment policy.* The NSSF's investment policy is managed by a board of directors. It had considered using some funds to invest in social development projects. If implemented, this policy may reduce the yield on reserves and compromise the future financial viability of the retirement program; and

- *soft policy for collecting overdue contributions.* Contributions are due within 15 days after salaries are paid. If not collected, the NSSF sends a warning note to the employer granting another 15 days to pay. The NSSF does not charge interest during this period. After 30 days, a judicial process starts and .005 percent per day is charged (1.5 percent monthly, 18 percent annually), up to 40 months. This is about the prime market rate. The financial position of the plan could be improved by charging penalty rates in excess of the prime rate on overdue contributions.

Table 13. Lebanon: National Social Security Fund Reserves

Billion of Pounds: End of Year

Assets	1999	2001
Treasury	1763.2	2430
Demand	111.1	175.6
Dollar Demand Deposits	1.6	1.9
Banque du Liban Deposits		
other	5	8.8
Total	1880.9	2616.3
Plan		
Health/Maternit	344.2	478.8
Family	146.7	204.1
End of Service Indemnity	1390	1933.4
Total	1880.9	2616.3
EOSI/(Money+Quasi Money),	3.1	3.6
EOSI/GDP, %	5.6	7.7

Source: Reserves from NSSF. Money and Quasi Money from IFS, GDP from Ministry of Finance.

Notes: (1) The figures are Lebanese Pounds

The allocation per plan for 2001 are based on the 1999

96. **Proposed reforms.** The reform program includes changes in the NSSF's investment and cash management strategies to ensure that the portfolio continues to be invested safely and soundly, that it earns the highest possible return consistent with a certain level of risk tolerance, and that the investment procedures employed facilitate the longer-term growth of the Lebanese economy. Specific changes include:

- *issuing investment guidelines.* The NSSF will develop and issue "prudent person" investment guidelines. That funds will be invested in the interest of plan members only. These guidelines will include: (a) limiting investments in instruments as defined in Paragraph 59 above; (b) maximum percentages of the total assets of the fund that will be placed at risk – whether through Lebanese or foreign securities purchases, including term to maturity; and (c) a requirement that investments must be predominantly in tradable and market-based rate of return instruments;

- *using outside investment managers.* The NSSF will create internal capacity to improve fund management. It will not execute the investment policy set by the board directly, but will outsource it to private investment managers. The NSSF's capabilities would be limited to implementing the criteria for selecting private fund managers and monitoring their performance. Private fund managers will be selected on the basis of competitive bidding. The board will establish the criteria for selection fund managers. Implementation of this policy will be gradual and will be the responsibility of an investment committee integrated primarily with members who have financial expertise. The members of the investment committee will be personal liable for any wrong doing and will be accountable to the Board of Trustees. Initially only 10 percent of the NSSF portfolio will be allocated to fund managers. The percentage of assets managed under contract by private managers will gradually rise as the NSSF's capabilities improve sufficiently to warrant greater allocation. Eventually, the whole portfolio will be managed by outside private fund managers. The use of private fund managers will decentralize decision-making and encourage the growth of financial markets, particularly the bond market. During the transition, investments made directly by the NSSF will continue to be concentrated in Treasury bills and bonds at the Banque du Liban, with the proviso that the funds and members' accounts must be credited with the full market rate of return; and

- *improve strategy for collection of overdue contributions.* The NSSF would clearly benefit if market interest rates were charged on the float money during the first month that contributions are collected, instead of this money being free of any interest charges. In addition, penalty rates should be much higher than market rates for contributions more than one month overdue.

97. **Main administrative reforms.** These reforms address issues related to the organization of the NSSF, record keeping, collection of contributions (including enforcement), payment of benefits, accounting system, actuarial capabilities, reporting, information systems and disclosure, computerization of the institution, and human resources policies, including jobs classification, remuneration, and staff training. The legislation will include provisions for the NSSF to report to the Parliament every three years on the base of external actuarial evaluations (which should also occur every three years). Furthermore, the provisions should also require annual external audits of NSSF- administered programs. It is recommended that for the first few years of the scheme, annual internal actuarial evaluations and audits be performed to ensure that the plan is developing on sound financial grounds.

98. Under the new legislation, NSSF fees should no longer be a fixed percent of taxable wages but instead would respond to market forces.

99. The Government would seek international support to modernize the NSSF. It would be desirable that an international consulting firm with hands-on experience in reforming social security institutions would be retained for two or three years to assist with these efforts. The consulting firm would be selected through international competitive bidding.

Reforms across pillars

100. *Prudential regulation* -- Currently, there is no regulation or supervision of pension plans. Accounting standards do not require that unfunded liabilities of the end-of-service indemnity or any employer-sponsored pension plan be reflected in the balance sheet. In spite of the recent adoption of the new insurance law, Lebanese standards for minimum capital requirements of life insurance companies are lower than international standards. Furthermore, solvency monitoring of life insurance companies and the intervention power of the Insurance Control Commission (ICC) is weak, and the ICC is understaffed and does not have the resources to undertake its job properly. Finally, Lebanon has a limited supply of experienced actuaries, a lack of actuarial standards, and no formal mechanisms for enforcing minimum acceptable standards that are binding on the profession.

101. A significant impediment to the development of life insurance is the presence of bureaucratic obstacles placed in the way of those wishing to collect benefits. Beneficiaries of individual life insurance need to request authorization from the Ministry of Finance (MOF) for the insurance company to pay the benefits. Obtaining this permission takes a minimum of six months. This requirement was established by an MOF circular and should be easy to remove. It is a deterrent to development of the sector, since individuals who can afford life insurance prefer to buy it abroad. In fact, many Lebanese insurance companies operate offshore branches to capture this business.

102. **Proposed reforms.** The proposed reform program will address these issues according to the following plan:

103. Appropriate legislation shall be enacted, providing adequate prudential regulation for pension plans (mandatory first pillar and voluntary occupational and individual plans) of the retirement income system. The legislation will establish dedicated solvency requirements for financial intermediaries offering pension plans over and above their prevailing requirements. The minimum capital requirement could be the equivalent of US$ 2 million or 2 percent of managed funds, whichever is higher. In addition to solvency, a key criterion for their eligibility will be the requirement that the intermediary be a joint venture with a reputable foreign institution with long-term credentials in managing pension plans and with an important participation in the capital and management of the local institution. Pension plan providers could also be wholly foreign owned companies. The credentials of foreign partners should be provided by a reputable foreign regulator and directly requested by the Lebanese regulator. Life insurance companies and trust companies will be able to offer pension plans.

104. Pension funds will be administered in segregated trust accounts and will require the use of custodians. The ownership of the trust funds will belong to pension plan participants. All intermediaries' trust accounts dedicated to pension plans shall be separated from other trust accounts and have independent solvency requirements.

105. The legislation will also create a capacity for ongoing regulation and supervision of these plans. Regardless of whether or not a separate regulator exists, a separate supervisory branch needs to be established with strong actuarial, on-site and off-site monitoring skills. The regulator shall be responsible for approving the pension plans by using the file/review/write approach. It shall work closely with the accounting and actuarial professions, and have the capacity to carry out on-site inspections as necessary;

and it shall regulate trust accounts and companies for pension plans. Record-keeping of participants in the scheme will be held by fund managers, including the NSSF..

106. The Government will ensure that a regulator of pension funds is in place as a first step toward implementing these reforms, and together with the ICC, will receive sufficient resources to ensure that they can carry out proper supervision. Regulators and supervisors shall be funded by the industries being supervised, with funding based on turnover to account for inflation and change in industry size. The regulators' revenue base shall be quarantined from general Government revenues.[23] The Government would need to establish the appropriate remuneration levels for the supervisory institutions.

107. The submitted legislation shall introduce: harmonization of accounting standards and tax codes regarding funding of past service; maximum vesting period for all voluntary occupational pension plans; investment policies and guidelines based on sector, individual, and group exposure limits and on adequate liquidity requirements; boards of trustees with representation of employers and employees; and employees' right to receive timely and regular information on members' accounts and benefits. Finally, required approval from the Ministry of Finance to collect the benefits from life insurance will be eliminated.

108. This reform will require government commitment on macroeconomic sustainability, financial sector reforms, particularly, establishing regulations and supervision of pension funds, further improvement in regulations and supervision of insurance, securities markets and non-bank financial intermediaries (government bond market, assets-backed securities, mortgage bond markets, factoring, leasing). In addition, speeding up privatization would increase the menu of assets available for domestic investments of fund reserves.

Advantage of the new arrangements

109. The reform package related to prudential regulation of mandated and voluntary contractual savings will promote the development of investment policies, levels of liquidity, dissemination of information, and sound and solvent intermediaries. This will ensure consumer protection, and promote competition and capital market development.

Tax Treatment

110. The current tax treatment of contractual savings in Lebanon is inconsistent with international best practice. It is inefficient, because the current tax code applied to contractual savings institutions provides differential tax treatment among these instruments, which distorts resource allocation and impairs competition. And it is inequitable, because in most cases it taxes long-term saving instruments more than once. Furthermore, it favors short-term over long-term instruments, and debt over equity finance.

111. The income tax treatment of contractual savings, life insurance, and voluntary pension plans discourages saving in these long-term instruments. Best tax practice recommends the taxation of contractual savings only once. This can be achieved by not allowing the deduction of life insurance premiums and pension plan contributions, while exempting from taxes the investment income of life insurance reserves and pension funds and the plan benefits (this is the taxed, exempt, exempt option,

[23] A typical basis for charging is a fixed (indexed) sum per institution per annum plus 0.3 to 0.5 percent of turnover. Figures for Lebanon would have to relate to the scope of duties of the regulator: it is proposed under this program that a substantial part would be delegated to the accounting and actuarial professions and paid for directly by the institutions. The costs of supervising institutions are not a linear function of size of the industry; the actual figures would be determined by working backward from the preliminary budget.

TEE). Alternatively, life insurance premiums, pension plan contributions, and investment income of life insurance reserves and pension funds could be exempt while plan benefits are taxed (this is the EET option).

112. Particular issues that need to be addressed are:

113. *The tax treatment of the mandatory end-of-service indemnity is too generous.* Employers' contributions to the NSSF and book reserves to pay end-of-service indemnity are deductible by the employers and not counted as income of the employees. Any interest earned by the NSSF and credited to the employees' account is not taxed. However, the NSSF usually credits employees' accounts at below-market rates. Therefore, there is an implicit tax on investment income. Finally, the end-of-service indemnity is tax exempt. Hence, the explicit tax treatment of this instrument is EEE, while taking into account the implicit tax on earnings, the scheme becomes ETE.

114. *The treatment of life insurance is inequitable.* Currently, premiums on life insurance are paid from after-tax[29] income, whereas the investment income of life insurance reserves are practically tax exempt,[30] as are the benefits on endowment policies. However, benefits paid to policy beneficiaries after the death of policyholders are subject to inheritance tax, with the schedule varying between 5 and 55 percent and including several deductions. In fact, the inheritance tax collected is insignificant. Thus, Lebanon applies the TEE option on endowment policies while maintaining a TET treatment on beneficiaries of deceased policyholders. However, the latter beneficiaries could be those with the greatest and most urgent need.

115. *There is discrimination against voluntary plans.* Employer contributions to voluntary pension plans are not deductible and are considered part of employee remuneration. Hence they are taxed twice. Furthermore, investment incomes of collective investment instruments (pension funds, mutual funds) are taxed, while those of life insurance companies are practically tax exempt. Finally, pension plan benefits paid either as a lump sum or as an annuity are taxed. Therefore, the taxation of this instrument, if administered by a pension fund manager or a mutual fund, would receive TTT treatment. However, if administered by a life insurance company, it would receive TEE treatment for the beneficiary of an endowment policy (or TET to the beneficiaries' dependent in case of death).

116. *Short term debt is favored over long term.* Interest on bank deposits is tax exempt, while contractual savings instruments are taxed.

117. *Discrimination favors debt over equity finance.* Dividends are taxed twice while interest on deposits is exempt and interest payments are expensed.

118. **Proposed reforms.** The proposal suggests that given the high level of the Government budget deficit, a feasible best tax practice to adopt for these long-term saving instruments is the TEE option. This would also require removing implicit taxes derived from the NSSF discretion on retaining investment income that belongs to the pension fund. In order to achieve this objective, the following measures will be taken:

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[29] Premiums paid by employers are expensed (as are all salary compensations), but considered as income by employees. Thus premiums are paid from after-tax income.

[30] Life insurance companies profit tax is equal to 10 percent of estimated profits. The latter are equal to 5 percent of gross premiums. Therefore, 95 percent of premium are considered to constitute reserves to be accumulated to benefit the insured. The tax is higher on ceded premiums, reinsurance profits are estimated at 10 percent of ceded premiums.

- *pension plans.* Contributions to pension plans (first and second pillars) will be deducted by employers but counted as income for employees (included in their taxable income). Contributions by employees, self-employed and overseas Lebanese workers will be made from after-tax income.[31] Investment income of the trusted pension funds will be exempt from the corporate income tax, while pension (retirement, survivor and disability) benefits will be tax exempt. Transformation of the accumulated balances in pension fund accounts into annuities will not be subject to income tax at any stage, including investment income of trusted funds managed by the annuity provider. The maximum contribution to a pension plan to enjoy this tax treatment is 22 percent of salaries. Withdrawals from the contingent account other than for unemployment purposes and from voluntary plans shall be taxed at 75 percent of the normal tax liability for the accumulated interest on the account if the withdrawal is between 5 and less than 10 years of accumulation. If the withdrawal is after 10 years but before 15 years, the accumulated interest will be taxed at 50 percent of the normal tax liability. After 15 years and before 20, the accumulated interest will be taxed at 25 percent of the normal tax liability. Any withdrawal after 20 years or upon retirement will be fully tax exempt;[32]

- *bank deposits.* Interest income on bank deposits (in LL and foreign currency) will be subject to income tax. At the same time, the implicit tax on LL deposits will be removed, either by eliminating reserves requirements or by remunerating them at the Treasury bill rate. Interest payments will continue to be expensed to firms but not to individuals (except mortgage interests);

- *life insurance.* Life insurance premium should be deducted by the employer and counted as income to employees. The latter, in turn, pay taxes on income gross of life premiums. Individuals also pay taxes on income gross of life premium. Life insurance profits should receive the same tax treatment as other corporations. However, the annuity and life reserves should be segregated from the companies accounts. They should be held in trust whose sole owners are the policyholders. The investment income of these reserves should be exempted from income tax. Finally, the inheritance tax on life insurance should be eliminated;

- *dividends.* Double taxation on dividends should be eliminated by exempting dividends from tax.

119. **Advantages of the new arrangements.** The tax reform will level the playing field among different contractual savings institutions by eliminating any form of tax arbitrage. It will improve resource allocation and promote competition among all contractual savings institutions. It will most likely improve tax revenue, particularly in the short run, by advancing income tax collection at the expense of future declines as the system matures. Finally, it will promote long-term savings at the expense of short-term savings, and equity finance at the expense of debt finance. Obviously, increasing the supply of long-term savings will improve risk management by reducing the vulnerability of the financial sector, enterprises, and the Government budget.

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[31] Tax treatment to contributions from Lebanese working abroad will have to take into account bilateral tax agreements.

[32] Alternatively, an schedule of declining taxes on investment income which is related with the time of withdrawals could be implemented. For example, declining at a rate of 5 percent per year, as follows: within a year 100 percent tax, in the second year 95 percent tax,...,in the sixth year 75 percent tax,...,in the eleventh year 50 percent tax,...,in the sixteen year 25 percent tax,..., in the twenty one year 0 percent tax.

ANNEX

Draft Law for the Amendment of the Social Security Law: Comments

Part I - Governance

In general, the draft law provides excessive participation, power, and discretionality to the government in the management of NSSF. Modern approaches emphasize the need to provide these institutions with as much independence from government as possible in order to minimize political risks.

Objectives

The objectives for the National Social Security Fund (NSSF), as presented in the draft law, Article 1-1, are inadequate. It presents three objectives:

Managing the various branches of the social security system
Ensuring the financial equilibrium of every branch
Contributing to the country's economic and social development

The draft law misses to present the main objective which is to manage the NSSF in the best interest of plan members. This includes providing the best possible services to plan members, ensuring financial sustainability of each plan, and managing the reserves with the purpose of maximizing returns with due consideration to risks.

Furthermore, emphasis has to be made that the various branches must be independently managed. Each branch must have independent accounts, including having segregated reserves. These funds are not to be used as the Government off balance resources for developmental purposes (economic or social). Following the same arguments, Article 64 requires that the Fund's resources be invested in the social area and in the financial markets. The policy should instead be to invest the Fund's resources seeking maximum returns constrained by an adopted level of risk tolerance. Hence, the third objective to invest the Fund's in support of the country's economic and social development, and Article 64 requiring investments in the social area must be deleted in order to control political risks.

Institutional

The NSSF is a social and public institution that falls under the articles of this law, Article 1-2. It enjoys financial and administrative autonomy. It should be stressed that the NSSF is an institution which is independent from the government.

Governance

The proposed governance structure for the NSSF, according to Article 1-3, is inadequate. It is governed by:

The Board of Administration, holding the authority of decision
The technical and administrative body, headed by a director general, holding the executive authority
The monitoring committee, holding the internal control authority

Article 2-8 allows the Board to create as many committees as it may deem convenient and to delegate its authority, including to the Director General.

At the end of the draft law, Article 64 indicates that a special investment committee will be appointed by a Cabinet decree. It will include the committee's composition, its prerogatives and responsibilities, and the investment policy (define sectors and quantitative limits). It also prescribe that high risk investments should be avoided.

In order to minimize political risks, the law and not a decree should regulate this committee. In addition, it should require that all members of this committee be external experts in the field of finance, and indicate a general statement on investment policy, that its objective is to maximize returns following the prudent person rule, which implies having due consideration to risks in a well diversified portfolio. Investing the NSSF's reserves is a key activity, and the investment committee should be accountable to the Board of Directors.

The law should also authorize the Board of Directors and the investment committee to outsource fund management. The Board of Directors will establish the level of risk tolerance, which will constrain implementation of the investment policy undertaken by the investment committee. Therefore, the requirement to avoid high risk investment should be deleted.

The Board of Administration consists of delegates with the following profiles, Article 1-2:

Five delegates representing the State may be selected among employees or retirees of the public institutions and administration, or among non-employee experts in the social security field.
Five delegates representing the employers, selected after consultation with the most representative vocational committees of employers.
Five delegates representing the employees, selected after consultation with the General Labor Union.

All delegates are appointed by a decree issued by the Council of Ministers upon request from the Minister of Labor. The President of the Board, the Vice-President and the Secretary are appointed by the same decree.

The composition of the Board of Director must be related to the distribution of risks among government, employees, employers, and retirees resulting from the design of the schemes in place. For example, if the NSSF will be involved in providing pension plans, having representatives from retirees would be desirable. On the other hand, if government would not bear any risks, there is no need to have its representatives in the NSSF Board. Its function would focus on supervision to ensure compliance with the law, and that its financial position is sound.

The representatives of the government should not be public sector employees or retirees but experts in social security and finance. A nominating committee (preferably composed of intellectuals, university professors, representatives from professional associations) should present a list of candidates to the Minister of Labor and he/she should select the representatives from that list only.

The representatives of employers and employees should be nominated by their respective associations, preferably through direct membership votes, not just selection from the association governing bodies. Their candidates could be independent experts who are neither employees, employers or retirees. The Minister of Labor must appoint their delegates from the candidates presented by them. Their appointment must not be a result of consultation between representatives of these associations and government as it is indicated in the draft law, the association of workers and employers (and eventually, of retirees) must have an active role in choosing their delegates instead.

The appointment of the President, Vice President and Secretary of the Board should be done by the Board itself and not by Government. Their removal from office before their respective period of appointment should also be decided by the Board and not the Government.

Functions of the Board

Article 3-1 enumerates the functions of the Board. It is surprising that the Board does not set the investment policy of the fund. It is one of the most important function of a board to establish the investment policy and guidelines at least on an annual basis. It is key for the investment committee to implement it, including designing the investment strategy.

This article also authorizes the Board to allow the use of funds from one plan to finance other plans administered by the NSSF. This should not be allowed. The financial arrangements of each plan should be independent from each other.

Supervision

Article 4-4 indicates the functions of the Board that need ratification from the Minister of Labor; while Article 4-8 indicates those that need ratification from the Minister of Finance. If the Board of Directors do not hear from these Ministers in one month from reception of the information about the measures, they are automatically considered ratified.

Furthermore, Article 4-7 authorizes the Minister of Labor to appoint a Commissioner to the NSSF, who should be an employee from the ministry. The Commissioner participates in Board's meetings but with no vote. He/she also participates in committees meeting.

The NSSF is subject to ex-post supervision from the Court of Account (Article 4-11) in accordance with the procedures outlined in the Court of Account's Law. The Court of Account can audit the NSSF accounts, in spite of the internal audit performed by the Control Committee.

Obviously, these procedures creates excessive dependency of the management of the NSSF to government. There is no need to have ministers involved with individual Board of Director actions. Internal and external audits, annual reports, and their disclosure would be more effective while preserving NSSF independency. In addition, instead of having a Commissioner appointed by the Minister of Labor, the Board could appoint a competent compliant officer who would be responsible to ensure that Board decisions are in agreement with the law (this officer could be the President of the Control Committee). In addition, this officer would monitor procedures and detect risks, and would inform about problems to the Board and to the Court of Accounts.

According to Article 4 – 16/17, the President and the two members that compose the Control Committee should be employees of the NSSF or college graduates in either law, finance, or administration. There is no need to indicate that NSSF employees could compete for these jobs, what matters is the candidates' highest standard of qualification.

Article 4-19, indicates that the mandate of the members of the Control Committee can be terminated by a Cabinet decree upon request of the Ministry of Labor. We suggest that the Board of Directors be responsible for terminating the mandate of all NSSF managers and employees instead.

The Director General

Continuing with the high level of government intervention in the governance of the NSSF, Article 5-6 indicates that the Director General is appointed by a Cabinet Decree upon the request of the Minister of Labor. In order to provide as much independency as possible from government, and to be accountable to the Board of Director, it would be preferable that the Director General be appointed by the Board of Directors.

Part II - Retirement, disability and death insurance

The draft law declares that the existing "End of Service Indemnity" will be converted to "Retirement, Disability and Death Insurance". There is no articulation on the objective and rationale of such action and warrants some justification as a preamble. This is particularly the case when Article 49-2 implies that coverage under this draft law remains identical to the previous law. Also, there are references to sections under the existing law which we do not have copies. Hence it is not possible to follow properly a number of these references.

Article 49-3 indicates definitively that the provisions under this draft law are totally financed by this regulation, and yet it is not clear as to how the cost of the State guarantee of minimum amount of provisions will be financed. Usually, when a mandatory retirement system is established, there should be some idea as to what is the target level of retirement income, what is the required subscription rate in order to attain the target income, and what will be the expected return on the subscription. Otherwise, subscribers will simply be viewed as a tax and will try to evade. Furthermore, in order to insure the risk of disability and mortality, some type of joint financing seems to be implied. However, Article 49-4 does not specify which parties are involved in this joint account, who will be the insurer for such risk exposure and its costs. The competitiveness of the insurance cost is particularly important, as the higher the cost, the amount that will be credited to the subscriber's account will be less which ultimately affect the level of retirement income.

Internal Regulation of the NSSF

Many of the provisions under the draft law are stipulated by the NSSF's internal regulation, and as such, gives the NSSF excessive discretion and subject to political maneuvering. Provisions such as distribution of interest yields, profiles from investments, should be spelled out, at least in broad terms within the law.

Cabinet Decree

Similar to the internal regulation, a number of important parameters are to be defined by Cabinet Decrees, e.g., subscription rate, level of minimum guarantee, annuity for special categories of employees, threshold for survivor pension, etc. Since subscription to the retirement, disability and death regulation is mandatory, subscribers are entitled to know, via transparent rules, what they are required to put in, and clear guidelines on how to determine their future benefits. With such discretionary provisions, subscribers will not trust the system and will try to evade which will be detrimental to the success of the system.

Retirement annuity

Article 50-1 fails to describe how the retirement annuity will be calculated once the subscriber's account balance has been established. If this were to be an annuity contract, i.e., converting the accumulated balance into periodic payments for life based on the true risks involved – investment risk and longevity

risk, someone has to shoulder these risks. It is not clear from the draft law who will be the provider of such annuity and whether the conversion will be done on an actuarially fair basis.

Under a capitalized, individual account arrangement, retirement benefits are linked directly to the contributions. Article 50-6 grants exception to such a linkage for employees under special employment categories. Throughout Eastern Europe, such special treatment is now provided only if employees and their employers subscribe at a higher contribution rate in order to pay for the cost of early retirement. It is therefore advisable that if the government wishes to extend early retirement to such employees that a higher contribution rate be required from them.

Article 50-9 provides a supplement to the subscriber's account if the balance fails to provide a minimum life annuity. Such a supplement implies there will be redistribution from the high income earner to the low income earner and from subscribers with substandard mortality risk (i.e., those with poor health) to those who are relatively healthy. The government should rethink if this is the intended redistributive effect it prefers. Moreover, there is no mention on how the government intends to finance this guarantee and that there is no assurance that the minimum guarantee will be set at a level that can be financially sustainable. These issues need to be considered carefully with proper analysis of its fiscal impact.

Total Disability Pension

Articles 51-1 to 51-4 spell out the conditions in which a subscriber is entitled to a disability pension. However, no mention is made on who is qualified to assess his condition, the certification requirement and whether his condition is subject to periodic re-certification.

Pension of the subscriber's successors

Article 52-8 prohibits a surviving partner to collect his/her own retirement or disability pension while collecting a successor pension. It is not clear if this provision is particular to Lebanon, but in many countries, this is not the normal practice.

Common clauses

Article 53-1 permits that pension might be re-evaluated by cabinet decree but does not specify who will pay for the re-evaluated pension and under what circumstances. Once again, this provides ample room for political manipulation without regard to the financial viability of the system, particularly when the government wants to invoke populist policies, such as during election times.

Transitory clauses

Articles 54-1 to 54-3 impose upon employers to settle all the subscribers' due rights as of the implementation date of the system, although amortization of outstanding payments are allowed up to 20 years. While this is a positive move to ensure some level of funding, the practical matter is to make certain that the NSSF has the capacity to properly assess these settlement amounts and to monitor the remittance of the amortized payments.

The reserves of the NSSF is supposed to be a trust set up for the sole benefit of its subscribers and hence the ownership of such surplus should remain the property of the fund. Article 54-8 creates a risk by allowing the ownership and use of any surplus funds after allocation of funds to individual accounts to be directed by a decree of the Council of ministers. This is particularly important under the current draft law when the branch's fund are not segregated and reserves are combined. Surplus funds from the end-of-

service indemnity branch should remain in the branch including after the conversion to the "retirement, disability and death insurance" system.

Under an individual account system, subscribers should be informed periodically, at least once a year, on their account balances, the performance of the fund, including some hypothetical illustrations on the level of retirement annuity the account balances may generate. Article 54-10 focuses only on disclosure during the transitional period, and is silent on the disclosure requirements on an on-going basis.