Higher Education & Labor Market Outcomes in Lebanon











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UNDP is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. We are on the ground in 166 countries, working with them on their own solutions to global and national development challenges. As they develop local capacity, they draw on the people of UNDP and our wide range of partners."

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Foreword

The changing nature of the world due to globalization and technological development, greatly affects the quality of local social, economic and environmental conditions under which we live.

The situation becomes more critical with the emergence of the knowledge-based economy. With the drastic transition from the industrial age to the information age and then to the knowledge age, complexity is steadily increasing. There is also considerable evidence to show that certain knowledge-based technologies are transforming the development process all over the world.

The Hariri Foundation for Sustainable Human Development's stated motto: "Investing in People, Investing in Lebanon's future" has guided our efforts for 30 years to achieve education for all and social justice and to ensure equal opportunities. In the industrial and information age, we were successful in facilitating educational opportunities to thousands of Lebanese students around the world through our grants programs. Now, in this age of knowledge economy the foundation adapted to the change by re-focusing its efforts to working on development programs. At its base, our programs work on building capacity and providing opportunities to reflect upon the values and principles that guide our actions; how they affect practices, lifestyle choices, and the social, economic and environmental impacts. Such programs would provide opportunities to develop knowledge, skills, and values appropriate to help create a fairer and less troubled world for all.

Similarly, sustainability has always been a concern for the foundation. This requires a conscious commitment to the future, and not only the present, and challenges us to focus our development responsibilities to equip the next generation with skills needed to bring about sustainable growth. Thus, our strategy expanded to include not just education, but also building capacity for the next generation and to provide them with labor market opportunities. This is becoming more and more urgent need in our cities as they pass through difficult times and face massive economic, social and political challenges.

The importance of including the city in the development programs resides in the fact that, being the most densely populated area, it is the place that embraces the highest levels of social and economic injustice, crimes, abuse, social gaps and disparities, illiteracy, unemployment, and all sorts of setbacks that are combated by the development programs. This urges us to review the whole strategy of the development process and to put urban development as its cornerstone.

The core element of revitalizing the city is the restoration of human potential; this brings considerable economic, social, cultural and human benefits to the country as a whole in terms of the development of new, dynamic and strong sectors of the economy as a whole.

The Hariri Foundation for Sustainable Human Development has set a preliminary development program to revitalize the city, identify and tackle its various problems and needs. Based on the millennium development goals and concepts of sustainable human development, we've put urban development at the centre of our national work. Under the Lebanon Recovery Fund, the foundation partnered with the United Nations Development Program (UNDP), to promote social

equity and local stakeholders' empowerment through local employment recovery and livelihood opportunities projects in Beirut and its suburbs. In order to better approach the challenges the city is facing, notably unemployment, we found that we needed first to grasp the current status of our human capacities and their link to the labor market. This will give us insight and a base to build our policies as to how to provide stability to the social fabric that constitutes the city's wealth and is considered the main contributor to the national economic growth. As such, the Hariri Foundation for Sustainable Human Development teamed up with the American University of Beirut to conduct this special study. Its main task is to tackle the graduate employment issue by studying the linkage between higher education and employment and try to identify the existing occupational mismatch. The findings of the study will help in designing a comprehensive development program aimed at proposing a series of policies to be adopted by the relevant institutions in order to mitigate the skills

shortage/mismatch. The emanating recommendations are key propositions for the Lebanese regions to regain their role in the development and production process, and thus bring back to Lebanon its prosperity, stability and productive human potential.

We thus invite all the civil society's organizations along with the government and the private sector to give special attention towards the future of our youth and to deeply invest in their capacities and creativities within their own country Lebanon.

Bahia Hariri

President

Hariri Foundation for Sustainable Human Development

About This Report

Under the Lebanon Recovery Fund, established at the request of the Lebanese government in the aftermath of the July 2006 war, the Hariri Foundation for Sustainable Human Development (HFSHD) partnered with the United Nations Development Program (UNDP), to implement a project on "Youth Mobilization and Development in Beirut and its Suburbs". The aim of the project is to promote social equity and local stakeholders' empowerment through local employment recovery and livelihood opportunities subprojects/activities in Beirut and its suburbs. In order to better approach the challenges the city is facing, notably unemployment, the HFSHD collaborated with the American University of Beirut (AUB) to conduct a study to grasp the current status of the lebanese human capacity and their link to the labor market.

The American University of Beirut (AUB) thus surveyed university graduates from the four major universities in Lebanon, namely the Lebanese University (LU), American University of Beirut (AUB), Université Saint-Joseph de Beyrouth (USJ) and Beirut Arab University (BAU). The survey is based on Alumni from 1995 to 2005. A web-based survey was conducted in the beginning of 2009 whereby alumni were emailed the link and filled the survey online. The survey gathered 430 responses. AUB had the highest rate of responses, 70% (297) due to its organized and developed database and its ability to access its graduates by email. However this did not affect the representativeness of the findings, as the survey results compare well with previous national surveys.

Acknowledgments

The report team would like to thank the alumni associations of the participating universities (Lebanese University, American University of Beirut, Université Saint-Joseph de Beyrouth and Beirut Arab University), as they helped in reviewing the survey questionnaire and facilitating access to graduates databases. The team would also like to thank public officials at the Ministry of Education and Higher Education for providing access to various reports on education in Lebanon. The contributions of the various researchers, research assistants and IT specialists are also acknowledged. Last but not least, the team would like to thank all the graduates who took the time to complete the survey, as without them this report would not have been possible.

Executive Summary

This report begins by giving a run down of the current socio-economic situation in Lebanon. It highlights the Lebanese economy and society's major problems such as the growing public debt and its effect on investments and growth, unemployment, youth emigration, and its education system. It also touches on some obstacles to growth, such as the outdated labor laws and nepotism in both the public and private sector. In addition, the July 2006 war and the global financial meltdown towards the end of 2008 are mentioned with their direct and indirect effects on the Lebanese economy and society. The introduction also discusses the transition phase of the youth from university to the job market.

This report has garnered data on a pool of graduates with the aim of understanding where they work, how long it took them to find their first job and how related they felt their university program was to their current job. 54% of surveyed individuals were females and 94% were Lebanese. 42% were married, and the average age in the collected sample was 29.6 with a standard deviation of 4.8 years.

Alumni responses differed according to gender. 67.5% of the surveyed males live and work abroad, while the percentage of women, 45%, working abroad has increased by almost threefold in the past seven years. Women continue to dominate traditionally female programs such as education, nursing and social work. More than half of the surveyed graduates had their university tuition covered by their parents.

In the coming two years, 64% of the youth workforce is going to be holding a postgraduate degree. This high rate of highly skilled graduates puts further pressure on the Lebanese job market. It will put additional strain on already high unemployment numbers in sectors such as services, 25%, agriculture, 20%, and education, 17%. Moreover, it could make graduates in certain fields such as business and engineering wait longer to get jobs. The average unemployment rate of the graduates surveyed is 6%, which is three points below the national average of 9.2%. All the surveyed graduates in all their fields of study found jobs within a year of graduating. Graduates working in education are the quickest to find work, but are the lowest paid amongst the rest of the majors. Engineers are the highest paid graduates. The majority of emigrants, 50%, chose to work in the Arab countries and the majority of responses as to why they chose to leave Lebanon centered on better career opportunities and working environment. The survey also revealed that Lebanon is losing its human capital. Engineers, doctors and business majors are mostly seeking work abroad. The graduates who are remaining in Lebanon are not satisfied, while the graduates abroad think of coming back.

After giving an overview of the social economic situation in Lebanon and conducting a survey on university graduates from 1995-2005 and analyzing its results, the last section addresses a number of policy recommendations that aim to shed light on concrete steps that can help kick start real economic growth and reform in Lebanon with the hope of attracting its skilled emigrant labor force.

Recommendations include an overview of the necessary macroeconomic reforms needed to generate real and sustainable growth in Lebanon, which in turn would lead to more local job creation helping to curb the Brain Drain. In a more shorter term, policy recommendations include measures like establishing career guidance offices in public and private universities and vocational schools; encourage companies to adopt more internships and training opportunities for students and graduates; establish a mentorship program between former graduates and students; alleviating unemployment through providing a training program for youth which corresponds to public and private market needs; and assisting young people to become entrepreneurs capable of creating and sustaining profitable small enterprises which will further create employment. It is also very important to support a permanent national human resources study team, aiming at studying the matching process between the supply of degrees and the demand of labor, highlighting areas of potential jobs growth.

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I. Introduction

Lebanon is currently witnessing its highest proportion of youth, and this is not going to last for a long time. Reaping the benefits of this challenging demographic 'window of opportunity' requires recognition of the various challenges facing the integration of young women and men into the natural functioning of society. Lebanon's youth live in adverse political and security environments, and are often victims to extremism as they are excluded from the political process. Moreover, education is generating low returns on educational investments when compared with domestic work opportunities. As petrodollars surge in the region, young skilled Lebanese males were more likely to emigrate than ever, and this trend is still observed today (Chaaban, 2008).

These facts are deeply affecting the way families are being formed in Lebanon, with marriage being delayed and fertility declining sharply, increasing the likelihood that the 'window of opportunity' might close earlier than expected. Unless serious measures are undertaken to place youth back at the core of the development debate in Lebanon, the country might see its essential human capital erode significantly in the decade to come.

Over the past decade, several studies have been conducted trying to establish a relationship between higher education and the labor market. In Lebanon, the most noteworthy attempt was Kasparian's (Kasparian, C. (2003), L'entrée des jeunes libanais dans la vie active et l'émigration, St-Joseph University, Beirut) study on Lebanese youth entering the job market. Statistics reveal that educated young Lebanese face certain difficulties finding jobs. Unemployment and emigration rates are especially high amongst the educated Lebanese youth (22-29 years old) due to several reasons (Berthelmy-Nahas, 2007). This paper will discuss the reasons behind youth unemployment by examining the emigration reality, the education system, and the lack of direct investment and growth in the Lebanese economy. Finally, it will attempt to study the demand-side of the problem by understanding whether the Lebanese economy is not generating enough jobs to absorb the educated youth or whether the educated youth are not suited for the job market.

The main task of this paper is to address the different factors that affect graduate employment and hence produce a comprehensive and policy-oriented study that identifies key areas between existing occupational mismatches. The project also aims at analyzing the relationship between higher education and the labor market in Lebanon. It will address the role recent changes play in graduate employment. Finally, it will also focus on how social and educational background, structural and curricular diversity of higher education, study behavior and finally experiences in the transition process from school to employment have impacted the early career of fresh graduates.

This study will begin by presenting a general overview of the economic situation in Lebanon. It will discuss Lebanon's ailing public debt burden and unemployment. It will also discuss Lebanon's severely challenged education sector, growth and its obstacles and emigration. These elements will tie into how they are possibly pushing Lebanon's youth into emigration and unemployment. These factors provide a partial explanation to the state of youth alienation in Lebanon. Thereon, this study will highlight the characteristics of the job market and how the employed youth perceive their jobs. After focusing on these elements in the Lebanese job market, the study will present the findings of a survey from the top four Lebanese universities. The survey attempts to provide an explanatory answer to the main causes of youth unemployment and skilled emigrants' attitudes towards their homeland ..

Overview of Lebanon's Economic Situation

Lebanon has often been portrayed as an economy that holds a tremendous amount of potential. Yet, in the past sixteen years after the civil war (since 1992), its public debt has skyrocketed, and the country failed to take any measures that could spur hope of achieving sustainable medium and long term growth.

Box 1. Lebanon's Debt

In the second quarter of 2009, Lebanon's gross public debt stood at US\$47.35 billion (up from US\$15.6 billion in 1997), or approximately 165 percent of GDP, one of the highest ratio in the world. In 2005 the debt service stood at 10.6 percent of GDP, down from 16-17 percent in the period 2000-2003, thanks to the major debt restructuring efforts undertaken in 2003 following the Paris II donors' conference. The vast majority of the debt is held by private investors – by Lebanese commercial banks in particular – which are highly exposed on the sovereign risk (more than half of their assets are in public bonds or at the Central Bank). Half of the debt is denominated in foreign currencies, mostly in U.S. Dollars. Debt denominated in local currency has an average maturity of 1.6 years, against 5.6 years for debt denominated in foreign currency. Yet maturities are not evenly distributed, with 75 percent of the current debt that matured over the period 2006-2009, including 50 percent over its first two years.

Sustainability analysis suggests that the primary surplus, at less than 2 percent of GDP in 2005, would need to increase rapidly to 6-7 percent to stabilize the debt to GDP ratio. In the absence of fiscal and structural reform measures, World Bank projections suggest that the debt to GDP ratio would start to rise again, placing Lebanon in a situation of greater vulnerability with dampened growth. In contrast, measures that would result in a significant rise in the primary surplus, coupled with the privatization of some public assets, would lower the debt to GDP ratio. The magnitude of the decline in the debt to GDP ratio would then depend to a large extent on donors and banks' debt restructuring contributions, as well as on the supply response to improved macro-economic conditions. A very optimistic scenario would foresee the debt to GDP ratio going down to 110-120 percent by 2010; a less optimistic one to 140-150 percent (Berthelemy - Nahas, 2007).

The literature on Lebanon's prospects for growth is abundant and leads to common conclusions. International evidence suggests that high public debt levels, along with high and increasing government borrowing requirements, entail very high interest rates and leads to inflation. These high rates are known to crowd out private investments and, in turn, capital accumulation and productivity growth. These high interest rates also discourage long term investments in the face of high macro-economic risks and higher taxes and depreciation of assets.

Fiscal imbalances and barriers to entry are the most binding on long-term growth. Macroeconomic imbalances and related perceived risks affect the nature of investment decisions in Lebanon. Investors prefer liquid instruments such as treasury bonds to longer-term productive investments. Furthermore, barriers to entry discourage agents from investing in a number of fields. These barriers to entry include legal impediments to competition, corruption, and a set of fiscal incentives favoring the allocation of resources to non-tradable sectors (Berthelemy 2007).

Analysts concur that Lebanon's economy underperforms as a result of the lack of initiative in introducing modern reforms. Some reforms include measures the government could take to attract diversified investments and overhaul state-owned utility services making them more efficient, reliable and less costly. Other initiatives include modernizing labor and trade laws, protecting investors, labor and intellectual property rights. GDP growth is already too slow to provide enough opportunities for the youth. Slow growth is also not enough to reverse public debt dynamics. Since 2001, Lebanon should have been benefitting from a favorable external environment, which included factors such as the rising oil prices, the influx of deposits into Lebanese banks after September 11, 2001 and the high salaries in Gulf oil-producing nations that enabled Lebanese emigrants to transfer remittances that reached approximately 20% of GDP. However, Lebanon was not investing enough to protect its economy against a turnaround in the business cycle, inflation pressures, or confidence shocks. Today, the supply side constraints, which were limiting growth, are still in place. Furthermore, there is an absence of a will to lift these constraints. Any hope of realizing long-term growth potential depends on lifting these constraints

in any economic reconstruction strategy (Berthelemy 2007). Meaning that, Lebanon must seek to implement a strategy that creates an economic buffer zone that absorbs the negative effects of regional economic downfalls.

In Lebanon, risks of investment losses - be it of macro or micro economic nature - discourage productive investments. The lack of investment opportunities and competition magnify the impact of foreign capital inflows on the real exchange rate. In turn, this impact reduces Lebanon's external competitiveness and potential external outlets. Lebanon also suffers from lack of productive investments due to the high start-up and shut-down costs of a business. For instance, the cost of starting a business in Lebanon is 87% of national income per capita. In contrast, the average cost of starting up a business in an OECD country is 4.9% of the national income per capita. The closing costs in Lebanon are 22% of the investment compared to 8% in OECD countries (Doingbusiness.org, 2009). The enforcement of contracts is lax and the lack of a competition law in domestic markets also hinders investment. Analysts such as Barthelemy argue that for Lebanon to achieve long term growth, it should privatize state-owned enterprises such as EDL, accompanied by liberalization of the markets in which these enterprises operate and in combating corruption (Berthelemy 2007). The Paris III Donor Conference also sets privatization of state-owned and state-run institutions such as the Telecommunications sector and EdL as a condition for the Donors to restructure Lebanon's debt. However, for privatization to successfully relieve Lebanon of its debt burden, it needs to be accompanied by a national economic policy that attracts investments and gears Lebanon towards becoming an industrial and agricultural nation on some level.

Unemployment

Unemployment rates in Lebanon are not very reflective due to the high rate of emigration and influx of foreign workers. Regardless, the most recent unemployment rate¹ for all of Lebanon is estimated at 9.2% for both sexes. This figure includes both the educated and unskilled laborers.

¹ The unemployment rate is equal to the percentage of the total unemployed compared to the total active population (labor force) (Living Conditions of Households, 2007).

Table 1: Unemployment rate by educational attainment & sex for the age group 15 & aboveSource: Living Conditions of Households 2007

Age Group	Females	Males	Females & Males
15-19	26.3	27.2	27
20-24	17.3	17.3	17.3
25-29	10.7	7.8	8.7
30-34	7.2	5.1	5.6
35-39	5.4	3.9	4.2
40-44	6.6	3.5	4.2
45-49	4.7	2.7	3.1
50-54	1.3	3.6	3.2
55-59	1.7	2.5	2.4
60-64	1.9	4.4	4.1
65-69	0	6.5	6
70 and above	0	3.8	3.6
Unemployment rate (15 years and above)	9.5	7.3	7.9
Unemployment rate (15-64 years)	9.6	7.4	8

In Table I, it is important to note that the unemployment rate for the age group 20-24 is double the national average. This age group includes fresh graduates, who are the most prone to emigrate. This study will attempt to convey the reasons why this age group is more liable to emigrate than others. From age 25 through 40, unemployment among females is much higher. This could be attributed to family conditions where traditional families place married women at home. In addition, employers discriminate against hiring women in their thirties. Additionally however, critics of the methods of measuring unemployment believe that current methods are inaccurate in terms of the impact of unemployment on people as these methods do not take into account the available working population incarcerated in prisons (who may or may not be working while incarcerated), those who have lost their jobs and have become discouraged over time from actively looking for work, and those who are self-employed or wish to become selfemployed, such as tradesmen or building contractors or IT consultants. These people are "involuntary part-time" workers, those who are underemployed, e.g., a computer programmer who is working in a retail store until he can find a permanent job, involuntary stay-at-home mothers who would prefer to work, and graduate and professional school students who were unable to find worthwhile jobs after they graduated with their Bachelor's degrees. Employment and the labor force include only work done for monetary gain. Hence, a homemaker is neither part of the labor force nor unemployed. Neither fulltime students nor prisoners are considered part of the labor force or unemployment. One final note is that the unemployment rate increased a percentage point from 2004 to 2007. This increase could be attributed to the political events that took place beginning with the end of 2004 all the way through 2008.

Year	GDP – Real Growth Rate
2003	1.5%
2004	3.00%
2005	4.00%
2006	.10%
2007	-6.40%
2008	3.6%

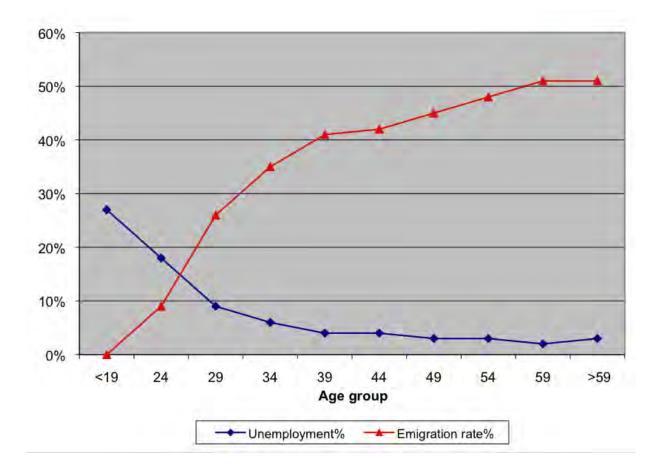
Table 2: Lebanon – Real Growth Rate Source: www.indexmundi.com

Growth, Emigration and Education

Signs of low growth are usually accompanied by the inability of a country's businesses to globally compete and are a result of a declining number of domestic investments.

Lebanon's current job creation numbers, types of jobs offered and salaries do not meet the Lebanese youth's expectations. This point was clearly emphasized by the survey conducted by the American University of Beirut (AUB) in collaboration with the Hariri Foundation for Sustainable Human Development (HFSHD). The high cost of living accompanied by the lucrative high wages abroad push the youth to emigrate. The quality of jobs created every year needs to improve in order to reverse these trends (Berthelemy 2007) Consequently, the majority of new entrants into the labor market are forced to emigrate or become inactive. As a result, Lebanon's active population is slowly decreasing in number, its human capital is progressively eroding and its resident population is aging..

Given the relatively high level of education expenditures in Lebanon, demand for skilled labor remains structurally below its supply. Because of the high education expenditures, graduates expect and demand wages higher than those set by the market. The AUB and HFSHD survey reveals how the majority of graduates had their tuition paid for by their parents. Emigration roughly counts for 20,000 people every year. The mortality rate is estimated to be approximately 40,000 every year. This trend of emigration vis a vis resident population, means that half the skilled labor force is emigrating every year. Under current emigration patterns, approximately half of a given generation will have eventually left the country by the age of 59. Kasparian (2003) notes that there is a sufficiently big number of unemployed skilled workers. Kasparian adds that the fact that the educational level of Lebanese emigrants is significantly higher than that of residents abroad is a response to the lack of well-paid employment opportunities at home.



Graph 1 Unemployment and age group

Source: Lebanon Growth Prospects

One additional reason for emigration is the fact that human capital is poorly valued on Lebanon's domestic labor market. Gross private returns to education are very low by international standards - an estimated 9% in Lebanon compared to 21% worldwide. Social returns are even lower after accounting for the high level of education expenditure in Lebanon's GDP (Berthelemy 2007).

Emigration

Emigration is a historical trend in the Levant that goes back to 1860. Today, there are varying methods of precisely calculating, or in Lebanon's case due to the lack of data, estimating, the number of first generation emigrants abroad. It is estimated that somewhere between 15,000 and 20,000 people emigrate every year (Characteristics of Emigrants, 2000). It was also estimated that there is a stock of almost 550,000 persons of first generation migrants in 2005 - almost 14% of the Lebanese population. In 2000, emigrants represented 40% of the Labor Force. The table below shows the distribution of Lebanese emigrants abroad (Chaaban, 2008 - Presentation).

Table 3: Lebanese Emigrants by Country/RegionSource: Brain Drain in Lebanon

Destination	Emigrant Stock	Distribution
GCC	150000	27%
USA	105910	19%
Australia	85347	15%
Canada	67230	12%
Germany	39380	7%
Syria	37219	7%
France	33278	6%
Other	36446	7%
Total	554810	100%

60% of emigrants are between the ages of 25 and 34. The age group 25-29 ranks first with 32%, while the age group 30-34 follows by making up 28% of Lebanese emigrants. Moreover, the age group 20-44 makes up 38.7% of the Lebanese population. Of this segment, 82.6% are emigrants. This further verifies the chart above and adds concern to the future of Lebanon's social make up and its aging population. A substantial percentage of youth in their mid-career (28%) seek outside opportunities that reflect an appreciation of their experience attainment. This might be related to the weak promotion system in the corporate world. Also, salary increases do not quite reflect years of experience.

Table 4: Distribution of actual labor force by educational attainment

Source: Living Conditions of Households 2007

Attained education- al level	Females	Males	Females & Males
Illiterate	5.4	9.7	8.7
Literate	2	5.4	4.6
Elementary	26.4	54.6	48.3
Intermediate	13.2	24.7	22
Secondary	22.8	17.4	18.6
University	45.3	18.3	24.4

Table 4 gives an idea of how much skilled labor makes up out of the total labor force. Approximately 24% of the labor force is educated. Bearing in mind that almost 50% of emigrants are educated, this leaves Lebanon with a mere 12% of its labor force as educated. It is also worth noting that the percentage of females with university degrees is more than twice that of males. It is double the national average. The higher the educational level, the higher number of females enrolled. These are results of a trend that started back in the 70s in Lebanese society where more attention was given to educating females in families. Furthermore, 47.7% of emigrants hold a university degree of some sort. Couple this fact with around 75,000 (excluding Syrian laborers) low-skilled foreign workers in Lebanon makes it fair to conclude that Lebanon is experiencing a brain drain (Jureidini, 2002). Lebanon is steadily evacuating its skilled and educated youth and replacing it by foreign low-skilled labor. There are several reasons as to why the educated and skilled youth emigrate. There are push factors and pull factors. Chaaban (Chaaban, 2008 - Presentation) highlights five push factors:

- ·Political instability,
- •High cost of living, especially for young graduates,
- •Mismatch between education and what the market needs
- •Tight labor market for skilled graduates

• Inefficient and expensive regulations for starting and operating a business

These factors are further dwelled upon in the sections below. Push factors are factors that a country and the mechanisms within it can control and alter. Pull factors are conditions that are beyond a country's reach. Chaaban (Chaaban, 2008 - Presentation) points out the most important pull factors that attract skilled Lebanese emigrants:

- High salaries in petrodollar-rich countries
- More rewarding work environment and business culture
- · Established network of Lebanese abroad
- · Opportunities for better quality graduate studies

Emigration has its pros and cons on any given nation. The benefit of emigrating include -

- · send transfers and remittances
- increase in "skill stock" in Lebanon because of possibility of emigration (role of expectations)
- · decrease local unemployment
- potential gains from "return emigrants" and knowledge transfer

However, emigration also carries with it a handful of cons. The most notable negative effects include:

- loss of the country's human capital and workforce
- paying locally for an education that has its returns abroad

• loss of talent and knowledge pool to fill needed skills in the country

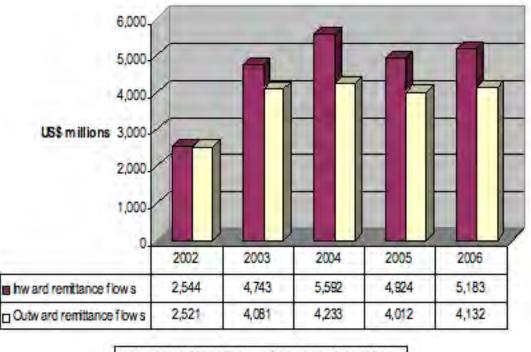
• potential long term reduction in welfare and economic growth

Emigrant remittances

In retrospect, and after accounting for the large number of foreign workers in Lebanon and the growing number of emigrants, Chaaban points out that the financial net return of emigration is not substantially beneficial in financial terms. For instance, 80% of emigrant remittances are consumed by daily household consumption (daily expenses and school tuition) rather than being used for direct investments. Therefore, one should note that even though emigration is playing a positive economic role where a big part of the population would not be able to sustain themselves if these remittances were to stop flowing in, emigration has noneconomic negative factors such as the breaking up of families and psychological distress. Additionally, Lebanon is being shaped to depend on its emigrants rather than making use and maintaining its human capital. Furthermore, Lebanon is receiving capital flows just slightly more than it is sending.

Graph 2: Emigrant remittances

Source: BDL & the World Bank 2007



Inward remittance flows Dutward remittance flows

Emigration is also causing a gender imbalance. Approximately 80% of emigrants are males (Characteristics of Emigrants, 2001). This fact tends to create an unhealthy social environment in the medium and long run. Families are developing with the constant absence of the male figure at home. In addition, the average marriage age has gone up. The percentage of single males and females in their late 20s as compared to the period prior to 1975 is more than double. The overall make-up of Lebanese society is heading towards a radical change (Living Conditions of Households: 2004, 2006).

Women are still not the direct beneficiaries of this mass exodus. Working women only make up 23.3% of the labor force. This low number has a negative effect on Lebanon's GDP.

Finally, in 2006, Lebanon received twice as much money from emigrant remittances as Foreign Direct Investments (FDI) - \$5.2 billion vs. \$2.6 billion. Such a high number of remittances, the highest amongst the Arab nations, distorts markets, causes the Dutch Disease² and creates a form of a subsidized economy. The flow of emigrant remittances compensates for any lack of money

people could experience. These remittances serve as financial patches that alleviate the economic situation in Lebanon. Moreover, the presence of remittances creates a rentier mentality in which reward is not a function of productivity or work in general. It is a windfall gain (Chaaban & Gebara, 2007).

In conclusion, Lebanon officially suffers from around 9% unemployment. However, most notable are the figures dealing with skilled emigration, female participation in the labor force and the effect of emigration on the local economy, most notably the Dutch Disease. Moreover, Lebanon has witnessed a mass exodus of its skilled labor (approximately 50%) while allowing large numbers of unskilled foreign laborers to enter the country. This situation needs to be addressed and leaves us with several questions that need to be answered:

• Why are the large numbers of skilled and educated persons emigrating? Is it because the Lebanese market has little to offer them?

• Why do females make up such a small part of the labor force?

• How damaging is the Dutch Disease on the economy?

 $^{^2}$ The "Dutch Disease" refers to the deindustrialization of a nation's economy that occurs when the discovery of a natural resource raises the value of that nation's currency, making manufactured goods less competitive with other nations, increasing imports and decreasing exports. The term originated in Holland after the discovery of the North Sea gas.

Lebanon's Education System

Another emerging and worrying aspect is the struggling of the Lebanese education system. The Lebanese education system, in general, has failed to accompany the numerous methodological advancements that have taken place around the globe such as incorporating high tech instruments into the curriculum and improving school facilities and standards. Even though public investment reached \$95 million in updating the national curriculum (in the years 1996-1999), much more needs to be done and a major restructuring of how the money is spent needs to take place. The education budget is currently around \$568 million. Only 6% is spent on school buildings and equipment. 87% is spent on public sector teachers' and staff's salaries. The World Bank argues there is an oversupply of teachers and a misallocation of teaching and administrative personnel. This translates into a higher than acceptable teacher to student ratio of 1:9 compared to the world average of 1:15-20. A closer look at this ratio shows that there is overcrowding in urban centers while the rural areas suffer from under population in the classrooms. Moreover, public sector (which accounts for 50% of the student body) teachers lack any form of motivation and reward system. Hiring is based on favoritism and the common clientele based system. Promotion needs a government decree and is based on years spent in the sector, rather than on performance. Accountability is nonexistent. It is common for teachers to get second jobs in the private sector and regularly skip classes they are supposed to be offering in public schools. In addition, even if they strictly adhere to the regulations, there is no system in place to hold them accountable for their own and their students' results (Chaaban, 2008). On the other hand, the Ministry of Education and Higher Education (MEHE) has recently gone about implementing some improvements. These include automation through implementation of information system databases for student and teachers. The MEHE is also working on an Educational Development Project (EDP), which should establish an Educational Management Informational System (EMIS). This system aims at integrating information and serving management information needs of the MEHE and eventually automating its databases. And in an effort to restructure the promotional ladder, the MEHE has enacted a ministry secretariat whose job is to distribute and manage projects and budgets and ensure accountability.

With respect to higher education, the 1990s witnessed a rapid increase in the number of private institutions offering university degrees. Today there are 40 universities in Lebanon that have adopted various academic programs and systems such as American, British, German, etc. There is one public university, namely the Lebanese University, (LU) which has 50 nationwide branches and 17 faculties that offer 105 majors. The LU alone has approximately 70,000 students that make up around 45% of the total number university students (~160,000). The private sector is made up of 39 universities that offer 160 majors. The percentage of female higher education students is 54%; Lebanon has one of the highest enrollment rate amongst the Arab world of 42%, whereby 30% of the youth aged between 20-24 are registered in one university or another (National Report on Higher Education). In conclusion, there are unanswered questions that need to be asked:

• How responsible is the education system in paving the way towards emigration?

• Does our education system create big expectations amongst educated labor force entrants?

Obstacles to Growth

Since 2000, slow growth could be attributed to several factors. There has been a low demand by Small and Medium sized Enterprises (SMEs) for subsidized loans. According to a census done by the Central Administration of Statistics in 1996, the Lebanese private sector is made up mainly of very small enterprises: 93.5% of businesses have less than 10 employees. A recent study in 2003 showed little change and identified only 1.365 SMEs with a turnover of more than 300,000 Euros. The Lebanese economy is made primarily of very small units employing less than 5 employees (88% of them, according to the 1996 Industrial Census), which could serve as a major motive in seeking employment abroad. This low demand by SMEs could be due to the fact that firms already engaged with the banking sector are overleveraged. The percentage of problem loans has risen from 12% to 30% in 2003. Incentives provided by the Central Bank to settle these problematic loans dropped them to 24% in 2005. Another explanation could be that

potential collaterals have now been exhausted. One more reason that could explain slow growth is the continuous rise in real estate investments at the expense of other sectors (Berthelemy 2007).

Even though the most recent World Bank trade facilitation audit praised the infrastructure of Lebanese seaports of being satisfactory, major drawbacks include unchecked corruption and costly government fees, which tend to inflate trading costs above regional averages. Complex regulatory and taxation systems coupled with a poor judicial sector are probably the reasons to explain the high degree of existing corruption, which leaves investors unprotected from predation (Berthelemy 2007).

Regarding the telecommunications sector, the major loophole is the absence of high-speed Internet connections through regular ISP providers. It is probable that its impact on investments is rather negative given Lebanon's specialization in its services. Improved Internet speed has been proven to contribute to around 2% of GDP growth. The telecommunication sector also lacks real competition, which also inflates costs. With respect to lack of competition, a study by the Ministry of Economy and Trade (MoET) in 2003 found that half of Lebanon's domestic markets are considered oligopolistic to monopolistic. A third of them have a dominant firm with a market share above 40%. Natural and artificial barriers to entry and exit can explain these figures. Natural barriers include economies of scale or high fixed costs, to mention a few. Rigid rules, regulations and norms are amongst the artificial barriers. For instance, outdated commercial laws, long delays in commercial disputes settlements, business unfriendly administrative regulations, corruption, and the existence of exclusive import agencies are amongst the most notable artificial barriers to entry. The absence of anti-trust regulations, high startup costs and existence of public monopolies in utilities and communication sectors can be added to this list.

More obstacles to starting up a business as surveyed by the World Bank's Investment Climate Assessment include procedures such as it taking nine days to obtain a phone line connection, 120 days to obtain a power connection (185 days outside of Beirut) and 135 days to obtain a water connection (201 days outside of Beirut). Power outages, insufficient water supply, and interruption in telecommunication also incur losses on firms and drop their sales between 4% and 12% (Berthelemy 2007).

Labor Law

Lebanon's Labor Law is outdated and makes the employer the actual provider of insurance to formal sector workers. It defines abusive termination in broad terms and sets high termination costs - thus discouraging hiring. The Labor Law does not make provision for temporary layoffs that can serve as a relief valve for employers during short-term adversities; it does, however, protect workers from permanent dismissal. Unless the worker is clearly at fault, terminations are routinely considered abusive even for economic, technical and managerial reasons, including for companies adversely affected by external hostilities. Abusive terminations call for the payment by the employer of benefits ranging between 3 and 16 months of the last salary of the employee (including the required notice of termination). Such levels of termination benefits can add to the labor costs up to 8.5% of salaries. Thus individual companies, especially larger ones, act as de facto unemployment insurance providers (Lebanese Economic and Social Impact Assessment, 2006).

Nominal payroll contributions/taxes under social insurance sum up to 23.5%. They could alternately be used for worker protection and employment creation among Lebanese nationals. In practice, the effective rate of deductions as a percentage of total labor costs is much lower. In addition (a) employers and workers evade them, through mutual agreement and under-reporting of wages; (b) employers alone may impose tax avoidance on workers as a pre-condition for employment; or (c) employers may also diversify their workforce through the use of contract/informal labor with a resulting decline in their overall obligation to pay payroll contributions.

Moreover, the NSSF contributions are not managed effectively and what is supposed to be a social insurance measure partly degenerates into a tax. This further depresses demand for Lebanese labor. Finally, recovering benefits by workers is often cumbersome due to lack of automated records and disagreements between NSSF and employers about what payments employers have already made and what contributions remain outstanding (Lebanese Economic and Social Impact Assessment,

2006).

This practice can, therefore, be replaced by some form of unemployment insurance, which if properly designed, can be funded from contributions of no more than 2-3% of the payroll. Such an unemployment insurance scheme will also provide more generalized worker protection against the risk of unemployment. On the positive side, the private labor market is characterized by de facto flexibility, but for the wrong reasons. As mentioned earlier, regulations are evaded by the largest part of the labor market. In addition, wages are low in unskilled occupations such as agriculture, construction and certain services (such as garbage collection and domestic service) due to open emigration policies coupled with the nonpayment of payroll contributions by foreign workers. At the top end of the labor market, educated unemployment is high, and this provides employers with adequate access to human capital at the current state of production and technology. On the other hand, the average Lebanese has limited access to jobs that offer adequate worker protection through social insurance. The drafting of a new law and regulations should be made with the view to benefiting workers at the lowest possible costs to the labor market. Updating the Labor Law and modernizing labor relations is a necessary step for an upper middleincome country aspiring to integrate more forcefully in the globalizing economy (Lebanese Economic and Social Impact Assessment, 2006).

Nepotism

By definition, nepotism is the showing of favoritism toward relatives and friends, based upon that relationship, rather than on an objective evaluation of ability, meritocracy or suitability. For instance, offering employment to a relative, despite the fact that there are others who are better qualified and willing to perform the job.

Box 2. Nepotism

Lebanon is a confessional state that clearly divides the ranks and authority of every religious sect. It is a state that functions on power sharing between the various religious sects. This political system makes it distinct from its neighbors. However, the power sharing deal depends on a stable regional situation for it to reflect stability on the local scene. This system has proven highly susceptible to regional conflicts and relations (Traboulsi, 2007).

Along with the confessional nature of the state, there lies outright nepotism in the way the majority of issues are handled both in the private and public sectors. Nepotism and sectarianism may be able to periodically provide stability, but they also tend to distort any forms of association and balanced state building. Any attempts to establish modern networks and modern laws are overridden by primordial ties or forms of allegiance. This factor, the persistence of primordial sentiments and its control on all modern forms of associations, was discernible during very recent events in Lebanon that followed the July-August War in 2006. There were continuous political guarrels before and after the publishing of the Lebanese government's reforms plan in which it proposed a variety of fiscal reforms, mainly tax reforms. The inhabitants of Akkar, historically the most deprived region in Lebanon, continued to show support for the policies of the current government of Prime Minister Seniora and its reform agenda, at a time when other groups, historically better off than Akkar inhabitants, were demonstrating against the social and economic policies of the Seniora's government (Chaaban & Jebara, 2007).

The attitude of nepotism, clientelism and sectarianism also exists amongst the private sector entities. Employment in large local corporations such as Banks and TV stations is subject to this phenomenon. Furthermore, familyowned and family run small and medium enterprises make up approximately 85% of the companies. Hence, the educated youth upon graduating are left with the following options:

- Subject themselves to nepotism and seek employment in the public sector;

- Seek employment in a family owned business where exposure and promotion are limited;

- Seek employment in a multinational organization;

- Emigration.

The first two options do not meet a big chunk of the educated youth's expectations. There is fierce competition over getting into multinationals due to the limited vacancies they offer. The fourth option is what half of Lebanon's educated youth end up choosing.

Nepotism³ is an engraved problem in Lebanese society. Lebanon's economy ails from nepotism dating back to the Ottoman period. In addition, Lebanon has a very high ratio of family-owned SME to corporation ratio., which could serve as a major motive in seeking employment abroad. As mentioned earlier, 93.5% of businesses have less than 10 employees. Starting up a business is bureaucratic and costly. Getting a job in a small or medium enterprise hinders their exposure and possibilities of flourishing their careers.

Personal contacts continue to play a fundamental role in the ability of youths to find jobs. The Kasparian (2003) study showed that 68.1 percent of all salaried first-time employees surveyed obtained their positions principally as a result of personal or family contacts (Kasparian Vol. III 2003, 53). If one considers another study by Nasser and Abouchedid in 2006 on "Job-seeking behavior and job outcomes among Lebanese university graduates in private and public Universities", it appears that notably non-specialized jobs tend to be acquired through an individual's connections rather than merit (Nasser & Abouchedid 2006, 170). The results of the survey conducted by AUB and HFSHD show that also, the majority of graduates, 35.1%, got their first job through family or friend contacts.

One explanation why the Lebanese government hesitates in introducing massive reforms is that the state has the nature of a confessional-rentier state. Historically, the Lebanese government has not been dependent on state revenues for its plans and projects. It has historically depended on long-term loans, grants and donations. The Lebanese state has maintained a trend of being in deficit. For example, in 2008, the total deficit was 11% of expenditure despite having a primary surplus of 37.5%. Lebanese politicians have grasped the notion of

the state and its mode of function and have continually manipulated the political and economic situation by using the state to satisfy their clientele and remain in power. Hence, the state is a form of welfare fund that has employed thousands of people it does not need. More importantly, this mentality has allowed corruption to engrave itself in government agencies. Government servants capitulate on their status and blackmail citizens with the simplest of services such as issuing an id card. Government overstaffing can also be explained by the lucrative compensation package it offers its servants. The Lebanese state employs 220,000 employees, 75,000 of whom are part of the armed forces (Internal Security Forces and Lebanese Army). In general, the public sector portrays itself as offering better job security than the private sector. Its benefits include an education subsidy, health insurance, pension fund, and survivor benefits (Chaaban & Gebara, 2007).

These impediments to doing business mentioned above reduce markets' contestability and potential competition, with negative consequences on resource allocation, investment and incentives to contain production costs. Consequently, Lebanon is deterring potential investors thus restricting exposure of local firms and the local labor force. Liberalization and competition reduce operating costs and prices that reach the end consumer, thereby increasing investments, competition and exposure.

³The word nepotism is from the Latin word 'nepos', meaning "nephew" or "grandchild". Its mid seventeenth origin from French népotisme, or Italian nepotismo (nipote 'nephew'), goes back to the privileges bestowed on the "nephews" of popes, who were in many cases their illegitimate sons.

The July 2006 War

When discussing the obstacles to growth, it is difficult to list the reasons without mentioning and dwelling on the July 2006 War. On July 12, 2006, Israel began waging, what turned into, a 33-day military offensive that not only caused wide scale material destruction but also claimed the lives of more than 1200 individuals and injured more than 4000. In addition, the 33-day war displaced approximately one million people (Government Report of September 2006). The war waged on Lebanon resulted in severe human and physical losses and caused both short and long term damage to the Lebanese economy. This war had far reaching effects on Lebanon's economy both in material terms and in its labor force make up. For instance, an estimated 30,000 jobs were lost and around 200,000 were thought to have emigrated as a direct result of the war. It affected Lebanon's economy both directly and indirectly. Lebanon's industry, agriculture, tourism and services, and real estate sectors were directly and indirectly affected (Lebanon - Economic & Social Impact Assessment).

Direct Damage

Around 107,000 housing units were either completely demolished or partly damaged. The reported number of damaged bridges was 148 at a cost of \notin 33.04 million. Damages in the Electricity sector amounted to \notin 29.28 million. \notin 11.22 million is the cost it would take to mend the destroyed roads. Water and waste-water damages amounted to \notin 2.15 million while \notin 7.15 million worth of damages was inflicted on the public school sector. The total amount of direct damage to the infrastructure is \notin 83.22 million. This figure excludes the damage cost of the housing units, seven hospitals, and human casualties that were suffered during the war (Lebanon - 34 Day War).

The Electricity sector recorded a number of substations and distribution lines damaged. Moreover, supplies to the street lighting system and a limited number of generators used for agricultural activities and emergency supply in schools were struck. Additionally, €14.25 million of lost fuel when the Jieh fuel tanks were hit is included in the figure above. The Jieh power plant strike destroyed approximately 60,000 tons of fuel and two tanks for distilled water needed for the generation system. As a result power output has decreased from 320 MW to 130 MW (Ibid.).

In the industrial sector, 142 industrial enterprises suffered complete or partial damage. More than 900 medium-sized enterprises and 2,800 small enterprises suffered extensive damage. The immediate effect on the labor market is the direct loss of 2,000 jobs (Report of the September 2006 Multi-disciplinary Mission to Lebanon).

The housing sector endured the biggest repair bill. Official and unofficial estimates for the damage to housing and private buildings range from $\notin 0.8$ billion to $\notin 1.4$ billion with up to 30,000 housing units completely destroyed. As a result, up to 200,000 were unable to return to their homes or businesses after the war ended. Other infrastructure damages include $\notin 12$ million of damages to the telecommunication sector, $\notin 160$ million in damage to the industrial sector and approximately $\notin 20$ million of damages to the agricultural sector (Ibid). The World Bank estimates the total direct damage at \$2.4 billion (Lebanon Economic & Social Impact Assessment).

Indirect Damage

It is difficult to pin down the actual indirect costs of the July 2006 War. However, there have been several estimates at the indirect damage the cost of the war had on the economy conducted by the World Bank, European Union and other renown international organizations. To begin with, confidence in Lebanon as an investment opportunity or haven is at a real time low. Political bickering that followed the war did not help in improving confidence either. Lebanon had been experiencing an estimated 6% growth up until the war. After the fighting ceased, growth was negative. Government revenue was expected to decrease by an estimated \$500 million, while hostility related spending was expected to increase by approximately \$690 million. This will further harm any chances of decreasing the government's budget deficit (Ibid.)

The July 2006 War coincided with important harvest periods, such as the harvests of potatoes, an important crop in Lebanon and one of the most profitable. The war also coincided with harvests of melons, citrus fruits and tobacco. In addition, there will be future losses arising from lost crops due to limited access to the fields or the greenhouses (More than 1.5 million unexploded mines and cluster bombs are thought to have been dumped in various areas of South Lebanon.), or due to the destruction of greenhouses by the bombardment. Moreover, more losses will be incurred as a result of the destruction of irrigation canals. Losses were also incurred due to the fact that proper storage has become unreliable as a result of the lack of constant supply of electricity to freezers and cold stores. Commercial losses are also incurred due to the lower prices of goods that could not be stored or exported during the conflict (Lebanon - 34 Day War). The fisheries sector also suffered as a result of the naval blockade, the oil spill, and the material losses that came as a result of the bombardment of several fishermen ports (Ibid).

Furthermore, increased power rationing is expected to hinder growth in the medium and long term. Power rationing affects the industry sector. This sector now not only has to cope with an extra operating power cost, but also suffered for two months of not being able to operate or export. Loss of orders, export opportunities and contracts tie into the indirect losses (Ibid). During the war, 31 factories were either completely or partially destroyed.

The services sector is one of the most adversely effected victims of the war. The hotel and restaurant will suffer as a result of the war for years to come. Lack of security and confidence will take a few a years to be restored. In total, an estimated \$600 - \$800 million worth of indirect losses to the Lebanese economy came about as a result of the 2006 War (Ibid).

How do these devastating figures tie into growth?

The July 2006 War further exposed several ailing sectors in the Lebanese economy and government services. Namely, the government had to contend with a drastic and unaccounted for increase of expenditures as a result of the war and a substantial decrease in revenues. Hence, government debt will increase from an already exceptional 175% of GDP to 190% of GDP in the short run and even 230% of GDP in the medium term (Lebanon

- 34 Day War). This trend will impede growth and impair the Government's ability to provide essential social and human development services (Lebanon Economic & Social Impact Assessment). Hence, after the dust settled this is how the situation looked like in Lebanon: On top of the problems mentioned above that the economy and state had to deal with, Lebanon was now forced to spend more than it had accounted for, the investment climate was dealt a severe blow, unemployment increased, emigration increased, the infrastructure's quality deteriorated, and Lebanon had to import fuel at record high prices in 2007 and 2008. On the other hand, around \$1 billion were pledged in aid and relief for reconstruction, \$1.5 billion were deposited in the Central Bank by Saudi Arabia and Kuwait, public school tuition and book fees were covered by the UAE and Saudi Arabia and a handful of private donors took on the duty of mending some parts of the damaged infrastructure (Lebanon - 34 Day War). As a result, Lebanon had to endure a tough period of at least two years in order for it to be able to resume functioning at where it was prior to the July 2006 War. The Lebanese government was left with a difficult dilemma. It had been heading in the direction of decreasing spending and attempting to cut costs, hoping to reduce its debt-to-GDP ratio. After the 2006 War, the impact of the hostilities raised the demand for additional public services; while at the same time decreased the state's revenues. Therefore, it had to try to attain significant levels of growth in order to outweigh the mass scale physical and moral destruction, inflation and emigration of investment capital (Lebanon Economic and Social Impact Assessment). That is not easy task for the soundest of economies. It remains to be seen how Lebanon will pull out of its latest setback.

The Global Meltdown in 2008

In 2008, shortly after Lebanon swore in a president and formed a 'national unity' cabinet, its chances of attracting investment, tourists and achieving growth took another dent after the credit crunch took its toll and dominoed into a global financial crisis. The credit crunch roots originated in the late 90s where mortgage agents were convincing people to buy homes they could not afford. The mortgage agents' reasoning was that property prices were rising and homeowners and speculators would be able to cover their mortgage bill by renting out the houses until they found a suitable buyer. Thereon, they could sell the house and pay the mortgage at a profit. Mortgage agents seduced buyers and speculators by offering low interest rates in the first few years and overlooked requiring any substantial documents from the buyers. This practice started a trend in America whereby low income Americans were purchasing three and four houses at a time hoping to rent them out until they could sell them at a profit. In turn, the banks sold the mortgages as one appealing package to investment banks. The investment banks used the mortgages as collateral to get money. They were hoping to pay back the money once the initial mortgage owners started paying back their mortgages. The investment banks knew most the mortgages were faulty, but banked on two things: rising property prices and that some of the mortgages were not toxic to balance out the faulty ones. The investment banks classified them into three classes: the good, the not-so-good, and the bad. They would pay out their dues to the 'good' mortgages first if property prices began to fall and the 'bad' mortgages last. The reason they chose to do this was that the 'good' mortgages had the least risk, hence the lowest interest rate. To make things worse, the investment banks packaged their 'good' and 'bad' mortgages together and insured them and then sold them overseas because no one in Europe or Japan, for example, ever thought there was such a thing as a bad mortgage in the US market. Few doubted that property prices would fall. The investment banks placed the 'bad' mortgages on their balance sheets in offshore companies to make their own balance sheets look good. Thereafter, the credit crunch started with a large amount of defaults on mortgages in a very short period of time (How the Foreclosure Crisis Happened).

The defaults were a result of rising mortgage payments mainly due to adjustable rate loans all banks were offering without much or any background checks such as "interest only loans and adjustable rate mortgages (ARMS)". People either bought a house outside of their means (stretch themselves to get the house they want but can't afford and got approved by the banks) or bought several houses for the investment and rented them out hoping to sell in a short period down the road and turn a profit on the house due to increased prices. But these people could not possibly back all the mortgage payments if the price value did not go up, and the rentable value of the house had to rise as well to cover the mortgage and expenses. When housing prices went up, like they did between 1999 and 2007, all people had to do was what they call refinance the loan on new terms after they built equity in the house and draw cash out of the house to pay their expenses. They were living large and out of their means. Greed prevailed and people listened to the local mortgage broker, neighbor, or friend and wanted to become a housing investor to make a quick buck. For instance, a taxi cab driver owned three homes, a company employee making a very modest \$40,000 and had a family ended up owning four homes. Everyone thought they could get rich quick. Brokers did not care, they were selling them to the bigger banks and turning a profit; the bigger regional banks did not care because they sold them to the big investment banks and turned a profit; and finally the big investment banks packaged them and in turn sold them to investors world wide as supposedly secure mortgage securities. Europeans, Arabs, East Asian investors, all bought in. There should have been US federal government regulation that prevented many of these "misleading" (if not illegal) investments and loopholes that drove the greed from the investment banker all the way down to the taxi cab driver. The housing supply met the demand (around 2005) and prices for houses stopped increasing and started to level and then decline. People's payments went up, their equity went down (if not negative), and they certainly did not have the money to cover the

difference. They started to default at an alarming rate all around the US. This made the decline of home prices go down even faster as sales dropped quickly. When people did not pay, the investment banks got pushed to the limits, if not fail altogether when they ran out of liquidity to pay investors. As they failed, they dragged the world down with them, and in addition to that they dragged all of the other sectors of the American economy down with them too because all of the other sectors depend on loans that are in the end backed by a few investment banks. Small businesses, construction, retail, cars, etc. all need a loan from banks to operate. When banks stopped lending, every single business and person got affected. There were large scale layoffs, business slowed all over the world, consumer confidence dropped drastically, worldwide demand dropped. The end result was huge recession, which is being labeled as the 'Global Meltdown' kicking in. The Federal Government was forced to save these companies such as Meryl Lynch and AIG with huge government bailout funds. In some instances, the Federal Government now owns 80% of these companies (Ibid).

How does the Global Recession Affect Lebanon and Growth?

At the end of 2008, Lebanon was one of the few countries whose banking sector was least hit by the global meltdown. The Central Bank had strict regulations that had prohibited local banks from investing in derivatives (i.e. the real estate sector in the US). Worldwide predictions assume there will be a global contraction in the world's economies in 2009 before growth resumes in 2010. To date, no study has been published that has quantified the direct effects of the global meltdown on the Lebanese economy. However, it is safe to say that demand for

Lebanese exports will decrease, emigrant remittances will decrease and unemployment will certainly not decrease. These factors will further strain any hopes the government had allocating private firms that are willing to assist in any form of restructuring its services such as Electricité du Liban (EDL) and any prospects for substantial growth in the coming two years. Circumstances and events again play against Lebanon's chances of attracting much needed job creating investments and productive capital (Lebanon - Country Report).

Youth Exclusion

Since independence in 1943, war and civil strife have often dominated the social scene. Lebanese between the ages 15 and 29 are estimated to be one million people. Regardless of their education, those youths who are part of the job market may feel marginalized in terms of their influence on the country's future (Chaaban, 2008).

If it is assumed that youth unemployment should be equivalent to adult unemployment (as zero unemployment among youths is arguably unrealistic), youth unemployment is costing Lebanon 1.07 percent of its GDP (ibid.). The cost of male youth unemployment is more than three times higher than that of female youth unemployment (ibid.). This is partially a result of fewer females participating in the active workforce. If the joblessness rate is measured, the lack of employment of young females is costing the Lebanese economy 2.03 percent of its GDP (Chaaban 2008b, 8).

Of course, a core cost of unemployment not least in Lebanon, is the reality that youths excluded from the job market feel they have little opportunity of entering it under conditions that are satisfactory to them. Hence, they are likely to search for these conditions elsewhere, notably abroad. Of the youths registered as unemployed in the Kasparian's (2003) study, half were prepared to leave Lebanon in order to find work elsewhere. Those contemplating this option were overwhelmingly male with 71.9 percent of the males considering migrating for work compared to only 27.3 percent for females (Kasparian Vol. III 2003, 44). This is a major consideration as males are clearly more likely to remain professionally active without interruption, subsequently contributing to the economy throughout their lives, whereas females tend to take career breaks to raise families, if they do not in fact opt out of the professional arena altogether to become homemakers. Similarly, considering that females in Lebanon earn less than their male counterparts, they also inject less capital into the economy than wage earning males. This is confirmed by a youth survey, which showed that as salaries rose, the desire to leave Lebanon diminished (Chaaban, 2008).

Getting a Job

The Kasparian (2003) survey, the only recent survey where detailed information on the school to work transition for Lebanese youth is available, showed that youths with a high school diploma or university education were more likely to have paid jobs (Kasparian Vol. III 2003, 22/51). The same study found that university graduates in health related disciplines, education and management found employment the quickest after commencing the search for their first job (ibid.). Similarly, those living in Beirut found jobs quicker than their counterparts in peripheral areas such as the Bekaa (4.8 months for people looking for their first job in Beirut contrasted with 9.7 months for the same demographic seeking their first employment in the Bekaa). While the average time for finding a job was 7 months, some declared they were facing difficulties finding their first-time employment having to endure as long as 17.7 months of job hunting (Chaaban, 2008).

Of those in employment, only half of those with minimal education had permanent jobs in comparison to 74 percent of the youths holding university degrees. It is also the individuals with university degrees that enjoy the highest salaries. The 2003 survey found that youths holding no diploma had an average salary of \$308 a month, while university graduates enjoyed more than double the monthly salary at an average of \$657 (The minimum wage has recently been increased in September 2008 from \$300 to \$400). Those with further university education were paid on average \$832 (ibid.).

Perhaps surprisingly, the survey found that once youths had found a job, their position was relatively secure with 82.1 percent pursuing their second year in the same job. 63.8 percent of the relevant individuals had even stayed in their jobs more than five years, indicating that once youths have found employment, job security in Lebanon is relatively high. Those who did quit their first job did so primarily to proceed to another employment opportunity or for personal reasons. 16.5 percent of those who had left their first job had done so because of the closure of the company, lay-offs or their contract coming to an end (ibid).

Youth working in the public sector were less inclined to leave the country. Approximately 84% percent of the survey sample of youths working in the public sector had no desire to leave the country either permanently or provisionally (ibid.). It is evident that the public sector with its employment and payment guarantees provides youths with the security and stability they seek.

II. Survey Overview

The American University of Beirut (AUB) in collaboration with the Hariri Foundation for Sustainable Human Development (HFSHD), conducted a survey on university graduates from the four major universities in Lebanon, namely the Lebanese University (LU), American University of Beirut (AUB), Université Saint-Joseph de Beyrouth (USJ) and Beirut Arab University (BAU). These higher academic institutions hold more than 70% of the (university) student body in Lebanon; hence their corresponding graduates. The survey was based on Alumni from 1995 to 2005. A web-based survey was conducted whereby alumni were emailed the link and filled the survey online. The sample size was determined according to a statistical analysis, which is detailed in

sample was 29.6 with a standard deviation of 4.8 years. AUB had the highest rate of responses, 70% (297) due to its organized and developed database and its ability to access its graduates by email. However this did not affect the representativeness of the findings, as the survey results compare well with previous national surveys The survey results came upon a number of interesting findings that will be discussed below.

Only 44% of the alumni surveyed work in Lebanon, with a high of 67.5% of surveyed males residing abroad (Table 5). This number asserts the assumptions mentioned earlier whereby at this rate of growth and development of the Lebanese economy, more than half of the youth

	Male		Female		Both	
	N	%	Ν	%	Ν	%
Lebanon	65	32.5%	126	54.8%	191	44.4%
United Arab Emirates	33	16.5%	30	13.0%	63	14.7%
USA/Canada	25	12.5%	31	13.5%	56	13.0%
Saudi Arabia	19	9.5%	7	3.0%	26	6.0%
Other Arab Countries	14	7.0%	16	7.0%	30	7.0%
France	16	8.0%	9	3.9%	25	5.8%
Other European Countries	20	10.0%	10	4.3%	30	7.0%
Other Countries	8	4.0%	1	0.4%	9	2.1%
Total	200	100%	230	100%	430	100%

Table 5: Alumni by country of residence and gender

Appendix 1. Appendix 2 is the actual online survey that was answered by the sample pool.

The survey gathered 430 responses. 54% of surveyed individuals were females and 94% were Lebanese. 42% were married, and the average age in the collected

workforce will be living abroad, a clear majority of whom are males. The number of females residing abroad is 45% (Table 5). A study on emigration by USJ in 2001 had revealed that emigration amongst women between 1975 and 2001 had reached 14% (Characteristics of

Emigrants 1999-2001). Our estimate (Table 5) reveals that between 1995 and 2005 emigration among women almost tripled from previous levels. Women, just like men, seek better employment opportunities, hence, the increase in emigration amongst women in the past eight years. The recent trend amongst women has been to seek better salaries and more lucrative employment packages even if it means emigrating.

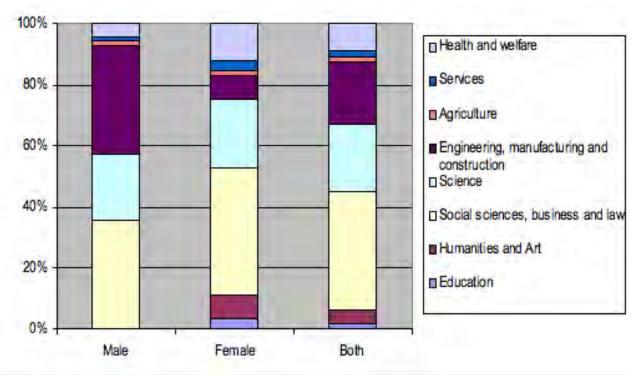
It is important to note that the survey conducted might suffer from several weaknesses, including: a) web-based surveying might lead to bias in reporting some answers, as face to face interviews are often preferred; and b) the sample might capture only those who have a functioning email address, resulting of misrepresentations of the sample of graduates in the country. Budget constraints limit the feasibility of face to face interviews, especially when one wishes to survey emigrants abroad. The advantage of our survey over other studies which tackled graduate migration is that the others relied on information on migrants provided by their family back home, while we are able to address this directly. As for the internet connection bias, most graduates in the past few years have acquired an email address, with rising internet connectivity. But still this limitation should be kept in mind when analyzing the results.

EDUCATIONAL CHARACTERISTICS

Survey results show that almost a quarter of the graduates have specialized in Business Administration (Table 6). Doctors, engineers and businessmen and businesswomen make up more than half the graduate labor force. There is also a noticeable difference between the percentage of male and female graduates who are engineers. While the numbers are similar between males and females when it comes to majors such as business and administration, life and physical sciences, and law, almost three times as many women as men are specialized in education, social and behavioral sciences and medical services (Graph 3).

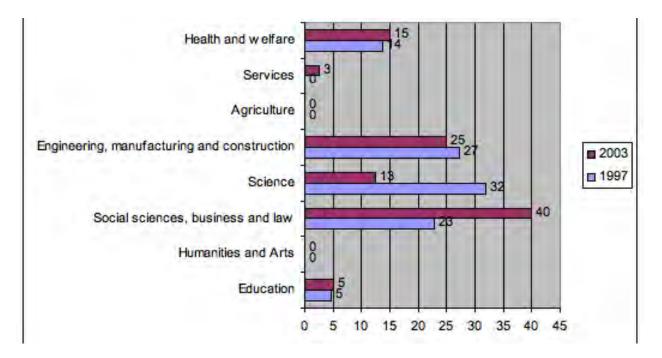
	Male		Male Female		Both	
	Ν	%	N	%	Ν	%
Education	0	0.0%	7	3.4%	7	1.8%
Arts	1	0.6%	3	1.5%	4	1.0%
Humanities	0	0.0%	13	6.3%	13	3.4%
Social and behavioral sciences	12	6.8%	37	18.0%	49	12.8%
Journalism and information	0	0.0%	2	1.0%	2	0.5%
Business and administration	49	27.8%	46	22.3%	95	24.9%
Law	1	0.6%	1	0.5%	2	0.5%
Life & Physical sciences	25	14.2%	29	14.1%	54	14.1%
Computing, Mathematics and sta- tistics	13	7.4%	17	8.3%	30	7.9%
Engineering and engineering trades	58	33.0%	12	5.8%	70	18.3%
Architecture and building	4	2.3%	4	1.9%	8	2.1%
Agriculture, forestry and fishery	3	1.7%	3	1.5%	6	1.6%
Personal services	0	0.0%	1	0.5%	1	0.3%
Environmental protection	2	01.1%	6	2.9%	8	2.1%
Medical services	7	4.0%	25	12.1%	32	8.4%
Total	176	100%	206	100%	382	100%

Table 6: Alumni by field of study and gender



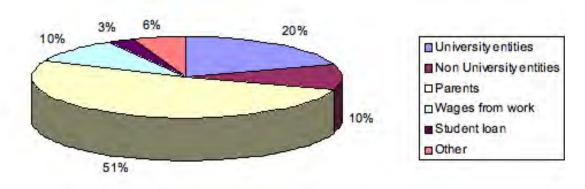
Graph 3: Alumni by major field of study and gender

Over time, there seems to have been a significant increase in the social sciences and business majors, almost doubling between 1997 and 2003 (see below). In parallel, there was a significant decline in the science majors (from a share of 32% to 13% in 2003); and a slight decline in engineering majors.



Graph 3a: Distribution of alumni by major fields of study, 1997 and 2003.

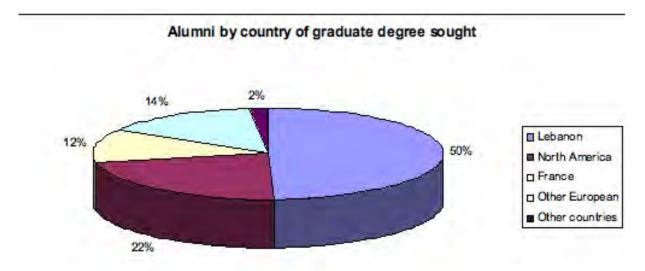
Moreover, another noticeable figure was the percentage of students who had their university tuition paid for by their parents (Graph 4). Surveyed graduates were permitted to answer this question with more than one choice; for example, students could have had more than one source of income paying their university tuition.



Alumni by source of financial support for university education

Graph 4: Alumni by source of financial support for university education

83% of the students had their tuition paid for by their parents. This trend reveals that, in general, parents invest heavily in their youth's education. This investment is expected to give a return. Accordingly, once the youth graduate they are expecting well-paid jobs that emulate both their career and financial expectations. This figure also asserts what was mentioned earlier that one of the reasons Lebanese youth emigrate is hoping to get a better return on their education investment. It is also worth mentioning that most of surveyed individuals declared that they had chosen their majors themselves (73%). Another point worth highlighting is the highly skilled portion of the workforce surveyed. 49.5% of the surveyed graduates have completed a post-graduate degree, while a 15.2% are currently enrolled. Therefore, approximately 64% of the workforce is highly skilled. This further puts pressure on the local job market to provide high paying jobs with a suitable and positive working environment. Half of these graduates have attained their post-graduate degrees from Lebanese universities. Therefore, Lebanon can still be considered as a cornerstone in providing specialized higher education (Graph 5).



Graph 5: Alumni by country of graduate degree sought

TRANSITION TO WORK

The majority of graduates have specialized in social science, business or law. Agriculture majors aside, this abundance made social science, business and law graduates the slowest to get a job. Their time to get a job for these majors, 52% in less than three months, is well below the average of 63% (Table 7).

	Longer than 3 months	3to6 month	6month to 1year	longer than 1year	l am still looking
Education	100%	0%	0%	0%	0%
Humanities & Art	77%	8%	8%	8%	0%
Social sciences, business & Law	52%	25%	18%	3%	2%
Science	64%	20%	7%	9%	0%
Engineering, Manufacturing & construction	73%	20%	5%	2%	0%
Agriculture	0%	33%	33%	17%	17%
Services	75%	13%	0%	13%	0%
Health & welfare	86%	11%	4%	0%	0%

Table 7: Time it took graduates to find a job

Education graduates all found jobs within three months of graduating. Agriculture graduates started finding jobs after three months of graduating. 95% of graduates working in health and welfare, such as doctors, for instance, found a job within six months of graduating. 87% of graduates seeking a job in the services sector also found jobs within six months of graduating. Agriculture and social science, business and law graduates have the highest percentage of graduates seeking jobs six months after graduating, 33.3% and 18.3% respectively. However, regarding the overall average of graduates, 91% of graduates in all their domains find jobs within a year. This is due to the fact that most graduates in our sample can be regarded as skilled individuals, with a strong tendency to find a job abroad quickly.

The table below shows the distribution of the sectors of employment. 59% of graduates work in real estate, renting, and business activities, transport, storage, and communication, health and social work and financial intermediation.

Table 8: Distribution of sectors of employment	
Real estate, renting, and business activities	22%
Transport, storage, and communication	16%
Health and social work	12%
Financial intermediation	9%
Education	9%
Manufacturing	7%
Construction	5%
Other community, social and personal service activities	4%
Hotels and restaurants	4%
Whole sale and retail trade, repair of motor vehicle, motorcycle3s, and personal and household goods	3%
Public administration and defense; compulsory social security	3%
Electricity, gas, and water supply	2%
Activities of private households as employers and undifferentiated pro- duction activities of private households	2%
Extraterritorial organizations and bodies	1%
Agriculture, forestry, and fishing	1%
TOTAL	100%

Table 9: Preferred training topics and fields

Training Topic	Percentage of respondents
Business Management	28
Human Resources Management	19
Accounting / Finance / Audit	11
Business Communication	7
Educational Technology	6
Marketing / Advertising	5
Project Management	3
Clinical Nutrition	2
Communication Skills	2
Computer Skills	2
Economics	2
Graphic Design	2
Interpersonal Skills	2
Statistics	2
Business Startup	1
Food Law	1
Plant Sciences	1
Quality Control	1
Risk Management	1
Urban Planning	1
	100

The table above shows respondents' answers concerning their preferred training topics. These topics should be taken into consideration by universities when they review their current curricula. These training workshops serve to sharpen labor's skills and fill in any theoretical and practical gaps their universities have failed to fill. Most surveyed individuals would like to have training in Business and Human Resource Management, and accounting, finance and auditing skill development.

The table below details the unemployment figures by field of study. The good news is that the 6% are very much in demand, and the curricula need to be adjusted to address these needs. As for education, the high unemployment rate reflects a high supply of graduates, mostly females, majoring in education. The limited job needs in this sector imply a necessary adjustment within the education specialization, with more emphasis to be given on special education, home support, elderly education, and other family studies which have more potential on the local job market.

Table 10: Unemployment by field of study and gender

Education	17%
Humanities and Art	0%
Social sciences, business and law	4%
Science	9%
Engineering, manufacturing and construction	3%
Agriculture	20%
Services	25%
Health and welfare	6%
All Majors	6%
Male	3%
Female	9%

unemployment figure is below the national average of 9.2%. However, there are high unemployment rates in the services sector, 25%, agriculture, 20%, and education, 17%. These high unemployment rates reflect first a lack of specialization within persons who major in the general services sector, thus causing them a mismatch with what the current job needs are. As for agriculture, the major is still not responding to new advances in biotechnology, sustainable agriculture and ecosystem management, and it remains very general, thus graduates in general are ill equipped to work in fields like sustainable development and natural resources management. These new fields

If we link the data in the table above (Table 5) to the data in Table 6 below, we can notice that unemployment is highest amongst the graduates of majors who opted to remain in Lebanon. Therefore, it can be implied that chances of being unemployed are higher in Lebanon than abroad. There are quite a few factors that can explain this phenomenon. First, rarely does one leave the country unless he (or she) has a job guaranteed in the country he/she emigrates to. Another reason is that employment opportunities are more abundant abroad as compared with Lebanon and its ailing economy. One more explanation is that there is an oversupply of graduates in certain majors

in Lebanon, which channels graduates abroad or to where there is demand for them. For example, the electricity, gas and water supply sectors in Lebanon are all monopolized by the state in Lebanon. Therefore, the demand for these specialties is definitely going to be greater abroad; it can be noticed highest in regions where these sectors are privatized. 71% of graduates working in financial intermediation work abroad, while 100% of the graduates working in agriculture, forestry and fishing work in Lebanon. 64% of the graduates working in construction live and work in neighboring Arab countries. The highest rates of graduates working in Lebanon, after agriculture, are those working in extraterritorial organizations (such as the UN agencies) that make up 67% and education who make up $64\%^4$.

Half of the Lebanese graduates working in the hotel and restaurant sectors are in the Arab world. However, in times of peace, the average occupancy rate in Lebanon in five star and four-star hotels exceeds 80%. Regardless of this high occupancy rate, more than half the skilled graduates in this domain are opting to emigrate. Therefore, it can be inferred that this domain mainly employs low skilled workers, has a poor working environment when it comes to promotions and employee satisfaction and has average wages lower than hotels abroad.

	Lebanon	Arab countries	North America	Europe	Other	Total
Agriculture, forestry, and fishing	100%	0%	0%	0%	0%	100%
Manufacturing	45%	35%	5%	10%	5%	100%
Electricity, gas, and water supply	14%	14%	29%	29%	14%	100%
Construction	21%	64%	0%	7%	7%	100%
Whole sale and retail trade, repair of motor vehicle	44%	44%	11%	0%	0%	100%
Hotels and restaurants	33%	50%	0%	8%	8%	100%
Transport, storage, and communication	43%	34%	4%	17%	2%	100%
Financial intermediation	29%	39%	0%	29%	4%	100%
Real estate, renting, and business activities	44%	44%	6%	4%	2%	100%
Public administration and defense; compulsory social security	22%	22%	22%	33%	0%	100%
Education	64%	21%	14%	0%	0%	100%
Health and social work	49%	8%	32%	11%	0%	100%
Other community, social and personal service activities	62%	23%	8%	8%	0%	100%
Activities of private households as employers	43%	57%	0%	0%	0%	100%
Extraterritorial organizations and bodies	67%	33%	0%	0%	0%	100%
All sectors	43%	34%	10%	11%	2%	100%

Table 11: Alumni's sector of work related to their country of residence

⁴ The survey does not take into account inactivity. It underestimates inactivity and solely focuses on labor market conditions.

A majority of the responses felt their university degree was very related to their current job (Table 11). Agriculture majors all felt it was somewhat related. When it came to somewhat related, the majors who were above the average were those that specialized in social sciences, business and law. These majors seemed to be the least satisfied when it came to evaluating the major and its relation to their current job. These majors, in addition to humanities and arts and health and welfare were also amongst the highest respondents who felt their major was not at all related to their current job. This table sheds light on these higher education institutions and the content of the majors they With regards to monthly income, engineers are the highest earners followed by social science, business and law graduates. 44.3% of engineers earn above \$6000 per month, while only 22% of social science, business and law graduates have a monthly salary in that bracket (Table 12). The lowest paid graduates are those working in the education sector, less than \$1500 per month, even though they all find jobs within three months of graduating.

Table 12: Alumni by degree of relation of their current job to their field of study by major

	Very related	Somewhat related	Not at all related
Education	100%	0%	0%
Humanities and Arts	59%	24%	18%
Social sciences, business and law	42%	41%	18%
Science	70%	18%	12%
Engineering, manufacturing and construction	52%	38%	10%
Agriculture	0%	100%	0%
Services	43%	43%	14%
Health and welfare	50%	29%	21%
All Majors	51%	34%	15%

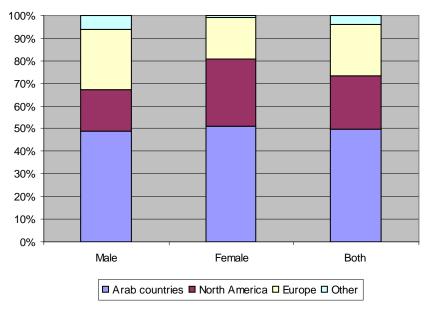
offer. It is fair to suggest that when it comes to the majors discussed above, some fine tuning should be applied to their curriculums to better suit the job market. There needs to be a national assessment of the job needs in Lebanon, in light of the society's evolution. Specializations within the general fields of business and services should be created, to cater needs like: elderly care, agro-food business, sustainable development and management of natural resources, eco-tourism management, energy management, food safety, etc. Table 13: Monthly earnings by field of study

	< \$1500	\$1500 - \$2999	\$3000 - \$5999	>= \$6000	Total
Education	100%	0%	0%	0%	100%
Humanities and Art	53%	33%	13%	0%	100%
Social sciences, business and law	28%	23%	28%	22%	100%
Science	27%	32%	25%	15%	100%
Engineering, manufacturing and con- struction	5%	13%	38%	44%	100%
Agriculture	60%	20%	20%	0%	100%
Services	60%	20%	0%	20%	100%
Health and welfare	29%	39%	14%	18%	100%
All Majors	26%	24%	26%	23%	100%

Lebanon is the highest employer of graduates, 43.3%, followed by the UAE, 17.2% and then the USA, 10.7%. Graduates were also asked questions as to how well they thought their universities, their university degree, their university experience prepared them for the job market, their job and their management and technical skills. The majority of responses thought their university prepared them well for the stage ahead. Knowing that 49% of graduates seek a post-graduate degree in Lebanon and the majority feel that their respective universities prepare them well for the stage to come, one can conclude that Lebanon still holds a respectable position in the academic world where its graduates feel well prepared and seek it out to further pursue their post-graduate studies. However, the once they do graduate, the Lebanese job market seems to meet less than 50% of these graduates' aspirations. Hence, one can deduce that the surveyed universities have adapted their curricula to meet labor markets abroad.

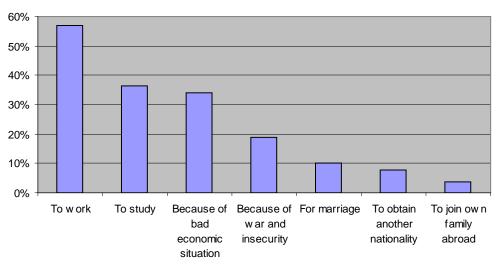
EMIGRATION

The majority of Lebanese graduates emigrate to neighboring Arab countries. The economies of the Arab world are, in general, better off than the Lebanese economy, in addition to the fact that investments by multinationals in the Arab world outnumber, in size and The graph below sheds light on why graduates are emigrating. More than 50% of graduates emigrate to find jobs or better jobs. It is worth noticing that seeking employment, pursuing education and the country's bad economic situation are the top three reasons graduates leave Lebanon. War and insecurity are fourth in the pecking order of reasons to emigrate.



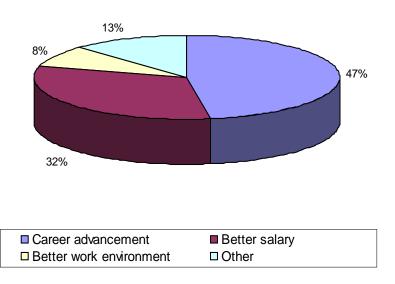
Graph 6: Distribution of emigrant graduates

number, investments by multinationals in Lebanon. The reasons for the low number of foreign direct investments in Lebanon were mentioned earlier – barriers to entry, lack of transparency, fair competition laws, to mention but a few.



Graph 7: Top reasons for emigration

The majority of graduates reside abroad, distributed amongst the Arab states, Europe and the US. The main reason they chose to leave was a better working environment (Graph 8, below). This answer includes a better working environment and a higher salary than unknown findings. It revealed the alarming high rate of male emigrants and the time that graduates spent looking for a job differed amongst different majors. Female emigration is on a rise. Today, it is almost threefold what it was eight years ago. The survey also revealed how graduates choose their majors and who generally pays for them, where alumni are based and their domain of work, and the reasons they chose to emigrate.



Graph 8: Top reasons for work emigration

they would be earning at home. Hence, as was mentioned earlier in this study, Lebanon fails to compete in providing graduates with enough work opportunities that meet their expectations work environment-wise and salary-wise.

Additionally, the lack of a satisfactory working environment could be a direct result of the abundant small and medium family-owned enterprises in Lebanon. Their domination spreads a lack of professional business culture that Lebanese graduates from the top four universities try to avoid through emigration.

Finally, from the survey answers, it can also be noticed that a vast majority of those living abroad think about returning home, 41.2%. Ironically however, the majority of those living and working in Lebanon think of leaving the country, 47.4%. This survey shed light on previously

III. Policy Recommendations

This study began by giving a brief socio-economic overview of the Lebanese economy and the job market. It focused on the situation that is faced by graduating students. It shed light on important topics that the Lebanese constantly have to deal with, namely the growing public debt, emigration and unemployment. The study highlighted the main obstacles to growth in the economy and attempted to convey that there is a direct link between lack of growth and opportunities and emigration, especially emigration of the youth labor force. The labor market and universities in Lebanon have adapted to the market conditions where graduates are managing to find jobs abroad. The approach to maintaining Lebanon's top graduates needs to be tackled from a macroeconomic point of view with a balance of universities being more creative in updating their programs. In harmony with any study that sheds light on a societal problem, policy recommendations will be offered below hoping that the concerned parties take as many of them as possible into consideration.

The AUB and Hariri Foundation for Sustainable Development survey asserted this link and even brought forward data that was previously not accounted for such as the alarming high rate of males abroad and the threefold increase of female emigrants in the past few years. However, regardless of the bleak picture portrayed, there certainly are some necessary and bold steps that could and need to be taken by the Lebanese policymakers to put the economy, society and the country as a whole on the track to sustainable and balanced growth. The Lebanese policymakers, both in the public and private sector, need to address the 'push' factors that drive emigrants abroad, since a small nation such as Lebanon can do very little to influence the 'pull' factors such as petrodollars and other mentioned earlier in this report.

Growth needs investment. Investments, whether by already existing and operating companies or by new entrants, create jobs. There are several measures that could be taken that could stimulate real growth in the Lebanese economy. The state has to immediately find ways of dealing with its spiraling public debt. It can either enact a set of state reforms that make it more efficient whereby the number of productive employees rises and the number of inefficient employees are either relocated or offered early retirement package incentives. Simultaneously, these measures must be accompanied by a set of reforms that attract investors and investments. Growth also needs to play on Lebanon's competitive advantage, like for instance trade, health care, education, (eco)tourism and banking and make sure it is sustainable and equally distributed amongst the various Lebanese regions and not centered in the capital and its suburbs. Lebanon must set the foundations to become a producing nation. The general rule is that the more nations produce, the wealthier they are, hence growth, jobs and the youth are provided with incentives to remain at home and work.

Lebanon's public debt continues to grow each year. Therefore, it is fair to conclude that not many effective and concrete steps have been taken to mend the situation. Investors are not attracted to debt-ridden nations. High debt to GDP ratios is not a foundation of economic stability. The Lebanese state has some economic plans, such as Paris 3, that can guide it in taking concrete steps to alleviate the growing debt burden. Accompanying these measures, the state can decrease interest rates on T-bills in order to encourage banks to lend money to entrepreneurs rather than having them heavily lend the state, which is the case today. Lower interest rates cease the current crowding out of investments, and in turn capital accumulation and productivity growth. Lower interest rates also encourage entrepreneurs to invest in productive projects rather than freezing their money in banks. The state can also reform the exclusive representation import law. Opening up the market increases competition, investment and consequently brings with it growth and new and better jobs. The high start-up and shut-down costs of companies must also be addressed. Start-up procedures must also be more efficient, such as installing a power meter. Government fees must be re-evaluated. The telecommunications sector needs to be improved in order for it to catch up with countries such as Jordan, UAE, Saudi Arabia and Egypt. High speed Internet has been shown to contribute to 2% growth in developing economies (Broadband Lebanon).

The state should also tackle corruption in its agencies. It needs to make sweeping changes in its way of processing its paperwork. Increasing automation, increasing investment in skilled public sector jobs and being stricter with its employees helps combat corruption. Moreover, enacting a system of reward and punishment and reviewing the salaries of employees with a clean slate can help encourage employees to be less tempted to take bribes from citizens and businessmen (and businesswomen). In short, the state should hire and treat its staff on a system based on merits rather than duration and religion; the goal of every government servant should be to facilitate citizens' paperwork and not treat his (or her) job as an end in itself.

Lebanon is a country with a few natural resources that heavily relies on imported oil for its energy. Knowing that oil prices will continue to fluctuate and rise, the Lebanese state must seek real and tangible solutions for its energy needs. A framework and laws should be put in place whereby investment in alternative sources of energy is encouraged, in addition to taking into account its high tariff in the power sector. High power costs push away potential investors, especially those seeking to invest in medium and heavy industries. Investment in alternative sources of energy also helps creates green jobs that cater to highly skilled graduates. Moreover, the power grid needs a major overhaul improving the overall infrastructure. The power sector combines high costs of production with severe price distortions. Lebanon's electricity tariffs are among the highest in the region, which is an added factor that repels investments.

Economists advising the state must find a way to deal with

the high cost of living. For example, a good number of Lebanese are forced into emigration in order to be able to afford the house they want. Hence, the state must interfere in finding a balance to this existing equation. Real estate prices must be less subject to speculation (by enforcing a capital gains tax for example) and the housing market must be monitored more closely through state intervention. Owning a house must be considered a constitutional right. The youth labor force must have easier access to mortgages and housing loans regardless of their income.

The education sector must also be addressed. Education is the building block of any society, let alone a society that claims it spread the use of the current alphabet. The teacher to student ratio must be addressed in the public sector. A system must be put in place to hold teachers accountable and promote or demote them based on their students' results. Less money should be spent on wages and more money should be spent on teacher training programs and facilities.

In the public and private sector, more attention must be given to training teachers and steering students towards fields that are needed in the job market. Any gaps and inconsistencies between the structure of higher education programs and the real needs of the job market need to be resolved. Market studies should be conducted, consulting existing employees, to design curricula that suit the job market. The educational system should make youths even more attractive to potential local employers. It should also feature curricula that teach skills that promote local job creation, rather than catering to foreign-based multinationals.

In order to decrease the percentage of students dependant on their parents for their university tuition, scholarships should be made more easily accessible through state sponsored low interest student loans.

High school graduates applying to universities must be informed of what the economy needs in the short and long run. They must be exposed to data that reveal the current economic situation and what sort of jobs the country needs. High school students need professional guidance and hence this step could decrease the waiting time in between graduating and finding a job. Accordingly, universities must also be informed and exposed to similar economic data. They must be encouraged to develop their curricula to meet the needs of the developing economy. There are sectors that can create jobs that have not really been put on top of the agenda, especially in areas like sustainable development, alternative energy, and also areas that are pertaining to agrofood production, and especially the water sector. The Arab region is facing tremendous challenges in terms of its food security, and there are many resources that are untapped, especially using water projects or massive public works projects to create some kind of infrastructure for better agrofood industries. There are many successful cases that can be looked at.

Innovation and inventions should be protected and encouraged. Funds should be made available to support graduates who have unique ideas. Lebanon should work on providing a medium for its achieving youth in order to hinder the brain drain. For this policy to succeed the public and private sectors must come together in order to be able to accommodate and offer graduates similar opportunities to those they encounter abroad. Regarding unemployment, alternative routes should be developed through which youths access their first-time employment. For instance, youth employment centers could be set up, in partnerships between the state and Non Governmental Organizations (NGOs). In these centers, young graduates can look for jobs, obtain advice on career choices and how to best find a job suited to their particular skills. Additionally, these centers could play the role of allocating youths in between jobs to social service activities. Getting youths to participate in these activities, even on a temporary basis, helps them feel less isolated and less discouraged over their lack of ability to immediately find a job.

Labor laws in Lebanon need to be made more attractive to investors. Social security (NSSF) should review its rates and cease to be a maze where the simplest forms take way too long to be processed. Giving a role to the private sector in employees' social security could enhance competition, bring prices down and increase the quality of the service provided to the employee.

Furthermore, it is impossible for any economy to make do without small and medium enterprises (SMEs). Lebanon has a high 85% of companies that are SMEs. However, in order to improve the working environment, measures must be taken whereby foreign multinationals are encouraged to

be based in Lebanon and even partner local existing SMEs. Having foreign partners lifts the level of business of SMEs, makes them more professional, opens up markets, and hence increases growth and jobs.

In the short term, NGOs can act on several fronts to tackle the situation:

- Help establish and/or strengthen the career guidance offices in public and private universities and vocational schools.
- Encourage companies to adopt more internships and training opportunities for students and graduates, and promote internships as part of the university curriculum.
- Establish a mentorship program between former graduates and students, to exchange expertise and guidance on career paths. This is a "One on One" mentoring of a youth by an unrelated adult trained volunteer for one year.
- Alleviate unemployment through providing a training program for youth which corresponds to public and private market needs, by: a) Providing disadvantaged youth with specific and basic labor skills to turn them into semi-qualified workers.; b) Develop the youth's social and communication skills to help them integrate into their jobs; c) Reinforce labor training institutions to work to answering the expectations of the targeted youth and the needs of the private sector.
- Assisting young people to become entrepreneurs capable of creating and sustaining profitable small enterprises which will further create employment
- Support a permanent national human resources study team, aiming at studying the matching process between the supply of degrees and the demand of labor, highlighting areas of potential jobs growth.
- Provide secondary school drop-outs with a second chance flexible education program, through flexible and accelerated learning programs at night and during weekends.

In conclusion, no matter how troublesome the economy may seem and no matter how dire the situation of the youth labor market currently is, the will to solve these problems can rise above all the obstacles. Accompanying this will, should be a set of goals and a vision to make Lebanon a place where people flock to come to and those who leave are doing so out of choice and not out of need or desperation.

Appendix I: Technical note on sample size for alumni survey

In order to compute our ideal graduate sample size, we have to first evaluate the target population size. It is estimated that on average 14,000 students graduate per year in Lebanon. As we are surveying graduates from 1994 until 2004, we have a total of almost 140,000 Lebanese graduates.

The required sample *n* size to evaluate the mean distribution is given by the following formula:

$$n = \frac{(z_{\alpha/2})^2 \sigma^2}{ME^2}$$

where z is the z-statistic associated with a confidence level α , σ is the population standard deviation, and *ME* is the required margin of error on the estimate.

As we don't have information on the population standard deviation, it can be conservatively estimated as $\sigma = R/4$, where R is the range of observations. So σ will be equal to 140,000/4=35,000.

For a margin of error ME=10% of the standard deviation (ME=3,500), the required sample size n, for a confidence level of $\alpha = 1\%$, will be given by:

$$n = \frac{(1.99)^2 35,000^2}{3,500^2} = 396.$$

Therefore the minimum sample size to have a nationally representative graduates survey is 396 individuals for the time period under consideration.

A similar computation can be done for the population proportion, where the formula to compute the minimum sample size is given by:

$$n = \frac{(z_{\alpha/2})^2 [p \times (1-p)]^2}{ME^2}$$

where p is the population probability. For p=0.5 and a confidence level of α =5%, with a margin of error ME=5%, we get the following values:

$$n = \frac{(1.96)^2 (0.5 \times 0.5)^2}{(0.05)^2} = 384.$$

Our sample size is 430, which is above the required sample size computed above. Our sample is therefore nationally representative, i.e. it is a good representation of university alumni who graduated between 1994 and 2004, and who responded to an email-based questionnaire.

Appendix 2: Survey questionnaire

Higher Education and Labor Market Outcomes in Lebanon Questionnaire

Section I: Background Information

Please indicate the following about yourself. Rest assured that all of your responses to this survey are confidential.

Name	(Optional): _	Last name	First name	
1.	Age (in yea	rs)	-	
2.	Gender:	male	Female (Drop Dov	vn Menu)
3.	Nationality:	(Drop Down Menu)	4. Other Nationality:	(Drop Down Menu)
4.	Specify curi	rent country of resider	nce: (Drop Down Men	u)
5.	Parents' ed	ucation (choose one)		
Mothe 0- illite 1- liter	erate	Father: 0- illiterate 1- literate		
2- kind 3- prin 4- inte	dergarten nary ermediate	2- kindergarten 3- primary 4- intermediate		
6- voc	ational	5- secondary 6- vocational 7- university 8- post-graduate		
Mothe	er:	ncipal occupation:		
7. 1. Sino	What is you gle	r current marital statu		

- 3. Married 6. Separated
- 8. Number of children (if applicable): _____

Section II: Educational Information

9. How many years have you attended at [you need to insert the name of the university here then a space for the number of years]-----?

10. What degree do you hold from [insert name of the university here then an empty space for the answer]------?

a.	Bachelor	Major:	Class of:
b.	Masters	Major:	Class of:
C.	Doctorate	Major:	Class of:

- 11. How did you choose your major? It can be a combination
- 1. Parents' and family advice
- 2. Advice from friends
- 3. Information through school announcements
- 4. Own conviction
- 5. Other, please specify: _____

12. How did you finance your university education? (you can choose more than one option)

- 1. Parents' expenses
- 2. Wage from work or other personal income
- 3. Financial aid from University
- 4. Financial aid from non-university entities
- 5. Student loan
- 6. no answer
- 7. Don't know
- 8. Other, specify: _____
- 13. How do you rate your academic performance during your university studies?
- 1. Top 5% of class
- 2. Top 10% of class
- 3. Top 30% of class
- 4. Top 50% of class
- 5. no answer
- 6. Don't know
- 14. What is your current status with regard to graduate/ professional study? (select

one only)

- a. Have not applied (Go to Q 15)
- b. Have applied but have not been accepted (Go to Q 16)
- c. Have been accepted but have not enrolled (Go to Q 16)
- d. I am currently enrolled
- e. Have already completed a graduate degree
- f. Not applicable
- g. Other, specify: _____

15. If you have been enrolled or already completed a graduate degree indicate (for highest degree obtained):

- a. Institution name:
- b. Institution Country: _____
- c. Degree sought _____
- d. Field of Study: _____

16. Please list all licenses and certifications you currently hold (example: CPA, teacher certification, real estate license) and when you received them

License or Certification	Year received

Section III: Educational Experience

Alumni sometimes find that their assessment of their undergraduate/graduate experience change over time. Reflecting back on your undergraduate/graduate experience, please answer the following based on your current assessment:

(5 being very well, 4 well, 3 sufficiently, 2 slightly, 1 not at all)

17. Overall Impressions

Questions	Score from 1-5
To what extent did your experience at your university prepare you for your career?	
To what extent did your experience at your university help you de- velop personal confidence?	
To what extent did your experience at your university help you de- velop emotional maturity?	
To what extent did your experience at your university enhance your social skills?	
To what extent did your experience at your university develop your awareness of the impact of your work on society?	
Did your degree enhance your technical skills?	
Did your degree enhance your managerial skills?	
To what extent do you think that your university education was a good value for money?	

18. Specific Factors

While you were a student at your university, how satisfied were you with?

(5 being very satisfied, 4 satisfied, 3 sufficiently satisfied, 2 slightly satisfied, 1 not at all satisfied)

Factor	Score from 1-5
The size of the College	
The core curriculum	
The number of degrees offered	
The student support services	
Career orientation services	
Student life at campus	
Quality of instructions in your Major	

19. How well did [name of the university goes here] prepare you for the demands of your cur-

rent position?

- a. Very well
- b. Well
- c. Sufficiently
- d. Slightly
- e. Not at all: Specify areas that you were not prepared in by the University:

f. Not applicable

20. If currently pursuing a graduate degree, how well did [name of the university goes here] prepare you for the demands of your current graduate or professional school?

- a. Very well
- b. Well
- c. Sufficiently
- d. Slightly
- e. Not at all
- f. Not applicable

21. To what extent has your education from [name of the university goes here] been personally rewarding?

- a. Very much
- b. Moderately
- c. Very little

22. To what extent has your education from [name of the university goes here] help you find specifically what you wanted?

- a. Very much
- b. Moderately
- c. Very little

23. To what extent has your education from [name of the university goes here] been financially rewarding?

- a. Very much
- b. Moderately
- c. Very little

24. Would you recommend your major to a friend considering a similar program?

- a. Yes, with no reservations
- b. Yes, with some reservations
- c. No, probably not
- d. No, under no circumstances

25. Would you recommend – [name of the university goes here] to a friend considering college or graduate education?

- a. Yes, with no reservations
- b. Yes, with some reservations
- c. No, probably not
- d. No, under no circumstances

Section IV Transition to Work

26. Were you working while attending [name of the university goes here]?

- a. yes, employed in a paid job
- b. yes, working as an intern/trainee
- c. yes, working in a non-paid voluntary service activity
- d. no, I was not working
- e. Other, specify: _____

27. If you were seeking employment after graduation, how long did it take you to find a job?

- a. Less than 3 months
- b. 3 to 6 months
- c. 6 months to 1 year
- d. Longer than one year
- e. I am still looking
- f. I have not sought employment since graduation
- g. Not applicable
- h. Don't know/Not sure

28. Was your first job after graduation (include your employment if already employed) directly related to your field of study?

- a. Very related
- b. Somewhat related
- c. Not at all related
- d. Not applicable
- e. Don't know/Not sure

29. How did you find your first job? (it can be a combination)

- a. Learned about it through media
- b. Direct application to employers
- c. From friends, relatives, and colleagues
- d. Through the university career placement service
- e. Participating in a competition
- f. Through relations with influential people
- g. Other: _____

30. What is your current employment status? Select one option

- a. Currently unemployed
- b. Currently self-employed
- c. Currently employed full-time in a career job
- d. Currently employed in a non-career or temporary job
- e. Currently inactive and not in school, aim to work later
- f. Currently pursuing my studies
- g. Not working, engaged in home duties (including child care)
- h. Unable to work due to sickness/disability
- i. Other: ____

- 31. To what extent does your current job relate to your major/ field of study?
- f. Very related
- g. Somewhat related
- h. Not at all related
- i. Not applicable
- j. Don't know/Not sure

32. To help us get the clearest picture of what our graduates do, please provide the name and location of your current employer, and your current Job title

- a. Employer name: _____
- b. Country /City: _____
- c. Job title: _____
- d. Sector:___
- e. Been in this job since (year): _____

33. Within what range is your current net monthly income? Select one.

- a. Under \$500
- b. \$500 to \$999
- c. \$1000 to \$1499
- d. \$1500 to \$1999
- e. \$2000 to \$2499
- f. \$2500 to \$2999
- g. \$3000 to \$3499
- h. \$3500 to \$3999
- i. \$4000 to \$4999
- j. \$5000 to \$5999
- k. \$6000 to \$6999
- I. \$7000 to \$7999
- m. More than \$8000
- n. Not applicable
- o. Prefer not to answer
- p. Don't know

34. Are you currently seeking another job? Yes No

- 35. Did you obtain skills for your job through any of the following?
- a. Yes, company workshops and trainings
- b. Yes, trainings organized by professional associations
- c. Yes, I attended training sessions I have selected and paid for on my own
- d. No, training sessions attended

What are topics for trainings you would like to attend?

Section V Migration

36. If you currently live outside your home country (Lebanon), when did you emigrate (year)? _____

37. What were the initial reasons for you to migrate? (Choose the top 2 answers that best represent you)

- a. to work
- b. to study
- c. to join my family abroad
- d. marriage
- e. bad economic situation in the country
- f. war and insecurity
- g. to obtain another nationality
- h. other:
- i. no answer

38. If you left your country to work abroad, choose the top reason why: (Choose the top 2 answers that best represent you)

- a. Better salary
- b. Better working environment
- c. More job offers
- d. Better environment for doing business as an entrepreneur
- e. Cheaper living conditions
- f. More opportunity for career advancement
- g. Couldn't find a job in my home country
- h. Other: _
- i. No answer

39. If you have left your country to pursue education abroad, would you consider coming back?

- a. Definitely
- b. Maybe
- c. Probably not
- d. No way
- e. Undecided

40. If you are currently living in your home country, would you consider emigrating?

- a. Definitely
- b. Maybe
- c. Probably not
- d. No way
- e. Undecided

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