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Republic of Lebanon
Good Jobs Needed

The Role of Macro, Investment, Education, Labor and Social Protection Policies ("Miles")

A Multi-Year Technical Cooperation Program

December 2012

Middle East and North Africa
Human Development Group (MNSHD)

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CURRENCY EQUIVALENTS

(Exchange Rate Effective: January 3, 2013)

Currency Unit	=	Lebanese Pounds
1 LBP	=	US$0.000664
US$1	=	1507.5 LBP

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ALMPs	Active Labor Market Programs
BSE	Beirut Stock Exchange
CA	Current Account
CAS	Central Administration of Statistics
CGE	Computable General Equilibrium model
DB	Defined-Benefit
DC	Defined-Contribution
EOSI	End-of-Service Indemnity
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GOL	Government of Lebanon
ICA	Investment Climate Assessment
IMF	International Monetary Fund
LBP	Lebanese Pounds
MOET	Ministry of Economy and Trade
MEHE	Ministry of Education and Higher Education
MOL	Ministry of Labor
MOPH	Ministry of Public Health
MOSA	Ministry of Social Affairs
MWTC	Minimum Wage Technical Commission
NEO	National Employment Office
NSSF	National Social Security Fund
PMT	Proxy means test
SAM	Social Accounting Matrix
SI	Social Insurance
SMEs	Small And Medium Enterprises
UISA	Unemployment Individual Savings Accounts

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Chapter 1 : Overview

1. 1. This report develops a strategy to support employment creation in Lebanon and improve labor market opportunities for its work force. The report is the result of a three-year Technical Cooperation Program (TCP) with the Government of Lebanon (GOL). It was prepared under the guidance of a Multi-Ministerial Steering Committee chaired by the Director General of the Ministry of Finance (MOF) and that included representatives, at the level of Director Generals, from the Prime Minister's office (PCM), the Ministry of Labor (MOL), the Ministry of Economy and Trade (MOET), the Ministry of Education and Higher Education (MEHE), the Ministry of Social Affairs (MOSA), the National Social Security Fund (NSSF), the Central Administration of Statistics (CAS), the Central Bank (BdL), and the Council for Development and Reconstruction (CDR). The analysis is based on a new survey of the labor force and employers (Appendix), and a General Equilibrium Model of the Lebanese economy, both developed in the context of this TCP. The policy recommendations are the result of consultations with counterparts and different stakeholders.

1. 2. *The proposed strategy involves coordinating investment, labor, skills development, and social insurance policies, in order to increase employment levels, facilitate labor market transition, gradually reallocate labor from low to high productivity activities, and expand access to social protection*. Indeed, only 47 percent of the working age population participates in the labor market and 11 percent of those who do are unemployed. The average duration of unemployment spell is long, close to one year, particularly for first-time job seekers. Despite advancements in education enrollments over the past decades, the majority of the labor force has low levels of education (almost 40 percent has primary education or less) and is employed in low productivity sectors, mainly services. Only 29 percent of workers are in formal wage employment having access to labor regulations and social security; 50 percent are in the informal sector, either as wage employees or self-employed, and there is limited mobility between types of jobs.

1. 3. *To address the above problems Lebanon will need to:* (i) consolidate fiscal policy to remove distortions that affect investment decisions, increase the efficiency of public investment and improve the business environment in order to increase job creation rates in high productivity sectors; (ii) reform the social insurance system to reduce the share of informal employment and encourage labor mobility; and, (iii) rethink training and active labor market programs to upgrade the skills of the labor force and facilitate labor market transitions – from school or inactivity to work, out of unemployment, and from low to higher productivity jobs.

1. 4. This report is organized in six chapters. The remaining of this chapter summarizes the main findings of the analysis and policy recommendations. Chapter 2 analyzes the main characteristics of the Lebanese labor market and identifies key issues that require attention. Chapter 3 focuses on ways to improve macroeconomic conditions and investment opportunities in order to enhance growth potential

and promote the creation of high quality jobs. Chapter 4 discusses how current initiatives regarding active labor market programs (ALMPs) could be transformed into an integrated system of employment and training services that would be managed and monitored by the public employment agency (the National Employment Office) but implemented by private providers that would help individuals access jobs – whether wage or self-employment. Chapter 5 deals with the labor market distortions created by social insurance and regulations on types of contracts, dismissal procedures, and minimum wages. Finally, Chapter 6 analyses the potential impacts on labor market outcomes of alternative macroeconomic and social insurance policies based on the general equilibrium model.

1.1. Labor market dynamics

1. 5. *Over the last decade the Lebanese economy has been growing but without creating enough jobs, particularly for women and youth*. Between 1997 and 2009, the gross domestic product expanded at an average rate of 3.7 percent per year, yet employment grew by only 1.1 percent[1]. Today, 70 percent of working age men and only 24 percent of working age women are in the labor force. Unemployment rates are worrisomely high among youth (34 percent), women (18 percent) and workers with tertiary education (14 percent). The large majority of the unemployed are under 35 years of age. Over the next 10 years, there will be an estimated average of 23,000 new entrants to the labor market each year. To absorb them, the economy would need to create more than 6 times the number of jobs it is currently creating (on average, only 3,400 new jobs each year between 2004 and 2007).

1. 6. *The jobs that the economy has created have been concentrated in low productivity sectors and employed mainly by low skilled workers, though the Lebanese education system has been generating a high numbers of skilled graduates - particularly at the tertiary level - for years*. Since 1997, employment has been moving away from agriculture and industry and into the services sector, but in low productivity activities which include wholesale and retail trade, repair of motor vehicles, transportation and storage, accommodation and food service activities, and real estate activities. Between 2004 and 2009, the main contributors to net job creation were trade (61 percent) and low productivity services sectors (33 percent), followed by construction (10 percent). Higher productivity sectors such as information and communication technologies, financial and insurances, and those involving professional, scientific and technical activities actually shed jobs. Today, low productivity services employ 35 percent of wage employees and 61 percent of the self-employed. Only 14 percent of wage employees and 3 percent of the self-employed are in high productivity services.

1. 7. *Resulting labor dynamics are characterized by long transitions from school to work and out of unemployment.* For instance, among first-time job seekers with no formal education, the average duration of the first unemployment spell is close to 16 months. Even among workers with tertiary education, finding a job can be a long process taking an average of 10 months. Graduates from top universities find jobs relatively easily; while, for the rest, the unemployment spells last over a year. In general, the duration of unemployment spells is long, close to 13 months for men and 10 months for

[1] This estimate excludes non-surveyed foreign labor.

women. Workers losing their jobs in mid-career (45+ years of age) can remain unemployed for up to a year. The duration of unemployment spells is the lowest among youth, but, for them, unemployment risks are considerably higher.

1. 8. *One of the key challenges to promote the creation of higher productivity jobs and improve labor market opportunities is the skills of the labor force.* The majority of workers (around 65 percent) – employees and self-employed – have only secondary education or less; around 40 percent have no education or only primary education. But even those entering the labor market with university or vocational training diplomas might not have acquired the necessary technical, cognitive, and non-cognitive skills. Among wage earners, 41 percent report to have skills that do not match at all or only somewhat match those required by the job. Fifty five percent of firms rank skills and education as the sixth major constraint to businesses. The most difficult positions to fill are skilled technicians (7-8 weeks), good engineers, and managers (nearly 3 months in hotels). There are also frequent gaps between the skills that employers demand and those that workers have. In the case of managerial positions, the main gaps are related to skills to handle computers and other office equipment, ability to work independently, numerical skills, and the lack of a foreign language. For the non-managerial positions, the main gaps are in terms of the ability to work in a team, numerical skills, foreign language, professional communication skills, and problem solving skills.

1. 9. *Today, highly skilled workers are leaving the country while low-skilled immigrants come in.* While official data is lacking, estimates of outmigration ranged between 200,000 and 400,000 over the period 1991 to 2009. Migration seems to be behind the scarcity of skilled labor. Lebanese workers are moving away from sectors producing traded goods and from the construction sector, and are being replaced by foreign labor, essentially low-skilled workers. Salary competition from the Gulf Cooperation Countries (GCC) and the increase in prices in Lebanon seem to be the two major reasons behind migration among skilled workers.

1. 10. *Another issue to address is the high prevalence of informal employment and relative low transitions into formal employment.* Around 20 percent of the labor force is informal wage employment lacking access to social insurance and labor regulations. Another 30 percent is self-employed in low productivity activities and is also not covered by the mandatory programs. Contrary to what is observed in other middle income countries, transition rates from informal wage employment or self-employment into formal employment are quite low. Within a year, virtually no self-employed worker and only 3 percent of informal wage employees would become formal workers. Transition rates into self-employment, on the other hand, are considerably high: 30 percent of both informal and formal wage employees move into self-employment each year. These dynamics call into question the current design of the social insurance system and labor regulations, which fail to cover the majority of the labor force and are, in fact, providing incentives to work outside the formal sector.

1. 11. *In general, there is evidence that workers face difficulties when looking for or switching jobs*. In Lebanon, personal contacts remain the most prevalent mechanism to find a job. Advertisements, recruitment firms, and particularly the National Employment Office (NEO) play almost a negligible role in

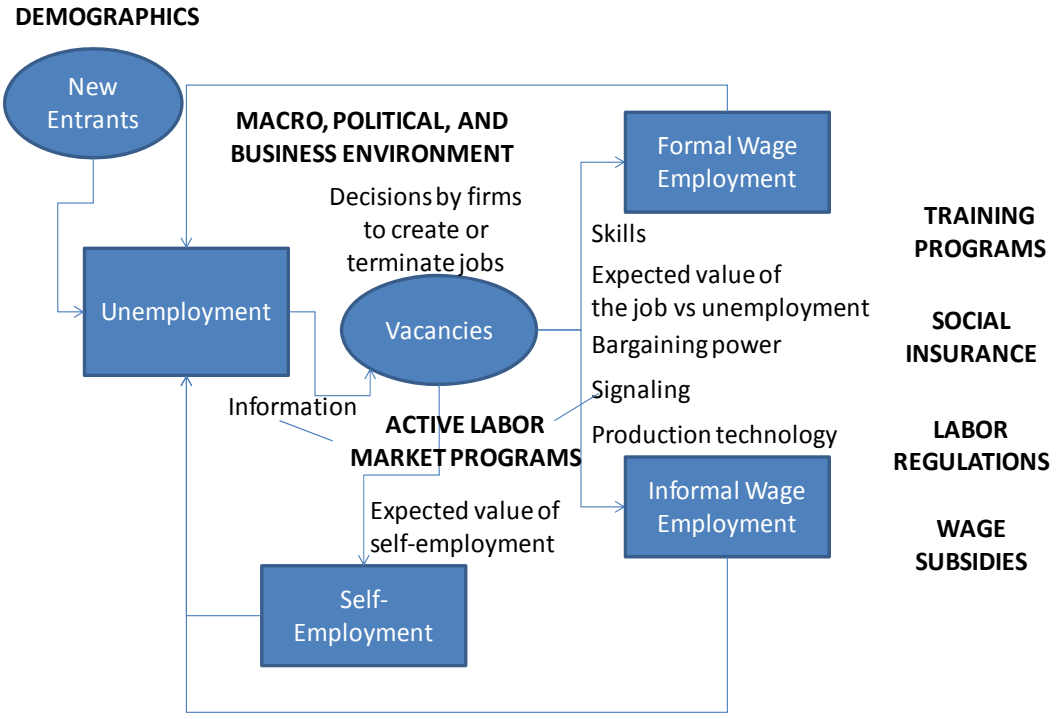
facilitating job search. Thus, around sixty percent of workers wanting to change jobs do not search for a new opportunity because the process is costly and time consuming. And, among those trying to find alternatives or change careers, very few report having succeeded. This could be the result of the scarcity of jobs and/or skills mismatches, but it can also be a reflection of an inefficient job search process. If workers can only count on their family, friends and peers to obtain information about alternative career opportunities, their options are indeed going to be limited.

1.2. Policy implications

1. 12. *Ultimately, labor market outcomes of interest – e.g., the unemployment rate, the share of informal employment, and wages – depend on decisions by entrepreneurs to create, expand, downsize, or close businesses or establishments; participation and occupational choices made by workers; and the efficiency of the job-matching process* (Figure **1.1**).[2] A strategy to promote the creation of quality jobs and increase employment levels and social welfare, thus, requires coordinating policies at various levels. First, macroeconomic and investment policies need to promote innovation and entrepreneurship and contribute to gradually reallocating investments towards high-productivity sectors – including into activities that today do not exist in the country.[3] Second, training and active labor market programs (ALMPs) to upgrade (and certify) the skills of the labor force, facilitate job-search and matching, and support transitions into self-employment. And third, social insurance and labor regulations to better protect workers and increase their bargaining power, while reducing distortions that impede labor mobility or reduce formal wage employment. The analysis shows that coordinating these policies and implementing them as a package is key to maximizing their impact (Table **1.1** for the policy recommendation matrix).

[2] The discussion here is based on recent models of job-search and constrained occupational choice. For a technical review of the theory and applications see Margolis, Navarro, and Robalino (2012).
[3] See Hausmann et al., (2008).

Figure 1.1: Policies and Labor Market Dynamics



Source: Authors' design

1. 13. **Macro-economic and investment policies.** There are various interventions that the Government needs to consider to reduce macro and microeconomic risks and promote investments and economic diversification.

- *Continue with fiscal consolidation to reduce borrowing needs, cut spreads in government bonds, and promote macroeconomic stability.* Reducing spreads would drive investors away from highly remunerative short-maturity bonds and into long-term productive investments while mitigating the inflows of speculative/short-term capital. And, to the extent that fiscal imbalances are perceived to be contained, anticipations of a financial crisis would decline, thereby encouraging investments in domestic productive activities.
- *Invest in infrastructure, particularly, electricity, transportation, telecommunication, water and wastewater*. These are essential to reduce the cost of doing business and promote private investment. Public investments in infrastructure are not contradictory with achieving fiscal consolidation since the investments can have a multiplier effect.
- *Review tax policy to reduce distortions that affect investments in productive sectors and discourage employment creation*. Today, for instance, labor is taxed more heavily than other sources of income, and sectors producing tradable goods and some innovative sectors (for example, telecommunication) are taxed more than sectors producing non-tradable goods.
- *Improve access to finance to SMEs and entrepreneurs*. This can be done by building the capacity of the Beirut Stock Exchange (BSE), promoting investment banking, encouraging banks to use moveable property as collateral, and setting in place full-fledged Private Credit Bureaus (PCBs)

with an appropriate legal framework. For the self-employed and small-scale entrepreneurs, the government would also need to consider targeted credit lines or guarantees.

- *Simplify procedures and introduce transparency in regulations in order to reduce uncertainty, accelerate business processes, and reduce opportunities for corruption*. Some of the key interventions include: (i) adopting a building code based on best regional practices and make documents publicly accessible; (ii) fully implementing the automated international trade clearance system ASYCUDA (NAJM); (iii) simplifying and accelerating the bankruptcy process; and (iv) speeding-up commercial conflict resolution.
- *In the medium-term, Lebanon could benefit from a modern competition authority to implement the pending competition law, and from the protection of intellectual property*. A modern Competition Authority would both regulate anti-competitive behavior and advocate economic policies needed to promote competition.
- *Consider active targeted industrial policies to mobilize investments towards higher value added sectors, while paying attention to regional (within Lebanon) development*. The motivation for these policies is that even with the right business regulations and with the necessary infrastructure, high value added activities may fail to develop if they require coordinated investments by different players. Regional considerations play a critical role for any industrial policy in the case of Lebanon. The Government would need to consider developing zones with the necessary supply of public services that attract high-skilled labor, entrepreneurs, and capital.

1. 14. **Social insurance.** Lebanon needs to move ahead with several reforms in the social insurance system – pensions, health, and unemployment benefits – to expand coverage and reduce labor market distortions. There are three specific recommendations:

- *Adopt and implement the new Pension Law replacing the End-of-Service Indemnity (EOSI) program.* The main objective is to introduce a transparent system based on a defined-contribution formula (it links contributions to benefits paid in the form of an annuity), with explicit redistributive arrangements in the form of a minimum pension guarantee financed through general revenues. Individual savings could be invested in a default portfolio made of special non-tradable government bonds that pay a fixed real rate of return. In addition, individuals would be given the choice to move to more diversified portfolios. Adopting the new Law, however, should not wait for a final decision on how to invest and manage the assets of the new system.
- *Reform the health branch of the National Social Security Fund (NSSF) and expand coverage to the informal sector*. Like in the case of the pension system, it is necessary to rethink current financing mechanisms. An alternative is to move to a system where individuals (and employers when available) contribute on the basis of a premium – not a pay-roll tax – that reflects the cost of the package of health services. Individuals with low or limited savings capacity would receive explicit subsidies financed out of general revenues (instead of current system where Government finances 25 percent of *all* health expenditures of the NSSF). The new financing mechanism would also be applied to the voluntary program which could then be extended to the non-covered population.

- *Consider the implementation of an unemployment benefit system based on savings accounts.* As the EOSI is replaced by a pension scheme, workers will lack access to income protection while transiting between jobs. An option is to implement a system of Unemployment Individual Savings Accounts (UISAs), which are linked to the pension accounts. To keep the financing at affordable levels, the system could operate on a pay-as-you-go basis (current contributions would pay current unemployment benefits).[4] The link between the unemployment and pension accounts would also allow employees to borrow from their pension wealth when facing long periods of unemployment. Any balance in the account at the time of retirement would be added to the pension.

1. 15. **Labor regulations.** The objectives of the reforms in this area are to simplify and consolidate regulations, expand coverage, improve enforcement, and reduce incentives for non-compliance or informality. Three interventions to be considered are:

- *Give more flexibility to employers in the management of human resources while enforcing advance notice and proper working conditions*. Employers would have flexibility in setting the duration of the contract offered to employees as long as regulations regarding mandatory benefits are respected. Employers would also have the flexibility to terminate contracts and dismiss workers as long as they respect a given advance notice (which could be set at the level given to workers who have been in the firm for five years or less). The focus of the regulations (and inspectors) would be on enforcing proper working conditions in terms of working hours, leave, health and safety.
- *Reduce discretion in the adjustment of the minimum wage by setting-up an independent Minimum Wage Technical Commission (MWTC)*. The frequency and dates of the adjustments would be pre-defined. In addition, a formula would be used to set a reference value for the new minimum wage (for instance, as a function, of average productivity growth). The MWTC would then be in charge of assessing whether the reference value is appropriate based on the analysis of potential socio-economic impacts (e.g., number of employers and workers affected) and consultations with stakeholders. The MWTC would recommend the new value of the minimum wage to the government who can accept or reject the proposal within a given period of time. The government, however, would not be able to pass a minimum wage that has not the avail of the MWTC.
- *Improve enforcement by exploiting new information technologies and relying on civil society organizations*. It is not possible to develop enough institutional capacity within the Ministry of Labor to enforce labor regulations on-site, particularly when a large number of employers are informal. The strategy should be, instead, to develop the infrastructure to make it easy and safe for workers to submit complaints and reduce the time it takes to process these and implement a given course of action. In addition, the Ministry of Labor can encourage the emergence of non-profit organizations that specialize in tracking compliance with various labor regulations and reporting cases of abuse.

[4] See Fajnzylber, Robalino, and Weber (forthcoming).

1. 16. **Targeted Training and Active Labor Market Programs (ALMPs).** Policies in this area would focus on improving the employability of current workers and facilitating transitions into wage or self-employment. The programs would need to be regulated, monitored, and evaluated by the National Employment Office (NEO) but would be implemented by private providers. Over the short term, three interventions can be considered:

- *Develop a youth employment program targeted to first-time job seekers.* Youth who register in NEO would be assigned to NGOs who are in charge of placing them into 6 to 12 months paid internship programs and, to that end, provide them with the necessary training in terms of technical and life-skills. NGOs would be selected on a competitive basis and be remunerated based on placements made, thus providing incentives to deliver relevant counseling and training. To provide incentives to employers to offer the internships, eligible youth could receive a voucher that covers the cost of the employers' social security contributions.[5]
- *Promote the emergence of one-stop shops that provide integrated services to job-seekers.* These would act as decentralized employment offices managed by private organizations. They would become the interface between job-seekers, training providers, employers, and the social security (for the claiming and payment of unemployment benefits). They could also offer services to facilitate transition into self-employment. The one-stop-shops and service providers would be accredited by the Government. They would be mandated to report to NEO on the number of clients they receive and the services they provide. The NEO would be responsible for collecting, processing, and disseminating administrative data, thus creating an information system about job-search activity.
- *Reforms in the formal education system and improvements in early childhood education are needed to address the gaps in technical, cognitive and non-cognitive skills evident in the labor force.* There is a large reform agenda (beyond the scope of this report) under implementation today that focuses on quality of education and that should reap benefits in the medium term[6].

1.3. Potential Impacts on Employment

1. 17. The last chapter of the report uses a General Equilibrium model of the Lebanese economy to simulate, under alternative scenarios, what would be the potential impact of implementing some of the policies discussed above. The results are encouraging and show the importance of an integrated approach to employment creation. Indeed, the impact of a package of interventions is higher than the sum of each of the interventions implemented independently.

[5] In December 2011, the GOL approved the establishment of a "First-time Job Seekers" program aimed at encouraging employers to offer a sustainable job opportunity for the Lebanese first time job seekers in an effort to reduce migration and equip them with professional experience.

[6] For further discussion of the Lebanese education system see: (i) Ministry of Education and Higher Education (2010). Education Sector Development Plan (General Education) for 2010-2015; (ii) Nahas, C. (2009). Financing and Political Economy of Higher Education in Lebanon. Economic Research Forum; and, (iii)World Bank (2010). Second Education Development Project (EDP II). Project Appraisal Document.

1. 18. Three types of interventions are considered: (i) eliminating the pay-roll tax that finances health insurance and replacing it by an income tax (or a combination of premiums and general revenues); (ii) increasing investments in infrastructure (energy, transport and telecommunications); and, (iii) increasing total factor productivity through improvements in the business environment.

1. 19. *The results suggest that the removal of the health component of the pay-roll tax would increase formal labor demand and reduce unemployment and migration*. Relative to the baseline scenario, formal labor demand would increase by 2.2 percent, on average, due to lower cost of labor. This would reduce the stock of the unemployed by around 14 percent, the share of informal labor by 3.1 percent and the number of migrants by 5 percent. The additional fiscal resources required would be equivalent to 0.7 percent of households' earnings.

1. 20. *Investments in infrastructure alone would have limited direct effects on labor demand but, if coupled with improvements in the business environment, they would contribute to increase total factor productivity and, through this channel, improve private investments, growth, and employment*. The simulated investments in infrastructure would increase aggregate investments by around 7.3 percent per year (relative to the baseline) and induce a yearly increase in GDP of 0.3 percent. The impacts on labor demand, however, would be limited and the stock of the unemployed would only be reduced by around 4.5 percent, on average, relative to baseline. Nonetheless, as a result of new investments and a better business environment, productivity increases in the infrastructure and industrial sectors (4 percentage points) and agriculture (2 percentages points) and the impacts on growth and employment can be considerable. The GDP could increase, on average, by 2.3 percentage points relative to the baseline. The stock of the unemployed would be reduced by 5.6 percent in year 2012, up to 22.6 percent in year 2015. The flow of migrants would fall by 3.8 percent in year 2012 and 14.9 percent in year 2015.

1. 21. *An integrated package of interventions would significantly increase formal labor demand and reduce unemployment and migration.* Relative to the baseline scenario, an integrated package would increase aggregate investment by 10 percent in 2012 and up to 25 percent in 2015. Over the same period, the growth rate of GDP could increase by 2 to 3 percentage points. Formal labor demand would increase by around 4 percent, leading to a reduction in unemployment of 22 percent initially, and close to 37 percent in 2015. Migration and informal employee would also decline considerably. The main beneficiaries would be youth and medium-skilled/unskilled workers.

Table 1.1: Policy Recommendation Matrix

Macro-Economic And Investment Policies	Continue with fiscal consolidation to reduce borrowing needs, cut spreads in government bonds, and promote macroeconomic stability
	Invest in infrastructure, particularly, electricity, transportation, telecommunication, water and wastewater
	Review tax policy to reduce distortions that affect investments in productive sectors and discourage employment creation
	Improve access to finance to SMEs and entrepreneurs
	Simplify procedures and introduce transparency in regulations in order to reduce uncertainty, accelerate business processes, and reduce opportunities for corruption
	In the medium-term, Lebanon could benefit from a modern competition authority to implement the pending competition law, and from the protection of intellectual property
	Consider active targeted industrial policies to mobilize investments towards higher value added sectors, while paying attention to regional development
Social Insurance	Adopt and implement the new Pensions Law replacing the End-of-Service Indemnity program
	Reform the health branch of the National Social Security Fund (NSSF) and expand coverage to the informal sector
	Consider the implementation of an unemployment benefit system based on savings accounts
Labor Regulations	Give more flexibility to employers in the management of human resources while enforcing advance notice and proper working conditions
	Reduce discretion in the adjustment of the minimum wage by setting-up an independent Minimum Wage Technical Commission
	Improve enforcement by exploiting new information technologies and relying on civil society organizations
Training and Active Labor Market Programs	Develop a youth employment program targeted to first-time job seek
	Promote the emergence of one-stop shops that provide integrated services to job-seekers
	Reforms in the formal education system and improvements in early childhood education are needed to address the gaps in technical, cognitive and non-cognitive skills evident in the labor force

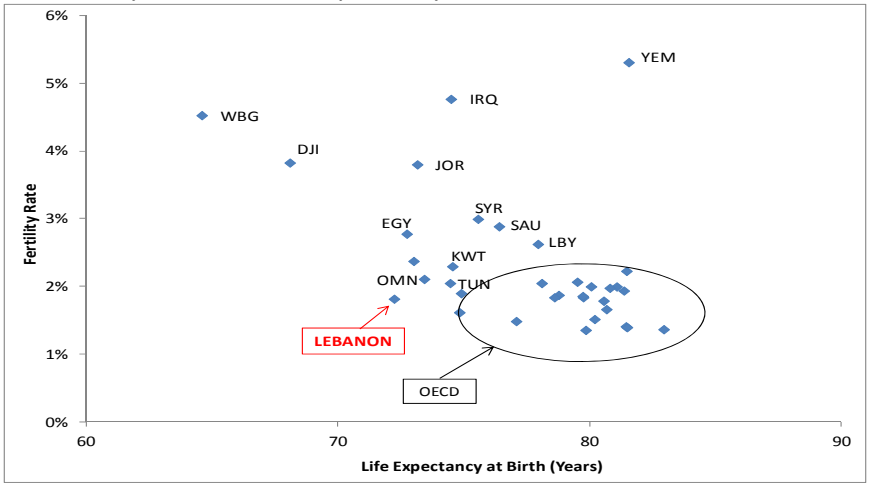
Chapter 2 : Understanding the Lebanese Labor Market

2. 1. *This chapter analyzes the main characteristics of the Lebanese labor market and identifies key issues that need to receive attention*[7]*.* The first three *se*ctions look respectively at the dynamics of the labor force and its composition in terms of gender, age, and skills; *net* job creation by economic sector and type of jobs[8]; and labor market outcomes in terms of unemployment, formal vs. informal employment, earnings, and job satisfaction. The roles of technical, cognitive, and non-cognitive skills and the efficiency of the job-matching process in determining these outcomes are also analyzed. The last section summarizes the main findings and general policy implications, which are then elaborated in subsequent chapters.

2.1. The Lebanese Labor Force

2. 2. *The Lebanese labor force has been growing relatively fast, driven, in part, by an increase in the working age population.* Between 2004 and 2010, the Lebanese labor force grew at an average annual rate of 2.2 percent (Table **2.1**). Half of this growth was explained by a growing working age population (1.7 percent per year). Indeed, Lebanon is still in the midst of a demographic transition characterized by falling fertility rates and rising life expectancy (Figure **2.1**). But the share of youth entering the labor market will continue to increase over the next decade. Hence, it is projected that over the next decade the working age population will be growing at an average of 1.2 percent per year. If participation rates remained constant, this would imply around 19,000 new entrants to the labor market each year.

Figure 2.1: Fertility Rate and Life Expectancy in some MENA and OECD Countries, 2009



Source: World Bank, World Development Indicator Database

[7] The analysis is based on the Employer-Employee Survey implemented as part of this Multi-year Technical Cooperation Program (TCP) (see Appendix for more details).

[8] Due to data constraints the analysis is based on the stocks of jobs across sectors as opposed to flows.

2. 3. *Labor force growth is also explained by increasing participation rates as a result, in part, of an increase in the level of education among women.* Although today participation rates for both men and women are low compared to other countries in the region, particularly for women, they are on an upward trend (Figure **2**.**2** and Table **2**.**1**). Thus, between 2004 and 2010, the aggregate participation rate increased from 44 percent to 46 percent. It is expected that the participation rate will reach 47 percent by year 2020. The main cause will be a higher participation in the labor market by young women. Indeed, an important predictor of the likelihood of participating in the labor market is the level of education of the individual. Other things being equal, for instance, those with university diploma are more likely to participate than those without (Table **2**.**2**). Thus, as the share of women with secondary and/or university diploma increases, their number in the labor market is also likely to increase. With increasing participation rates, 23,000 individuals, on average, would enter the labor market each year over the next 10 years. To absorb them, the economy would need to create more than 6 times the number of jobs it is currently creating (on average, only 3,400 new jobs each year between 2004 and 2007).

Table 2.1: Trend and projections in the demographics and labor force in Lebanon

	Share of working age population	Economic activity rate	Population growth rate	Working age population growth rate	Labor Force Growth Rate
2004	72%	44%			
2005	72%	45%	1.4%	2.3%	3.1%
2006	73%	45%	1.1%	2.0%	2.8%
2007	74%	45%	0.9%	1.6%	2.2%
2008	74%	45%	0.8%	1.4%	1.7%
2009	75%	46%	0.7%	1.4%	1.7%
2010	75%	46%	0.7%	1.5%	1.8%
2015 P	78%	46%	0.7%	1.5%	1.7%
2020 P	79%	47%	0.6%	0.9%	1.3%
2025 P	80%	48%	0.5%	0.8%	1.1%
2030 P	81%	49%	0.3%	0.6%	0.9%

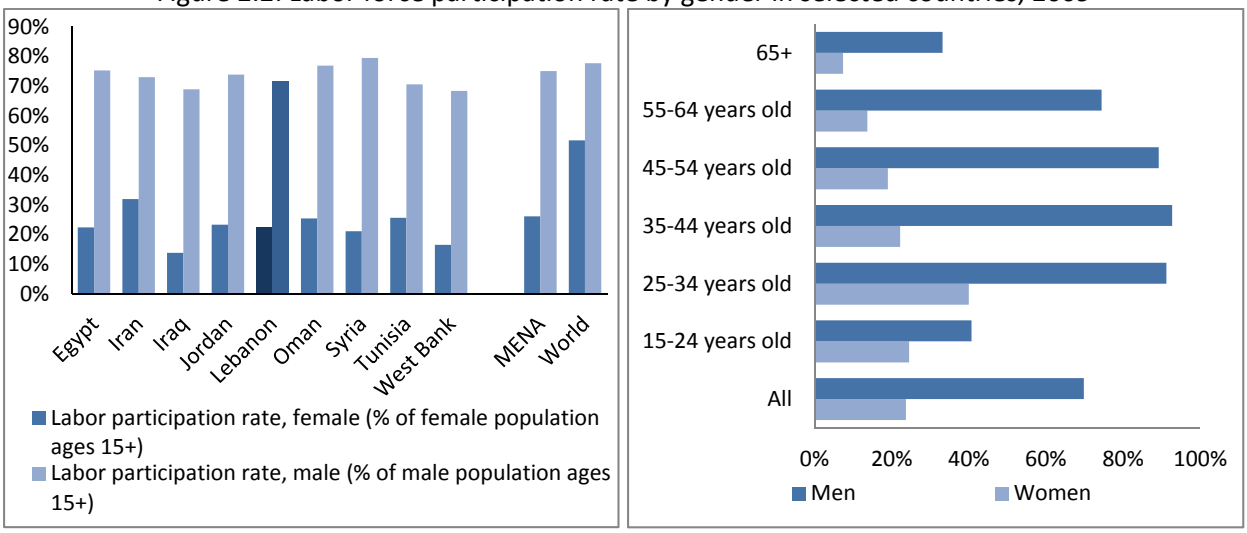
Source: International Labor Organization, Economically Active Population, Estimates and Projections (6th edition, October 2011)
Note: Projections beyond 2020 are based on staff calculations, working age population defined as 15+,
the growth rate refers to the average between two consecutive periods
(growth rate between year t1 and t2 = (stock t1 /stock t2)^(1/(t2-t1)) -1)

Table 2.2: Determinants of Labor Force Participation

	Coefficient	Standard Error
Male	1.72	(0.08)
Age	0.26	(0.01)
Age^2	-0.003	(0.00)
Married	-0.82	(0.17)
Number of children	-0.09	(0.02)
Standardized values of cognitive test score	-0.01	(0.04)
No Formal Education	-0.46	(0.13)
Primary	-0.54	(0.10)
Secondary	-0.34	(0.11)
Constant	-4.52	(0.32)

Source: World Bank, 2010 Employer-Employee Survey

Figure 2.2: Labor force participation rate by gender in selected countries, 2009



Source: World Bank, World Development Indicators (left), MENA corresponds to the average rate for developing countries only
World Bank, 2010 Employer-Employee Survey (right)

2. 4. *The Lebanese labor force is more educated than that of other countries with a similar level of income.* Thus, over one third of workers have tertiary education, a share that is close to that observed in OECD countries (Table **2.3**). In other middle income countries, less than 15 percent of the labor force has university diplomas. The share of workers with more than primary education is also high – 58 percent versus 35 percent in middle income countries. Only, 6 percent of workers have no education at all. Better educational outcomes reflect increases in enrollment rates at all levels. Enrollment rates in higher education are particularly high.

Table 2.3: Labor Force by Level of Education and School Enrollment Rates

Labor Force by Level of Education					
	No education	**Primary**	**Secondary**	**Tertiary**	**Total**
Labor Force	6%	36%	26%	32%	100%
School Enrollment Rates					
	2006	**2007**	**2008**	**2009**	**2010**
Net Enrollment Rate – Primary	87%	87%	87%	89%	92%
Net Enrollment Rate – Secondary	75%	75%	76%	76%	75%
Gross Enrollment Rate – Tertiary	46%	49%	52%	53%	54%

Source: World Bank, 2010 Employer-Employee Survey for the first row
World Bank, World Development Indicators for subsequent rows

2. 5. *It is important to note, however, that in recent years, Lebanon witnessed a strong emigration of skilled labor and an important immigration of unskilled foreign labor.* This is an issue that is not discussed in this report but that has been the subject of considerable research in Lebanon.[9] According to the 2004 Household survey and 2007 Living Conditions survey, Lebanese workers are moving away from sectors producing traded goods and from the construction sector and are being "replaced" by foreign labor, essentially low-skilled workers. While official data is lacking, estimates of outmigration for

[9] Kasparian, C. (2009). "L'Emigration des jeunes Libanais et leurs projets d'avenir". Presse de l'Universite Saint Joseph (USJ). Beirut, Lebanon.

the period 1991-2009 range from 200,000 to 400,000. Migration seems to be behind the observed scarcity of skilled labor that has been reported by employers (see Section 2.3).[10] Part of the explanation is the high salaries paid in Gulf Cooperation Council (GCC) countries and an apparent deterioration of real wages in Lebanon due to increasing consumer prices.

2.2. Job Creation

2. 6. *There are limited data in Lebanon to understand the dynamics of jobs creation and destruction, which are usually driven by the entry and exit of firms – particularly, young small firms.* The discussion in this short section is based on the compilation of household surveys and the recent Employer-Employee Survey, as well as national accounts. These data only give a general indication about changes in employment levels over time and the sectors which have been creating jobs or shedding labor.

2. 7. *What the available statistics indicate is that despite a relatively rapid growth in GDP during the last decade, employment in Lebanon has been growing slowly.* Between 1997 and 2009, GDP grew at an average of 3.7 percent per year but employment expanded only by 1.1 percent.[11] This indicates an employment-growth elasticity of only 0.2, which is considerably lower than those observed in other countries in the region - South-Asia, Latin America, and Sub-Saharan Africa.[12] Thus, the employment rate has remained almost constant during this period. Between 2004 and 2009, it increased from 38 to 41 percent. The employment rate for those younger than 35 remained at around 36 percent over the same period.

2. 8. *The large majority of jobs have been created in the commerce, services, and construction sectors.* Since 1997, employment has been moving away from agriculture and industry and into the services sector. Between 2004 and 2009, the main contributors to net job creation were trade (61 percent) and low productivity services (33 percent) sectors, followed by construction (10 percent). Higher productivity sectors such as transportation, telecommunication, financial services and insurance actually shed jobs (Table **2**.**4**).

[10] World Bank, 2010 - *Lebanon: Reversing Declining Competitiveness – A Survey-Based Investment Climate Update.* Unpublished.
[11] This estimate excludes non-surveyed foreign labor.
[12] International Labour Organization, 2009 - *Key Indicators of the Labour Market*. KILM 19, Box 19 b – http://kilm.ilo.org/KILMnetBeta/pdf/kilm19EN-2009.pdf

Table 2.4: Trend and Growth in Employment by Sector

Sector	2004	2007	2009
Agriculture	83,345	80,788	80,129
Industry	165,793	154,511	153,129
Construction	96,826	62,627	113,579
Trade	244,421	253,131	343,066
Transport, post and telecom	82,846	78,350	85,955
Services	414,328	464,881	468,160
Financial Intermediation and Insurance	20,200	22,976	25,362
Not Available	369	1,115	480
TOTAL	**1,108,128**	**1,118,379**	**1,269,859**

Sector	Net Job Creation (2004-2009)	CAGR 2004-2009	Share of Net Job Creation by Sector
Agriculture	-3,216	-1%	-2%
Industry	-12,664	-2%	-8%
Construction	16,753	3%	10%
Trade	98,645	7%	61%
Transport, post and telecom	3,109	1%	2%
Services	53,832	2%	33%
Financial Intermediation and Insurance	5,162	5%	3%
Not Available	111	5%	0%
TOTAL	**161,731**	**3%**	

Source: Central Administration of Statistics (CAS)

2. 9. *Today, the majority of wage employment is in low productivity services and the public administration*. Low productivity services - which include wholesale and retail trade, repair of motor vehicles, transportation and storage, accommodation and food service activities, and real estate activities - employ 35 percent of employees, two thirds of whom have secondary education or less (Table **2**.**5**). The public administration employs 30 percent of wage employees, the majority workers with higher education. Trailing behind are high productivity services (14 percent of employees) and manufacturing (11 percent). High productivity services which include information and communication technologies; financial and insurance activities; professional, scientific and technical activities are intensive in skilled labor, close to 80 percent of employees have a university diploma.

2. 10. *The majority of the self-employed also work in low productivity services.* They are a less educated group with only 13 percent having tertiary education. The other two sectors that attract the self-employed are construction and manufacturing. Both demand mainly low-skilled workers (with primary education or less), and constitute 16 percent of the self-employed (Table **2**.**6**).

Table 2.5: Distribution of Employment among Wage Employees

	No formal	Primary	Secondary	Tertiary	Total
Agriculture, forestry and fishing	0.4%	0.4%	0.1%	0.3%	**1.2%**
Mining and quarrying	0.0%	0.3%	0.3%	0.1%	**0.7%**
Manufacturing	0.9%	5.4%	1.8%	3.1%	**11.3%**
Electricity, water and gas	0.0%	0.5%	0.3%	0.1%	**0.9%**
Construction	0.1%	1.6%	0.8%	1.0%	**3.5%**
Low Services*	1.2%	10.6%	13.9%	9.7%	**35.4%**
High Productivity**	0.1%	1.7%	1.7%	10.7%	**14.3%**
Administration/education/health	0.7%	5.2%	6.9%	16.1%	**29.0%**
Other	0.0%	1.4%	1.0%	1.3%	**3.8%**
Total	**3.4%**	**27.1%**	**26.9%**	**42.6%**	**100.0%**

Source: World Bank, 2010 Employer-Employee Survey

Note: * wholesale and retail trade, repair of motor vehicles; transportation and storage, accommodation and food service activities, real estate activities; **information and communication; financial and insurance activities; professional, scientific and technical activities

Table 2.6: Distribution of Employment among the Self-Employed

	No formal	Primary	Secondary	Tertiary	Total
Agriculture, forestry and fishing	2%	3%	1%	0%	**5%**
Mining and quarrying	0%	0%	0%	0%	**0%**
Manufacturing	1%	5%	1%	1%	**8%**
Electricity, water and gas	0%	0%	0%	0%	**1%**
Construction	1%	5%	2%	1%	**8%**
Low Services*	6%	33%	15%	6%	**61%**
High Productivity Services**	0%	1%	0%	2%	**3%**
Administration/education/health	0%	0%	0%	2%	**3%**
Other	1%	5%	4%	1%	**11%**
Total	**10%**	**53%**	**23%**	**13%**	**100%**

Source: World Bank, 2010 Employer-Employee Survey

Note: * wholesale and retail trade, repair of motor vehicles; transportation and storage, accommodation and food service activities, real estate activities; **information and communication; financial and insurance activities; professional, scientific and technical activities

2.3. Labor Market Outcomes, Skills and Job-Search

2. 11. This section analyses labor outcomes in terms of unemployment rates; the share of formal wage employment, informal wage employment, and self-employment; earnings, and job-satisfaction. We decompose unemployment rates in terms the duration of the unemployment spell and entry rates for different workers. We also analyze how individual characteristics, in particular their technical, cognitive, and non-cognitive skills, correlate with their employment status. The final part discusses the main characteristics of the job-search process and how it can affect current labor market outcomes.

2.3.1. Unemployment

2. 12. *The labor market in Lebanon is characterized by high unemployment, often of long-duration.* Around 11 percent of the labor force is unemployed reflecting, in part, long average durations of the unemployment spell (close to one year).[13] Unemployment rates are particularly high for women (18

[13] The unemployment rate for a given type of worker is approximately equal to the risk of becoming unemployed times the duration of the unemployment spell.

percent) and youth (34 percent). Unemployment also increases with education. Around 14 percent of university graduates and 15 percent of those with secondary education are unemployed relative to 10 percent among workers with no education and only 7 percent among those with primary education (Table **2**.**7**).

Table 2.7: Unemployment Rate by Gender, Age and Education

Gender	Male	9%
	Female	18%
Age	15-24	34%
	25-34	11%
	35-44	6%
	45-54	3%
	55-64	2%
	65+	2%
Education	No Formal Education	10%
	Primary Education	7%
	Secondary Education	15%
	Tertiary Education	14%
Total		**11%**

Source: World Bank, 2010 Employer-Employee Survey

2. 13. *The entry rate and duration of the unemployment spell, which determine the unemployment rate, vary considerably across types of workers.* Some groups are characterized by high entry rates but short unemployment spells, while others face a low entry rate but long durations. This can be seen in Figure **2**.**3**, which graphs the duration of the unemployment spell as a function of the entry rate. The four curves in the figure give the combination of entry rates and durations that result in a given unemployment rate (3 percent, 10 percent, 15 percent, and 20 percent).

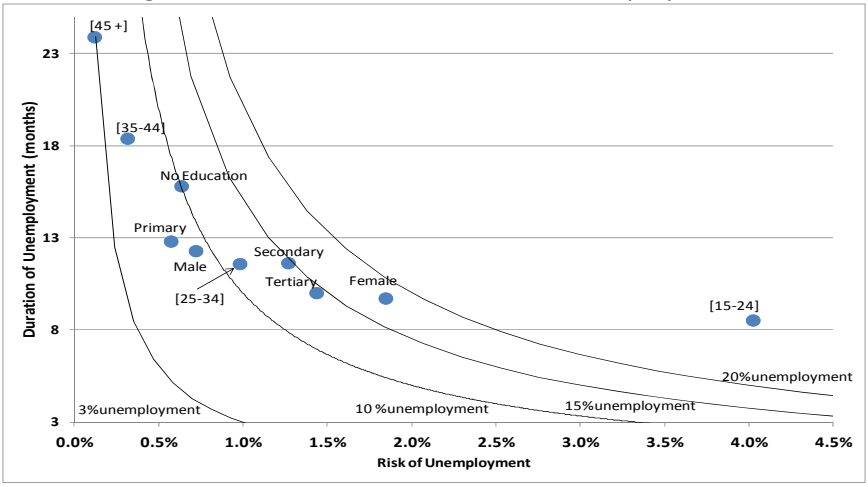
2. 14. *At one extreme are youth (age bracket 15-24) whose alarming unemployment rate – 34 percent – is explained by high entry rates*. This high entry rate is, in part, a consequence of demographics; the growing working age population. The results suggest that youth entering the labor market are able to find jobs faster than other age groups, but the jobs they get, probably informal jobs or self-employment activities, are of short duration.

2. 15. *At the other extreme are older workers (age 45+) for whom the main problem is the length of the unemployment spell (2 years on average)*. Only 3 percent of them are unemployed and the risk of becoming unemployment while working seems to be relatively low; less than 2 percent would become unemployed each month. Those who become unemployed, however, have a hard time finding a job.

2. 16. *Females have a much higher unemployment rate than men (18 percent versus 9 percent), but they spend less time unemployed.* The main reason why unemployment rates for female are higher is that they have a higher risk of becoming unemployed. This does not necessarily imply that they have a higher risk of dismissal. Women, for instance, are more likely to leave jobs for childbearing (i.e., they become inactive) and then start searching again for a job (they become unemployed). But, on average, women are able to find a new job in around 8 months, while for men it takes close to a year.

2. 17. *More educated workers also have higher unemployment rates but have shorter unemployment spells.* Indeed, as educational attainment increases, the entry rate into unemployment goes up, along with the unemployment rate. Education, however, shortens the length of the unemployment spell. Skilled workers seem to be better able to find jobs either because they are better prepared for the search process and/or because their skills are in higher demand. They might also be more willing to move jobs and more likely to afford to search for jobs, which can explain why the rate of entry into unemployment is higher.

Figure 2.3: The Risk and Duration of Unemployment



Note: Curves give the combinations of risk and duration that generate a given level of unemployment (from 3% to 20%)
Source: Authors' calculations

2. 18. *In general, those entering the labor market for the first time, face long unemployment spells.* For instance, among first-time job seekers with no formal education, the average duration of the first unemployment spell is close to 16 months. Even among workers with tertiary education, finding a job can be a long process taking an average of 10 months. Most likely, graduates from top universities find jobs relatively easily, while, for the rest, the unemployment spell last over a year (Table **2**.**8**). Transitions into employment can also be very long for those who enter the labor market relatively late. Hence, for those older than 35, the length of the unemployment spell can surpass 1.5 years. On the other hand, as discussed above, women seeking jobs for the first time seem to find jobs faster than men. In all cases, the long transition rates can reflect problems related to information and signaling (see last section), not only the lack of sufficient vacancies.

Table 2.8: Average Duration of Unemployment among First-Time-Job-Seekers

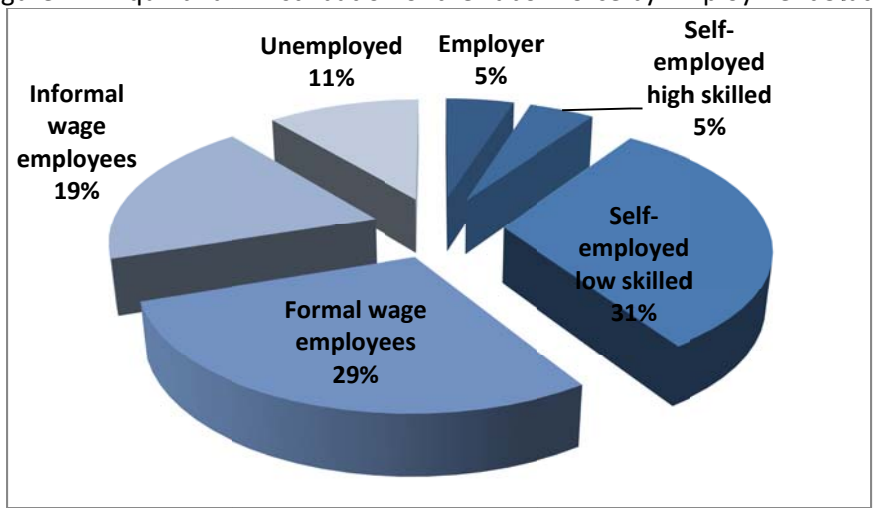
		Months	Years
Gender	Male	13.0	1.1
	Female	10.8	0.9
Education	No Formal Education	15.8	1.3
	Primary	13.2	0.9
	Secondary	12.9	1.1
	Tertiary	10.1	0.8
Age Bracket	[15-24]	10.2	0.8
	[25-34]	8.0	0.7
	[35-44]	19.2	1.6

Source: World Bank, 2010 Employer-Employee Survey

2.3.2. Formal Wage Employment, Informal Wage Employment and Self-Employment

2. 19. *In addition to high unemployment, the Lebanese labor market is characterized by a high prevalence of informal employment.* Around 19 percent of workers are informal wage employees, lacking access to social insurance and labor regulations. Another 36 percent of workers are self-employed, but, out of these, the majority are low-skilled self-employed who are usually involved in low productive activities and have limited access to formal insurance arrangements (Figure **2.4**).

Figure 2.4: Equilibrium Distribution of the Labor Force by Employment Status



Source: World Bank, 2010 Employer-Employee Survey

2. 20. *Overall, the mobility of the labor force across employment states is limited.* For instance, the probability of transiting from self-employment into wage employment, unemployment, or inactivity between two months is close to zero (Table **2.9**). There is more mobility among formal wage employees. Around 3 percent transit into self-employment each month and another 2.2 percent into informal employment. Only 0.4 percent become unemployed each month (around 5 percent within a given year) and very few become inactive. The transition rates of informal wage employees into self-employment

are similar, but movements into formal wage employment are rare. Informal sector workers also face higher transition into unemployment – close to 1 percent per month or 11 percent per year.

2. 21. *Exit rates from unemployment or inactivity are relatively low and, most of the time, involves entering self-employment or informal wage employment*. Among the unemployed, within a given month, only 8 percent will find a job. Most of the transitions involve entering self-employment (6 percent) or informal sector jobs (2 percent). Less than 0.5 percent of the unemployed move into formal jobs each year. Among the inactive, around 7 percent enter the labor market each month. The majority also enter self-employment (4 percent) or informal wage employment (1 percent). As discussed below, current labor regulations and social insurance laws could explain high transitions into self-employment and informal wage employment. If these dynamics persist, the share of informal employment and self-employment will continue to expand.

Table 2.9: Monthly transition table (December 2007 – December 2010) in percentage

Next month → Current month	Self-employed	Formal employees	Informal employees	Employee unknown	Unemployed	Inactive	Total
Self-employed	99.96	0.00	0.00	0.03	0.01	0.00	100
Formal employees	3.13	94.06	0.32	1.94	0.43	0.11	100
Informal employees	3.02	0.19	93.69	1.89	0.91	0.30	100
Employee – unknown	0.17	0.00	0.06	99.72	0.06	0.00	100
Unemployed	6.19	0.26	2.01	0.00	91.54	0.00	100
Inactive	4.50	0.35	1.04	0.25	0.69	93.18	100
Total	83.70	1.74	4.97	3.72	2.15	3.72	100

Source: World Bank, 2010 Employer-Employee Survey

Note: this table should be read as follows: for example, 99.96 percent of respondents who were self-employed during one month were self-employed the following month.

2. 22. *There is, of course, a correlation between individual characteristics, particularly education, and access to formal/informal wage employment and self-employment.* Formal sector employees are more educated than informal sector employees. Around half of those in formal wage employment have a higher education diploma (more if young); less than 25 percent have only primary or no education. In the informal sector, on the contrary, most workers have secondary education or less. A majority also tend to be young workers. Not surprisingly, for all age/education groups, earnings are lower in the informal sector (Table **2**.**10** and Table **2**.**11**). For instance, an adult worker would earn almost twice as much in a formal job than in an informal job.[14]

2. 23. *The self-employed have the lowest concentration of university graduates and the highest prevalence of workers with only primary or no education but their situation can be better than that of informal wage employees*. Indeed, for all age/education cells, earnings are higher than in the informal sector. Self-employment is therefore not a third-class activity, even among low skilled workers. Many of them seem to be better-off by managing their own business (Table **2**.**12**). Even when comparing earnings with the formal sector, the self-employed often do better. The exceptions are adult workers.

[14] These comparisons should be interpreted with caution. Indeed, there are unobserved factors (i.e., factors that are not captured in the survey) that affect whether individuals are in the formal or informal sector. Thus, the average individual working in the formal sector is not necessarily comparable to the average individuals working in the informal sector.

Clearly, this does not mean that workers should be encouraged to move into self-employment – the average informal employee will not necessarily do better as a self-employed as there are other, often unobservable, characteristics beyond age and level of education that determine success. But self-employment can be an important source of good jobs for those with the necessary technical, cognitive, and non-cognitive skills.

Table 2.10: Median Earnings and Distribution of Formal Employees by Age Group and Level of Education (US$ per month)

	No Formal Education	Primary	Secondary	Tertiary	Total
[15-34]	700	600	633	733	667
	0.2%	8%	16%	35%	60%
[35+]	467	667	667	950	700
	2%	13%	10%	14%	40%
Total	533	633	667	800	667
	2%	**21%**	**27%**	**50%**	**100%**

Source: World Bank, 2010 Employer-Employee Survey

Table 2.11: Median Earnings and Distribution of Informal Employees by Age Group and Level of Education (US$ per month)

	No Formal Education	Primary	Secondary	Tertiary	Total
[15-34]	350	467	433	533	467
	1%	19%	22%	25%	**68%**
[35+]	333	400	600	667	400
	4%	17%	5%	6%	**32%**
Total	333	400	433	533	442
	5%	**36%**	**27%**	**32%**	**100%**

Source: World Bank, 2010 Employer-Employee Survey

Table 2.12: Median Earnings and Distribution of Self-Employed by Age Group and Level of Education (US$ per month)

	No Formal Education	Primary	Secondary	Tertiary	Total
[15-34]	1,000	667	800	667	667
	1%	16%	11%	5%	**34%**
[35+]	567	667	800	1,000	667
	9%	37%	12%	8%	**66%**
Total	600	667	800	867	667
	10%	**53%**	**23%**	**13%**	**100%**

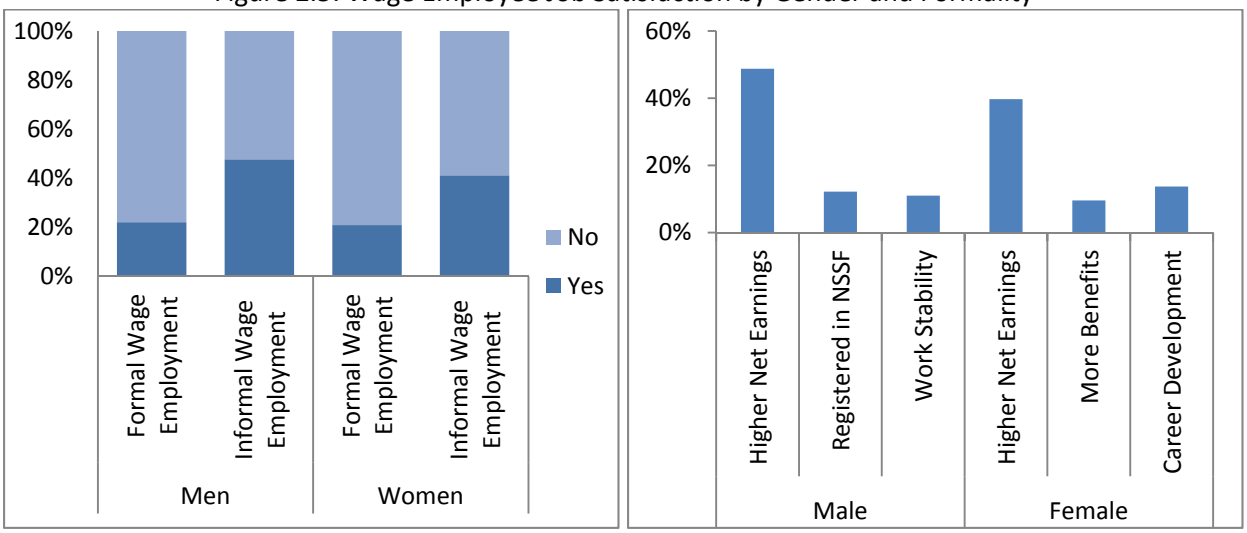
Source: World Bank, 2010 Employer-Employee Survey

2.3.3. What are workers preferences regarding formal and informal wage employment and self-employment?

2. 24. *In general, workers in wage employment prefer formal jobs to informal jobs, but not necessarily because of fringe benefits.* The results from the survey show that a majority of workers in formal wage employment were satisfied with their jobs; only 30 percent would have wanted to switch jobs

(Figure **2.5**). Workers in informal wage employment, on the other hand, are less satisfied and around 40 percent would like to change jobs – particularly if male. However, when asked why they want to move from informal to formal wage employment the main reason is "higher net earnings." Access to social security and job stability play a secondary role. One implication is that workers might still prefer informal jobs as long as earnings are high enough. Policies that increase the earnings of informal workers relative to those of formal workers (e.g., non-contributory insurance) could promote informality. The results suggest, nonetheless, that a high percentage of workers seem to be in their current jobs because of the lack of alternatives, not a real choice.

Figure 2.5: Wage Employee Job Satisfaction by Gender and Formality



Source: World Bank, 2010 Employer-Employee Survey

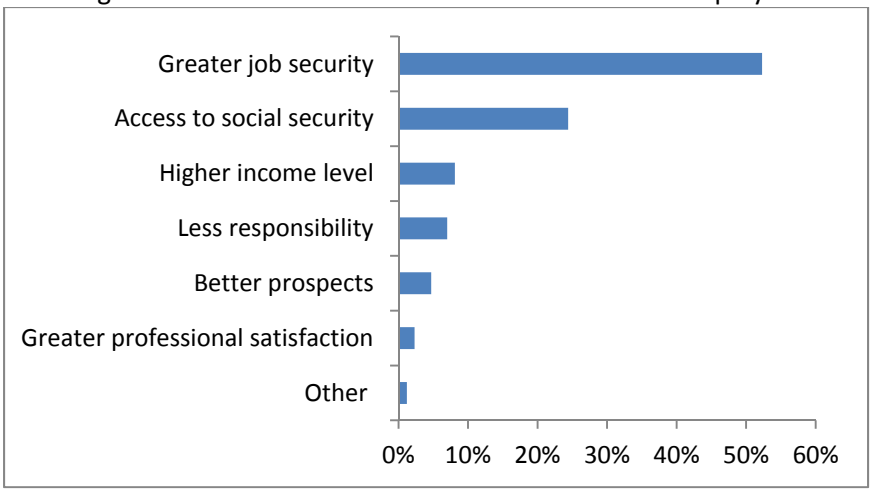
2. 25. *Consistent with the results of surveys in other regions, the large majority of self-employed appear to be satisfied with their jobs.*[15] Less than 10 percent of the self-employed express dissatisfaction with their jobs and would like to do something else. The group that is the least satisfied, are low skilled women, 30 percent of whom would like to change jobs. Those who prefer self-employment to wage employment cite "greater independence" as the main reason. Higher earnings and more flexible working hours follow but are less important (Figure **2.6**). Among those who would like to switch to wage employment, the main reason is greater job security. Only 25 percent of those wanting to switch jobs mention access to social security as one of the reasons (Figure **2.7**).

[15] See Perry et al., (2007).

Figure 2.6: Preference to be Self-Employed or an Employee by Gender and Skills Level

Source: World Bank, 2010 Employer-Employee Survey

Figure 2.7: Reasons for Preferences to Become an Employee



Source: World Bank, 2010 Employer-Employee Survey

2.3.4. Skills and labor market outcomes

2. 26. *As already shown in the previous sub-section, workers with higher levels of education tend to get better jobs*. In general, skilled workers are more likely to access higher productivity jobs and receive higher wages or be better prepared to succeed as self-employed or entrepreneurs. But higher levels of education do not necessarily imply having the right skills to succeed in the labor market. For various reasons, universities and vocational training centers can fail to transfer the technical skills demanded by employers. Moreover, workers might not have the necessary cognitive and non-cognitive (or socio-emotional) skills, which tend to be acquired during the first years of life and in primary and secondary

education and that we know are important predictors of labor market outcomes[16] (Box 2.1). In this section we analyze these issues.

Box 2.1: Non-Cognitive Skills

Recent evidence suggests that relying on educational attainment as a proxy for labor market success is of limited value since it does not take into account the heterogeneity in the quality of education and training programs or in the mix of individual skill sets acquired. Several studies have shown that, at the individual level, education explains only a small part of wage differentials for otherwise similar workers.

At the same time, there is evidence that cognitive skills (numeracy, literacy, problem solving) and non-cognitive skills (or socio-emotional skills) directly affect earnings and other labor market outcomes. There are direct and indirect channels through which these skills affect individuals' labor market experience. First, they influence educational outcomes. Indeed, individuals' success, while in primary and secondary education depends on their intellectual abilities, as well as personal characteristics such as discipline and perseverance. Later on, cognitive and non-cognitive skills influence career choices (e.g., whether to invest in university education or not) and the ability to learn job-specific skills. Ultimately, the level and quality of the education acquired determines the set of jobs to which individuals have access. Furthermore, cognitive and non-cognitive skills directly determine an individual's ability to find and perform different types of jobs and therefore their life-time earnings.

In particular, personality traits, defined as patterns of thinking, feeling, and behaving which are relatively stable across time and situations, have recently been recognized as important predictors of economic outcomes (Borghans, Duckworth, Heckman, & ter Weel, 2008; Paunonen, 2003). The **Big Five taxonomy of personality traits** is now widely accepted as the organizational structure of personality traits. This taxonomy has been replicated across cultures (John & Srivastava, 1999) and developmental stages of the life course (Soto, John, Gosling, & Potter, 2008). The Big Five taxonomy includes Conscientiousness, Openness to Experience, Neuroticism, Agreeableness, and Extraversion – each represents a family of more narrowly-defined, related, yet distinct traits.

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Paunonen, S. V. (2003). Big Five factors of personality and replicated predictions of behavior. Journal of Personality and Social Psychology, 84, 411-422.

[16] See Heckman, J. J., J. Stixrud and S. Urzua (2006). "The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior." Journal of Labor Economics 24(3): 411-482.
Lex Borghans, Angela Lee Duckworth, James Heckman and Bas ter Weel, The Economics and Psychology of Personality Traits, Journal of Human Resources 43 (4), pp. 972-1059, 2008.

2. 27. *Among wage employees in Lebanon, not surprisingly, both the level of education and cognitive scores are correlated with higher earnings*. Even after taking into account standard determinants of wages such as age, experience, type of job (e.g., formal vs. informal), economic sector and region, the level of education makes an important difference. For instance, other things being equal, having higher tertiary education increases hourly wages by 32 percent for men and 52 percent for women relative to having only primary education. The correlation between cognitive skills and wages is also important. Indeed, even if higher cognitive skills are correlated with higher levels of education, the positive effect on wages persist (compare columns 3 and 5 in Table **2**.**13**).

2. 28. *While non-cognitive skills do not seem to directly affect wages among private sector employees, they affect the likelihood of working in the informal sector*. Other things being equal, for instance, more emotionally stable individuals are less likely to be in the informal sector. Similarly, individuals who tend to be more open to new experiences are more likely to take informal jobs (Table **2**.**14**). It is not clear whether this occurs by choice (a reflection of individual preferences), or indirectly because certain non-cognitive skills are correlated with the acquisition of certain job specific skills, or because formal employers prefer or dislike certain behaviors. Regardless, the presence of certain non-cognitive skills seems to be important to engage in formal employment (Table **2**.**15**).

2. 29. *Among the self-employed, both the level of education and cognitive/non-cognitive skills matter*. Even after controlling for the level of education, a higher cognitive score is correlated with higher hourly earnings (Table **2**.**14**). Hence, a one point increase in the score is associated with a 3 percent increase in hourly earnings. In terms of non-cognitive skills, extraverted individuals and those who tend to be more emotionally stable appear to be more successful entrepreneurs – and generate higher hourly earnings. Individuals who rank higher in terms of conscientiousness are also, other things being equal, more likely to be self-employed. Agreeableness, on the other hand, is negatively correlated with hourly earnings among the self-employed (Table **2**.**15**). The result thus confirms the need to take into account the role of personality traits when designing and targeting programs to support the self-employed or small scale entrepreneurs.

Table 2.13: Wage OLS regressions for private sector employees.
Dependent variable is Natural log of hourly wage

	(1)	Std Err.	(2)	Std Err.	(3)	Std Err.	(4)	Std Err.	(5)	Std Err.	(6)	Std Err.
Informal employee	-0.19	(0.05) ***	-0.18	(0.05) ***	-0.21	(0.05) ***	-0.21	(0.05) ***	-0.20	(0.05) ***	-0.19	(0.05) ***
Age	0.01	(0.01)	0.02	(0.01)	0.00	(0.01)	0.01	(0.01)	0.01	(0.01)	0.02	(0.01)
Age square	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)
No formal education	-0.19	(0.11)*	-0.28	(0.14) **					-0.22	(0.14)	-0.19	(0.14)
Secondary education	0.07	(0.06)	0.01	(0.07)					-0.02	(0.07)	0.00	(0.07)
Tertiary education	0.32	(0.07) ***	0.22	(0.08) ***					0.15	(0.08)*	0.15	(0.08)*
Female	-0.17	(0.05) ***	-0.42	(0.10) ***	-0.15	(0.05) ***	-0.13	(0.05) ***	-0.40	(0.10) ***	-0.36	(0.10) ***
Female * No education			0.32	(0.23)					0.27	(0.24)	0.22	(0.24)
Female * Sec. education			0.28	(0.13) **					0.29	(0.14) **	0.24	(0.14)*
Female * Tert. education			0.32	(0.12) ***					0.32	(0.12) ***	0.29	(0.12) **
Married	0.14	(0.05) ***	0.10	(0.05)*	0.15	(0.05) ***	0.13	(0.06) **	0.11	(0.06)*	0.09	(0.06)
Tenure of current status in years	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)	0.01	(0.01)
Tenure of current status years square	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)
Firm size - [5 -19] workers	0.17	(0.07) **	0.16	(0.07) **	0.18	(0.07) ***	0.20	(0.07) ***	0.14	(0.07) **	0.15	(0.07) **
Firm size - [19-149] workers	0.20	(0.07) ***	0.20	(0.07) ***	0.21	(0.07) ***	0.22	(0.07) ***	0.16	(0.07) **	0.18	(0.07) **
Firm size - 150 workers and above	0.28	(0.08) ***	0.28	(0.08) ***	0.29	(0.08) ***	0.29	(0.08) ***	0.25	(0.08) ***	0.25	(0.09) ***
Agricultural sector	-0.17	(0.18)	-0.15	(0.18)	-0.11	(0.19)	-0.10	(0.19)	-0.11	(0.19)	-0.10	(0.19)
Manufacturing sector	-0.07	(0.06)	-0.07	(0.06)	-0.09	(0.06)*	-0.08	(0.06)	-0.08	(0.06)	-0.07	(0.06)
Low skill occupation	-0.21	(0.05) ***	-0.21	(0.05) ***	-0.35	(0.05) ***	-0.36	(0.05) ***	-0.23	(0.06) ***	-0.25	(0.06) ***
Mount Lebanon	-0.07	(0.07)	-0.07	(0.07)	-0.06	(0.08)	-0.05	(0.08)	-0.08	(0.08)	-0.06	(0.08)
North	-0.16	(0.09)*	-0.16	(0.09)*	-0.22	(0.09) **	-0.26	(0.10) ***	-0.21	(0.09) **	-0.24	(0.09) **
Bekaa	-0.39	(0.09) ***	-0.37	(0.09) ***	-0.37	(0.09) ***	-0.36	(0.10) ***	-0.37	(0.09) ***	-0.36	(0.10) ***
South	-0.26	(0.09) ***	-0.27	(0.09) ***	-0.30	(0.09) ***	-0.27	(0.10) ***	-0.30	(0.09) ***	-0.28	(0.10) ***
Nabatieh	-0.19	(0.12)	-0.18	(0.12)	-0.26	(0.13) **	-0.26	(0.14)*	-0.23	(0.13)*	-0.22	(0.14)
Standardized values of cognitive test score					0.09	(0.02) ***	0.09	(0.02) ***	0.07	(0.02) ***	0.08	(0.02) ***
Openness to Experience							0.01	(0.02)			0.00	(0.02)
Conscientiousness							-0.03	(0.03)			-0.03	(0.03)
Extraversion							0.01	(0.03)			0.02	(0.03)
Agreeableness							-0.03	(0.02)			-0.02	(0.02)
Emotional Stability							0.02	(0.02)			0.02	(0.02)
Constant	1.29	(0.24) ***	1.21	(0.24) ***	1.62	(0.27) ***	1.59	(0.34) ***	1.35	(0.27) ***	1.34	(0.34) ***
Observations	567		567		519		505		519		505	
R-squared	0.40		0.41		0.38		0.41		0.41		0.43	

Source: Author's calculation based on the World Bank, 2010 Employer-Employee Survey

Notes: Standard errors are in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 2.14: Earnings OLS regressions for self-employed workers.
Dependent variable is Natural log of hourly earnings

	(1)	Std Err.	(2)	Std Err.	(3)	Std Err.	(4)	Std Err.	(5)	Std Err.	(6)	Std Err.
Age	0.04	(0.01) ***	0.04	(0.01) ***	0.05	(0.01) ***	0.04	(0.01) ***	0.04	(0.01) ***	0.04	(0.01) ***
Age square	-0.00	(0.00) ***	-0.00	(0.00) ***	-0.00	(0.00) ***	-0.00	(0.00) ***	-0.00	(0.00) ***	-0.00	(0.00) ***
No formal education	-0.24	(0.08) ***	-0.29	(0.09) ***					-0.33	(0.10) ***	-0.33	(0.10) ***
Secondary education	0.13	(0.06) **	0.11	(0.07)*					0.09	(0.07)	0.07	(0.07)
Tertiary education	0.29	(0.08) ***	0.26	(0.09) ***					0.23	(0.09) **	0.22	(0.09) **
Female	-0.19	(0.07) ***	-0.29	(0.10) ***	-0.15	(0.07) **	-0.11	(0.08)	-0.24	(0.10) **	-0.18	(0.11)*
Female * No education			0.37	(0.25)					0.45	(0.29)	0.40	(0.31)
Female * Secondary education			0.13	(0.16)					0.11	(0.16)	0.17	(0.16)
Female * Tertiary education			0.20	(0.21)					0.18	(0.21)	-0.02	(0.23)
Married	-0.13	(0.06) **	-0.12	(0.06) **	-0.15	(0.07) **	-0.08	(0.07)	-0.12	(0.07)*	-0.04	(0.07)
Tenure of current status in years	0.01	(0.01)*	0.01	(0.01)*	0.01	(0.01)*	0.01	(0.01)	0.02	(0.01)*	0.01	(0.01)
Tenure of current status in years square	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)	-0.00	(0.00)
Agricultural sector	-0.18	(0.10)*	-0.18	(0.10)*	-0.15	(0.11)	-0.15	(0.11)	-0.15	(0.11)	-0.15	(0.11)
Manufacturing sector	0.08	(0.07)	0.07	(0.07)	0.05	(0.07)	0.03	(0.07)	0.05	(0.07)	0.02	(0.07)
Low skill occupation	0.02	(0.05)	0.01	(0.05)	-0.05	(0.05)	-0.02	(0.05)	-0.02	(0.05)	0.01	(0.05)
Mount Lebanon	0.03	(0.12)	0.01	(0.12)	0.06	(0.13)	0.03	(0.13)	0.04	(0.12)	0.01	(0.13)
North	0.08	(0.12)	0.06	(0.12)	-0.02	(0.13)	-0.17	(0.13)	0.05	(0.13)	-0.10	(0.13)
Bekaa	-0.26	(0.13) **	-0.27	(0.13) **	-0.25	(0.13)*	-0.24	(0.13)*	-0.23	(0.13)*	-0.23	(0.13)*
South	-0.29	(0.13) **	-0.31	(0.13) **	-0.37	(0.14) ***	-0.40	(0.14) ***	-0.31	(0.14) **	-0.36	(0.14) **
Nabatieh	-0.36	(0.15) **	-0.37	(0.15) **	-0.53	(0.17) ***	-0.56	(0.17) ***	-0.45	(0.17) ***	-0.49	(0.17) ***
Standardized values cognitive test score					0.10	(0.03) ***	0.10	(0.03) ***	0.07	(0.03) **	0.07	(0.03) **
Openness to Experience							0.04	(0.02)*			0.02	(0.02)
Conscientious-ness							0.01	(0.04)			0.01	(0.03)
Extraversion							0.06	(0.04)*			0.07	(0.04)*
Agreeableness							-0.11	(0.03) ***			-0.10	(0.03) ***
Emotional Stability							0.07	(0.02) ***			0.07	(0.02) ***
Constant	0.80	(0.27) ***	0.83	(0.27) ***	0.76	(0.29) ***	0.53	(0.38)	0.67	(0.29) **	0.49	(0.38)
Observations	594		594		553		533		553		533	
R-squared	0.18		0.19		0.17		0.21		0.21		0.24	

Source: Author's calculation based on the World Bank, 2010 Employer-Employee Survey

Note: Standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 2.15: Personality traits and labor market outcomes

	High scores versus low scores
Conscientiousness	More likely to be self-employed (86 percent versus 78 percent of the time). Less likely to be employee (8 percent versus 13 percent of the time). Less likely to be unemployed (2.3 percent versus 3.5 percent).
Agreeableness	Less likely to be self-employed (81 percent versus 87 percent of the time). More likely to be unemployed (2.5 percent versus 1.5 percent) and less likely to exit unemployment (8 percent transitioned out of unemployment versus 13 percent). Slightly more likely to be employee (12 percent versus 8 percent of the time).
Openness to Experience	Less likely to be self-employed (80 percent versus 86 percent of the time). More likely to be inactive (6 percent versus 1 percent). Slightly more likely to leave unemployment (10 percent transitioned versus 7 percent).
Emotional stability	More likely to be self-employed (86 percent versus 79 percent of the time). Less likely to be unemployed (3 percent versus 5.2 percent).
Extraversion	Slightly less likely to be self-employed (81 percent versus 85 percent of the time)

Source: Author's calculation based on the World Bank, 2010 Employer-Employee Survey

Note: High scores mean scores that are within the highest 25 percent, while low scores are among the lowest 25 percent.

2. 30. *But even though skills matter and that, as discussed above, the Lebanese labor force has a relatively high percentage of skilled workers, employers seem to struggle to hire qualified workers.* The results of the 2009 ICA survey in Lebanon rank "skills and education of available workers" as the sixth major constraint to Lebanese firms (55 percent of firms ranked it as a serious constraint compared to only 38 percent in 2005).[17] This constraint seems to be most binding in the construction and the manufacturing sectors. The survey also showed that the most difficult positions to fill are skilled technicians (7-8 weeks), good engineers, and managers (nearly 3 months in hotels). Moreover, it takes three weeks to fill a service/production vacancy, a longer duration than in other countries in the region. Clearly, as discussed above, outward migration of skilled youth can be a strong factor affecting the availability of skilled workers in the country. In fact, almost half (42 percent) of youth aged 15-24 with secondary or tertiary education have been thinking about migrating.[18] But other reports suggest that, even when individuals have university diplomas, they might not have the necessary "soft" skills such as leadership, communication, and writing.[19]

2. 31. *The recent Employer-Employee Survey (EES) shows that mismatches between the skills required by a given job and the skills of the worker holding the job are common, particularly among wage employees*. For instance, 41 percent of wage earners report to have skills that do not match at all, or only somewhat, those required by the job (Table 2.16). The degree of mismatch is higher among low skilled workers. The self-employed report a lower level of mismatch (38 percent), but it is higher among the skilled workers. This could suggest that some skilled workers who become self-employed face constraints to start businesses in their area of expertise. An example would be architects who do not find enough clients and then engage in other activities. Some of the self-employed can also be workers

[17] World Bank, 2010 - *Lebanon: Reversing Declining Competitiveness – A Survey-Based Investment Climate Update.* Unpublished.
[18] World Bank 2010, Employer-Employee Survey

who were not able to find wage employment in their field and then decide to start a business in a different activity.

Table 2.16: Matching of skills required for the jobs or employees and self-employed individuals by skills levels

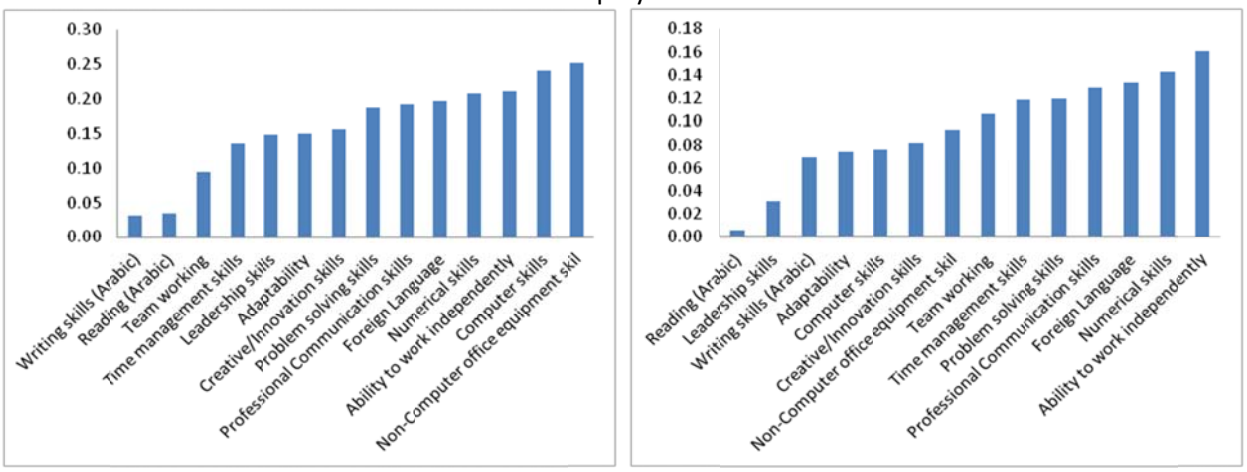
	High skill	Low skill	Total
Employees			
Do not match at all	14.3%	28.6%	21.3%
Match somewhat	20.5%	20.1%	20.3%
Match very well	61.1%	29.4%	45.5%
No specific field is required for this job	4.2%	21.9%	12.9%
Total	**100%**	**100%**	**100%**
Self-employed			
Do not match at all	22.7%	17.9%	20.6%
Match somewhat	19.5%	16.1%	17.9%
Match very well	37.2%	40.4%	38.6%
No specific field is required for this job	20.7%	25.6%	22.9%
Total	**100%**	**100%**	**100%**

Source: World Bank, 2010 Employer-Employee Survey

2. 32. *There are also important gaps between the technical, cognitive, and non-cognitive skills that employers demand and those that their employees have. In the case of m*anagerial positions, the main gaps are related to skills to handle computers and other office equipment, computer skills, ability to work independently, numerical skills, and the lack of a foreign language (left of Figure **2**.**8**). For the non-managerial positions, the main gaps are in terms of ability to work independently, numerical skills, foreign language, professional communication skills, and problem solving skills (right of Figure **2**.**8**).

2. 33. *More generally, the demands from employers in terms of technical, cognitive, and non-cognitive skills do not match the distribution of these skills in the labor force*. Across employers the most important skills for managers are professional communication skills, team work, problem solving and numerical skills, and time management. Yet these are the skills that most managers in the labor force do not have. Other gaps are in computer skills, adaptability, and ability to work independently (Figure **2**.**9**). Regarding non-managerial positions, the demand is also for skills regarding team work, professional communication, and time management, in addition to the ability to work independently and adaptability. Yet, these are the skills that non-managerial workers in the labor force do not have. At the same time, among non-managerial workers, there seems to be an oversupply of computer and technical skills (Figure **2**.**10**). Having these skills should be usually a plus, but it seems that, given the jobs that the Lebanese economy is creating, they become less relevant for the average non-managerial worker.

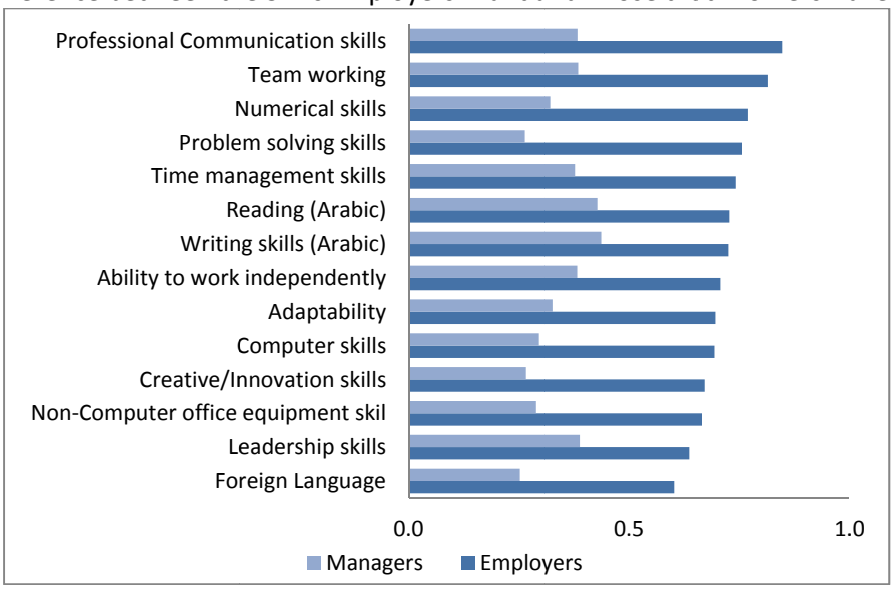
Figure 2.8: Mismatch in managerial positions (left) and non-managerial positions (right) viewed by employers



Source: World Bank, 2010 Employer-Employee Survey

Note: this chart represents the difference between the share of employers reporting skills to be very important and the share of employers rating their managers as very good in that skill.

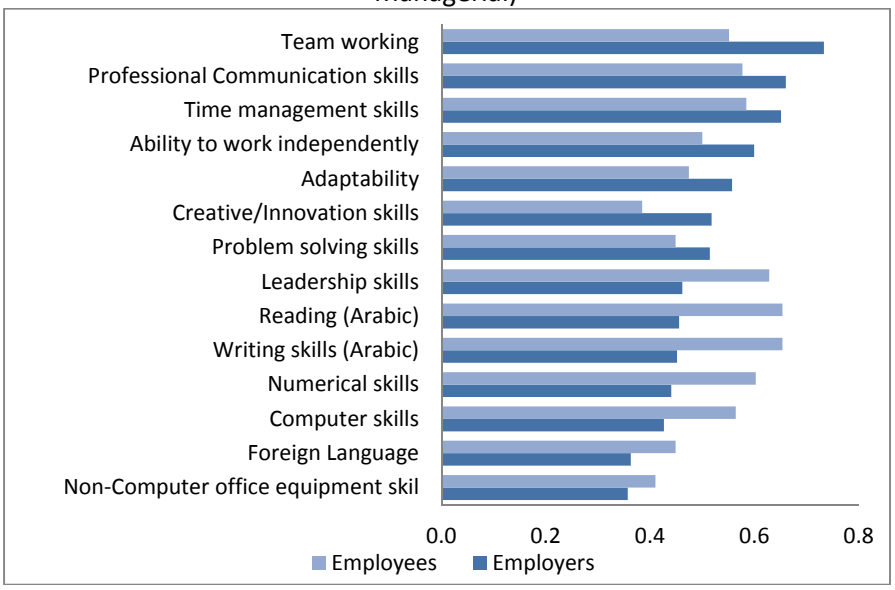
Figure 2.9: Difference between the Skills Employers Want and Those that Workers Have (Managerial)



Source: World Bank, 2010 Employer-Employee Survey

Note: The blue bars can be interpreted as a demand for a given skills and the red bars as the supply.

Figure 2.10: Difference between the Skills Employers Want and Those that Workers Have (non-Managerial)



Source: World Bank, 2010 Employer-Employee Survey

Note: The blue bars can be interpreted as a demand for a given skills and the red bars as the supply.

2.3.5. Job-search and labor market outcomes

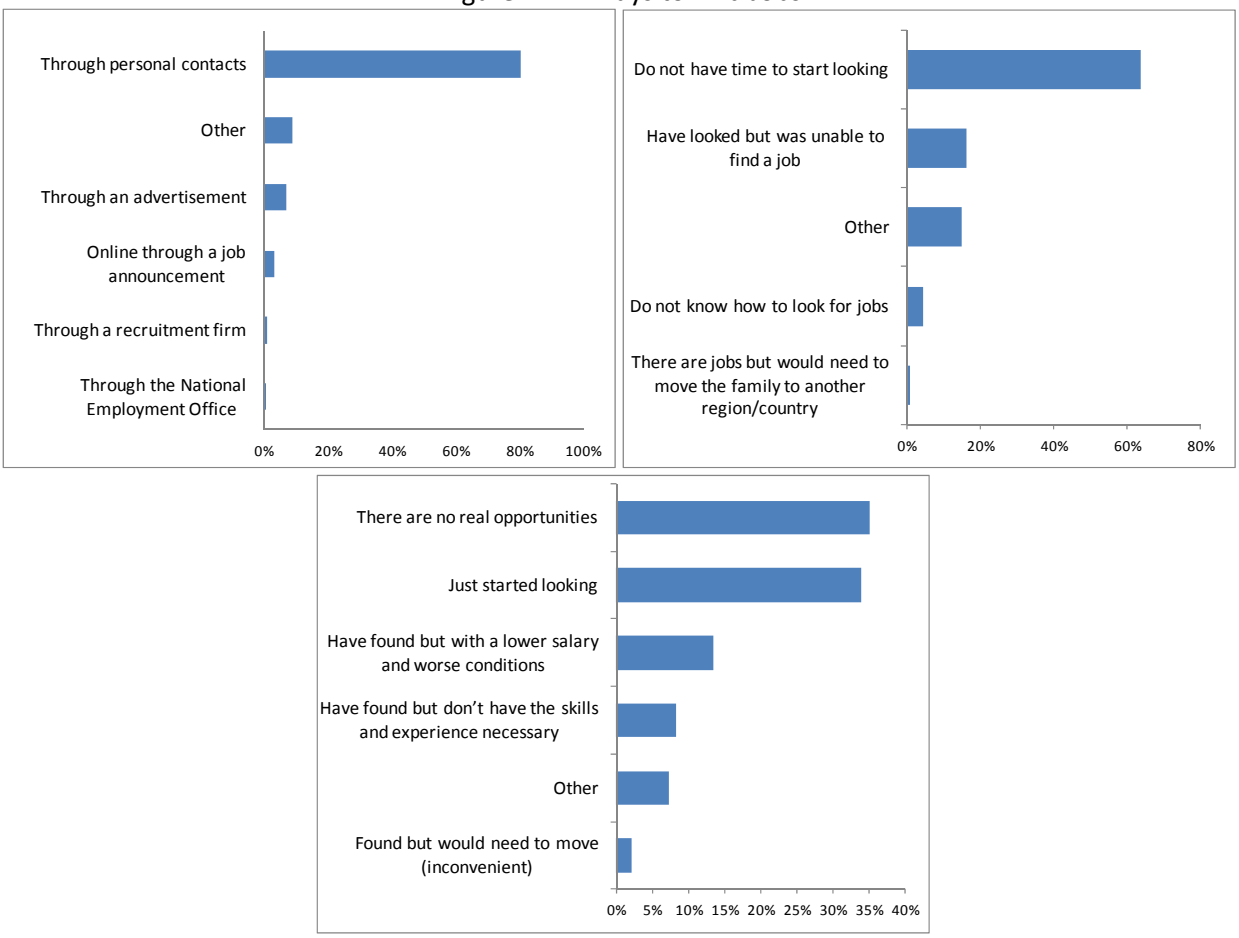
2. 34. *How workers search for jobs and how employers fill vacancies are important determinants of labor market outcomes*. If workers do not have information about the full spectrum of jobs and cannot apply to those that better suit their skills, or if employers only hire from a small pool of workers, the resulting job-skills matches will not generate the maximum in terms of productivity and earnings. Workers without work experience might also have difficulty signaling their skills. Employers might be reluctant to hire them -- they are a risky investment -- even if they have the potential to become the best match for the job.

2. 35. *In Lebanon, unfortunately, personal contacts remain the most prevalent mechanism to find a job.* Advertisements, recruitment firms, and particularly the National Employment Office (NEO) play no role (see top left panel in Figure **2**.**11**). An implication is that individuals with more spares social networks (often young workers in low income families) might be less likely to access the best jobs even when they have the right qualifications. Employers might be hiring candidates that perform a reasonable job but who are not necessarily the best. Part of the skills mismatches discussed in the previous section might be a reflection of current job-search and hiring practices.

2. 36. *Current arrangements for job-search can also be constraining labor mobility.* For instance, around sixty percent of workers wanting to change jobs do not search for a new opportunity because the process is costly and time consuming (see top right panel in Figure **2**.**11**). And, among those trying to find alternatives or change careers, very few are successful (see bottom panel Figure **2**.**11**). This could be the result of the scarcity of jobs, but it can also be a reflection of an inefficient job search process. If

workers can only count on their family, friends and peers to obtain information about alternative career opportunities their options are indeed going to be limited.

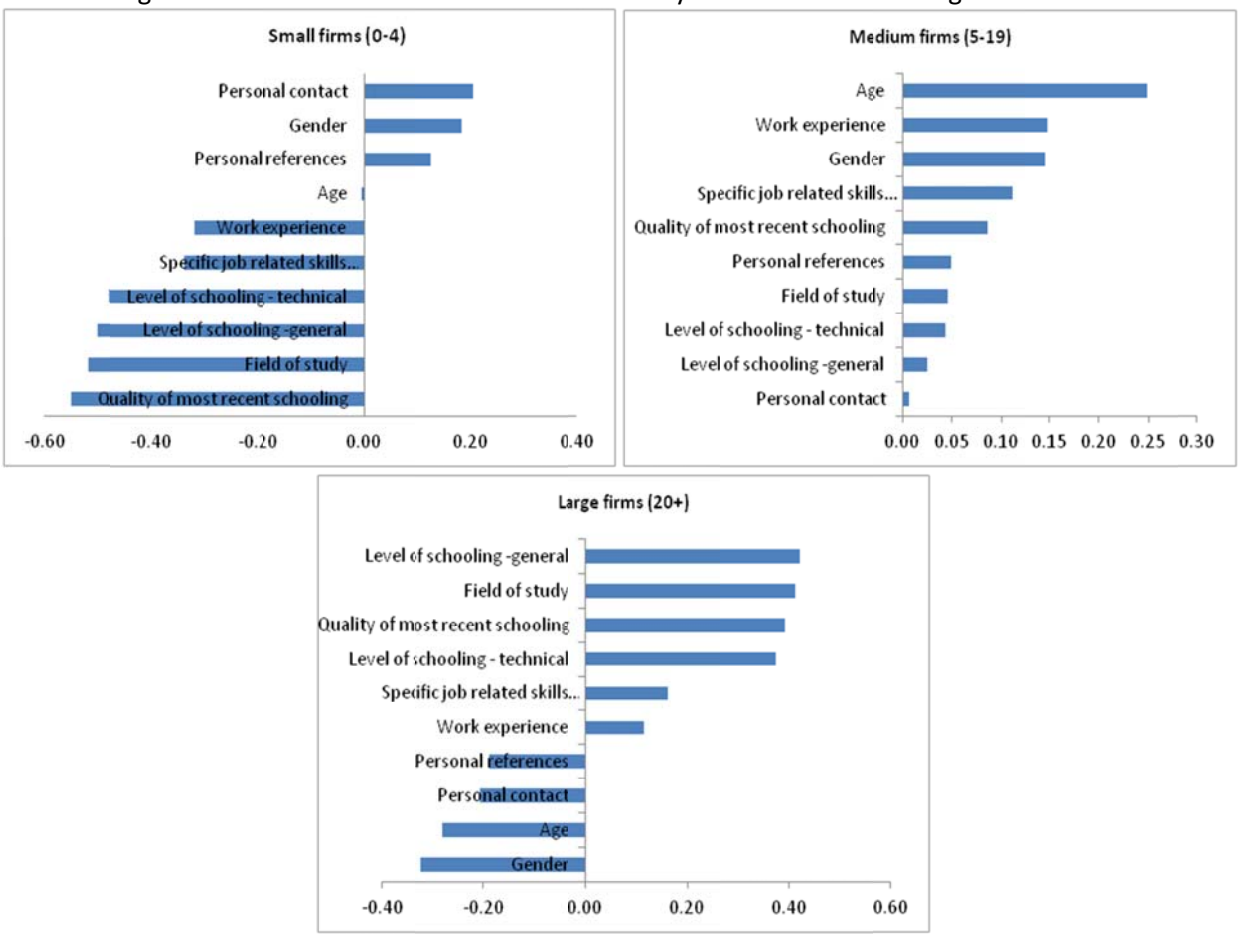
Figure 2.11: Ways to Find Jobs



Source: World Bank, 2010 Employer-Employee Survey

2. 37. *From the employer side, the sophistication of recruitment policies depends on the types of skills demanded and the profitability of the firm*. There is evidence, for instance, that small firms, presumably involved in low productivity activities, pay little attention to hiring the right worker. They prefer to hire somebody who was referred to by a personal contact. For them, presumably, there is more room for substitution between different levels of skills and experience. Things are different for medium and large firms. Medium firms do care about individuals characteristics, including whether the applicant has the right technical skills and the quality of the education diploma. Unfortunately, for them, having a dedicated human resources department is rare and the services of private providers can be expensive. At the other extreme, there are large firms which usually have an in-house human resources department and are able to recruit the best candidates; often on the basis of their education credentials (Figure **2**.**12**).

Figure 2.12: Factors taken into Consideration by Firms when Recruiting for a Position



Source: World Bank, 2010 Employer-Employee Survey

Note: average score of small firms minus average score of all firms. Scores are obtained from the following question: "Which factors do you take into account to determine whether a candidate is adequate for a position in your firm?" 1=Never, 2=sometimes, 3=Often, 4=Always.

2.4. Conclusions

2. 38. The main issues facing Lebanon in the area of labor markets can be summarized as follows:

- *The pace of job creation has been slow and the jobs created have been in low productivity sectors.* This has happened despite appropriate levels of investment and economic growth. Current dynamics suggest that entrepreneurs and investors lack the incentives or face constraints to move into higher value added activities. Thus, part of the strategy to promote the creation of high quality jobs will involve macroeconomic and investment policies that are able to reallocate national savings towards higher productivity sectors (Chapter 3).
- *Participation rates are low, while unemployment is high and of long duration.* Part of the solution to the problem of participation will come from higher levels of education among women. An increase in labor demand, the creation of more vacancies, can also promote participation and facilitate exit from unemployment. But there might be needs for activation and active labor market programs that facilitate school-to-work transitions and transitions out

of unemployment, particularly over the short and medium terms. These programs would need to provide incentives to participate in the labor market and search for jobs, while increasing workers employability and supporting the job-search process. Active programs could be targeted to the most vulnerable groups, including youth (Chapter 4).

- *The labor force has low levels of education and there are gaps in terms of technical, cognitive, and non-cognitive skills that can compromise the expansion of high productivity sectors.* Reforms in the formal education system and improvements in early childhood development should eventually correct current skills gaps, in part, by ensuring that children acquire the necessary cognitive and non-cognitive skills.[20] But interventions are needed today to cope with the current stock of workers. These will involve reforms in TVET, the design of incentives to promote on-the-job-training, and targeted training programs to vulnerable groups (Chapter 4).
- *A large share of the labor force is in informal wage employment and self-employment lacking access to social insurance.* The incentives of firms to remain informal and/or offer informal jobs can be explained, in part, by the regulatory environment including labor regulations and social insurance laws. An improved business environment and higher rates of job creation in higher productivity sectors will gradually change the current situation (Chapter 3). But there are also reforms that need to be considered in the social insurance system. Indeed, small, low productivity firms might simply not be able to afford the payment of social security contributions – particularly in the case of low-skilled/low productivity workers. In general, workers' willingness to pay for social security benefits is way below the current contribution rates. In addition, the design of the current End-of-Service-Indemnity (EOSI) system and plans to design non-contributory health insurance can restrict labor mobility and provide further incentives to informality (Chapter 5).

[20] For further discussion see: (i) Ministry of Education and Higher Education (2010). Education Sector Development Plan (General Education) for 2010-2015; (ii) Nahas, C. (2009). Financing and Political Economy of Higher Education in Lebanon. Economic Research Forum; and, (iii)World Bank (2010). Second Education Development Project (EDP II). Project Appraisal Document.

Chapter 3 : Macroeconomic and Investment Policies

3. 1. *This chapter focuses on ways to improve macroeconomic conditions and investment opportunities in order to enhance growth potential and promote the creation of high quality jobs.* The Chapter first assesses growth trends, macroeconomic conditions, and investment patterns. The chapter then looks at key factors restricting the diversification of investment towards productive sectors and constraining employment creation. These include: (i) high macroeconomic risks related to both political instability and high levels of public debt (130 percent of GDP); (ii) exchange rates policy, trade regimes, and tax policies that penalize the production of tradable goods; (iii) deficient infrastructure and public services in general that reduce the return on long-term private productive investments; and (iv) microeconomic risks related to access to finance, corruption, lack of competition, and lack of law enforcement. Finally, the chapter identifies policy changes that could need to be considered to improve the business environment, promote economic diversification and innovation, and stimulate growth and employment creation.

3.1 Characteristics of the Lebanese Economy and Core Macroeconomic Trends

3. 2. *During the last twenty years, Lebanon has been operating at a low equilibrium level characterized by low growth potential and virtually no employment creation*. The reconstruction after the war focused on regaining the role of service provider for the region. There were heavy investments in physical infrastructure, but with little attention to recurrent costs to ensure their maintenance. Also, the accumulation of human capital did not seem to be a priority and the migration of skilled labor continued. At the same time, economic development, investments, and growth were concentrated in just a few sectors, mainly real estate, trade, and low value added or end-of-value-chain services. These sectors have little backward and forward linkages with the rest of the economy and provide little job opportunities.

3. 3. *Real GDP growth remained moderate in the post-war period and was concentrated in the services sectors.* Average real GDP growth between 1997 and 2010 did not exceed 4.0 percent, and average per capita GDP growth was close to 2.5 percent per year. The most dynamic sectors were trade (4.5 percent per year) and services (4.2 percent per year) (Table **3.1**). On the demand side, private investment (inclusive of real-estate investment) increased by 7.6 percent in real terms, private consumption by 3.2 percent, public consumption by 2.8 percent and public investment declined by 3.6 percent.[21]

[21] The calculation were done using official data from Lebanon's national Accounts, available on the site of the Prime Minister: www.pcm.gov.lb

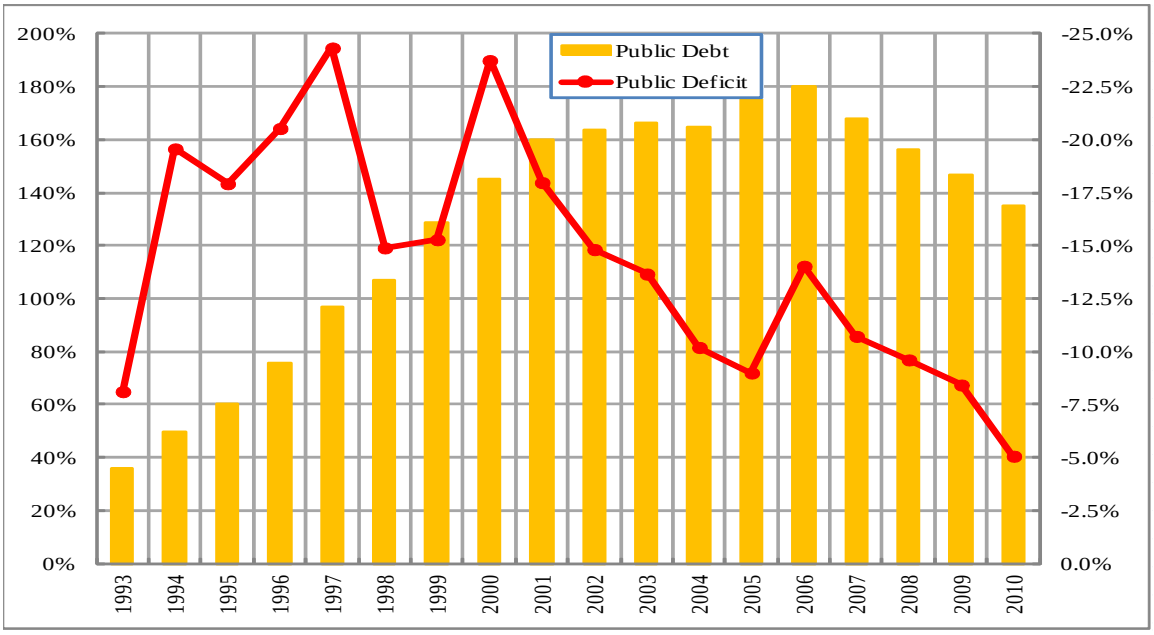
Table 3.1: Growth Dynamic and GDP Composition

Sector	Average Growth 1997-2010	Composition by Sector in 1997	Composition by Sector in 2010
Agriculture	1.0%	6.7%	4.5%
Manufacturing	1.5%	12.5%	8.9%
Construction	4.3%	8.8%	8.6%
Transport & Telecom	8.9%	5.4%	10.5%
Trade	4.5%	21.2%	21.8%
Public Administration	2.8%	11.0%	9.8%
Other Services	4.2%	34.4%	35.9%
GDP	**4.0%**	**100.0%**	**100.0%**

Source: Lebanon National Accounts, World Bank Staff calculation

3. 4. *Today, the economy is benefiting from large inflows of foreign capital related, in part, to the region's oil wealth.* Thus, a recent study shows that a 1 percent increase in oil prices translates into 0.32 percent increase in deposits in Lebanese Banks.[22] The availability of foreign financial resources made it possible for Lebanon to finance public deficits and to bridge distortions in the economy. Indeed, at the macroeconomic level, coping with high current account and budget deficits over two decades would not have been possible without external financing. Similarly, at the microeconomic level, coping with inefficient public health and education systems and with deficient electricity and water sectors becomes possible only if external financial flows allow the Government to subsidize services and households to pay for expensive private alternatives. For example, in the case of the electricity sector, subsidies cost the Government 4 percent of GDP, and households and businesses pay high costs for private alternative.

Figure 3.1: Debt to GDP (left-hand axis) and Deficit to GDP (right-hand axis)



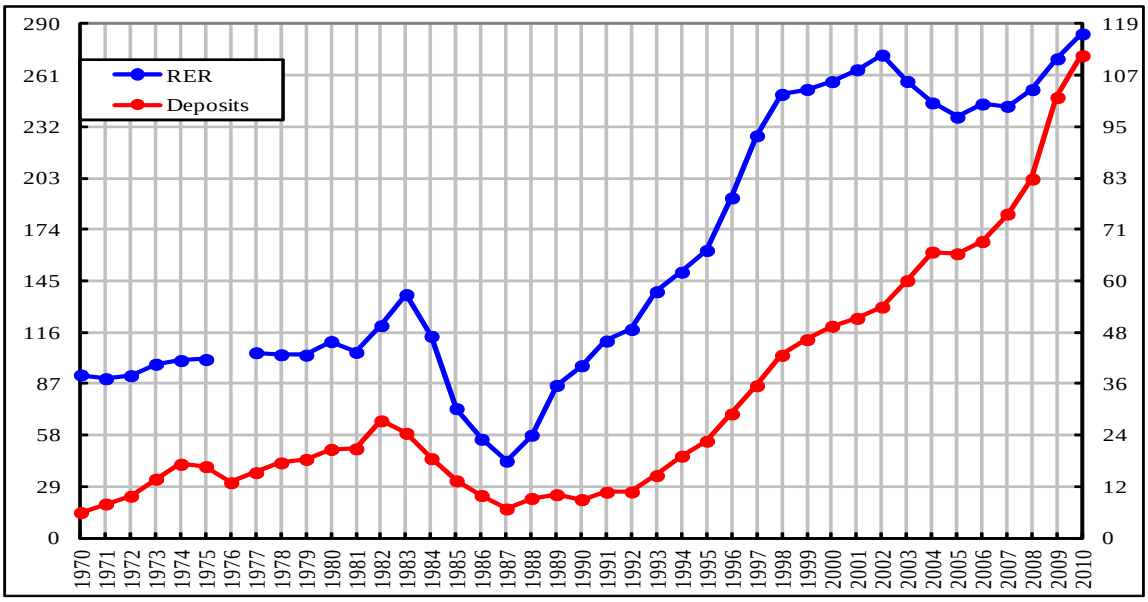
Sources: for GDP figures, National Accounts www.pcm.gov.lb, for debt and deficit, Ministry of Finance, www.finance.gov.lb. 2010 is preliminary since GDP is estimated.

[22] For a full accounting of determinants of capital inflows to Lebanon, see World Bank (2012). Using Lebanon's Large Capital Inflows to Foster Sustainable Long-term Growth. Report No. 65994-LB, Chapter 1, Section1.

3. 5. *Private and public debts were among the main channels through which foreign inflows impacted economic activity and fueled the surge in demand.* Despite regulatory provisioning and risk ratios, Banks channeled debt to the private sector for an amount equivalent to 81 percent of GDP (around US$34 billion in 2011). The strong relationship between capital inflows and economic activity in Lebanon can be accessed through the impact of banking intermediation on economic activity. A recent study[23] finds a multiplier effect of around 1.3 between the change in the credit to the private sector and the change in GDP. Public debt, which is sheltered from the constraint of provisioning, also contributes to economic activity. By end 2011, the Lebanese public debt had reached US$53 billion or 128 percent of GDP. The high level of the public debt is explained by the persistent deficit (excluding grants) which averaged 14.0 percent of GDP over the post-war period (1992-2011). Around 78 percent of public spending is allocated to debt service, wages, pensions, and transfers to the electricity company. All other expenditures on public services, infrastructure and maintenance absorb the remaining 22 percent.

3. 6. *While being the driver of domestic demand, foreign capital inflows have also contributed to appreciate the real exchange rate, negatively affecting the competitiveness of the country*. Indeed, there is a strong correlation between financial inflows, the dynamics of deposits, and the dynamics of the real exchange rate (see Figure 3.2). Indeed, the real exchange rate increased by 130 percent between end-1991 and end-2009, an average increase of 4.4 percent per year, which is far beyond any estimation of productivity increase in Lebanon (Box 3.1) and corresponds to an equivalent deterioration in competitiveness. As a result, the current account (CA) deficit remains high, even if we exclude the immediate post-war period (the CA deficit reached an average of 14 percent between 2004 and 2010).

Figure 3.2: Evolution of Deposits (US$ billion, right-hand axis)
and of the real exchange rate (index, left-hand axis)



Sources: BdL for deposits and exchange rate to the US$, Lebanese official data and Consultation and Research Institute for Lebanese CPI, USA Labor Statitics for US CPI. World Bank Staff Calculation

[23] For an analysis of the channels of transmission between foreign financial inflows and economic activity, see World Bank, Report No. 65994-LB, Chapter 1. Section2.

Box 3.1: Balassa - Samuleson vs Corden & Neary: where does Lebanon stand?

Productivity - calculated as value added divided by the number of workers - increased by an average of 1.9 to 3.0 percent per year over the period from 1997 to 2009, depending on the estimations of the foreign labor force. In all cases, both the upper and lower bounds of the productivity increase estimation lag ways behind real appreciation (see paragraph 3.6) and suggest that the latter cannot be associated with a Balassa-Samuelson phenomenon and is closer to represent the distortions a la Corden and Neary.

The Balassa-Samuelson theory does not consider the appreciation of the RER as an indicator for a declining competitiveness, since it links this appreciation to an improvement of productivity which is positive for competitiveness. Balassa* and Samuelson** tried to explain the price differential between poor and rich countries. They underlined the relative low productivity of labor in the tradable sectors in poor countries, and assumed productivity differences in non-tradable sectors to be negligible between poor and rich countries. Lower productivity in the tradable sector of poor countries implies lower wages than in rich countries. Lower wages correspond to lower labor costs and lower power purchase in poor countries, hence lower production costs and prices in the non-tradable sector of poor countries. Consequently, and since the prices of traded goods are the same among countries, the ratio of non-tradable prices to tradable prices in rich countries is higher than in poor countries. In sum, an improvement of the productivity in the tradable sector would lead to a rise in the ratio, which became the first expression of the RER.

Corden and Neary*** identified two major effects of a positive external shock to the economy: the resource movement effect and the spending effect. The resource effect is linked to the existence of mobile factors of production, usually labor. A positive shock affecting one exposed sector would draw factors of production to the benefit of the booming sector and at the expense of other sectors. This movement of resources generates various adjustments in the economy. The higher real income resulting from the boom would generate a spending effect. The supplementary income would lead to extra spending on services which raises their prices and causes an appreciation of the ratio of the prices of non-traded goods to traded goods. Both resource and spending effects, combined or separated, would lead to deindustrialization. The results for the spending effect continue to hold in the case of a flow of foreign income into the country. The resource movement effect leads to deindustrialization with the rise in wages and the decrease in the return on capital in the lagging traded sectors. The spending effect will amplify this tendency, and the price increase in services will give rise to a real appreciation.

* Balassa, Bela, 1964 - The Purchasing Power Parity Doctrine: A Reappraisal. No 72. Journal of Political Economy.

**Samuelson, Paul, 1964 - Theoretical Notes on Trade Problems. No 46. Review of Economics and Statistics.

*** Corden, W. Max, & Neary, J. Peter, 1982 – Booming sector and deindustrialization in a small open economy. Vol.92. No. 368. The Economic Journal.

3. 7. *High inflows of foreign capital have contributed to maintain a high level of Gross Fixed Capital Formation (GFCF) but which is being allocated to low productivity sectors.* GFCF averaged 25 percent of GDP over the period 1997-2010.[24] Public investment declined from 6.3 percent of GDP in 1997 to 2.3 percent in 2010, but private investment averaged 19.5 percent of GDP in 1997-2007, and rose to 27, 31, and 30 percent respectively in 2008, 2009 and 2010. However, over 62 percent of total investments were concentrated in construction and public works during the period 1997-2010. Industries providing inputs to the construction sector have absorbed a large part of the remaining investments. In both construction and industries related to this sector, the labor force is made of foreign unskilled workers. Another indicator of low investment in productive activities is the import of machinery which did not exceed US$145 million per year between 1997 and 2010 and remained below 0.7 percent of GDP on average over the same period (see Table **3.2**).

Table 3.2: Imports of Machinery as Indicator of the Development of Productive Capacities

Import of Machinery	2002	2003	2004	2005	2006	2007	2008	2009	2010
In million of US$	105	109	135	137	130	163	188	199	227
In percent of GDP	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6
In percent of total Imports	1.6	1.5	1.4	1.5	1.4	1.4	1.2	1.2	1.3
In percent of total FDI Inflows	7.8	3.8	5.4	4.1	4.1	4.8	4.3	4.1	5.3

Source: Central Administration of Statistics – CAS, www.cas.gov.lb, Lebanese Customs – www.customs.gov.lb, National Accounts – www.pcm.gov.lb. World Bank Staff Calculations

3.8 *Gross capital formation does not seem to promote long-term growth, due both to the composition of capital accumulation and to the high migration of the most qualified Lebanese.* The migration of high skilled Lebanese labor is, in fact, a lost opportunity for higher growth and higher accumulation of domestic wealth. Keeping a real capital accumulation at 6 percent per year - which was the average observed over 1997-2009 - we assumed that the Lebanese workers that migrate would instead remain home and contribute to generate value added domestically. As a consequence, overall average yearly GDP growth increases by one seventh. In other terms, the average 8.0 percent growth observed in 2007-2010 would have been above 9.0 percent (see Box 3.2 for the methodology of calculation). This result would, of course, be larger if the composition of investments increasingly shifts towards high value added activities intensive in high skilled labor.

[24] A minimum of 18.7 percent was reached in 2002 and a maximum of 34.3 percent in 2009. Reference: National Accounts.

Box 3.2: A Constant Elasticity of Substitution Function For Lebanon*

The estimated CES function is the classical one proposed by Arrow, Chenery, Minhas and Solow** and expressed as $Q = \gamma\left(\beta K^{-\rho} + (1-\beta)L^{-\rho}\right)^{-\epsilon/\rho}$ where Q is production, K is capital, L is labor, γ is total factor productivity, ϵ is the parameter for returns to scale, ρ is the substitution parameter with the elasticity of substitution of capital to labor σ equal to $1/(1+\rho)$, and β is the elasticity of production to capital. ϵ and γ are assumed to be equal to unity, that is, both total factor productivity and returns to scale are constant. The stock of capital K is estimated at 230 percent of GDP in 2010. This estimation takes into account an estimated depreciation rate of 4% per year. Also, for the period 1972-1996, the capital stock is projected based on the GFCF for 1972, the latest available, and the estimated stock in 1996 is discounted by 50 percent to account for the impact of the war of 1975-1990.

Using the estimated capital stock, the data available on the labor force, and the elasticity of substitution (0.77 - constructed based on the information available in the literature**), it is possible to estimate the parameters of a CES production function with constant returns to scale and factor productivity equal to unity. Hence, the elasticity of production to real capital stock β is estimated at 0.36 and the elasticity to labor force $(1-\beta)$ is then equal to 0.64 (The lack of statistics and national accounts data prevents the use of more rigorous methods to estimate the parameters of the CES function).

* Reference: Bou Habib, C. – Flux Internationaux, Hypertrophie Bancaire, et Syndrome Hollandais dans les Petites Economie Ouvertes. Université Lumière, Lyon-II, forthcoming.

** Reference: Arrow, K. Chenery, H. Minhas, B. and Solow, R. 1961 - Capital-Labor Substitution and Economic Efficiency. Vol. XLIII, No. 3. The Review of Economics and Statistics, pages 225-250.

*** References: Floystad, G. 1973 - A Note on Estimating the Elasticity of Substitution between Labour and Capital from Norwegian Time Series Data. Vol. 75, No. 1. The Swedish Journal of Economics. Claro, S. 2003 - A Cross-Country Estimation of the Elasticity of Substitution Between Labor and capital in Manufacturing Industries. Vol. 40, No. 120. Latin American Journal of Economics - Cuadernos de Economía.

3.2 Constraints to Productive Investments

3. 8. *The political instability and overall perceived macroeconomic volatility have favored keeping financial resources in short term deposits, and concentrating investments in real estate and human resources.* During the 1975-1990 war, Lebanese households relied on investments in human resources in order to ensure a higher mobility for their children in face of a volatile security and political situation. Starting the mid-1980s, and with the strong devaluation of the Lebanese Pound (LBP), many Lebanese found in real estate, essentially land, a substitute to Banks' deposits that were back then perceived as an unreliable asset. Since 1990, monetary stability was restored but perceived political and macroeconomic volatility, high interest rates and/or inflation and low rates of return crowded out or discouraged private investments (especially long term investments). Consequently, the average maturity of deposits in Lebanon remained at around two months, real estate continued to be the main

alternative to bank's deposits, and households continued to privilege high investment in education[25] and high mobility for their children.

3. 9. *Deficiencies in infrastructure are an important factor reducing incentives to invest*. Recent surveys[26] identify electricity as the second leading constraint for Lebanese firms. It is reported that firms in manufacturing lose up to 12 percent of their sales due to unreliable power supply. Subsidies to electricity and the cost of alternative solutions to power outage are very high and can reach a total of over US$3 billion per year. Volatile and deficient infrastructure reduces private returns on capital. Poor infrastructure can also reduce returns on education and thus provide incentives to migrate.[27] The Government has started initiatives to improve infrastructure. Catch-up investments in Telecommunication are scaling-up since 2010 and the fiber optic network is being deployed all-over the country. Investment plans in electricity have been approved but their implementation has been delayed.[28]

3. 10. *Tax policies penalize labor and reduce incentives to invest in high productivity sectors.* The Lebanese system performs poorly in terms of horizontal equity, meaning that the same amount of income is subjected to different taxes depending on its source and sector of activity. For instance, labor income is taxed more heavily than other types of income. The tax rate (including pay-roll taxes and social security contributions) on an income of US$100 would be 12.4 percent versus 4.3 percent for other types of income such as interest income, capital gains and corporate profits. There are also differences in taxation across sectors. Taxes imposed on the telecommunications sector, for instance, are exceptionally high. Although they have been declining, taxes reached at some point close to two thirds of the consumer price in the cell-phone sector. On the other side of the spectrum, the real-estate sector is practically exempted from taxation and, in the absence of a capital gain tax,[29] the contribution of the sector to tax revenues is even below the average of 4.3 percent mentioned earlier.[30]

[25] While no specific studies were conducted on Lebanon, high investment in education as a response to overall domestic instability has been studied in other cases. A recent study by de Groot and Göksel examined the influence of conflict on the demand for education. They test a theoretical model where individuals living in a conflict area have an incentive to increase their level of education and where this effect depends on the individual's skill level. The authors have then tested the model on Spain and compared the results for the Basque Region during the conflict there, to the results for the rest of Spain. They found that individuals with a medium level of education in the Basque Region have a stronger incentive to further increase their education level, and hence their mobility within and outside Spain. Reference: O. de Groot & I. Göksel, "Conflict and Education Demand in the Basque Region", *Journal of Conflict Resolution*, August 2011, No 55, pages 652 to 677.

[26] World Bank, 2010 - *Lebanon: Reversing Declining Competitiveness – A Survey-Based Investment Climate Update.* Unpublished.

[27] For the relation between infrastructure bottlenecks, low return on productive investments and low return to education, see World Bank, Report No. 65994-LB, Chapter 2, Section 1.

[28] The draft budget for 2013 submitted by the Ministry of Finance to the Cabinet includes US$2.2 billion worth of investments, mainly in electricity, water and telecommunications.

[29] The Ministry of Finance had proposed to introduce a capital gain tax on real estate transactions of individuals, increase capital gain tax on individuals, and increase stamp duties on construction permits. These measures would have brought some US$675 million in additional revenues. Also, MoF has proposed to fine the illegal occupation of coastal property, which would have brought additional US$216 million for one time. These additional revenues would finance the increase in spending, including the spending related to the new salary scale. The PM has proposed to put aside all tax and revenue measures and replace them with two proposals solely dedicated to finance the salary scale increase. These are the proposal to increase electricity tariffs, hence reducing the losses of the electricity company, and another proposal to increase the occupancy ratio of lands suitable for construction. Although the Government had already approved in principle to change the salary scale, it has so

3. 11. *Monetary, exchange rate, and fiscal policies are amplifying the distortive impacts of foreign capital inflows on investments, growth and employment.* In essence, the main objective of the monetary and exchange rate policies is to ensure a continuous flow of foreign capital to finance public and current account deficits. As discussed above, the ensuing appreciation of the real exchange rate is having a detrimental impact on all sectors exposed to international competition, despite the sterilization policy followed by the Central Bank.[31] In addition, interest rates paid on short term deposits to attract foreign capital are quite high by international standard. These high interest rates aim to compensate for the perceived country risks, but also increase financing costs for business and reduce the incentives to invest. This has led the Central Bank (BdL) to put in place various subsidy schemes without which many sectors - mainly agriculture and manufacturing - would have been excluded from the credit market.[32]

3. 12. *Some aspects of the banking regulation (reliance on real estate collaterals) seem to be contributing to distort investment decisions and might negatively affect the self-employed or small scale entrepreneurs.* In general, access to finance does not seem to be constraining investments in Lebanon. Lending to the private sector increased by 13 percent in 2011, 25 percent in 2010 and 15 percent in 2009. Overall lending to the private sector reached 87 percent of GDP at end-2011 and amounted to only 24 percent of total banks' assets. Available data suggest that credit is not broad-based and remains concentrated on a handful of firms/investors – those large enough to have the necessary collateral and/or with connections to the banking sector.[33] Indeed, 0.4 percent of beneficiaries held 57 percent of the outstanding loans portfolio of the Lebanese banking system. Also, Banks seem to be reluctant to offer (partially collateralized) credit to entrepreneurs in activities that are inherently riskier -- typically the case with new and innovative activities.[34] It is also not likely that the self-employed are able to easily

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far failed to agree on a comprehensive package of spending and revenues measures. Hence the continuous struggle with the associations representing civil servants.

[30] The World Bank is currently conducting an analytical work for Lebanon entitled *Boosting Growth and Social Welfare in a Context of Fiscal Consolidation*. Preliminary analyses of this work hints to strong horizontal inequities in Lebanon's revenues mobilization system. References: World Bank, P127669 – Boosting Growth and Social Welfare in Context of Fiscal Consolidation, Concept Note, December 2011. Unpublished.

[31] In his summary of the effects of capital inflows and financial openness, Agénor noted that sterilization might in fact magnify capital inflows since it entails increases in interest rates and increase the confidence of foreign depositors in the domestic banking system. Reference: Agénor, P.R. 2011 - *International Financial Integration: Benefits, Costs, and Policy Challenges.* Survey of International Finance, Oxford University Press, Oxford.

[32] The decline in international interest rates following the global financial and economic turmoil of 2008 has translated into a decline in domestic interest rates in Lebanon. This decline in interest has contributed to reducing the cost of financing for businesses and households. Indeed, average interest rate on US$ denominated loans declined from 7.37 percent in September 2008 to 7.16 percent in September 2012. However, average interest rate on Lebanese Pounds (LBP) denominated loans have declined from 9.98 percent to 7.30 percent over the same period, which underlines the impact of subsidy schemes put in place by the Central Bank. These schemes are essentially targeting LBP denominated loans, hence the large decline in private sector's debtor interest rates (268 basis points – bpt))compared to a relatively moderate decline in the cost of resources for Banks (175 bpt).

[33] In addition, data publicly available from the Central Bank shows high geographical and sector concentration of lending to the private sector. However, there are no statistics on the concentration of loans by firm size. Reference: Central Bank of Lebanon, BdL, Quarterly Bulletin No 132, 1st Quarter 2012.

[34] As of March 2012, loans to the private sector were distributed as follows: 12.7 percent advances against cash collateral/ bank guarantees, 4.1 percent advances against financial values, 28.5 percent advances against real estate, 6.4 percent advances against other real guarantees, 17.8 percent advances against personal guarantees, and 30.5 percent were overdrafts. Reference: BdL, Quarterly Bulletin No 132.

access credit. In addition, there are reasons to believe that incentives to intermediate a large share of banks' deposits towards productive investments remain weak. Banks, in fact, have been investing in a narrow set of sectors and had limited contribution to improving the productive capacity of the economy. Indeed, collateral requirements in proportion of loans remain high, and this seems to be contributing to limiting flows of credit to innovative sectors and making it more costly.[35] The government SME program under KAFALAT stands as an exception and grants up to 85 percent loan guarantee to SMEs as well as up to 90 percent loan guarantees to innovative start-ups. However, the overall KAFALAt portfolio did not exceed US$990 million or 2.6 percent of overall outstanding loans to the private sector and loans extended to clients under the "Specialized Technologies" category stood at just US$6.8 million.

3. 13. *Corruption, coupled with discretionary or no enforcement of laws and regulations, is an important constraint to investments*. Corruption is the third leading constraint cited by Lebanese businesses to their operation and growth. Corruption relates to a variety of factors ranging from sharing the rents created by Government policies impeding competition, to non-transparency and discretion characterizing some bureaucratic processes. Lebanon is regarded as well behind most other countries with similar levels of income in the control of corruption. Overall, 29 percent of firms in the sample acknowledge making informal payments to public officials "to get things done".[36] One form of corruption is petty bribery involved in day-to-day interactions with Government officials. Other forms of corruption may be affecting firms as well, including "political meddling and nepotism", "vote-buying and dubious campaign financing", "embezzlement", "patronage" and "clientelism". About 13 percent of firms feel they have a "major" or "decisive" influence over government policy. Yet twice as many feel that dominant firms or conglomerates in key sectors have such influence. Hence, by increasing the cost of doing business, corruption hampers investments and reduces employment prospects.

3. 14. *Lack of competition related, in part, to high barriers to entry in various economic sectors is also a constraint for investment and job creation.* Limited competition is recognized as a central impediment to economic diversification and productivity growth in Lebanon. A 2003 study by the Ministry of Economy and Trade[37] found that half of Lebanon's domestic markets are considered oligopolistic to monopolistic and a third of them have a dominant firm with a market share above 40 percent. The share of GDP accounted for by monopolistic rents is above 16 percent of GDP or 27 percent of private value-added (at factor costs).[38] In addition, over half of enterprises identify "illegal competition from the informal sector" as a serious constraint.

[35] For an analysis of potential financing constraints and benchmarking of collateral requirements, see World Bank, Report No. 65994-LB, Chapter 2, Section1.

[36] Reference: "Lebanon: Reversing Declining Competitiveness—A Survey-Based Investment Climate Update," unpublished, World Bank (December 2010), referred to extensively in World Bank 2010 and Report No 65994-LB, Chapter 2, Section1.

[37] Ministry of Economy and Trade, 2003 - *Competition in the Lebanese economy: A Background Paper for a Competition Law for Lebanon*, reported in: Berthélemy, J.C. Dessus, S. Nahas, C. 2007 – *Exploring Lebanon's Growth Prospects*. Policy Paper No 4332, World Bank, Washington D.C.

[38] According to Dessus and Ghaleb, *"Some of [the barriers] are natural, in the presence of economies of scale or fixed costs for instance. Others are artificial, and stem from rules, regulations and norms that practically restrict entry into business. The study lists in this regard outdated commercial laws, long delays in commercial disputes settlements, business-unfriendly administrative regulations, corruption, and the existence of exclusive agencies as important artificial barriers to entry. The absence of anti-trust regulations, high startup costs and capital requirements and the existence of public monopolies in utilities;*

3.3 Macro and Investment Policies to Support the Creation of Good Jobs

3. 15. *Macroeconomic and regulatory policies have a major role in ensuring that entrepreneurs have incentives to invest and innovate.* Clearly, political instability is a major deterrent and one that cannot be checked through economic policies. However, by capitalizing on the monetary policy enforced by the Central Bank, Lebanon can reinforce macroeconomic stability by prudent fiscal management. The country can also reduce microeconomic risks whether related to the Rule of Law, infrastructure failure (electricity), regulatory uncertainty, corruption, limited access to finance, and limited competition. There is also a role for active industrial policies, under a new open economy approach. Some of the key interventions to be considered are summarized below*:*

- *Improving the fiscal stance.* A steady containment of fiscal deficits would relieve the Government from the pressure to offer large spreads to domestic banks. Reducing spreads would encourage long-term productive investments and mitigate short-term capital inflows. The sustained reduction of Government borrowing needs would drive investors away from highly remunerative short-maturity bonds and into productive investments. More generally, to the extent that fiscal imbalances are perceived to be contained, anticipations of a financial crisis would decline, thereby increasing the incentive for agents to invest in domestic productive activities with a long gestation period instead of acquiring short-term liquid instruments or assets perceived as safe (real-estate).
- *Increasing public investments in infrastructure.* These investments do not contradict the previous goal of fiscal consolidation. A balanced budget where additional spending on infrastructure is matched by an increase in revenues is not growth-neutral and has a multiplier effect whose impact goes beyond the short term; especially in economies with unemployment (or strong outmigration) and large infrastructure bottlenecks.[39] Main infrastructure bottlenecks in Lebanon are in electricity, transportation, telecommunication, and water and wastewater.
- *Removing, or reducing, distortions that affect returns to investments in innovation and export oriented sectors*. While the dollarization of the Lebanese economy and the peg to the US dollar are considered as anchors for the sustained confidence of depositors, promoting innovative and export oriented sectors might require an amendment to the model of monetary management currently followed by Lebanon. For example, Lebanon relies on a costly accumulation of reserves to neutralize part of the real exchange appreciation related to capital inflows and uses subsidized schemes to diversify the use of Banks' resources. Developing financial and capital market and exports of financial services might be a way to both mitigate real appreciation and diversify the use of capital inflows while reducing the cost of monetary management and the

transport; and communication sectors can be added to this list." Reference: Dessus, S. and Ghaleb, J. 2006 - *Lebanon – Trade and Competition Policies for Growth: A General Equilibrium Analysis*, MENA working papers series 43, World Bank, Washington D.C.

[39] Stiglitz argues that levying additional taxes on the wealthiest Americans to cover additional infrastructure and education spending is likely to yield a balanced budget multiplier of 2 to 3 over the medium term. Reference: Stiglitz, J.E. – *The State of the Global Economy: An Agenda for Job Creation*. World Bank, September 26, 2011.

pressure on monetary policy tools.[40] In parallel, the revenue mobilization system of the Lebanese Government needs to be re-equilibrated in order to become less distortive since labor is currently taxed more heavily than other sources of income and sectors producing non-tradable goods are subject to a much lighter indirect and direct tax burden than sectors producing tradable goods and some innovative sectors (telecommunication for example).

- *Improve access to finance for SMEs and new entrepreneurs.* Lebanon may start building the capacity of the Beirut Stock Exchange (BSE), promoting investment banking, and considering options to encourage banks to use moveable property as collateral in order to increase opportunities for investors and provide new sources of funding for entrepreneurs and the business community in general. To this end, interventions are needed at two levels: (i) introducing a reasonable cap to the percentage fees for registering mortgages, creating a central registry for moveable properties, and approving a special Law on Secured Transactions that should underpin non-possessory mortgages and moveable property as collateral; and (ii) setting in place full-fledged Private Credit Bureaus (PCBs) with an appropriate legal framework. PCBs should cover all credit providers and improve the depth and quality of credit information available to creditors. Additional interventions would need to be considered to ensure access to credit to the self-employed and small entrepreneurs.
- *Controlling corruption.* One way to reduce opportunities for corruption is to simplify business procedures and introduce transparency in regulations. Specific interventions include: (i) adopting a building code based on best regional practices and requiring municipalities to make all regulations and required documents for construction permits publicly accessible; (ii) complete the implementation of the online operation of the automated international trade clearance system ASYCUDA (NAJM). The system is allowing traders and custom brokers to enter and track customs declarations but the direct payment of declarations directly from bank accounts has yet to be activated; (iii) accelerating the bankruptcy process by establishing clear guidelines for the appointment of receivers by the court, and adopting the draft insolvency law; and, (iv) speeding-up commercial conflict resolution with enhanced reliance on arbitration and mediation through an alternative dispute resolution (ADR) program.
- *Improving competition while encouraging innovation.* Lebanon could benefit from a modern competition authority to implement the pending Competition Law and the protection of intellectual property. A modern Competition Authority would both regulate anti-competitive behavior and advocate economic policies beneficial to competition. The creation of such an authority requires adequate resources and expert staff. The implementation of a competition policy has been unduly delayed and stalled for many years and should be launched as soon as possible. However, tangible results would start materializing over the medium-term only. Indeed, implementing a competition policy is not simple, and good planning, technical assistance, and public communication campaigns are needed. In addition, if Lebanon wants to fully benefit from foreign investment and growth in high-potential, knowledge-intensive industries, it is necessary to implement the regulations to protect intellectual property rights

[40] For an account on the relation between capital inflows, monetary policies, and development of financial and capital markets, and references to relevant literature, see World Bank, Report No. 65994-LB, Chapter 1, Sections 2, 3 and 4.

(PIPR). Lebanon's IPR laws are in conformity with international agreements and the framework respects best practices with regard to the processes for registration, valuation and collective management. What is lacking in Lebanon is the effective enforcement of the legal framework and the training of specialized judges capable of carrying out the legal enforcement.

- *Considering open economy active industrial policies.* The goal is to address coordination failures that impede investments in new activities/products. The goal would be to set an independent governance structure that would have the capacity to identify and asses the viability of investment opportunities in high value added activities and mobilize the necessary partners/investors. The responsibility of the government would be to reduce initial investment costs, for instance, by ensuring that the necessary infrastructure and human capitals are available. Regional considerations would have to play a critical role, due to disparities in availability of infrastructure. The Government could consider the development of zones with an optimal supply of basic public services, dedicated to investments in industries intensive in high-skilled labor. This entails locating these zones close to the regions where this labor is located (near campuses for example) and to connect these zones through appropriate transportation networks. In the context of this open industrial strategy, the Government would need to reassess current incentives to stimulate investments (e.g., Tripoli special zone for example).

3. 16. *International experience provides many examples of successful active industrial policies in small open economies.* The success was the result of new public-private partnerships for excellence and innovation with the objective of connecting with the world economy either to benefit from existing domestic potentials or to develop new domestic capacities. These programs link better performing segments of private and public sectors and allow these exceptions to institutionalize their agenda. By design, these programs require substantial efforts to implement and they generate rent related to performance and effort. One example relevant for Lebanon is the experience of the Taiwanese Venture Capital system. The system was initiated by the public sector in collaboration with the private sector and allowed Taiwanese born engineers to deploy their skills in start-up firms whose activities were tightly connected to the reorganization of US leaders in the computer and semi-conductor industry. Another example is the Irish Linkage Promotion Program that built on the success of a tax exemption program to attract FDIs in sectors such as chemicals, pharmaceuticals, and software. The program leveraged the technology brought by these FDIs by committing foreign investors to develop indigenous technological capacity as part of the package deal. [41]

3. 17. *On the medium to long term, the availability of oil and gas resources can be an opportunity for a durable and sustainable improvement in the competitiveness of Lebanon.* Oil and gas wealth would have a positive impact on incomes and consumption. They would provide the Government with resources needed to produce public goods and services and to create the environment for the implementation of a new industrial policy. An optimal fiscal rule for developing countries may be to save fewer revenues at the beginning of a resource boom and allow for more investment and consumption spending; along the

[41] For a full accounting on new open economy industrial policy, see Kuznetsov, Y. and Sabel, C. – 2011. *New Open Economy Industrial Policy: Making Choices without Picking Winners*. PREM Notes, No 161, World Bank, Washington D.C.

lines of a strict fiscal discipline and clear spending rules. Orienting spending to investments in transport, logistics infrastructure, education and skills, technology, telecommunications, and electricity, would enhance the productivity of the economy as a whole, including sectors exposed to international competition.[42]

[42] For a review of policy choices in resource-rich countries, see M. Brahmbhatt, O. Canuto, and E. Vostroknutova, "Dealing with Dutch Disease", *Poverty Reduction and Economic Management Network, Economic Premise, No 16,* World Bank, June 2010.

Chapter 4 : Facilitating Labor Market Transitions through Targeted Active Labor Market Programs

4. 1. Active Labor Market Programs (ALMPs) can play an important role in facilitating labor market transitions – from school or inactivity to work; out of unemployment; or between jobs. Typically, the programs include various types of employment services (counseling, job-search assistance, intermediation), skills certification, training, wage subsidies, public works and services, as well as interventions to support the self-employed or entrepreneurs. The rationale for such programs is that individuals tend to face several constraints when looking for a job or starting a business. These range from not having enough information about where the jobs are and how to search for them, to not being able to demonstrate to employers the skills they have or not having the necessary skills to fill a given vacancy, to lacking access to capital and business contacts.[43] Chapter 2 showed that several of these constraints are affecting Lebanese workers. This chapter discusses how current initiatives regarding ALMPs could be transformed into an integrated system of programs managed by private providers that could effectively help individuals access jobs and/or improve their earnings opportunities. Providers of services would also link individuals to social insurance and assistance programs (see Chapter 5) thus creating an integrated system to manage labor market risks.

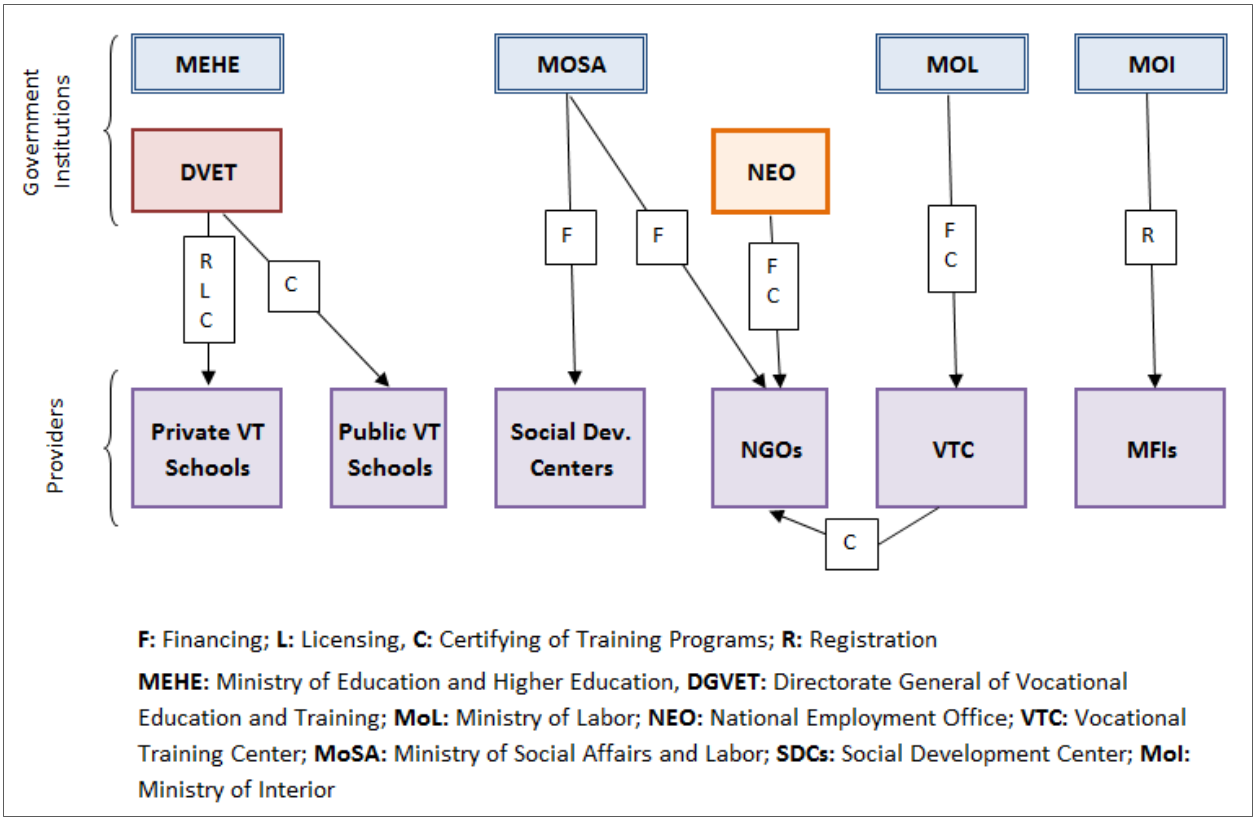
4.1 Active Labor Market Programs in Lebanon

4. 2. *Today, several public and private institutions are involved in the provision of active labor market programs (ALMPs) such as training, job-search assistance, or support to the self-employed.* The ministries of Education and Higher Education, Social Affairs and Labor, for instance, finance and certify the provision of vocational training. The Ministry of Interior is involved in the registration of micro-finance institutions and the Ministry of Social Affairs (MoSA) manages Social Development Centers (SDCs) and support a variety of programs (mostly short training courses) implemented by multiple NGOs that relate to ALMPs. The National Employment Office (NEO), under the tutelage of the Ministry of Labor, is supposed to be in charge of employment services. It also certifies and finances the provision of training from certain NGOs that apply for funding to provide short training courses to their beneficiaries (see Figure **4.1**).

4. 3. *Most of these programs, however, seem ad-hoc and operate in the absence of a policy and regulatory framework.* Little is known about the quality of services provided and their impact. This section distills what is known about current initiatives based on available statistics and interviews with providers.

[43] See Cuningham et al., (2010).

Figure 4.1: Institutional Structure of ALMPs in Lebanon



4.1.1. Training programs

4. 4. *Several government institutions manage training related ALMPs albeit with little or no coordination.* The MoSA, through its SDCs, provides training directly or contracts NGOs for short vocational training programs on soft subjects including sewing and embroidery, computers, languages, among others. The NEO funds NGOs to provide training programs, which it certifies, to various population groups including the youth and the disabled. The Directorate General of Vocational and Technical Education (DGVTE) at the Ministry of Education (MEHE) provides certified training, mainly to school dropouts, and is also responsible for licensing and accrediting private vocational training providers. Finally, the Vocational Training Center (VTC), an independent agency of the Ministry of Labor (MOL), provides training programs directly in the fields of electronics and mechanics (Table **4.1**).

4. 5. *Most of the publicly provided training programs are supply-driven and tend to be disconnected from private sector demands.* To a large extent, programs are based on in-class training and rarely involve on-the-job trainings or linked to internships. The various agencies involved offer or finance overlapping courses with different durations, curricula, and whose value in the labor market is unknown. Certification standards also vary between them.

4. 6. *Targeting, monitoring, and evaluation systems are virtually non-existent.* Programs tend to define objectives and identify target population groups but there are no operational mechanisms or eligibility criteria to ensure that those receiving subsidized or free training are indeed those who need it the most. Most programs lack output indicators that can be systematically monitored and much of the information about the programs' operations is paper-based. None of the programs has been subject to rigorous evaluations and even tracing beneficiaries is not a common practice.

Table 4.1: Main features of government provided and financed training programs

		Coverage (trainees in 2009)	Estimated Budget/Unit Costs (2009)	Duration & Main Specializations	Target Groups & Beneficiary Characteristics	Certification (by Government Agency)
Direct Provision	**MoSA – through SDCs**	1,200	US$46,000 Unit Costs differ widely amongst SDCs averaging at US$ 60	30 hours to 9 months course Computer, languages, handicrafts and beautician courses	No eligibility criteria is imposed More than 80 % women	Yes, by MoSA
	MEHE (DGVTE)	338	Unit costs estimated at US$366 per trainee per 100 training hours	3, 6 or 9 month	Targeted primarily to school drop outs	Yes, by MEHE
Financing	**NEO (financing NGOs)[44]**	833	US$333,200 US$400/trainee**	6 months courses 38 specializations	No eligibility criteria	Yes, by NEO
	MoL (subsidizing VTC)	150	Total budget of VTC is US$200,000 yearly (LBP2 million yearly subsidized by MoL	3, 6 or 9 month courses 24 specializations focusing on electronics, mechanics vocations	No eligibility criteria though programs are supposed to be targeted to the unemployed on a first come, first serve basis.	Yes, by MoL
	NGOs (financed by MoSA)	677	US$7,800*** Unit costs average at US$38	Similar to SDCs above	No eligibility criteria Around 75% of trainees are women and mostly under 40	No

4. 7. *Both the private sector and non-governmental organizations (NGOs) are very active in the provision of vocational training.* ALMPs provided by NGOs are widespread across various agencies, yet they vary widely in coverage. NGO programs are typically implemented at the local level and targeted to beneficiaries linked to political, confessional or regional affiliation. Though these programs are mostly concentrated on training, they are sometimes complemented with other interventions such as microcredit programs and job search assistance. Training programs, ranging from 3 to 6 months courses, focus mostly on in-class technical training which usually does not require a lot of machinery and

[44] In addition, NEO runs a program for the disabled which consists of financing vocational training programs (3-6 months) at a subsidy of LBP 800,000 per trainee and contributing to equipping NGO specialized sheltered workshops. In 2009, NEO financed the training of 125 disabled (61 percent of which were between the ages of 15-24) in 11 different NGOs. The implementation mechanisms are similar to those of accelerated vocational training program. Certification is offered to those physically disabled; however others, including mentally disabled, receive training but not certification.

equipment, such as English language and use of basic computer software. The MEHE reports 21,000 graduates from licensed and accredited private training providers, but the number may actually be much higher[45].

4. 8. *Current certification, contracting and payment arrangements with NGOs lead to poor accountability and quality of services.* Since 1981, NEO has been financing, supervising, and certifying short vocational training programs implemented by various NGOs. The role of the NEO includes contracting NGOs that submit applications for funding, identifying the number of trainees to be financed in each NGO, and approving the curricula of courses (as of 2011, there were 38 specializations selected by the Board of Directors to reflect the needs of the labor market). Currently, NEO has contracts with 31 NGOs but only 7 out of the 38 specializations have a standardized curriculum. NGO financing is based on a fixed amount per trainee.[46] MoSA has contracts with over 225 NGOs, out of which at least 39 offer training programs. Both institutions, NEO and MoSA, have no direct control on the selection of trainees. NGOs are accountable for the number of trainees as stipulated in the contracts, although this is less clear in the case of MoSA since the contracts are often not only for training. The main problem is that there are no mechanisms to assess outcomes either in terms of skills acquired or impacts on labor market outcomes among graduates. Even those graduating from training programs through NGOs working with NEO are not systematically registered as job seekers.

4. 9. *There are no common standards for the accreditation of training providers and no framework for the certification of the skills acquired.* For example, although NGOs must register with MOSA, they do not need to meet particular criteria to provide ALMPs.[47] Likewise, private training agencies are required to register with the DGVTE, but once they acquire the license there is little regulation of their activities. These schools are not required to renew their licenses and only need to send DGVTE the number of graduates from each specialization on a yearly basis. However, it seems that not all schools communicate with the DGVTE after their initial accreditation and the activity of many of the schools is not monitored or regulated. Furthermore, skills certification is fragmented across different providers. The implication is that employers lack a common framework to recognize individuals' skills and competencies, although there are some initiatives to setup a National Qualification Framework (Box **4.1**).

[45] Ministry of Education and Higher Education (MEHE), The Center for Educational Research and Development (CERD), Statistical Bulletin 2008-2009

[46] The amount per trainee is considered a contribution, and not necessary covering the entire cost of the training.

[47] This is the case with two exceptions- if they wish to provide programs that need to be certified by NEO or DGVTE, and if they wish to provide microfinance services that require registration at the Ministry of Interior.

Box 4.1: Skills certification in the context of a National Qualification Framework (NQF)

*As modes and pathways of learning become increasingly diverse, skills certification fulfills various objectives***.** First, it recognizes skills and competencies regardless of the way in which they were acquired and/or of the job-seeker's educational background. Second, skills certification allows employers to compare individuals' skills across the labor market. Finally, skills certification serves as a way to match the skills acquired through training or other means with the skills required to perform a job. Further, less immediate but nevertheless crucial objectives are to increase occupational mobility, promote lifelong learning, and enable international and intergenerational comparative analysis. In principle, skills certification should be organized in the context of a National Qualification Framework (NQF).

In Lebanon, the European Training Foundation has initiated technical assistance to support the Ministry of Education and Higher Education in the development of the NQF. Specifically, the NQF 5-year program (2010-2015) aims to *determine the expected outputs of the educational programs and certificates, and specifying the necessary qualifications for education related professions*. The following highlights the achievements of the NQF program as of February 2012: (i) development of the NQF Preparation concept paper; (ii) development of the NQF Agenda for the year 2012 in coordination with the ETF; (iii) approval on work expansion to include other Ministries such as the Ministry of Labor (National Employment Office) and the Ministry of Public Health; and (iv) started negotiations with the concerned stakeholders on the establishment of a committee with the Ministry of Labor and concerned entities from the labor market and universities to take over and follow up on the next steps of NQF. The next steps and activities include: (i) defining a syllabus for professions in education, and (ii) determining the basis for transition between different learning paths.

International experience suggests that an NQF should ensure that qualifications are: (i) defined in terms of a single set of criteria and in only one hierarchy of levels; (ii) classified in terms of a comprehensive set of occupational fields; (iii) achieved by gradual accumulation (credit accumulation and transfer); (iv) transportable in the sense that elements of one qualification (for example, knowing to use a word processor) can be used for other qualifications; (v) transparent in the sense that learners know precisely what learning outcomes they are required to demonstrate to achieve a qualification; and (vi) are independent of any specific prior learning program requirements.

Furthermore, major factors that have proven to be instrumental in ensuring the successful implementation of NQFs: gradualism (a radical break from previous qualifications systems results can cause difficulties and create strong positions against the reform), consensus and compromise (go through a complete consultation process), and building blocks (importance of using partial frameworks as building blocks for the establishment of a broader, more comprehensive framework).

4.1.2. Employment Services

4. 10. *The public agency responsible for providing employment services in Lebanon is the NEO.* The NEO receives announcements for job vacancies from firms, and applications from job seekers. These applications can be sent through fax, phone, emails or personal visits to its walk-in-center. Today, NEO lacks a system that would allow employers and employees to post vacancies and send their CVs online, or browse and search the database for job offers and job-seekers. NEO is, therefore, responsible for matching vacancies with job seekers, choosing relevant job seekers and forwarding their CVs to the

firms. Furthermore, there is no systematic follow-up after the match is proposed -- except through irregular phone calls to firms to check on the status of recruitment or if the firms continue using the NEO as an intermediary. Besides the job matching function, NEO has recently been trying to develop its capacity to provide job counseling and career guidance services to its beneficiaries.

4. 11. *It is apparent that the demand for NEO's intermediation services, both from employers and job seekers, is very limited.* As discussed in Chapter 2, as little as 0.1 percent of workers report to have found their job through NEO and only 0.7 percent of those unemployed are depending on NEO for job search. This is consistent with NEO's records that show that, in 2010, less than 400 job seekers had submitted their CVs and only 220 announcements of job vacancies had been received. In total, 98 successful placements were registered during that year, though the number of actual placements could be higher because not all placements are necessarily reported. A snapshot of the database, with all entries since 2007, shows that three quarters of registered jobseekers at NEO are youth (between the ages of 20 and 35), 56 percent are males, and 80 percent hold a university degree or higher. It is also worth noting that only 15 percent of applications are registered in the local offices - where databases are not linked to the central office in Beirut.

4. 12. *None of the other public agencies involved in ALMPs (MoSA, MEHE, and MoL) provide structured employment services, nor systematically refer their beneficiaries to NEO's services.* Nevertheless, some agencies occasionally receive vacancy announcements from employers to which they chose to refer their beneficiaries. For instance, the different vocational training schools and the VTC often receive job vacancies from firms asking for a certain type of skill. The use of NEO's intermediation services by other Government agencies is limited.

4. 13. *Some NGOs provide informal employment services, mostly through taping into their network of contacts to help their beneficiaries find jobs*. NGOs usually do not have a database of job vacancies, but rather use other databases and personal contacts, post advertisements on their bulletin board and refer beneficiaries on a one-to-one basis. The Rene Mouawad Foundation's FORAS program, however, aims to link young newly graduated job seekers in the North of Lebanon to available job vacancies and help increase their chances of being placed. Beneficiaries receive support in writing their CV, presenting themselves and conducting a job interview, and undergo a behavioral and basic qualifications test. The NGO then uses its network of contacts and companies to reach out to employers and arrange for their hiring on a 3-month probation period. The services are free of charge for both job seekers and employers. In 2009, FORAS assisted a total of 300 job seekers with a budget of US$100,000 and it claims a job placement rate of around 48 percent.[48]

4. 14. *Private employment intermediation agencies are still illegal in Lebanon.* This is in contrast to the trend observed in other middle income countries where governments have started to encourage the

[48] Two other NGOs, Labora and ILDES, also provide job search assistance to their beneficiaries. Labora provides orientation and counseling services to Christian job seekers. ILDES (Lebanese Institute for Integrated Economic and Social Development) also provides employment services, benefiting 157 individuals in 2009 and achieved a job placement rate of 50 percent.

development of private employment agencies.[49] Public agencies often retain a monitoring role and are in charge of determining the eligibility of participants while leaving provision of services to (or sharing them with) private employment agencies.

4.1.3. Self-Employment Programs

4. 15. *The prevalence and preference for self-employment, and the fact that micro-enterprises employ a large proportion of the labor force in Lebanon, make self-employment and entrepreneurship programs especially relevant.* The provision of such programs has mostly attracted NGOs which are involved both in financing and in implementation.

4. 16. *The government's efforts in the area of self-employment and micro and small enterprises focus on access to credit through Kafalat, a credit guarantee institution.* Based on a viable business plan and feasibility study, Kafalat guarantees a large portion of commercial bank loans requested by start-ups and existing micro and SMEs (40 employees or less). It also subsidizes the interest rates on any approved loan. The subsidy is financed by the Central Bank. Kafalat supports start-ups in a number of sectors namely: industry, agriculture, tourism, traditional crafts and high-tech. There are three main programs of support: Kafalat Basic, Plus, and Innovative with varying levels of guarantees and ceilings on loans. Kafalat Basic is the program with the least strict conditions on start-ups and SMEs. It is meant to be used for any business development, particularly establishing a viable new production capacity, or to sustain current production and employment. As of the end of 2009, a total of 4,160 Kafalat Basic loans had been guaranteed by Kafalat, with an average loan size of US$15,700. In 2009 alone, around 1,000 Kafalat Basic loans were guaranteed.

4. 17. *Micro-finance, another important source of finance for self-employed micro and small businesses, is below its market potential in Lebanon and is being provided mostly through NGOs.* In Lebanon, commercial banks have started to develop some micro-credit programs but are still quite limited in outreach and size, and there are only a few micro-finance institutions operating. Microfinance programs run by NGOs have played a more important role in serving the demand for credit[50]. An IFC study showed that as of September 2007, around 29,420 microfinance clients were being served by NGOs, microfinance programs, and MFIs. They had an outstanding portfolio of around US$23.9 million, with an average loan size of US$1,118. The same study estimated that as little as 11.5 percent of the potential microfinance market is being serviced. Today, there is no proper regulation for the sector. The

[49] See Almeida et al., (2012).

[50] The major NGOs providing microfinance in Lebanon include Al-Majmoua, Makhzoumi foundation, ADR (Association for Rural Development) and AMEEN (Access to Microfinance and Enhanced Enterprise Niches). Al-Majmoua runs a large micro-credit program which in 2009 provided loans to around 18,000 low income individuals, 46 percent of which were women and half of which live in rural areas. The program's budget for that year was USD 12 million. This is one of the several programs run by Al-Majmoua that mainly provide micro-credit and in some cases relevant training relevant to the self-employed to targeted groups.

Ministry of Interior registers all NGOs that work on micro-finance but there are not guidelines or infrastructure for supervision.[51]

4.2 Towards an Integrated System of Targeted Interventions

4. 18. *The evidence regarding the impact and cost-effectiveness of ALMPs is mixed but suggest that much depends on program design and implementation.*[52] Although very few programs have been evaluated in middle and low income countries, international experiences suggest that, often, impacts on labor market outcomes have been disappointing. This does not imply, however, that the programs in question are not needed. In fact, several of the market failures that the programs are supposed to address, such as lack of information about jobs, insufficient skills, or no access to capital, seem to be pervasive across middle and low income countries. The problem, however, is that programs tend to be supply driven and managers lack the incentives, and resources, to deliver quality services to their beneficiaries. Public employment offices, for instance, are usually understaffed, do not have connections to the private sector, and lack the necessary management and information systems to operate efficiently. The implication is that very few employers and job-seekers use them. Similarly with supply driven training programs.

4. 19. *Successful programs rely on well-designed governance arrangements, targeting, and contracting and payment systems.* The *Jóvenes* programs in Latina America, for instance, have been successful in connecting vulnerable youth to jobs. They rely on NGOs that offer an integrated package of services (e.g., counseling, training, intermediation) and that are contracted on a competitive basis and paid based on placements (see Box **4.2**). Similarly, Turkey has adopted contract and payment systems for the providers of employment services that reward performance and that have resulted in higher placement rates. There is also evidence that wage subsidies targeted to first-time job seekers – not employers -- can increase their chances of obtaining work experience and, therefore, improve their employability (Box 4.3).

[51] Some international donors, including USAID, are active in Lebanon in financing NGOs that provide micro-credit services. USAID mostly finances NGO programs that target rural areas and low income groups. In 2009, USAID provided over USS 1 million to three NGOs which offer micro-credit in rural areas. It also disbursed grants to NGOs providing training programs that promoted self-employment of rural women. Moreover, the USAID contributes significantly in communities affected by the Nahr El Bared incidents through a program called TAMKIN, where over US$11 million was channeled through the Cooperative Housing Foundation to be disbursed as grants to community-led initiatives.

[52] Rita Almeida et al., forthcoming paper on "Facilitating Labor Market Transitions And Managing Risks" Chapter 5, From Right to Reality

Box 4.2: Jóvenes Training Programs in Latin America

Several countries have implemented comprehensive training programs that offer a package of services for low-skilled youth including counseling, training, job-search assistance, and workplace internships. Most of the programs implemented so far are in Latin America and the Caribbean and are known as the *Jóvenes* programs. A core feature of such a training system is that it relies on market signals: qualified private firms, nongovernmental organizations (NGOs), and public institutions provide training and other services on a competitive basis. To be eligible for funds, providers are required to line up internships and identify the types of skills that are needed. Although the current programs have focused on youth, they could also target unskilled and low-income adults. These programs can be designed to respond to specific demands from workers or public-private partnerships to train a given group of young people to work in a given sector.

Impact evaluations of the *Jóvenes* programs have generally produced positive results for program participants in at least two variables of interest: the beneficiaries' chances of job placement and the quality of their jobs as measured by salary, benefits, and type of contract.

The evaluations have shown that women and younger beneficiaries have higher rates of return from participating in these programs than do men and older cohorts. Given their low cost per trainee and their positive effect on employment and earnings, nearly all such programs have a positive ratio of benefits to costs, even without considering any positive externalities such as reduced risky behavior.

Estimates of unit cost for the *Jóvenes* programs range from the upper US$600s to about US$2,000 per participant served. Active private sector participation represents significant savings to the government when firms cover the costs of on-the-job training. Likewise, the bidding mechanism to select training institutions has shown to be an efficient instrument to set competitive training prices, ensuring high quality and low cost. *ProJoven* in Peru is one of the few ongoing programs that has had continuously measured costs and benefits since its implementation in 1996. Direct costs are nearly two-thirds of total costs, as can be shown by breaking total expenses into training, financial incentives, and beneficiaries' opportunity cost. Across *Jóvenes* programs, *Proyecto Joven* in Argentina reported relatively high costs, which became barely affordable for the government, hampering its sustainability.

Box 4.3: Evidence on Employment Services

Job-search assistance and intermediation services have proven to be effective in promoting employability and earnings of beneficiaries when search frictions are paramount and information on job vacancies scarce. International evidence shows that intensified job search assistance for the unemployed increases their employment probabilities and often labor earnings. Although the evidence in developing country settings is weaker, a study for Romania shows also an increase in employability due to job search assistance (Núria Rodríguez-Planas & Benus Jacob, 2010. "Evaluating active labor market programs in Romania"). These programs tend to be more effective also when targeted to the unemployed workers with low hiring probabilities and, among these to the long-term unemployed.

Job-search assistance and intermediation services often provide the first entry point in the search for employment of the newly unemployed. Therefore, they have an important formative role in the labor market re-integration efforts of the unemployed from both, the productivity and the social cohesion point of view. In particular in the initial stage of unemployment, these services can increase well-being as a result of the social contacts obtained during participation in these and other employment services. Job-search assistance and intermediation services can also contribute to productivity by supporting the unemployed in finding the right job and embedding them into production networks that reap their full potential.

In countries with high capacity, job assistance and intermediation centers tend to be full service centers. Probably the best known example is the UK Job Centers Plus, which offers a range of services, including career counseling, training or education program placement assistance, job matching, labor exchanges, and other related services. The centers also merge labor market advisory with social services and integrating benefits and job search in order to better reach people furthest from the labor market, to various forms of modernized service layout systems. Some countries in Europe and Central Asia, like Azerbaijan and Bulgaria, are testing the one-stop shop model.

The success of employment services deeply depends on their capacity to reach out to the employer's needs and in how well do they meet their needs. This involves establishing and developing good relations with employers and the gradual transformation of the employment agencies into a genuine service enterprise. This is especially challenging in developing countries where most of the jobs are in household, micro, and very small firms. The Austrian PES is a best practice example in the provision of these services. They provide specialized free services to employers, including referrals of suitable candidates for job vacancies, assessment of staff qualification needs, grant schemes for job training, customized solutions for mass layoffs, and information and financial support for disabled employees. There, job counselors keep in close contact with firms, frequently requesting vacancies notifications.

4. 20. *In all cases, however, local conditions make a difference and call for continuous monitoring and evaluation.* Indeed, available evaluations show that even in the case of similar program designs, outcomes of interest vary considerably across countries. It is thus difficult to come up with general

recipes in terms of design and implementation. ALMPs need to be piloted, evaluated, and adjusted on case-by-case basis.

4.2.1. General principles for design and implementation

4. 21. There are several lessons and innovations that need to be considered when designing and implementing ALMPs. These can be grouped in six categories: (i) governance; (ii) coordination of different types of programs/interventions based on the needs of targeted population groups; (iii) contracting and payment systems; (iv) information technologies; (v) financing mechanisms; and, (vi) monitoring and evaluation systems.

4. 22. **Governance.** Programs directly managed by central governments have a poor record in terms of performance. Central governments need to define the policy framework within which ALMPs are designed and implemented; the rules and controls. The enforcement of this framework, however, needs to be decentralized to local governments. In addition, the delivery of services needs to rely on autonomous public institutions or private providers competing on leveled playing field.[53]

4. 23. **Building program portfolios.** The market failures or constraints discussed in this report affect individuals simultaneously. This suggests that successful programs need to work together. One model to achieve this is to offer a package of services to individual through one-stop-shops – the interface between job-seekers, programs, and employers. These "shops" can be specialized in registration, counseling, job-search assistance, processing of benefits, and reporting. Based on an assessment of individuals' needs, they can connect them with the providers of different services (skills certification and training), institutions providing transfers (e.g., unemployment benefits, wage subsidies), and ultimately employers. Hence, individuals would be able to process their applications for unemployment (or disability and pensions) benefits or wage subsidies through the shops. As discussed below, this implies that the shops need to be able to monitor and enforce the conditionalities related to the benefits and report back to the relevant social security institution or ministry. The "shops" can be public or private institutions that have been accredited by the government according to pre-determined criteria (e.g., staffing, experience).

4. 24. **Contracting and payment systems.** Key to the performance of the system is to have incentives in place so that service providers respond to the needs of job-seekers and employers. This can be achieved by paying providers based on the achievement of specific targets for outcomes of interest. The fees they receive can have two components: a fix part that is received per case treated and a variable part that is received upon meeting a given target, for instance, placement rates. Providers can also be allowed to receive payments from employers for services provided for recruitment.

4. 25. **Information technologies.** Part of the information and services that individuals receive should be accessible online. Online meetings, text, and videos can be used to provide counseling, information

[53] See background paper on governance for the Social Protection and Labor strategy paper.

about jobs, and guidance to prepare CVs, job applications, and interviews. Individuals can receive job posting on their mobile phones and apply to unemployment benefits or wage subsidies online. Some of the skills certification tests can also be taken online. Even the monitoring of conditionalities to receive unemployment benefits and wage subsidies – related to participation in job-search and training activities - can be done on-line using biometric technologies. The idea then is to encourage providers to develop applications that offer these services and that can reduce considerably the costs of the programs. Real-time visits could be reduced to those for in-class room training, certain types of counseling (e.g., for difficult to serve populations), and to some extent to monitor job search.

4. 26. **Administrative systems.** Connecting multiple "shops" – whether real or virtual – and different providers and institutions (training, skills certification, social insurance programs) requires sophisticated administrative systems. The cornerstone are Identification and Registration systems that call for a centralized database where each individual is characterized by a unique identifier and that provide information about career, benefits, and training histories. In addition, one-stop-shops need to be able to transfer information to the social insurance institution for a given application for benefits, and report continuously on conditionalities so that the social insurance institution is able to clear payments and make transfers to the individual's accounts (or collect transfers from the government like in the case of subsidies for social security contributions). The administrative system of NEO, on the other hand, needs to be able to communicate with one-top shops and providers to process the payment of fees to services but also to monitor labor market dynamics. Although technically complex, current ICTs allow the development of these systems at low costs.

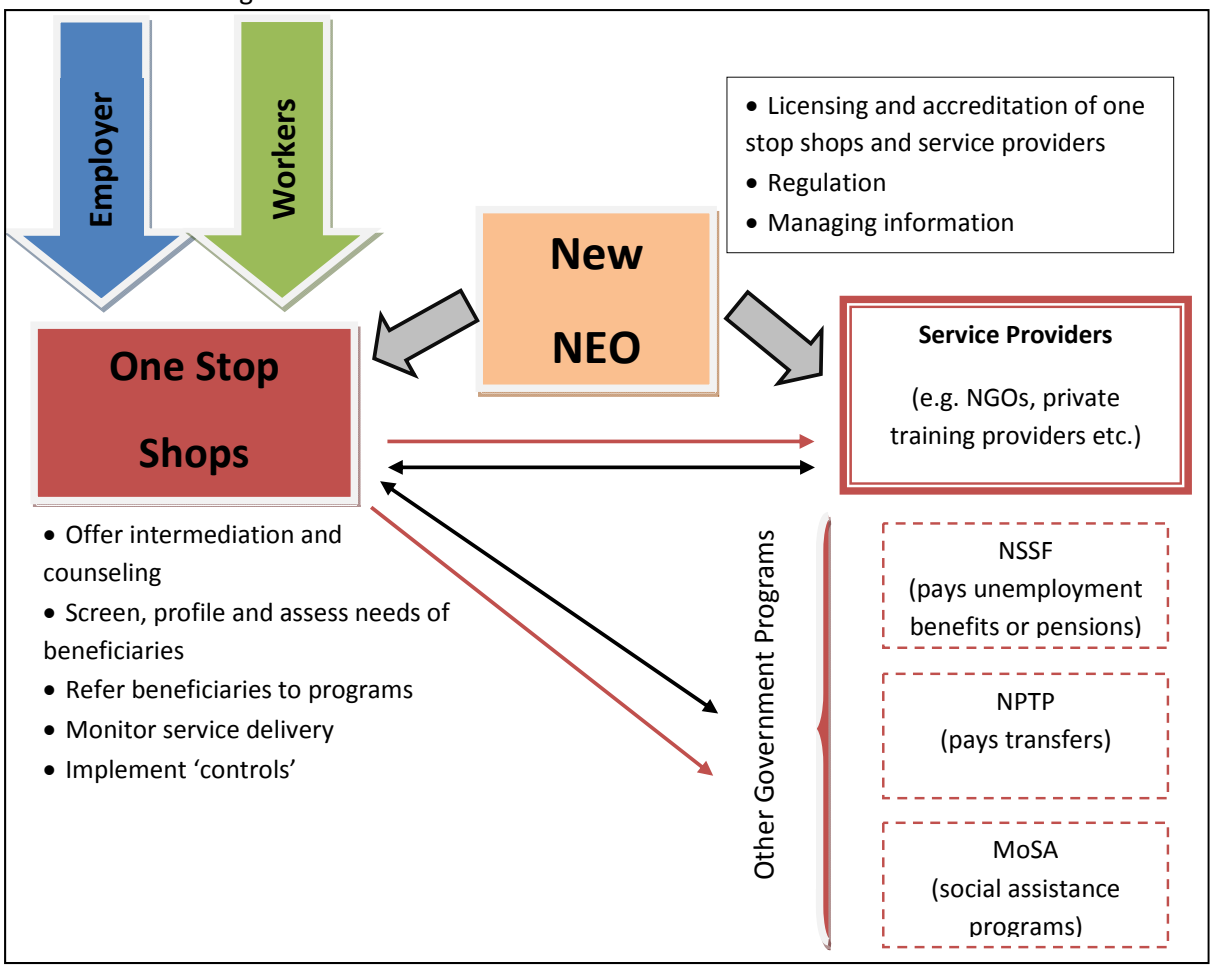
4. 27. **Monitoring and evaluation.** Improving monitoring and evaluation systems is critical for better planning and decision-making in ALMPs. Programs need to be adjusted and optimized continuously, and this can only be done if real-time data are available on operations and performance. One of the pre-requisites to successful M&E is the systematic collection of administrative data regarding the operations of different ALMPs.

4.2.2. A Vision for Active Labor Market Programs in Lebanon

4. 28. *The principles outlined above can guide the design of an integrated system of ALMPs in Lebanon.* A reformed NEO would be at the center of the operations, but focusing on the enforcement of regulations (including those related to accreditation), contracting and payment systems, and the centralization and management of information about labor market dynamics (see Figure **4.2**).[54] The delivery of various services would rely on accredited private providers.[55]

[54] When it comes to defining standards of curricula for training providers, it is debatable whether NEO is the appropriate institution. A link to another institution for this function, possibly the Ministry of Education, could be considered.
[55] See Robalino and Sanchez-Puerta (2012). [Chapter 5 of From Right to Reality].

Figure 4.2: A Vision for ALMPs in Lebanon- Institutional Structure



4. 29. *There would be two types of services providers – and it is important to keep these functions separated – those in charge of registration, counseling and intermediation, and those in charge of providing services such as training or skills certification.* The first type of provider is the one-stop-shops described above. These are essentially the interface between the central system, job seekers/workers, and employers. The shops would register beneficiaries, understand their needs, and refer them to various service providers. They would also manage applications for social security benefits provided by the NSSF and various subsidies offered by MoSA. The one-stop-shops could also manage special programs such as those targeted to special groups, whether youth, disabled or others. A critical role of the one-stop-shops is to monitor the delivery of programs at the service providers and implement system controls. For example, one-stop shops could monitor conditionalities to receive unemployment benefits.

4. 30. *Clearly, creating or reforming the institutions responsible for managing labor market programs is a complex task.* If NEO is expected to effectively fulfill the role described above, investments will be required to restructure and build capacity in the institution. This includes but is not limited to: (i)

reconsidering its role and mandate within the overall governance structure; (ii) increasing its budget while linking it to performance and results indicators; (iii) empowering NEO with more qualified and trained staff; and, (iv) developing the necessary management, administration, and information systems.

4. 31. *A first step in the implementation of the new institutional arrangement would be to pilot and evaluate an employment program targeted to young first-time job seekers* (Box 4.4). Indeed, in December 2011, the GOL adopted a "First Time Job-Seekers Program", which is to begin implementation in 2013 with a budgetary allocation of US$6 million. The program would start operating with the current applicants to NEO – although registration information might need to be updated. NEO would assign a sample of these applicants to pre-selected NGOs who would be in charge of finding 6 to 12 months paid internships for them. To this end, the NGOs would be in charge of offering the necessary counseling, training, and intermediation services (as discussed above the provision of training could eventually be separated from the provision of counseling and intermediation services). To provide incentives for employers to hire interns, applicants would receive a voucher that covers social security contributions. The proposed program would be subject to a rigorous impact evaluation prior to scaling up. Its implementation, however, would already allow NEO to start creating the necessary infrastructure and institutional arrangements to improve the provision of ALMPs.

4. 32. *It is important to note that some important components of a new integrated system of ALMPs are already in place in Lebanon.* The country already counts a large private sector involved in the provision of ALMPs and a National Qualifications Framework is underway.

Box 4.4: New Entrants to Work (NEW) Pilot Program

The "New Entrants to Work" program would be a new youth employment program under NEO. The program would aim at encouraging employers to offer a sustainable job opportunity for the Lebanese first time job seekers in an effort to reduce migration and equip them with professional experience. To this end, NEO would provide incentives for employers to hire young Lebanese by reimbursing employers for contributions to the National Social Security Fund (NSSF).

Within this context, the New Entrants to Work (NEW) pilot program is been designed to improve the employability of Lebanese youth through targeted interventions. The target groups would be unemployed first-time job seekers aged 16-30. The NEW program would consist of the following four interrelated interventions:

1. ***Life Skills Training***. The program would aim at providing participants not only with technical skills but also with life skills. The training program shall be developed by the implementing agency (e.g. NGO) in coordination with the employer. The content of the program would respond to some of the technical needs that young people would have during the internship/on-the job training, ensuring consistency between the two phases.
2. ***Job Search Techniques and Counseling***. The goal of the job-search techniques and counseling module would aim at empowering job seekers and encouraging them to actively seek employment.
3. ***On the Job Training (OJT).*** A key element of the program would be the practical on-the-job training component. Training programs would directly be linked with a private employer previously identified by selected NGOs. To achieve this, the NEO, together with the selected NGO, must assure practical experience for the trainee and serve as the placement agency/intermediary. The NGOs would subsequently design/adjust the content of the life and soft skill training based on the specific needs of the employer, while the employer would ensure that the program participant receives hands-on practice.
4. ***Social Security Voucher for Unemployed Youth.*** Each program participant placed on the OJT would be provided with a Social Security Voucher that he/she would retain throughout the duration of the program. These vouchers would allow employers to be reimbursed for the cost of contributions to the NSSF on behalf of program participants.

The total number of participants in the pilot is expected to be around 2,400 youth with 800 receiving both life-skills training/counseling and the voucher, 800 only receiving life-skills training/counseling, and 800 serving as a control group. In fact, in order to ensure that the pilot would be achieving its objectives in a cost-effective way, an impact evaluation will be built into the program design. Specific expected outcomes of the program would include: (i) breaking initial barriers in the transition from school to work; (ii) improving skills by training first time job seekers in a comprehensive life-skills training program; (iii) encouraging linking of training content with the requirements of the private sector in order to raise employability of young, first-time job seekers; and, (iv) enhancing intermediation services and capacity of the NEO.

4.3 Conclusions

4. 33. This chapter has reviewed the main types of ALMPs provided in Lebanon, namely training, employment services and self-employment support programs. A number of governmental and private sector agencies are involved in the provision of such programs. The overall system of ALMPs faces a number of problems including:

- The absence of a well-defined policy and regulatory framework to guide the design and operations of the various programs.
- A high level of fragmentation, with programs operating with little or no coordination.
- The lack of incentives for program managers, public or private, to provide services that are relevant to employees and employers.
- The lack of standards for the accreditation of services providers and the certification of various sets of skills.
- The lack of a system to target programs to the most vulnerable groups.
- The absence of basic monitoring and evaluation mechanisms.
- Serious gaps in terms of institutional capacity of the NEO.

4. 34. Going forward, Lebanon would need to consider the following interventions:

- Establish an appropriate form of governance and institutional framework for implementing labor market policies and programs which ensures quality standards in service provision and unifies the licensing/accreditation and supervision of providers.
- Improve the targeting of ALMPs to ensure that government resources are spent on those groups that are in most need and/or will benefit the most from the intervention.
- The new vision for the system entails:
    - Rethinking the role of NEO to focus on the regulation and monitoring of an integrated system of ALMPs. This includes enforcing standards for accreditation of services providers and designing contracting and payment systems.
    - Allowing the development of private providers of ALMPs; both one-stop-shops in charge of counseling, job-search assistance, and intermediation services; and providers of services such as training and skills certification.
    - Establish a culture of monitoring and evaluation centrally, and within all ALMP providers.
- A first step in the implementation of the new system would be the piloting of an employment program targeted to young, first-time job seekers. The program, managed by the NEO, would focus on connecting the unemployed to a 6-12 months on the job training through pre-selected NGOs, and would include a social security contribution subsidy for employers to promote hiring.

Chapter 5 : Social Insurance and Labor Regulations

5. 1. *Like many other countries, Lebanon has set-up various social insurance programs and labor regulations. These are important public policy instruments for protecting workers from abuse, discrimination, and various social and economic risks.* Social insurance programs protect workers' consumption against various shocks, facilitate labor mobility and can lead to better matches between skills and jobs. Labor regulations, on the other hand, equalize the bargaining power between employers and employees; they also establish rules to prevent practices that society considers abusive and unacceptable.[56] In Lebanon, however, both social insurance and labor regulations are failing to achieve these objectives and instead can be creating incentive for informal employment. Indeed, the regulations and programs cover only a minority of formal employees and even among them, they are not always enforced. At the same time, problems in terms of design, increase the tax-wedge, reduce incentives to switch jobs, unnecessarily constrain the management of human resources, and increase labor costs in unpredictable ways. This constrains the movement of labor from low to high productivity activities and provides incentives for informality.

5. 2. The first section in this chapter takes stock and discusses the main problems facing the two main social insurance programs in Lebanon (the End-of-Service Indemnity and Health Insurance) and current labor regulations, focusing on types of contracts, dismissal procedures, and minimum wages. The second section discusses the distortions that current programs and policies create in the labor market. The third section then proposes an integrated framework to improve the design of current Laws, expand coverage, better protect workers, and reduce distortions in labor markets.

5. 1. The Lebanese Workers Protection System

5. 3. The core of the social insurance systems is managed by the National Social Security Fund (NSSF) which provides to private sector formal workers (and some contractual workers from the civil service) health insurance, an End-of-Service Indemnity (EOSI) and family allowances. As of today, Lebanon does not have a proper pension system offering old-age, disability, or survivorship annuities. Private sector workers not covered by the NSSF or the civil service (around 50 percent of the labor force which include informal wage earners and the self-employed) can, in principle, obtain health coverage from the Ministry of Public Health (MOPH). Other contributory schemes have been designed for civil servants and the military, but those are not the subject of this chapter.

5. 4. Labor regulations, on the other hand, are legislated through the Labor Code first promulgated close to seventy years ago. The regulations cover the following: (i) the employment contract (including

[56] The main aspects of labor regulations include: (i) entry into employment contract (mandatory provisions of employment contracts, probation period); (ii) terms of employment contract, including fixed-term contracts, part time employment, and working hours; (iii) paid and unpaid leave, maternity leave, and family leave; (iv) wages and benefits including minimum wages; and (v) contract termination, including notification and approval by a third party, advance notice, mandatory (re)training, and severance payments.

the employment of children and women, duration of employment, leave, salary, dismissal, protection of workers, health and safety); (ii) the organization of labor; (iii) the Arbitration Court; (iv) unions (including formation of unions, joining a union, administration of unions); (v) sanctions; and (vi) regulations for employment offices. A number of amendments and additions were made to the Labor Code since it was first promulgated.

5.1.1. The End of Service Indemnity[57]

5. 5. *The EOSI has a unique – non-transparent – design that combines defined benefit and defined contributions formulas.* Active individuals contribute to individual accounts managed by the NSSF. Upon retirement, the NSSF pays to eligible members a lump sum that has two components. First, an earnings related defined-benefit (DB) component equal, on average, to one month of salary per year of contribution with the last employer. Second, a defined-contribution (DC) component equal to accumulated contributions with past employers, including interests. The last employer is responsible for paying any shortfall between the individual's entitlement at EOSI under the DB component and the accumulated contributions with interest corresponding for the same period of employment (DC).

5. 6. *The program is financed by pay-roll taxes and individual contributions and, to date, it does not seem to face problems in terms of solvency.* In year 2009 – year for which the latest data was available – the EOSI was running a cash-surplus. Total expenditures were equivalent to 0.4 percent of GDP (LBP 226 Bn) relative to revenues of around 2.0 percent of GDP (LBP 1,137 Bn) (see Table **5**.**1**). An actuarial valuation of the assets and implicit liabilities also indicated that the program was over-funded. In essence the value of assets – most of them invested in government bonds – was higher than the value of the liabilities of the NSSF with employees. This is explained, in part, by the ad-hoc mechanisms to calculate benefits (see below).

[57] For a detailed assessment of the End of Service Indemnity see: World Bank. (2005). Towards an Integrated Pension System in Lebanon: Reforming the End-of-Service Indemnity and the Schemes for Civil Servants and the Military. Washington DC.
Also see various policy notes: Joint World Bank and ILO pension proposal. (2011). Principles and Framework for the Design of a Pension Scheme for Workers in the Private Sector in Lebanon. Beirut, Lebanon. Also see World Bank. (2005). Pension Reform In Lebanon: Why It Is Needed and Why It Should Not Be Postponed. Quarterly Publication of the Lebanon Country Office, First Quarter of 2005. Beirut, Lebanon.

Table 5.1: Revenues, expenditures, contributors, and beneficiaries of NSSF, 2001-2009

	2001	2002	2003	2004	2009
Revenues (LBP Million)	-	648,002	687,000		1,137,397
(% of GDP)			(2.5%)		(2%)
From direct contributions	177,485	230,026	241,000	224,512	473,970
(% of GDP)	(0.7%)	(0.9%)	(0.9%)	(0.79%)	(0.01%)
From employer's adjustments	-	137,425	79,000	56,605	77,173
(% of GDP)		(0.5%)	(0.3%)	(0.2%)	(0.12%)
From investment returns	-	280,551	367,000	-	586,254
(% of GDP)		(1.1%)	(1.4%)		(1%)
Expenditures					
Lump-sum payments	256,487	-	194,000	175,000	226,482
(% of GDP)	(1%)		(0.7%)	(0.62%)	(0.4%)
Contributors	245,000	300,000	327,300	331,000	346,170
(% of the labor force)	(20%)	(24%)	(26%)	(26%)	(24%)
Lump-sum cases	16,261	-	14,474	-	14,685
Males	-	-	10,269	-	-
Females	-	-	4,205	-	-

Source: NSSF, and MoL; World Bank World Development Indicators for the labor force

5. 7. *But part of the financing relies on implicit, and variable, taxes to employers.* The employers not only pay pay-roll taxes to finance the EOSI. They are also responsible for the difference between the DB component accrued by the worker and the balance accumulated in the individuals account while working for them. Depending on the differential between the growth rate of wages and the interest rate on contributions credited by the NSSF, the last employer can be liable for an amount equivalent to 30-50 percent of workers' entitlements: the liability increases with the length of service.

5. 8. *The EOSI, in addition, does not provide adequate protection to plan members either in the case of retirement or in the case of unemployment.* A lump-sum payment places the risk of retirement income entirely on the retiree. A loss of capital due to the vagaries of financial markets or bad investment decisions would leave the retiree unprotected. The EOSI is not efficient either as a severance program. This is because of withdrawal penalties that are inversely proportional to the vesting period; young workers are not sufficiently protected against the risk of unemployment.

5.1.2. Health Insurance[58]

5. 9. *The fragmentation of the health insurance system leads to different levels of coverage across the population, with some groups facing large out-of-pocket expenditures.* Those enrolled in the NSSF enjoy a relatively generous package of health services but have limited primary care coverage. Those under MOPH may have better access to public hospitals and primary care clinics, but have fewer choices of

[58] For a detail assessment of the Lebanese Health Sector see Robalino and Maeda (May 2010). *Health Insurance in Lebanon: Improving Risk Pooling and Financing to Expand Coverage.* World Bank. This section presents a very general overview focusing on issues related to financing.

private providers. In general, the population not covered by the NSSF (or the schemes for public servants and high skilled self-employed) has access to a more limited package of health services. In 2009, the share of out-of-pocket expenditure out of total private health spending was about 79.8 percent and of about 40.5 percent out of total expenditures[59].

5. 10. *Current financing mechanisms make the systems unsustainable and strain public finances*. The NSSF's health branch is financed by pay-roll taxes (7 percent paid by employers), social security contributions (2 percent paid by employees)[60], and government transfers (25 percent of total health expenditures). By design, these pay-roll taxes and social security contributions are not linked to the benefits provided by the system. At the moment, there is no explicit mechanism to ensure that, over time, revenues are able to finance expenditures. The projected deficit of the health insurance branch is estimated at LBP500 billion in 2020 (0.73 percent of GDP).[61] The NSSF has been accumulating large arrears with hospitals (the fund owes hospitals and individual subscribers an estimated LBP450 to LBP500 billion[62]). Part of the problem is the existence a voluntary regime without explicit financing that attracted high risk plan members (mainly family of active workers). Although the program is for now closed, there is mounting pressure to resume its operations and pay its arrears because hospitals are refusing to provide services.[63]

5. 11. *Until recently, the MOPH had also faced similar challenges in managing budget deficits*. The budget of the ministry is allocated on a historic basis and budgets overruns have been the rule year after year. Prior to 2005, an important share of expenditures (around 57 percent) constituted payments to private hospitals where many beneficiaries receive treatment, while capacity in public hospitals remained underutilized. Since 2005, MOPH has made substantial improvements in containing expenditures on reimbursing private hospitals, which currently has been reduced to 47 percent of total expenditure. This has been achieved partly by increasing the share of admissions to public hospitals, which reached 30 percent of all admissions in 2008.

5. 12. *Another problem within the health insurance system is given by the potential regressivity of redistributional arrangements*. There are two forms of redistribution taking place within the system. The first is redistribution between NSSF plan members according to the solidarity principle, since contributions are linked to earnings while expenditures are based on the need for care. In principle, this

[59] World Bank, World Development Indicators

[60] The total contribution rate to the NSSF's health insurance branch is thus 9 percent on a taxable income ceiling of LBP1.5 million which will be increase to LBP2.5 million as per Decree 9602 approved in December 2012.

[61] This is according to the NSSF. 370 billion have been certified in the latest independent audit which covered the fund's accounts until the year 2000.

[62] Consultation and Research Institute (CRI), 2008. "Toward Financial Equilibrium in the Sickness and Maternity Branch of the National Social Security Fund: Short and Medium Term Suggestions for the Achievement of Financial Sustainability". Beirut, Lebanon.

[63] To eliminate the deficit the Director General of the NSSF has proposed an increase in the contribution rate from 9 to 11 percent and of the ceiling on covered earnings from LE 1.5 million to LE 2.5 million. These measures, however, remain ad-hoc and subject to the discretion of the Board of the NSSF. In addition, in the absence of measures to control costs there are concerns about the fiscal sustainability of the government obligations with the NSSF (estimated at 566 billion LBPs in 2007). Under the current design, the solvency of the NSSF is always at risk.

type of redistribution is progressive, going from high income to low income workers and from low to high risks individuals *within* the system.[64] The other source of redistribution is the general revenues used to subsidize health expenditures in both the NSSF and MOPH. In the case of the MOPH, these subsidies are likely to benefit, in their majority, low-income workers and the poor since they are the main beneficiaries of MOPH. The transfers to the NSSF, on the other hand, may require a more explicit policy: NSSF plan members tend to have higher earnings than many of their informal sector counterparts (covered under MOPH), and on the whole NSSF would warrant a lower subsidy level for this reason. On the other hand, certain categories of workers under NSSF may represent lower income groups who may require subsidies to avoid falling into informality.

5. 13. *Finally, contracting and payment systems with providers do not provide incentives to control cost while improving quality*. Both the NSSF and MOPH have been reimbursing private providers on a fee-for-services basis in the case of non-surgical procedures and flat rates for surgical procedures. Under the current system there are weak incentives to control costs and improve the quality of care. The flat rates, at least in the case of surgical procedures, are a move in the right direction. Nonetheless, new rates still need to be defined and more radical reforms will have to be considered down the road. The other related problem is the lack of separation between financing and provision functions within the MOPH. The ministry both mobilizes funds that are allocated to public hospitals (on a historical basis) and manages the hospitals. This weakens incentives to control costs, promote allocative and technical efficiency, and improve the quality of care. Moreover, it creates an uneven playing field for private and public hospitals, with the later receiving supply side subsidies (e.g., salaries and capital) which are disconnected from their performance.

5.1.3. Labor regulations

5. 14. Lebanon regulations are relatively more permissive than those observed in other countries in the region. But there are still unnecessary constraints imposed on employers. At the same time, the capacity of the Ministry of Labor to enforce the regulations is considerably week.

5. 15. *The Labor Code restricts the use of short-term contracts and has relatively tight rules for dismissals.* Although there are apparently no limits to the use of fixed-term contracts, automatic conversion implies that employers cannot renew these contracts after 24 months (see Table **5**.**2**). This is the most restrictive rule in there region after Morocco. In other countries, either there is no limit or the length of the contract is longer (e.g., 48 months in Tunisia). Lebanon does not impose restrictions regarding the dismissal of one worker due to redundancy, but third party notification is required (although not approval) when 9 workers or more are dismissed. There are also priority rules for redundancy and reemployment. The period of advanced notice is also relatively long for workers who have been working for five years or more. For instance, employers need to give close to nine months of

[64] What happens in practice, however, depends on the actual use of health services. If utilization is higher among high income individuals because of better access, there could be regressive transfers within the system. This can be assessed through benefit incidence analysis and is a recommended exercise.

advanced notice to workers who have worked for 5 years, 13 months for ten years, and 17 for twenty years. These are the highest levels of advance notice observed in the region. Lebanon does not regulate severance pay and implement the EOSI instead (see above).

5. 16. *The other problem with current regulations is the minimum wage which is open to excessive discretion and, today, might be contributing to reduce formal employment*. The minimum wage is set by the Council of Ministers. This leads to considerable fluctuations in the real value of the minimum wage over time, creating uncertainty for both employees and employers. As of today, the minimum wage represents around 20 to 30 percent of value added per workers which is high by international standards. It is estimated that around 26 percent of employees (and 19 percent of the self-employed) are earning an amount equal or below the minimum wage of LBP675,000. This is also an indicator that the minimum wage is set at a level that might be too high given the current level of labor productivity. As discussed below, this can reduce incentives to create formal jobs.

5. 17. *At the same time, the capacity of the MOL to enforce labor regulations is very limited*. Most of the activities of the ministry today are related to the issuance of permits for foreign workers. There is little capacity within the institution to inspect employers and process complaints/grievances. In fact, the ministry does not have access to the records of employers. This is a cause of concern when it comes to the enforcement of core labor standards and working conditions, including in terms of health and safety. Part of the problem is the limited number of qualified human resources. For instance, the office in charge of inspections today is staffed with around 40 labor inspectors and 40 labor inspector assistants for the entire country.

Table 5.2: Labor Regulations in selected countries

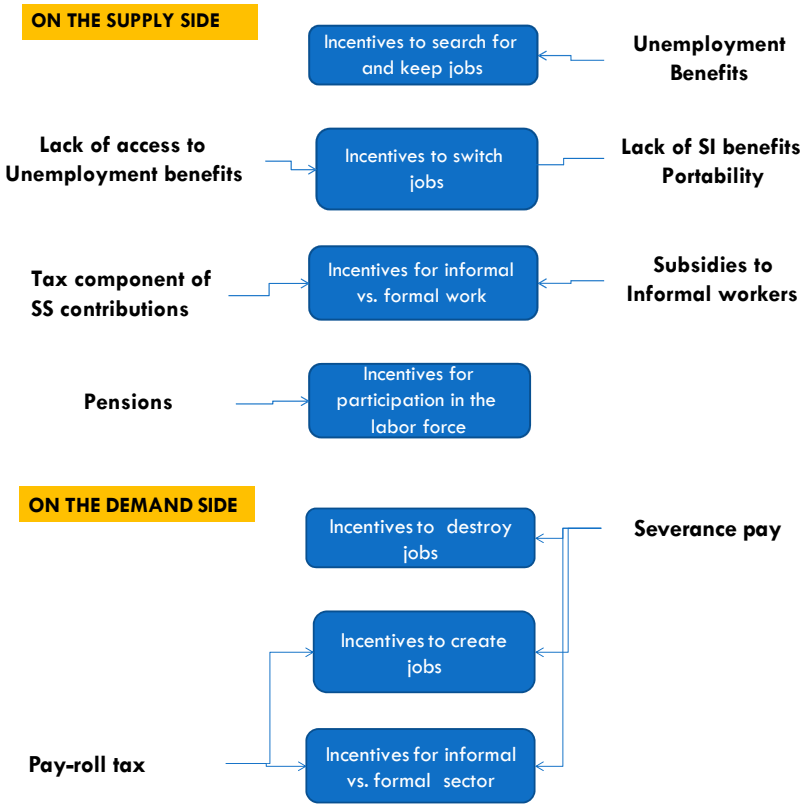
	Egypt	Jordan	Lebanon	Syria	Tunisia	Algeria	Morocco
Type of Contracts							
Fixed-term contracts prohibited for permanent tasks?	No	No	No	No	No	Yes	Yes
Maximum length of a single fixed-term contract (months)	No limit, but employee may terminate after 5 years (Art. 104 Labor Law)	60 (Art. 806 - CC)	No limit after 24 months worker is treated as indefinite term for severance pay (Art. 58)	5 years. (Art. 54, Labor Law2010)	48 months including renewals -Art 6-4(2) labor code	No limit	12 - Art. 17
Maximum length of fixed-term contracts, including renewals (months)	No limit	No limit	24	60	48	No limit	12
Minimum Wage							
Minimum wage for a 19-year old worker or an apprentice (US$/month)	31.8	199.9	450.0	205.8	115.9	204.8	246.5
Ratio of minimum wage to value added per worker	0.10	0.34	Between 0.2 – 0.3	0.58	0.24	0.38	0.69
Rules on Dismissal							
Dismissal due to redundancy allowed by law?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Third-party notification if 1 worker is dismissed?	Yes	Yes	No	Yes	Yes	Yes	No
Third-party approval if 1 worker is dismissed?	Yes	Yes	No	Yes	Yes	No	No
Third-party notification if 9 workers are dismissed?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Third-party approval if 9 workers are dismissed?	Yes	Yes	No	Yes	Yes	No	Yes
Retraining or reassignment obligation before redundancy?	No	No	No	No	Yes	Yes	Yes
Priority rules for redundancies?	Yes	No	Yes	No	Yes	Yes	Yes
Priority rules for reemployment?	No	Yes	Yes	No	Yes	No	Yes
Advance Notice							
Notice period for redundancy dismissal (for a worker with 9 months of tenure, in salary weeks)	8.7	4.3	4.3	8.7	4.3	4.3	1.1
Notice period for redundancy dismissal (for a worker with 1 year of tenure, in salary weeks)	8.7	4.3	4.3	8.7	4.3	4.3	4.3
Notice period for redundancy dismissal (for a worker with 5 years of tenure, in salary weeks)	8.7	4.3	8.7	8.7	4.3	4.3	8.7
Notice period for redundancy dismissal (for a worker with 10 years of tenure, in salary weeks)	13.0	4.3	13.0	8.7	4.3	4.3	8.7
Notice period for redundancy dismissal (for a worker with 20 years of tenure, in salary weeks)	13.0	4.3	17.3	8.7	4.3	4.3	8.7
Severance Pay							
Severance pay for redundancy dismissal (worker with 9 months tenure,salary weeks)	4.3	0.0	0.0	0.0	1.3	13.0	2.2

Source: World Bank, Doing Business Indicators [www.doingbusiness.org]

5. 2. Impacts of the Social Insurance and Labor Regulations on Labor Markets

5. 18. *Choices regarding the design of social insurance programs and labor regulations must be mindful of their effects on the behavior of both individual workers and the firms that employ them.* From the supply side (workers), the concern is mainly with the design of social insurance programs and the effects of those programs on incentives to: (i) search for and keep jobs; (ii) move between jobs; (iii) choose between formal vs. informal sector jobs; and, (iv) participate in the labor force. From the demand side (employers), both labor regulations and social insurance programs matter and can affect incentives to: (i) destroy jobs; (ii) create jobs; and, (iii) participate in the formal or informal sector (see Figure **5**.**1**).

Figure 5.1: Social Insurance and Labor Market Distortions in the Demand and Supply Sides



Source: Authors.

5.2.1. Supply side

5. 19. *One of the problems with the current social insurance system is that it reduces incentives to switch jobs.* This is, first, because of the fragmentation of the system. Workers are only covered by the social security if working with certain employers in certain sectors. Workers then may stick to their jobs instead of moving into self-employment even when medium term earnings opportunities are better. Second, the EOSI discourages switching between employers, since doing so implies losing the DB earning

related benefits vested with the last employer. The incentive to avoid switching is particularly strong after mid-career if the growth rate of wages is above the interest rate paid on the individual accounts.[65]

5. 20. *The absence of a link between contributions and benefits, in both the EOSI and the health insurance branch, creates implicit taxes and subsidies that can affect labor participation rates and the choice of informal jobs.* These taxes (subsidies) depend on how individuals value expected benefits and the reduction in wages they accept to have access to them. In systems where the social security contributions are linked to the expected cost of the benefits -- for example, individuals pay the premium of the health insurance package they receive or own savings accounts where contributions are deposited and earn market interest rates – there would not be a tax (except to the extent that individuals are forced to purchase services they do not want). This is not the case, however, of the EOSI and the health insurance branch. As discussed above, in the EOSI, depending on how individual accounts are remunerated and the growth rate of wages, individuals can receive/pay implicit subsidies/taxes. The actuarial valuation of the EOSI shows that, on average, individuals have been taxed on their contributions, which is why the system has assets larger than liabilities. These taxes can discourage formal employment. At the other extreme, for individuals who, given their career, histories the rates of return on savings have been above market rates, the EOSI can provide incentive for early withdrawal from the labor force.

5. 21. *A similar problem occurs in the health insurance branch given that individuals contribute a percentage of their salaries which is delinked from their expected health expenditures.* For young/high income workers, for instance, the contributions paid can be higher than the premium they would have to pay to have access to a package of health services provided by the NSSF. The resulting tax can provide incentives for informality. Hence, the type of systematic income redistribution that exists within the health insurance branch can reduce formal employment.

5. 22. *Survey results indicate, in fact, that workers outside the NSSF would be willing to join only if the contribution was much lower than what it is today*. Among youth, for instance, 36 percent would only pay 5 percent of their earnings or less. Only 8 percent are willing to pay more than 10 percent. Among adults, 50 percent would be willing to pay less than 5 percent (see Table **5**.**3**). Overall, 83 percent of respondents would prefer to receive the value of social security contributions in cash versus benefits.

5. 23. *A relatively negative perception of the quality of services provided by the NSSF and low levels of trust can also contribute to perceive part of the social security contributions as a tax.* For instance, 34 percent of survey respondents consider that the quality of the administration of the NSSF is below average. Close to one third also consider that the quality of care is below average. And almost half of the interviewed do not trust the financial solvency of the institution. The latter is particularly worrisome when workers are expected to save in the institution to finance their end-of-service indemnity (see Table **5**.**4**).

[65] See World Bank (2005).

Table 5.3: Percentage of Earnings those not covered by NSSF are willing to give up for services it provides – by age group

	[15-25]	[26+]	Total
Less than 5%	36%	50%	**45%**
Between 5 and 10%	56%	41%	**47%**
More than 10%	8%	8%	**8%**
Total	**100%**	**100%**	**100%**

Source: World Bank, 2010 Employer-Employee Survey

Table 5.4: Formal Employees' perception of different aspects of NSSF

	Below average	Average	Above average	Exceptional	Total
Quality of administration					
[15-25]	35%	46%	15%	4%	100%
[26+]	34%	48%	16%	2%	100%
Total	34%	47%	16%	2%	100%
Quality of care					
[15-25]	29%	52%	16%	3%	100%
[26+]	27%	47%	23%	2%	100%
Total	28%	48%	22%	2%	100%
Financial management					
[15-25]	44%	42%	9%	6%	100%
[26+]	39%	45%	14%	1%	100%
Total	40%	45%	13%	2%	100%
Solvency of institution					
[15-25]	48%	39%	8%	6%	100%
[26+]	48%	37%	12%	4%	100%
Total	48%	37%	11%	4%	100%

Source: World Bank, 2010 Employer-Employee Survey

5. 24. *Although not implemented yet, current proposals to create parallel non-contributory health insurance programs for those "not covered by the NSSF" can also lead to systems that reward informal work relative to formal work*. Although the details in terms of implementation matter, the common idea is to define and cost a basic package of health services that would be offered to informal sector workers and financed explicitly through general revenues. Services would be delivered by public and private providers while contracting and payment could be outsourced to private insurance companies or Third Party Administrators (TPTs). The proposed program would undoubtedly improve access to health service and reduce out-of-pocket expenditures. It would also allow the gradual separation of the provision and financing/payment functions currently embedded in the MOPH. But the program would also create an implicit tax on formal employment – since workers can be eligible to the same health benefits without contributing. Similar programs have been implemented in Latin America, in Colombia and Mexico, and there is evidence that informality has increased as a result.[66] How large is the effect, of course, depends on how large the subsidy is and the resulting implicit tax on formal work.

5. 25. *A final issue has to do with the lack of proper unemployment benefits and individuals' ability to switch and search for jobs.* As discussed above, workers who are dismissed have access to the balance accumulated in their EOSI accounts. But withdrawals are heavily penalized. For instance, a worker

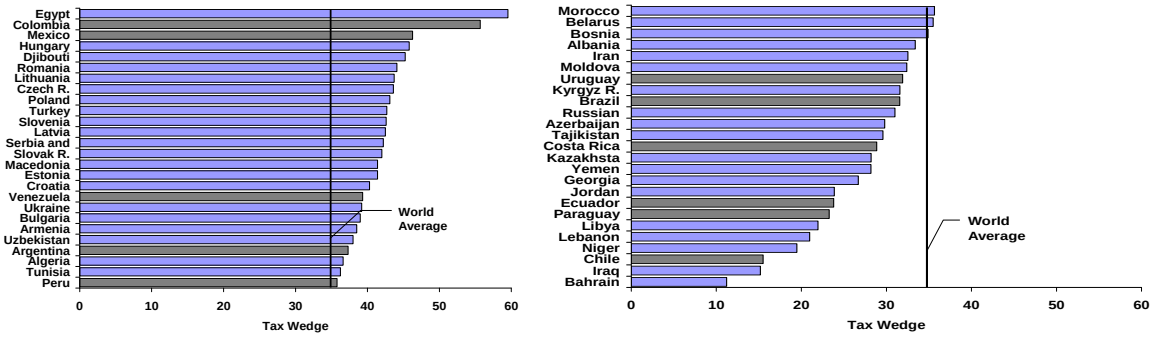
[66] See Pages et al., (forthcoming).

withdrawing the indemnity with 5 years of contribution would receive only 50 percent of the savings. Even after 10 years of contributions, the system pays only 65 percent of benefits. In essence, workers do not have reliable ways to smooth consumption during periods of unemployment and this can affect job-search. Indeed, there is evidence that not having access to unemployment benefits can shorten the length of the unemployment spell but can also lead to lower quality matches.[67] In the case of Lebanon, workers also have little incentives to switch jobs since severance pay does not apply in cases of voluntary separation. Both problems can affect the movement of labor from low to higher productivity jobs.

5.2.2. Demand side

5. 26. *One of the problems of the current social insurance systems is the level of the tax-wedge (the difference between the cost of labor and take-home pay) that could reduce incentives to create formal jobs.* The economic literature suggests that the higher the tax-wedge, the lower the level of formal employment.[68] In Lebanon, the tax-wedge is estimated at 26 percent, still lower than the international average (see Figure **5.2**). Even at that level, however, it can already have negative effects on labor demand. This is, in part, because for small and low productivity firms, the value added they generate per worker can be below the minimum cost of labor (given by the minimum wage plus social security contributions) and would, therefore, self-select in the informal sector -- or at least do not report all workers to the social security. This is not necessarily because of bad-intentions to evade but because they cannot afford the pay-roll tax.[69] The literature also shows that, other things being equal, high labor costs can deter the entry of new firms. As these firms are often precisely those that innovate,[70] a high tax-wedge can, indirectly, slow down labor productivity growth. In Lebanon, the current situation could be aggravated given the financing problems of the health insurance system, which in absence of structural reforms could lead to further increases in the tax-wedge.

Figure 5.2: Tax-Wedges around the World



Source: Ribe et al., (2010)

[67] See Tatsiramos (2009).
[68] See Ribe et al., (2012)
[69] World Bank (2006) and (2010).
[70] See Haltiwanger et al. (2010).

5. 27. *The other problem imposed by the current social insurance system is given by the cost of dismissals – both resulting from regulations on severance pay and the EOSI.* As discussed above, on average, employers are liable for 30-40 percent of the benefits accrued under the EOSI. In addition, they have to pay severance pay. This generates two types of incentives. On one hand, employers might try to rely on short-term contracts or evade the system and go informal. Those signing open-ended contracts, on the other hand, would have low incentives to dismiss workers. Evidence from other countries suggests that, indeed, severance pay reduces turn-over but also incentives to create jobs.[71] The net effect in most cases is a reduction in formal employment.

5. 28. *Regarding labor regulations, current restrictions on dismissals can also reduce the creation of formal jobs and affect labor productivity growth.* The evidence at the international level is mixed, but, overall, it shows that laws aimed at providing job security reduce turnover, lead to the creation of fewer jobs, and may impede productivity growth.[72] Outside OECD countries, there is evidence in Latin America, for instance, showing that job protection is correlated with workers having long job tenure. There is also evidence of lower turnover in Colombia and Peru.[73] This would, in principle, increase employment and could provide incentives to increase investment in human capital within the firm, since workers are close to a fixed asset for the firm.[74] But lower job turnover can also lead to lower job creation[75] and less demand for unskilled workers.[76] The international evidence also indicates that lower job turnover can lead to higher unemployment rates.[77] Finally, there is growing evidence that tight labor regulations can negatively affect productivity growth by increasing the cost of labor adjustments and reducing the incentives that firms have to innovate and adopt new technologies.[78]

5. 29. *Current minimum wage policies could also lead to lower levels of formal employment given their ad-hoc nature. The impact of a minimum wage on employment depends on its level and the type of labor market where it is implemented*. In non-competitive labor markets, a minimum wage can be an efficient policy response to provide higher wages to workers without harming employment. In general, a minimum wage that is low enough relative to economy-wide average earnings is not likely to have major impacts on employment. A minimum wage that is too high, however, can reduce incentives to create jobs in the formal sector, particularly for youth.[79] In Lebanon, as discussed above, the problem is that the minimum wage is not set on the basis of a technical analysis of its potential impacts on labor markets. This can lead to under adjustments that affect workers, or over adjustments that affect employers and reduce the level of formal employment. The minimum wage, today, might be too high relative to labor productivity.

[71] *Ibid*
[72] For a review of the literature see Kuddo (2009).
[73] Kugler (1999), Gonzaga (2003), and Saavedra and Torero (2004).
[74] See Holzer
[75] See Kugler (1999) for the case of Colombia
[76] See Pages and Montenegro (1999) and Montenegro and Pages (2003) for the case of Chile.
[77] Elmeskov et al. (1998) , Lazear (1990), and Addison and Grosso (1996)
[78] See Hopenhayn and Rogerson (1993) for an analysis using a general equilibrium model of job search; Cappelli (2000) and Hobjin and Jovanovic (2001) for analyses of the impact on the cost of labor adjustments; and Scarpetta and Tressel (2004) for direct effects on productivity growth.
[79] See Kuddo (2010) and Cho et al. (2010) for a review.

5. 3. An Integrated Framework for Reforming Social Insurance and Labor Regulations

5. 30. *Both social insurance and labor regulations are important to protect workers from various risks and improve the functioning of the labor market.* In the case of Lebanon, we have seen that the two main issues with today's worker protection system are low coverage rates and design problems that distort the behaviors of workers and employers and can reduce labor mobility and promote informality. In the case of the social insurance system, these problems result, in part, from the lack of a link between contributions and benefits which increases the tax wedge and provides incentives for informal work. In the case of labor regulations, there are problems with the regulation of contracts, dismissal procedures, and the minimum wage. There is also little institutional capacity for enforcement.

5. 31. This section presents recommendations to improve the design of both social insurance and labor regulations. We argue that Lebanon needs to take an integrated approach to reform. *First*, because labor laws and social insurance go hand-in-hand. It is difficult, for instance, to reform labor regulations if the right insurance programs are not in place. *Second*, there are important interactions among various social insurance programs. As an example, changes in the public health insurance plan can affect how much (and how often) workers contribute to the social security and, through this channel, how much savings workers accumulate in their pension account. Similarly, change in the unemployment benefit systems can affect retirement ages.[80] Reforming one program without looking at the effects on another can be counterproductive. *Third*, in Lebanon, core social insurance benefits are bundled together. Thus, individual behaviors and system costs and performance are influenced by the entire package of social insurance programs. It would be difficult, for example, to justify having fundamentally different strategies to expand the coverage of the various programs when the problems that need to be addressed are essentially the same. *Finally*, as discussed above, there are gains to be made if programs are better coordinated and are able to share administrative and information systems.

5.3.1. Reforming social insurance programs

5. 32. The main question is how to expand the coverage of current programs while reducing distortions in labor markets and recognizing that redistributive arrangements are needed to finance all, or part, of the benefits received by individuals with limited or no savings capacity. The proposed framework to achieve this, for any of the insurance program, has the following elements.

- **Delinking access from the type of labor contract**. Bismarckian arrangements – where insurance programs are linked to wage employment contract and are financed by employee and employer contributions – are not viable in economies with large informal sectors. An important principle of any reform would be to extend the same set of benefits to all workers, regardless of where they work – whether as self-employed or wage earners in small informal enterprises. Hence, access to social security would not depend on having an employment contract, and for those

[80] See Robalino et al. (2009).

who have them, there would not be any difference between short-term and open-ended contracts. For those outside the civil service or covered by the plans of professional associations, this implies having a single, integrated, social insurance system that treats all Lebanese residents in the same way.

- **Defining in a transparent way the mandate of the programs and their cost**. The first step in the design of the reformed system is to define the set of benefits to be offered to plan members and how much they would cost. In the case of a reformed EOSI, for instance, what is the level of the pension relative to the last salary (the replacement rate) that is offered at a given retirement age and what would be the contribution rate that is needed to finance it. Similar choices would need to be made if an unemployment benefit system is implemented. And, in the case of health insurance, what is the set of services/procedures that are covered and what is the cost given an individual risk profile. There would be, therefore, a one-to-one link between the benefits provided and payments that individuals would have to make.
- **Making implicit redistribution explicit and rethinking financing mechanisms.** Not all individuals will be able to finance the full cost of the benefits offered by the social security because they do not earn sufficient income. Redistributive arrangements are needed to cover them. But these should be explicit: the government would need to define who are the individuals who receive subsidies, what is the share of these subsidies in the total cost of the various programs, and how to finance them. To reduce distortions in labor markets, ideally, the financing of redistributive arrangements would rely on general revenues and not on pay-roll taxes.
- **Identifying the set of administrative arrangements and financial incentives that are needed to enroll informal sector worker and the self-employed**. Covering informal workers and the self-employed is not easy. First, because, by definition, these workers are not registered with the social security or any other institution – they cannot be tracked. Second, because there is no information about their earnings. Alternative mechanism are therefore needed to identify them, enrollment them, collect contributions (when not fully subsidized), and calculate subsidies.[81] Aggregators and mobile agencies, for instance, can be used for identification and enrollment using new biometric technologies.[82] In terms of the collection of contributions, since some of these groups have variable earnings, flexible arrangements are needed in terms of the frequency of payments. Alternative payment systems, for instance via mobile phones, also need to be considered. The fact that contributions are linked to benefits implies that informal sector workers and the self-employed can make payments based on the package of services they receive and not on their earnings. However, in order to receive subsidies, these earnings need to be estimated. Proxy means test can be used to this end.

5. 33. **Implications for the EOSI**. It is urgent that Lebanon goes ahead with the proposed reform aiming to transform the EOSI into a defined-contribution pension system, offering old-age, disability, and survivorship pensions.[83] The reformed system would target a replacement rate between 40 and 50

[81] See Palacios and Robalino (2010).
[82] See Palacios et al., (forthcoming)
[83] See Robalino and Sayed (2009). See also the joint World Bank and ILO pension proposal (2011). *Principles and Framework for the Design of a Pension Scheme for Workers in the Private Sector in Lebanon*.

percent of pre-retirement earnings at age 60 with 30 years of contributions. The level of the contribution rate that individuals would need to pay would depend on how the assets of the system are invested and the rates of return. Alternative portfolios can be considered. For instance, by default, all savings could be invested in special government bonds that pay a fix yield. If the yield is 3 percent, the contribution rate needed to finance a 40 percent replacement rate would be 12 percent of covered earnings. Plan members, however, would then be given the choice to move part of the contributions to a more diversified – but riskier – portfolio that is composed of financial assets and that could generate higher expected rates of return.[84]

5. 34. *To protect individuals from poverty, the pension system would also guarantee a minimum pension guarantee.* This pension can take different forms. Ideally, it would be offered as a flat payment to all workers after a certain age (e.g., 65 years) with the condition that they have been in the system for a minimum number of years (e.g., 20). This minimum pension would be reduced in proportion to the contributory pension. For example, by 30 cents for each one LBP increase in the contributory pension. This mechanism would preserve incentives to contribute while ensuring that high income workers are not eligible for the minimum pension.

5. 35. *In terms of management of the new system, the proposal is to keep the administration with the NSSF.* However, the investments of the assets, if there are assets that need to be invested in the financial market, would be done by an independent Investment Committee run by professional asset managers selected based on qualifications, by a selection committee with representative from the government, employers, and employees. The Investment Committee would also have representatives from the NSSF and other government institutions.

5. 36. *Regardless of whether savings are invested by an Independent Committee or the Government – if the NSSF purchases government bonds – a challenge in Lebanon is to address systemic risk*. Projections show that the accumulations of reserves in the new pension system can be considerable, ranging between 10 and 30 percent of GDP by year 2020, depending on assumption about coverage, the contribution rate, and the rate of return on investments (see Table **5**.**5**). Given that capital markets are underdeveloped, most investments are likely to go into the Banking system – which has been financing mainly government expenditures, private consumption, and investments in real state. Another option would be to invest assets abroad, but this would add to international reserves and contribute to the appreciation of the exchange rate. A key question, therefore, is how to create investments opportunities in the country that could be financed with long-term pension savings – through appropriate governance and institutional arrangements. Some of the issues were discussed in Chapter 3.

[84] See World Bank (2012) for simulations of replacement rates and asset accumulations under different assumptions regarding the rate of return on contributions.

Table 5.5: Projected amount of reserves of reserves under different assumptions
(in LL Billion, and as % of GDP)

SCENARIOS A (constant coverage)	2012	2013	2014	2015	2020	2040	2060	2080
Scenario A1 (CR17, IR3)	1.6%	4.3%	6.7%	8.9%	18.3%	28.7%	19.0%	7.4%
Scenario A2 (CR17, IR5)	1.6%	4.4%	6.9%	9.3%	20.3%	40.4%	32.9%	19.2%
Scenario A3 (CR9, IR3)	0.8%	2.9%	4.6%	6.1%	12.3%	15.7%	8.6%	2.5%
Scenario A4 (CR9, IR5)	0.8%	2.9%	4.7%	6.4%	13.9%	23.9%	17.0%	9.3%
SCENARIOS B (coverage expansion)	**2012**	**2013**	**2014**	**2015**	**2020**	**2040**	**2060**	**2080**
Scenario B1 (CR17, IR3)	1.8%	5.3%	8.4%	11.4%	23.8%	56.1%	59.3%	46.4%
Scenario B2 (CR17, IR5)	1.8%	5.3%	8.7%	11.8%	26.3%	74.2%	88.0%	79.8%
Scenario B3 (CR9, IR3)	0.9%	3.6%	5.9%	7.9%	15.7%	30.7%	29.6%	22.7%
Scenario B4 (CR9, IR5)	0.9%	3.6%	6.1%	8.3%	17.7%	43.0%	46.1%	40.9%

Source: World Bank 2012

5. 37. **Implications for Health Insurance**. For the health insurance branch, the recommendation is to move to a system financed by premiums (paid by employees and employers when available), that create a one-to-one link between contributions and benefits.[85] As indicated above, the first step would be to calculate the cost of package of health services provided by the NSSF. The second step would be to define the premiums. These could differ by population groups depending on their risk profile, or be an average across groups and over time. Today, the cost of the NSSF package is estimated at US$500 per year. But the calculations remain rudimentary and would need to be updated when the necessary data about utilization and unit costs become available. To transit to the new system, the NSSF would need to clear its arrears with hospitals. The mechanism to do this is to define a date when no further arrears accumulate: new claims would be paid using current revenues while the stock of "old-claims" is paid gradually over time.

5. 38. The NSSF health insurance programs would then be opened/extended to all workers – including those who, today, are covered by the MOPH. Depending on their means and contributive capacity, but regardless of where they work, part of individuals' premium would be subsidized. Poor workers and their families, for instance, would be fully subsidized. The subsidies would be financed by general revenues and not payroll taxes. Hence, the transfers from the general budget to cover 25 percent of NSSF health expenditure and the expenditures of those receiving health services from the MOPH would be redirected to finance the premiums of low income workers. The fiscal impact of the reform need to be assessed but no major additional outlays are expected if subsidies are better targeted and there are better controls in the payment of hospital claims.

5. 39. *The operation of a reformed health insurance program would require various changes in current institutional arrangements – including identification and registration systems*. As suggested by the MOPH, biometric identification cards, for instance, could be used to enroll workers in the informal sector and provide information about eligibility for subsidies. There would also need to be changes in contracting and payment systems to better control quality and costs. These would also affect public

[85] Consultation and Research Institute (CRI), 2008. "Toward Financial Equilibrium in the Sickness and Maternity Branch of the National Social Security Fund: Short and Medium Term Suggestions for the Achievement of Financial Sustainability". Beirut, Lebanon.

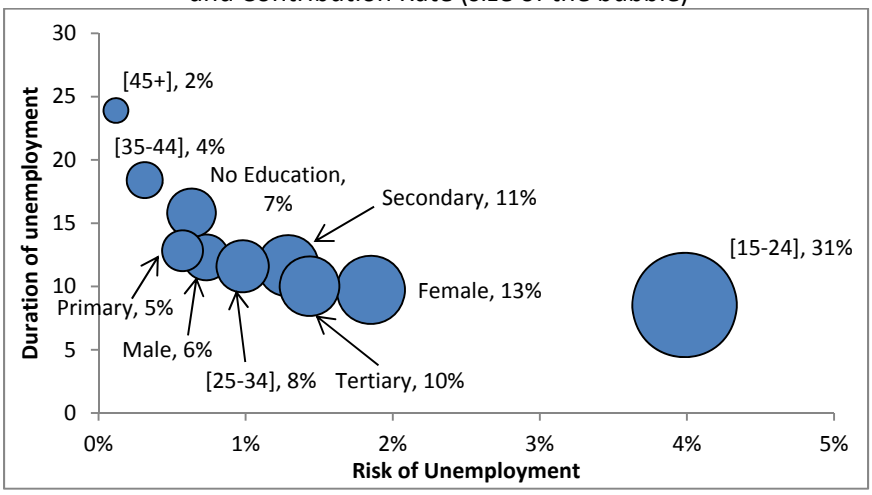
hospitals, which, like in the case of private hospitals, would need to generate revenues only on the basis of services provided.

5. 40. *Clearly, these recommendations for reform remain general, focusing mainly on changes in financing mechanisms to reduce distortions in labor markets*. A comprehensive reform of the health sector to improve the quality of care and allocative efficiency is considerably more complex, involving changes in the organization, production, and delivery of health services. The discussion is outside the scope of this chapter.

5. 41. **Implications for Unemployment Benefits**. As the EOSI is replaced with a DC pension system, the need for a system of unemployment benefits becomes more pressing. The implementation of this system could then facilitate reforms in current regulations of dismissal procedures (see next section).

5. 42. *Like in the case of the other social insurance programs, the first step would be to define the level of the replacement rate and the duration of benefits*. The contribution rate to finance the system would depend on these choices, current unemployment risks and the duration of unemployment. As an illustration, Figure **5**.**3** gives the "equilibrium" contribution rate for a replacement rate of 60 percent in the case of different population groups. This is the contribution rate that equates the revenues and expenditures of the unemployment benefit system for the *given* population group. It is represented by the diameter of the circle and depends on the risk of becoming unemployed and the duration of the unemployment spell (see Chapter 2). The main observation is that if individuals paid the contribution rate necessary to cover the expected cost of their unemployment benefits, there would be a considerable variation in its level. Youth would need to pay around 35 percent of their covered wage (a level that is unsustainable) while adult workers pay only 2 percent. In all countries with classic unemployment insurance (risk pooling), however, there is considerable redistribution among plan members; all workers pay the same contribution regardless of their risk and duration of unemployment. As discussed below, this *implicit* redistribution – i.e., the implicit subsidies that finance unemployment benefits -- can reduce incentives to keep and search for jobs.

Figure 5.3: The Risk and Duration of Unemployment, and Contribution Rate (size of the bubble)



Source: Authors' calculations using the World Bank (2010) Employer-Employee data
Note: The size of the bubble corresponds to the equilibrium contribution rate of each category which is included in percentage in the labels. The replacement rate is assumed to be 60 percent.

5. 43. *Under risks-pooling schemes, individuals, when unemployed for involuntary reasons, receive a defined-benefit during a certain number of months*. Eligibility for benefits can be conditioned on a minimum number of contributions (e.g., six months) and the level of benefits can be reduced over time to provide incentives for job-search. Still, international experiences suggest that the higher the level and/or duration of unemployment benefits, the longer the unemployment spell. This is because workers would be under less pressure to search for jobs and/or accept job offers; they would have a higher reservation wage.[86] Part of the problem, one more time, is that, in this type of system, it is difficult to link contributions to benefits. Indeed, the contribution is the same for all workers and yet unemployment risks and the duration of unemployment are different for different population groups. There are, thus, implicit subsidies going from low to high risks. These subsidies can distort incentives for job search (or to keep jobs). If contribution rates were to increase when the cost expected unemployment benefit increases (like a car insurance premium goes up after an accident), moral hazard would be less of an issue. But this is very difficult to do in the context of unemployment insurance schemes.[87]

5. 44. *Another alternative, with stronger incentives for job search, are Unemployment Individual Savings Account (UISAs)*. In this case, workers would contribute to individual accounts and, when unemployed, they would withdraw benefits. In this case, individuals could be eligible for benefits even if unemployment is voluntary. Because benefits are paid from workers savings, incentives to seek for jobs are expected to be stronger.[88] The UISAs would be linked to the pension accounts. Hence, upon

[86] See Robalino et al., (2010)
[87] See Ribe et al., (2012)
[88] Clearly, if mandatory savings are too high or the interest rate paid on savings is too low, workers (and their employers) can have incentives to over report dismissals to claim benefits. There is some evidence that this has happened with the UISAs in Brazil (see Robalino et al. (2011). "Incentive Effects of Risk Pooling, Redistributive and Savings Arrangements in Unemployment

retirement, any balance would be added to the calculation of the pension. One of the main criticisms to UISAs is that there is no sharing of risks; workers are self-insured and some may not be able to save enough. However, to deal with this problem, it is possible to add to the system explicit redistributive arrangements - for instance, by matching the contributions of low income workers or by subsidizing benefits when savings in the account run out. Like in the case of risk-pooling arrangements, these subsidies would be conditional on contribution histories. In general, redistribution is explicit and targeted incentive effects can be better controlled.

5. 45. *In the case of both systems, it is important to ensure that, while receiving benefits (subsidies in the case of the UISAs), individuals are actively looking for jobs and have incentives to accept job offer*s. This can be done by conditioning the payment of benefits to participation in job-search or training activities and monitoring applications and job offers. Individuals can be required to report on the status of their applications and employers on interview and job offers. Many countries also try to control employment status so that benefits are not paid when individuals are working. This is difficult to do, however, when there is a large informal sector. The alternative, instead, it to monitor job-search and/or training.[89]

5.3.2. Reforming labor regulations

5. 46. *Current labor laws were largely designed with the needs of formal industrial workers employed by large enterprises in mind*. But the world of work has changed resulting in the need for labor regulations that also consider the specific needs of service sector firms, small enterprises, and the self-employed. In most middle and low income countries, inspection offices do not have the capacity to enforce the many regulations found in different pieces of legislation. Societies will need to make choices about the most important areas where labor markets need to be regulated. These would include, for instance, the enforcement of core labor standards (freedom of association, no forced labor, no child labor, and no discrimination), regulations on minimum wages, and working conditions (work schedules, health and safety). Governments, however, could be much less involved in regulating contracts or dismissal procedures other than requiring an appropriate advance notice. The focus instead would be on trying to extend basic rights to informal sector wage earners.

5. 47. Lebanon could consider the following reforms.

- *Make different contracts and dismissal procedures more flexible while enforcing a reasonable advance notice.* Regulations could be modified so that employers and workers can decide on the types of contracts and termination arrangements. As discussed above, social insurance coverage would not depend on the type of contract and its duration. The only regulation that would be enforced is *advance notice.* The number months, however, could be revised downwards for

Benefit Systems: Evidence from a Job-Search Model for Brazil," IZA Discussion Papers 5476, Institute for the Study of Labor (IZA)).

[89] See Robaliono, Vodopivec, and Bodor (2010).

employees with more than five years of service. One possibility would be to align all advance notice with that given to employees with less than five years of service.

- *Reduce discretion in the implementation of minimum wage policy.* The proposal is to fix the dates when the minimum wage is adjusted and base the adjustment on a formula – for instance the adjustment of nominal minimum age could depend on the inflation and the growth rate of labor productivity. To implement the policy, an independent Minimum Wage Technical Commission (MWTC) would be created. The MWTC would be constituted by professionals, selected on the basis of their competencies, and could include representatives from government, employees, and employers. The main responsibility of the MWTC would be to assess that the minimum wage calculated on the basis of the formula can be supported by the economy. The MWTC would then be periodically collecting and analyzing the necessary data to assess the impact that the minimum wage is having on the economy. The recommendations of the MWTC can be challenged by the government but the government cannot legislate a minimum wage that has not been recommended by the MWTC.
- *Improve the enforcement of core labor standards (CLSs) and appropriate working conditions.* Lebanon would need to build capacity within the Ministry of Labor that would be used in monitoring and enforcing CLSs and working conditions (working hours, leave, health and safety). Clearly, no ministry can develop the capacity to investigate every employer – particularly when there are many small firms often in the informal sector. The ministry, however, can do two things. First, develop statistical systems to identify the regions, sectors, and employers most at risks of infringing regulations. Second, create arrangements to facilitate the emergence of NGOs that specialize in monitoring workers' rights and reporting violations and irregularities. To this end, the ministry will need to develop mechanisms for the efficient filing and handling of complaints.

Chapter 6 : Assessing the Employment Impacts of Macroeconomic and Social Protection Policies

6.1. Introduction

6. 1. This chapter analyses the potential macroeconomic and sectoral effects of implementing some of the policy recommendations discussed in the previous chapters both, individually and as a package. The focus is on the effects of these policies on employment levels by age and skill, the share of formal and informal jobs, international migration, and the fiscal balance. The analysis is based on a General Equilibrium Model developed for the Lebanese economy.

6. 2. It is important to emphasize that the main goal of the modeling exercise is not to make *predictions* about what would happen under the status-quo or alternative policy interventions. There are, indeed, many uncertainties surrounding any macroeconomic projections. The main goal is rather to provide policymakers with information about the trade-offs they would face when implementing a given policy, and an idea of the direction and order of magnitude of the potential changes in key aggregates.

6. 3. The Chapter is organized in four sections. The next section presents a general description of the model. The section that follows describes the steady state dynamics and discusses the results of various policy simulations including, reductions in the tax-wage by eliminating contributions to the health insurance branch and replacing them by income taxes; higher investments in infrastructure; and higher total factor productivity growth in key sectors resulting from improvement in the business environment. The final section summarizes the main messages from the analysis.

6.2. Brief description of the model

6. 4. The analysis is based on a multi-sector, sequential dynamic general equilibrium model.[90, 91] One of the key features of the model is its detailed description of the labor market taking into account informal and formal jobs across sectors and workers with different ages (youth and non-youth) and levels of education. The model also formalizes local and international migration flows. [92]

[90] Marouani and Robalino (forthcoming). Assessing the Impact of Macro and Social Insurance Policies on Labor Markets in Lebanon. SPDP working paper. The World Bank: Washington, DC.

[91] Social insurance, Education and Labor Markets. Marouani and Robalino (2012) "Assessing Interactions among education, social insurance and labor market policies in Morocco", *Applied Economics*, volume 44, Issue 24, pp. 3149-3167.

[92] Youth in the model is defined as those individuals with less than 35 years of age. The usual definition, 25 years or less, could not be used given the age structure of Choghig Kasparian's data for migration.

6.3. General structure of the model, closures and dynamics

6. 5. **The production function.** The economy is disaggregated into eight sectors. Within each sector, production factors are subdivided in four items, capital plus three labor categories: unskilled (primary and less, LSL), skilled (secondary, MSL) and highly skilled workers (tertiary education, HSL). Firms which hire formal workers contribute to the social security system (health insurance and EOSI scheme), while those hiring informal workers do not.

6. 6. **Labor supply.** The evolution of the total labor force by skill is driven by the population growth rate, by the current stocks of students in each cycle and by the performances of the education system at each level (pass, repetition and drop-out rates by cycle and transition rates from each cycle to the next one). Each participant decides if he/she migrates or enters the local labor market depending on relative wages. Once he/she decides to work in Lebanon, he/she will look for a job corresponding to his/her skill level, or to a lower skill depending on relative wages and employment opportunities. The next decision is about entering the informal or the formal sector depending on relative income levels and the availability of jobs in the formal sector (there is no unemployment in the informal sector).

6. 7. **Wage setting.** At the macro-economic level, formal wages by skill are set following a wage curve which allows a trade-off between wages and unemployment. This means that formal wages are not adjusted to "clear" the formal labor market. Sectoral wages are linked to the macro-economic wages by exogenous wage differentials which reflect different productivity levels.

6. 8. **The closures of the model.** The model has five closures: a macro closure, a government closure, an external balance closure, a labor market closure and a closure of the social security accounts. Concerning the macro closure, it is savings driven (households' marginal propensity to save is exogenous), which means that the level of investment is determined by the level of total available savings in the economy (including foreign savings). Hence, as savings increase, the stock of capital and output increase. The government closure chosen consists of fixing government expenditures as a constant share of GDP and tax rates and leaving the government budget balance endogenous. The social security account is modeled separate from the Government budget. It earns its income from employers' pay-roll taxes and pays benefits that are distributed to households. The social security balance is endogenous. The foreign balance closure consists of fixing the exchange rate and leaving the current account balance endogenous. The formal labor market closure consists of a joint determination of unemployment and average formal wages through the wage curve described above and no unemployment in the informal sector (wages clear the market).

6. 9. **The dynamics of the model.** Model dynamics are of the sequential type. Capital accumulation is sectoral. Each year, the stock of capital in each sector corresponds to last year's stock plus new investment, minus the depreciation of capital. Sectoral investment has been modeled as a function of the sectoral stocks of capital, sectoral rates of return to capital and capital acquisition costs. As already mentioned, the evolution of the active population by skill is modeled within the education block, which

relies on the actual performance rates of the education system in Lebanon (pass, repetition and drop-out rates by cycle and transition rates between cycles). Government and foreign debts increase (decrease) with the yearly level of the net deficit (surplus) of Government and foreign savings.

6. 10. **The data.** The Social Accounting Matrix was built based on an Input-Output table for 2007 provided by CAS and complementary data from the Central Bank and Ministry of Finance. GDP Growth rates projections are from the IMF and World Bank sources. Employment and wage data by category (sector, skill, age, formal/informal) for local workers have been provided by CAS and the Living Conditions Survey of 2007. The information on migration is from the Choghig Kasparian's study.[93] Data on education has been provided by the Ministry of Education and Higher Education (MEHE).

6.4. Steady state and policy simulations

6. 11. This section starts with a description of steady-state dynamics. It then discusses the impact of alternative policies on GDP growth, total investment in all sectors of the economy, total international migration, budget deficit, total unemployment and the share of informal labor by skills an age. The results presented in the tables are in comparison to the baseline or reference scenario. Five individual and two combined simulations are analyzed:[94]

- *Simulation (A):* Pay-roll tax to the health component of social security contributions is eliminated and financed instead by an increase in the household income tax.
- *Simulation (B):* Coverage is made universal and the Government pays the additional cost.
- *Simulation (C):* (B) + additional increase of the income tax to the make the impact on the budget neutral.
- *Simulation (D):* Increase in investment in infrastructure (energy, transport and telecommunication)
- *Simulation (E):* Increase in Total Factor Productivity due to the increased supply of infrastructure services and changes in the business environment
- *Simulation (F):* (D) + (E)
- *Simulation (G):* Integrated reform package (C + F)

6.4.1. The Steady-State

6. 12. The baseline scenario tries to replicate the path followed by the Lebanese economy from 2007 to 2011, and infer the path from 2012 to 2015, given a hypothesis for growth rates taken from the IMF and World Bank forecasts.

6. 13. Thus, GDP is expected to grow at 3.8 percent in 2012 converging to 4.4 percent in 2015. During the same period, the government deficit would increase from almost LBP8 billion to around LBP10 billion; total investment would increase from around LBP19 billion to LBP22 billion; and 2015, and total

[93] Kasparian C. (2009). *L'Emigration des jeunes Libanais et leurs projets d''avenir.* Presses de l''Universite Saint Joseph (USJ), Beirut, Lebanon.

[94] Other policies such as changes in the internal efficiency of the education system, an increase the share of skilled workers are a result of targeted training programs, or the effects of the minimum wage are not included in this version of the chapter.

employment would reach around 857,000 in 2015 (see Table **6.1**). The total unemployment rate would be reduced by 1.7 percentage points[95] while the share of informal labor stays constant at around 42 percent. International migration of Lebanese workers would continue to increase until 2014[96] when its level would stabilize.

6. 14. At a more disaggregated level, unemployment rates of youth would stay relatively high, especially for highly skilled and unskilled workers (9.5 and 8.4 percent respectively). Growth patterns in Lebanon under the status-quo would tend to favor medium skilled workers, two-third of which would be employed in commerce and service activities.[97]

Table 6.1: The reference scenario

	2012	2013	2014	2015
GDP Growth	3.8%	4.6%	4.5%	4.4%
Government deficit (Billions of LBP)	-7.655	-8.266	-8.925	-9.633
International migration	23,633	24,172	24,389	24,402
Total investment (Billions of LBP)	18.681	19.61	20.554	21.508
Formal labor demand	787,483	813,574	836,783	857,020
Total unemployment	5.5%	4.9%	4.3%	3.8%
Share of informal labor	42.3%	42.3%	42.3%	42.3%
Unemployment by age				
Low skilled				
Youth	9.7%	8.9%	8.0%	7.1%
Non youth	1.4%	1.4%	1.3%	1.3%
Medium skilled				
Youth	7.1%	5.8%	4.6%	3.5%
Non youth	2.7%	2.8%	2.8%	2.8%
Highly skilled				
Youth	11.5%	10.2%	8.8%	7.5%
Non youth	3.3%	3.4%	3.5%	3.4%

6.4.2. Simulation (A): Pay-roll tax to the health component of social security contributions is eliminated and financed instead by an increase in the household income tax.

6. 15. The results show that a removal of the health component of the pay-roll tax (9 percent of wages) and its replacement by an increase of the income tax to finance formal workers' health insurance can have a positive impact on formal labor demand (2.2 percent on average), due to a lower cost of labor (Table **6.2**). This would reduce, on average, the number of unemployed by around 14.3 percent, the share of informal labor by 3.1 percent and the flow of migrants by around 5 percent. To compensate for the lower pay-roll tax, additional fiscal resources would need to be mobilized, which are equivalent to 0.7 percent of households income, on average.

[95] With relatively stable real wages.
[96] We assume that there is no decrease of employment opportunities for Lebanese abroad.
[97] In the reference year, 2007.

6. 16. The main beneficiaries of this policy would be medium-skilled workers, particularly adults. But important reductions in unemployment would be observed among other groups as well. Low-skilled youth, for instance, would see the stock of the unemployed reduced by between 14 and 15 percent during the 2012-2015 period. Among high-skilled youth, the number of unemployed would be reduced by between 9 and 10 percent over the same period.

Table 6.2: Health pay-roll tax removed

	2012	2013	2014	2015
GDP Growth	0%	0%	0%	0%
Government deficit	0%	0%	0%	0%
Increase in tax burden	0.71%	0.72%	0.72%	0.73%
International migration	-5.5%	-5.2%	-4.9%	-4.8%
Total investment	0%	0%	0%	0%
Formal labor demand	2.4%	2.3%	2.1%	2.0%
Total unemployment	-14.3%	-14.3%	-14.3%	-14.2%
Share of informal labor	-3.2%	-3.1%	-3.1%	-3.1%
Unemployment by age				
Low skilled				
Youth	-13.7%	-14.2%	-14.7%	-15.3%
Non youth	-19.8%	-15.0%	-9.6%	-3.6%
Medium skilled				
Youth	-16.7%	-17.2%	-17.8%	-18.3%
Non youth	-21.0%	-20.7%	-20.5%	-20.3%
Highly skilled				
Youth	-9.6%	-9.7%	-9.8%	-10.0%
Non youth	-13.0%	-12.8%	-12.6%	-12.4%

6.4.3. Simulation (B): Coverage is made universal and the Government pays the additional cost.

6. 17. The second scenario simulates the impact of removing the health component of the pay-roll tax, making health coverage universal and financing the new expenditures (around 300 billion LBP) through the general budget, without increasing the income tax (Table **6.3**). The positive effect of the lower labor costs on formal labor demand would remain, but total investments would decrease by 1.6 percent, on average, due to a higher Government deficit (around 4 percentage points higher on average). This would have a slightly negative impact on the GDP growth rate which would be reduced by 0.1 percentage points on average and the reduction in international migration would be lower than in the previous scenario (the flow of migrants would be reduced by around 4.8 percent on average versus 4 percent in the previous scenario). As a result, the reduction in the number of unemployed workers would be marginally lower relative to the previous scenario (13.8 percent on average).

Table 6.3: Extra expenditures for universal health coverage financing through debt

	2012	2013	2014	2015
GDP Growth	-0.1%	-0.1%	-0.1%	-0.1%
Government deficit	3.7%	3.8%	3.9%	4.0%
Increase in tax burden	0%	0%	0%	0%
International migration	-5.4%	-5.0%	-4.6%	-4.3%
Total investment	-1.3%	-1.5%	-1.7%	-1.9%
Formal labor demand	2.4%	2.2%	2.1%	2.0%
Total unemployment	-14.1%	-14.1%	-13.9%	-13.4%
Share of informal labor	-3.2%	-3.2%	-3.1%	-3.1%
Unemployment by age				
Low skilled				
Youth	-13.3%	-13.7%	-14.0%	-14.3%
Non youth	-19.7%	-15.0%	-9.6%	-3.6%
Medium skilled				
Youth	-16.5%	-17.0%	-17.4%	-17.6%
Non youth	-20.7%	-20.3%	-19.9%	-19.3%
Highly skilled				
Youth	-9.7%	-9.7%	-9.6%	-9.5%
Non youth	-13.0%	-12.7%	-12.3%	-11.8%

6.4.4. Simulation (C): (B) + additional increase of the income tax to the make the impact on the budget neutral.

6. 18. Financing the deficit associated with universal health coverage through higher taxes would have positive effects on economic growth and employment relative to the previous scenario. The tax revenues to be mobilized would represent around 1.5 percent of household earnings on average (Table **6.4**). Clearly, it is difficult to assess the net welfare gains of the policy interventions at different level of income and for different population groups. The main policy message, however, is that substituting pay-roll taxes by general revenues can increase formal employment and economic growth.

6. 19. It is also important to point out that not all health expenditures need to be financed out of general revenues. As discussed in Chapter 5, individuals could be asked to contribute a health premium (that would be subsidized for low income workers). In this case, depending on the effect of the premium on the tax-wedge, gains on formal employment might be lower but there would also be a smaller fiscal burden.

Table 6.4: Income tax added to cover additional costs

	2012	2013	2014	2015
GDP Growth	0%	0%	0%	0%
Government deficit	0%	0%	0%	0%
Increase in tax burden	1.2%	1.1%	1.1%	1.1%
International migration	-5.5%	-5.2%	-4.9%	-4.8%
Total investment	0%	0%	0%	0%
Formal labor demand	2.4%	2.3%	2.1%	2.0%
Total unemployment	-14.3%	-14.3%	-14.3%	-14.2%
Share of informal labor	-3.2%	-3.1%	-3.1%	-3.1%
Unemployment by age				
Low skilled				
Youth	-13.7%	-14.2%	-14.7%	-15.3%
Non youth	-19.8%	-15.0%	-9.6%	-3.6%
Medium skilled				
Youth	-16.7%	-17.2%	-17.8%	-18.3%
Non youth	-21.0%	-20.7%	-20.5%	-20.3%
Highly skilled				
Youth	-9.6%	-9.7%	-9.8%	-10.0%
Non youth	-13.0%	-12.8%	-12.6%	-12.4%

6.4.5. Simulation (D): Increased investment in infrastructure (energy, transport and telecommunication)

6. 20. The objective of this scenario is to assess the impact of increasing investment in infrastructure (energy, transport and communication) to guarantee a higher potential growth rate in Lebanon (Table **6.5**). The simulation is implemented by introducing a subsidy for investments in these sectors equivalent to 30 percent of the investment cost. This would have a positive impact on total investment which would increase by around 7.3 percent per year, inducing a yearly increase in GDP growth, on average, of 0.3 percentage points.[98] As a result, there would be an increase in formal labor demand of 0.5 percent on average. The number of unemployed would be reduced by 4.6 percent and the number of migrants by 2.7 percent, on average. To finance additional investments, income taxes would need to increase by the equivalent of 1.5 percent of household earnings, on average.

6. 21. The main beneficiaries of this policy would be unemployed medium-skilled and unskilled workers. The number of unemployed youth with this level of skills would decline by 6.5 percent and 5.4 percent respectively, on average. Among adults, the reduction in the stock of unemployed would be 5.2 and 4.9 percent respectively, on average.

[98] On this topics see also World Bank (2012). *Using Lebanon's Large Capital Inflows to Foster Sustainable Long-Term Growth,* Report No. 65994-LB, PREM, MENA region.

Table 6.5: Impact of increasing investment in infrastructure

	2012	2013	2014	2015
GDP Growth	0.2%	0.3%	0.3%	0.4%
Increase in tax burden	1.8%	1.4%	1.4%	1.4%
International migration	-2.1%	-2.5%	-2.9%	-3.4%
Total investment	6.9%	6.8%	7.3%	8.2%
Formal labor demand	0.4%	0.4%	0.5%	0.6%
Total unemployment	-3.4%	-4.0%	-4.9%	-5.9%
Share of informal labor	0.1%	0.1%	0.1%	0.1%
Unemployment by age				
Low skilled				
Youth	-4.2%	-4.7%	-5.7%	-6.8%
Non youth	-4.3%	-4.3%	-5.4%	-5.4%
Medium skilled				
Youth	-4.7%	-5.9%	-7.1%	-8.4%
Non youth	-4.0%	-4.5%	-5.6%	-6.8%
Highly skilled				
Youth	-1.4%	-2.0%	-2.8%	-3.6%
Non youth	-2.1%	-2.7%	-3.6%	-4.5%

6.4.6. Simulation (E): An Improved Business Environment and Higher Total Factor Productivity

6. 22. The objective of this simulation is to assess the impact of higher total factor productivity (TFP) growth due to better infrastructure quality, higher efficiency in public investment spending and a better business environment. The assumption is that TFP would grow at 4 percent in the infrastructure and industrial sectors and 2 percent in agriculture and services.[99] The results suggest that the level of aggregate investments would rise by 3.6 percent in 2012 and 16.8 percent in 2015 as a result of higher savings (Table **6.6**). GDP growth could then increase by 2.3 percentage points on average. The positive effect on investment and the reduction of labor costs (due to the increase in productivity) would induce a significant increase in labor demand and a reduction in unemployment -- (the stock of unemployed would be reduced by 14 percent on average).

6. 23. The main beneficiaries of these policies would be medium-skilled workers (unemployment would be reduced by 20 percent among non-youth and 17 percent among youth, on average), low-skilled youth (14.8 percent reduction in unemployment on average) and highly-skilled non-youth (13 percent reduction on average). The increase of formal labor demand would reduce migration incentives (by 9 percent on average) and the share of informal labor (-0.4 percentage point on average).

[99] These figures are hypotheses discussed with the Ministry of Labor. We are obliged to rely on hypotheses because we do not have econometric studies which could provide us with figures based on empirical evidence.

Table 6.6: Impact of an increase in total factor productivity

	2012	2013	2014	2015
GDP Growth	2.0%	2.2%	2.5%	2.7%
Increase in tax burden	0.0%	0.0%	0.0%	0.0%
International migration	-3.8%	-7.4%	-11.0%	-14.9%
Total investment	3.6%	7.5%	11.9%	16.8%
Formal labor demand	0.7%	1.3%	1.8%	2.3%
Total unemployment	-5.6%	-11.3%	-16.8%	-22.6%
Share of informal labor	-0.2%	-0.4%	-0.4%	-0.5%
Unemployment by age				
Low skilled				
Youth	-5.5%	-11.3%	-17.6%	-24.6%
Non youth	-8.7%	-15.9%	-10.9%	-5.4%
Medium skilled				
Youth	-6.3%	-13.0%	-20.2%	-27.7%
Non youth	-8.4%	-16.4%	-24.0%	-31.5%
Highly skilled				
Youth	-3.7%	-7.5%	-11.8%	-16.7%
Non youth	-5.3%	-10.4%	-15.6%	-21.0%

6.4.7. Simulation (F): Better infrastructure (D) and higher productivity (E)

6. 24. This scenario cumulates the positive effects of increasing investment in infrastructure and improving productivity. Not surprisingly, effects on investment, growth, and employment would be higher. Investment could increase by 10.5 percent today up to 25 percent in year 2015. The number of unemployed workers could be reduced by 27 percent and international migration by almost 17 percent in 2015. Because of productivity gains and higher earnings the level of the tax burden necessary to finance investments in infrastructure would be somewhat small over the medium term, relative to the case without gains in total factor productivity (Scenario D).

Table 6.7: Impact of improving infrastructure and increasing productivity (D+E)

	2012	2013	2014	2015
GDP Growth	2.1%	2.3%	2.6%	2.9%
Increase in tax burden	1.8%	1.4%	1.3%	1.3%
International migration	-5.5%	-9.1%	-12.9%	-16.8%
Total investment	10.4%	14.3%	19.3%	25.2%
Formal labor demand	1.1%	1.7%	2.2%	2.7%
Total unemployment	-8.9%	-15.0%	-20.9%	-27.0%
Share of informal labor	-0.2%	-0.3%	-0.4%	-0.4%
Unemployment by age				
Low skilled				
Youth	-9.7%	-15.9%	-23.0%	-30.5%
Non youth	-13.0%	-15.9%	-10.9%	-5.4%
Medium skilled				
Youth	-11.1%	-18.8%	-26.7%	-34.7%
Non youth	-12.5%	-20.8%	-29.1%	-37.0%
Highly skilled				
Youth	-4.9%	-9.2%	-14.0%	-19.2%
Non youth	-7.2%	-12.7%	-18.3%	-24.1%

6.4.8. Simulation (G): Integrated reform package

6. 25. The last scenario combines all policies discussed above. Qualitatively, the results are the same relative to the previous scenario, but gains in terms of employment are much larger (Table **6.8**). The impacts on economic growth would not be much larger than when only investments in infrastructure and productivity gains are taken into account. The reduction in total unemployment, however, would be much more important: close to 22 percent today up to 37 percent in year 2015. Effects on migration would also be larger without outflows declining by 21 percent over the medium term. Clearly, to avoid an increase in the fiscal deficit resulting from higher health expenditures and investments in infrastructure, the total tax burden would need to increase by 2.5 percent, on average, of household's income.

6. 26. The main beneficiaries of the reform package would be medium-skilled workers (39 percent average reduction in unemployment) and skilled-workers (24 percent average reduction in unemployment). Youth would also benefit more than adult workers.

Table 6.8: Health reform (C) + infrastructure and productivity (F)

	2012	2013	2014	2015
GDP Growth	2.1%	2.3%	2.6%	2.9%
Increase in tax burden	2.9%	2.5%	2.4%	2.3%
International migration	-10.7%	-13.9%	-17.3%	-20.9%
Total investment	10.4%	14.2%	19.2%	25.0%
Formal labor demand	3.3%	3.7%	4.1%	4.4%
Total unemployment	-21.7%	-26.9%	-32.1%	-37.4%
Share of informal labor	-3.3%	-3.4%	-3.4%	-3.4%
Unemployment by age				
Low skilled				
Youth	-22.7%	-28.7%	-35.4%	-42.3%
Non youth	-20.3%	-15.9%	-10.9%	-5.4%
Medium skilled				
Youth	-26.4%	-33.5%	-40.5%	-47.3%
Non youth	-31.2%	-37.7%	-44.2%	-50.4%
Highly skilled				
Youth	-14.3%	-18.3%	-22.8%	-27.7%
Non youth	-19.4%	-24.1%	-28.9%	-33.9%

6.5. Conclusion

6. 27. This chapter presented a general equilibrium model of the Lebanese economy that can be used to understand the impact of alternative policies on formal and informal labor markets. The model was used to understand the potential effects of reductions in the tax-wedge, investments in infrastructure, and improvements in the efficiency of public investment and the business environment.

6. 28. The results suggest that each of these interventions alone can have an important effect on formal employment and would contribute to reduce the number of unemployed among both young and adult workers across levels of education, and well as the number of migrants. In summary:

- *If the Pay-roll tax to finance the health component of the social security is eliminated and replaced instead by an increase in income taxes,* total unemployment would be reduced by 14.3 percent (on average for the period 2012-2015) relative to the baseline, the share of informal labor by 3.1 percentage points, and the flow of migrants by 5.1 percent.
- *If, in addition, coverage is made universal and the additional cost are financed through public debt,* total unemployment would be reduced by 13.9 percent, the share of informal labor by 3.2 percentage points, and the flow of migrants by 4.8 percent, on average.
- *If there is an increase of the income tax to finance the expansion of coverage*, the impact would be the same as in the case with no coverage expansion. Thus, coverage could be expanded without reducing employment levels or promoting informality, on average.
- *If the government increases investment in infrastructure (energy, transport and telecommunication),* total unemployment would be reduced by 4.6 percent, but the share of

informal labor would increase by 0.1 percentage point. The flow of migrants would be reduced by only 2.7 percent, on average.

- *If, as a result of investments in infrastructure and a better business environment, Total Factor Productivity increases,* total unemployment would be reduced by 14.1 percent, the share of informal labor by 0.4 percentage points, and the flow of migrants by 9.3 percent, on average.
- *With an integrated reform package aggregate impacts would be larger than the sum of individual interventions,* total unemployment would be reduced by 29.5 percent, the share of informal labor by 3.4 percentage points, and the flow of migrants by 15.7 percent, on average. The total tax burden would need to increase by 2.5 percent of household's income.

Appendix: Lebanon Employer – Employee Survey

As part of the MILES Technical Cooperation Program (TCP), the Human Development Group in the MENA region (MNSHD) conducted a survey on informal and formal workers in Lebanon with the main aim of analyzing the dynamics of the labor market in the country, and more specifically to provide an integrated description of the supply and demand side of the labor market. The resulting dataset allows the analysis of the demographic and socioeconomic characteristics of informal and formal workers and their employers.

The Employer - Employee Survey (EES) is used to better understand:

- Individual and structural factors that affect informality in Lebanon
- Transitions between employment, unemployment and inactivity
- Labor productivity and earnings in both the formal and informal sector
- Job creation and destruction rates
- Demand for different types of technical and non-technical skills
- The main constraints in the process of hiring and dismissing workers
- The relationship between employment offices and training institutions
- The skills composition (technical, cognitive and non-cognitive skills) of workers in Lebanon.

The survey is composed of three questionnaires:

1. A household questionnaire with general information on the household (size, relation to the head of the household, gender, age, work status, sector of activity)
2. An Employee questionnaire with the following modules: (1) general information, (2) family background, (3) current employment; (4) self-employed (does not have any permanent employees); (5) first time job seekers; (6) skills; (7) personality/non-cognitive and cognitive skills tests; (8) employment history; (9) gender module; and (10) migration.
3. An Employer questionnaire with the following modules: (1) firm characteristics; (2) manager characteristics; (3) workforce characteristics; (4) skill requirements and training; (5) recruitment; and (6) social security.

One of the innovative aspects of the survey is the implementation of cognitive and non-cognitive tests. To measure cognitive skills, the survey applied the “Raven’s Progressive Matrices” test which is a non-verbal test that is intended to measure abstract reasoning[100]. The Raven test consists in a series of 12 patterns (called matrices), each with a missing element. For each matrix, respondents select the missing element from a group of eight possible choices. The patterns progressively increase in difficulty, and the interviewees need to solve as many as they can in five minutes. As for non-cognitive skills, the survey uses a short version of the "Big Five Inventory" to measure personality and behavior (non-cognitive skills). This inventory is the most widely accepted framework of personality traits in the psychology literature[101]. Respondents are presented with a series of 15 statements regarding their qualities and

[100] See Raven et al. 1983
[101] See Borghans et al. 2008

have to indicate how strongly the statement applies to them, on a scale of 0 to 7. These 15 qualities correspond to five personality dimensions: openness to experience (intellectual curiosity, creativity, new cultural experiences), conscientiousness (achievement oriented, hardworking, disciplined, organized), extraversion (sociable, talkative, assertive), agreeableness (cooperative, helpful), and neuroticism or emotional stability (impulse control, anxiety, aggressiveness).

A brief description of the sampling methodology applied and the field work is provided in the following sections, starting with the Employee survey, which represents the first phase of the EES, and then the Employer survey, which constitutes the second phase.

1. The Employee Survey

Two of the three previously mentioned questionnaires were developed for this initial phase: (i) the household questionnaire, and (ii) the Employee questionnaire. As mentioned previously, the household questionnaire provides general information about the household members (household size, relation to the head of the household, age, gender, work status, etc.). The Employee survey targeted employees, self-employed and unemployed individuals and only one individual in each household was selected to complete this questionnaire.

1.1. Methodology

Due to the lack of a standard sampling base in Lebanon, the firm implementing the survey, the Consultation and Research Institute (CRI), suggested a sampling approach that took into account these limitations specific to the Lebanese context (no sampling base, no addresses, etc.). The sections below provide a detailed explanation of the adopted sampling methodology which preserved the representativity of the selected sample[102].

1.1.1. Sample Size

The statistical unit is the active member in the household (employee in the private formal and informal sector, self-employed, unemployed, first time job seeker). A sample size of 2,000 households was agreed to guarantee representativeness.

1.1.2. Distribution of Questionnaires

The distribution of questionnaires across the country was first determined based on the distribution of households by Mohafaza (governorate) in the 2004 Household Budget Survey by the Central Administration of Statistics (CAS) (see Table 1 below).

[102] The methodology outlined is based on the following report Consultation and Research Institute (CRI). (2011). Employee Survey: Descriptive Statistical Results. Beirut, Lebanon.

Table 1: Distribution of questionnaires across governorates

Governorate	HH distribution	Sample
Beirut	12%	231
Mount Lebanon	42%	844
North	18%	369
Bekaa	12%	234
South	10%	203
Nabatiyeh	6%	119
Total Lebanon	**100%**	**2,000**

Source: CRI (2011). Employee Survey: Descriptive Statistical Results

In each Mohafaza, the households were subsequently distributed by Caza based on CAS's 1997 survey. Then, the households were distributed within the Cazas according to the smallest geographical unit -- the Circonscription Foncière (CF). A list of all CFs within each Caza was generated with its corresponding weight based of number of residents. As a result, Lebanon was divided into 1,643 CFs, out of which 193 were not populated and, thus, excluded from the sample.

At the level of the CF, the following two steps were taken to select those that will be part of the sample:

- First, the most densely populated CFs were selected and the questionnaires were distributed according to the population density weight of each CF in the Caza
- The other CFs, where the remaining questionnaires were to be conducted, were selected at random and constitute the peripheral/rural areas. The random selection of these CFs took into account that no less than 3 or 4 questionnaires were conducted in each one to optimize transportation costs.

At the village level, the surveyor methodologically selected the households to conduct the interview. An example of the methodology followed is the following: if the surveyor has a target of 4 questionnaires to be filled in the village, he would fill one questionnaire at the entrance of the village, one at the end of the village and two in the center, and in different neighborhoods.

Table 2 below presents the initial distribution of the questionnaires at the level of the Caza as well as the small changes that occurred due to limitations on the field. Overall, 1,998 household questionnaires were filled.

Table 2: Distribution of questionnaires by Caza

Mohafaza	Caza	Q-sample Prior to field work	Q- sample after field work	Difference
Beirut	Beirut	231	229	-1
Beirut Total		***231***	***229***	***-2***
Bekaa	Baalbek	99	88	-11
	Hermel	16	27	+11
	Rachiaya	14	13	-1
	West Bekaa	28	32	+4
	Zahle	77	73	-4
Bekaa Total		***234***	***233***	***-1***
Mount Lebanon	Aley	92	91	-1
	Baabda	291	294	+3
	Chouf	86	86	0
	Metn	240	240	0
	Jbeil	45	45	0
	Kesrwan	90	92	+2
Mount Lebanon Total		***844***	***848***	***+4***
Nabatiye	Bint Jubail	29	25	-4
	Hasbaiya	13	13	0
	Marjaeyoun	23	23	0
	Nabatiye	54	54	0
Nabatiye Total		*119*	*115*	*-4*
North	Akkar	116	116	0
	Batroun	21	21	0
	Bcharre	10	10	0
	Koura	22	22	0
	Minieh-Danieh	54	54	0
	Tripoli	121	121	0
	Zgharta	25	25	0
North Total		*369*	*369*	*0*
South	Jezzine	9	9	0
	Saida	108	108	0
	Sour	87	87	0
South Total		204	204	0
Grand Total		**2,001**	**1998**	**-2**

Source: CRI (2011). Employee Survey: Descriptive Statistical Results

1.1.3. Selection Criteria

Upon completion of the household questionnaire, the surveyors selected one individual from the household with whom to conduct the Employee questionnaire. However, the individual had to respond to the following criteria in order to be eligible:

- The individual had to be either an employee in the private sector, a self-employed individual, an unemployed individual or a first time job seeker
- Employers or employees in the public sector were not selected
- If more than one eligible individual resided in the household, the individual with the closest birthday was selected

The individuals who completed the Employee questionnaire were asked to provide the location of their employment (name, address). This information was required for the second phase of the survey: the Employer questionnaire (see below).

1.1.4. Field Work

As previously mentioned, two questionnaires were developed for this phase: (i) a household questionnaire, and (ii) an Employee questionnaire. CRI also developed a user guide for the surveyors to rely on during the field work.

The questionnaires were based on a version initially provided by the World Bank which CRI had to revise and adapt to the Lebanese context. To this end, CRI relied on two similar questionnaires used by the World Bank in Syria and Egypt as well as a series of questionnaires prepared by CRI for various studies.

Once the questionnaires were finalized, training sessions for the surveyors were undertaken by CRI. Subsequently, a number of surveyors tested the questionnaire before the field work began. In total, around 40 questionnaires were filled during this phase which allowed CRI to amend certain questions which were found to be unclear or confusing.

The field work was implemented between September 25, 2010 and October 31, 2010 by 35 surveyors and 5 supervisors across Lebanon.

Overall, 1,998 households questionnaires were completed -- with a total for 8,449 members -- and 1,841 individuals were selected to conduct the Employee questionnaire.

2. The Employer Survey

The Employer survey constitutes the second phase and followed the completion of the Employee survey.

2.1. Sample

The employers or firms selected for this survey were based on the results of the Employee survey. In fact, as explained above, individuals who completed the Employee questionnaire were requested to provide information about where they worked. CRI then sorted this information and was able to extract the location of 764 employers and firms. However, after the data cleaning process, it was noted that several addresses were incomplete or repeated. As a result, 592 enterprises were to be visited on the field[103].

[103] The methodology outlined is based on the following report Consultation and Research Institute (CRI). (2011). Employer Survey: Technical Note and Methodology. Beirut, Lebanon.

2.2. Technical Tool Development

While the addresses were being gathered, CRI in coordination with the World Bank developed the Employer questionnaire based on an initial questionnaire provided by the World Bank. CRI also developed a user guide. Training sessions were also undertaken with the surveyors.

2.3. Field Work

The field work began on the February 1, 2011 and ended on April 21, 2011, following which a process of data coding, entry and cleaning occurred.

In total, after the field work was completed, 266 questionnaires were entered.

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