

*White Paper on The
Economic & Social
Implications of the
Requested Minimum
Wage Increase*

Preliminary Document

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On

September 5th, 2011

Executive Summary

Adjusting minimum salary is a complex measure that does not only affect the economy as a whole in all its compositions but also affects the social mobility. Thus, in order to study salary adjustments in depth, the requirements are proper planning and regular independent studies that should be based on credible data.

i.e. Muhanna & co has carried out an independent study of the issues to consider pertaining to the direct and indirect cost implications of adjusting the salary structure in Lebanon. In particular, we refer to the current national debate proposed by the General Labour Confederation (“GLC”), on the need for increasing the minimum wage from LBP 500,000 to LBP 1,250,000 and its implications on the national economy.

Economic & Social Implications of the Proposed Minimum Wage Increase

Our review of the situation in Lebanon as well as the consequent analyses indicate that there may be some need for increasing the minimum wage, albeit not at the proposed level of LBP 1,250,000.

The main objectives of a statutory minimum wage do not include the alleviation of poverty among the unemployed, but rather alleviation of poverty among low-paid and low-skilled workers. In fact, as companies try to balance their expenses for the new requested minimum wage we note that any large increase in the minimum wage would result in:

- more unemployment among these low-paid and low-skilled workers in the formal sector as employers resort to reducing staff or working hours or other forms of compensation
- the closure of some companies
- a non competitive exporting environment
- increase in cost of living

Thereby pushing more and more vulnerable workers and families into poverty.

Therefore although the main objectives of a statutory minimum wage do not include alleviation of poverty among the unemployed, the improper use of the statutory minimum wage may both aggravate and intensify employment and thus poverty.

The minimum wage can however be increased in accordance with the inflationary pressures experienced since 2008 and the cost of living of low income groups, subject to employer’s capacity to pay such an increase. According to a report published by the World Bank, there is evidence that shows if the minimum wage is set at a moderate or reasonable level, then it is not likely to entail in unfavourable economic consequences, such as substantial employment losses.

Furthermore, it ensures a minimum standard of living for low-skilled/low-paid workers and although an increase in minimum wage may help the working poor, it will hardly reduce poverty at large¹.

The minimum wage level is therefore a balancing act between an acceptable minimum standard of living and the negative repercussions on employers and therefore ought to be based upon:

- Employer- or Household-based income and expenditure surveys
- Study of Labour market conditions
- National and Regional Wage Distributions

A clear indicator of the importance of minimum wages is the ratio of minimum wage to average wage in the economy. The higher the ratio, the better the relative position of the salaried employee, but the worse the economic repercussions. The World Bank has developed a categorization of these ratios ranging from “Low” to a “Very High”. Currently, the ratio in Lebanon is around 40%, placing it in the “Medium High” to “High” spectrum. However, it can be stipulated that if the requested minimum salary adjustment were to take effect, the minimum to average wage ratio would increase to around 60%, placing Lebanon well into the “Very High” categorization.

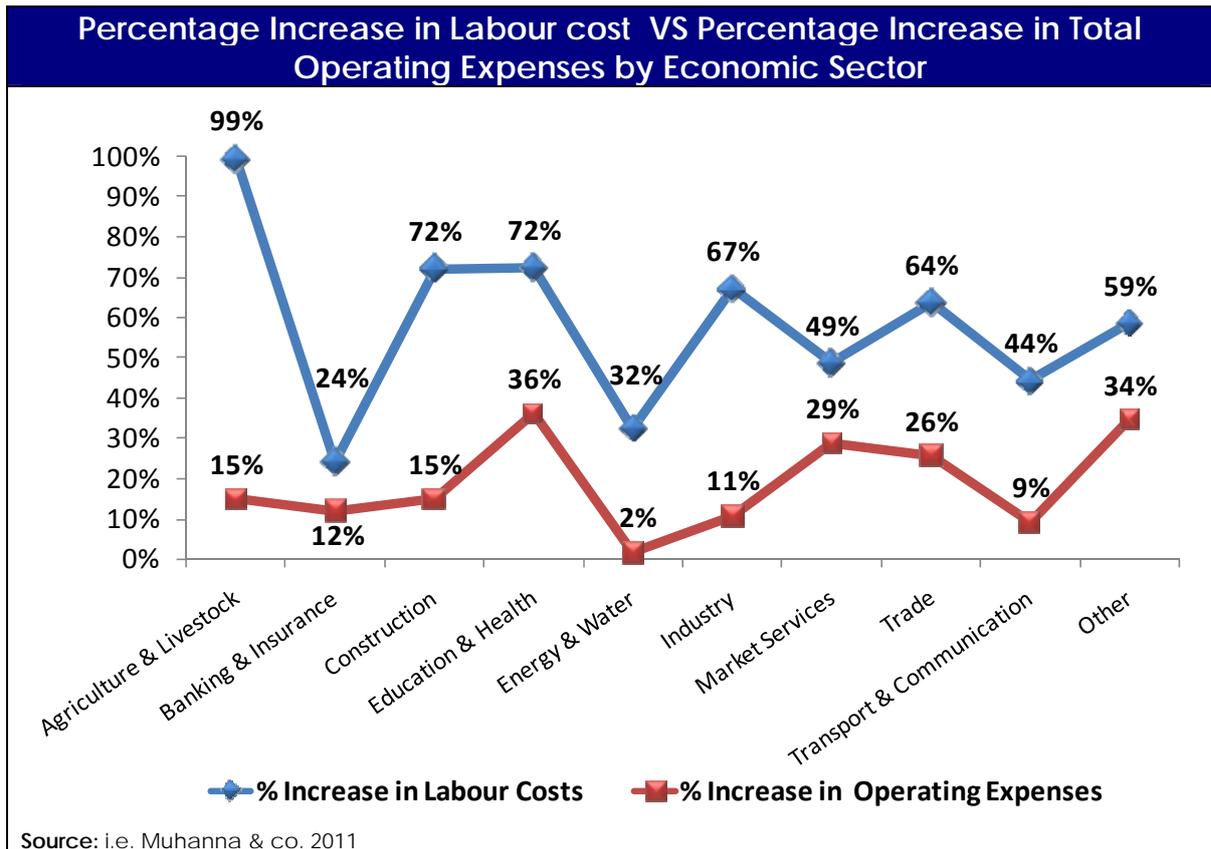
Cost Implications of Salary Adjustments

The salary adjustment as requested by the General Labour Confederation is expected to increase the average salary of employees by 52%. Due to disparities in salary levels, this increase would be as high as 99% in the Agriculture & Livestock Sector and as low as 24% in the Banking & Insurance Sector.

The requested salary increase will incur additional operating expenses for all businesses. However, the level of increase in operating expenses differs by economic sector from as low as 2% in the Energy & Water Sector – in which the labour costs component constitutes only 5% of all the operating expenses – to as high as 36% in the Education & Health Sector – in which the labour cost component constitutes around 50% of the operating expenses.

The figure below clearly depicts the difference between the suggested adjustments and their respective implication on operating expenses.

¹ J. Rutkowski, “*The Minimum Wage: Curse or Cure?*”, The World Bank, 2003



Concluding Remarks

The purpose of an increase in the minimum wage level is to increase household income for low-paid workers to cover their expenses. An alternative method to increasing household purchasing power can therefore be by reducing household expenses via **government subsidies**. Therefore the government should consider providing better essential services including Water, Electricity and Public Education as well as subsidizing expenses of Public Transportation, Telecommunications and Housing, in tandem with a moderate increase in minimum wage. This could be easily done through an equitable tax regime.

To quantify only three of the above provisions, a reduction of household expenses could come about through **reform of electricity, water and public transportation sectors**. It was recently quoted in The Monthly that more than USD 600 million are paid annually by households and offices to bottled water companies (since the public network system of water is either polluted or non-existent) and more than USD 400 million are paid annually to owners of generators². This amounts to an approximate monthly cost of USD 45 for water and USD 30 for electricity powered by a generator³ along

² J.N. Adra, "Drains", The Monthly, p. 3, Information International sal., Issue 103, February 2011

³ Figures are arrived out by dividing the cost by the total estimated number of households, as stated in the Central Administration of Statistics' Living Conditions Survey in 2004, and offices, as stated in the Central Administration of Statistics' Census of Building Dwellings and Establishments in 2004

with minimum savings of USD 25 in commuting to work alone. In the event of reforms of the water and electricity sectors as well as public transportation, household expenses would reduce by at least USD 100 per month.

In order to provide an estimate of the required minimum wage increase, we consider that the minimum wage should be approximately 150% of the poverty line. Based upon our analysis of the annual household expenditures, minimum wage and poverty line, we see that this places the minimum wage at approximately LBP 750,000 per month. Thus indicating the need for a correction of the current statutory minimum wage.

Any correcting measures to wages should not over look the necessity in correcting NSSF contribution rates. At such a time, the employees would profit from improved and timely benefits from the NSSF in the long run; thus reducing the healthcare expenses for the NSSF beneficiaries.

Our report and other supporting studies have shown that such a large and ad-hoc increase in the minimum wage may result in negative repercussions on the economy, leading to more unemployment, higher inflation and consequently more poverty, thereby harming the very group of people that the minimum wage is supposed to help.

Any increase in the statutory minimum wage, however, **must be properly planned and supported by independent and regular studies that are based on credible data.**

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1. Introduction

- 1.1 i.e. Muhanna & co (“we”) has carried out an independent study of the issues to consider pertaining to the direct and indirect cost implications of adjusting the salary structure in Lebanon. In particular, we refer to the current national debate proposed by the General Labour Confederation (“GLC”), on the need for increasing the minimum wage from LBP 500,000 to LBP 1,250,000 (“the requested adjustment”) and its implications on the national economy.
- 1.2 This study provides indications of the cost implications on different economic sectors and raises critical issues to be considered when estimating the impact of the salary adjustments and its social repercussions.
- 1.3 Section 2 discusses the economic and social implications of the requested minimum wage adjustment.
- 1.4 Section 3 presents the analysis carried out on the data at hand.
- 1.5 Section 4 builds on the labour cost as a component of the expenditure per sector. Also, this section describes the methodology used to calculate the financial implications of any change in the labour cost.
- 1.6 Section 5 summarizes the results on the cost implications of correcting and adjusting salaries.
- 1.7 Section 6 concludes our main findings.

Report's Limits, Allowances & Acknowledgements

- 1) This report provides an indication of the direct and indirect costs of adjusting the salary structure in Lebanon. It is not intended nor is it necessarily suitable for any other purposes.
- 2) It is important to note here that this report is not exhaustive as it is only meant to raise some of the critical issues with regards to the effect of salary adjustments. The quantified estimate of the cost impact, and any other economic or poverty estimates, should be the subject of a separate thorough study based on more extensive data and policy directions.
- 3) According to this report prepared by i.e. Muhanna & co, reliance is placed on, but not limited to, the accuracy of the Lebanese Economic Accounts, The Ministry of Finance, The World Bank, the Association of Lebanese Banks, the Central Administration of Statistics, our database, some employers and International benchmarks.
- 4) i.e. Muhanna & co assumes no responsibility whatsoever in respect of, or arising out of, or in connection with the contents of this report to third parties.
- 5) This report is for public distribution. Any use of any part of it or referrals to it must be properly referenced and must abide by copyright regulations.
- 6) Special thanks to Ms. Mona Auji and Mr. Georges Azzi, both actuarial staff at i.e. Muhanna & co, for their invaluable work and effort in preparing this study.

2. Economic & Social Implications of Raising the Minimum Wage

2.1 Introduction

2.1.1 According to the International Labour Organization, the intended objectives of establishing minimum wages are to prevent exploitation of workers by employers, to promote a fair wage structure, to provide a minimum acceptable standard of living *for low-paid workers* and, eventually, to alleviate poverty, *especially among working families*⁴.

2.1.2 The objectives of setting a minimum wage therefore do not include the alleviation of poverty among the unemployed. In fact, traditional microeconomic analysis tells us that statutory established minimum wage laws may in fact lead to increased unemployment, in particular large increases in the minimum wage.

2.1.3 This is due to the theoretical reasoning that any minimum wage set at a level higher than the “equilibrium wage” would result in an excess supply of labour; as employers would no longer be willing or capable of paying the minimum wage, thus reducing employment opportunities for the unemployed.

2.1.4 In fact, as companies try to balance their expenses for the new requested minimum wage we note that any large increase in the minimum wage would result in:

- o more unemployment among these low-paid and low-skilled workers in the formal sector as employers resort to reducing staff or working hours or other forms of compensation
- o the closure of some companies where their average salary is closer to the existing minimum wage
- o increase in the labour cost hence a non competitive exporting environment
- o Higher inflation

thereby pushing more and more vulnerable workers and families into poverty.

⁴ ILO, 1992

2.1.5 According to a report published by the World Bank, there is evidence that shows if the minimum wage is set at a moderate or reasonable level, then it is not likely to entail in unfavourable economic consequences, such as inflation and substantial employment losses. Furthermore, it ensures a minimum standard of living for low-skilled/low-paid workers and although an increase in minimum wage may help the working poor, it will hardly reduce poverty at large⁵.

2.1.6 Employees affected by salary adjustment

Population Category	Year 2009*
Population (Aged 15-64)	2,495,000
Labor Force	1,190,000
Employed	1,080,000
Unemployed	110,000

Breakdown of Employed Population	Year 2009*
Employed	1,080,000
NSSF Subscribers	340,000
Civil Servants Cooperative Subscribers	60,000
Military Schemes Subscribers	120,000
Formal Sector = 48% of Total	520,000
Informal Sector = 52% of Total	560,000

⁵ J. Rutkowski, "The Minimum Wage: Curse or Cure?", The World Bank, 2003

2.2 Implications of a minimum wage increase on the economy

2.2.1 Minimum Salary to Average Salary Ratio

A clear indicator of the importance of minimum wages is the ratio of minimum wage to average wage in the economy. The higher the ratio, the better the relative position of those workers earning minimum wage, but the worse the economic repercussions on employment. Such an analysis is generally used to describe the minimum wage system as well as to guide policy decisions.

Focusing on the requested minimum wage adjustment from LBP 500,000 to LBP 1,250,000, we resort to a benchmark analysis of minimum wages as a percentage of the average wages paid in the Lebanese economy (across all formal employment sectors). The World Bank has developed a rough categorization of the minimum wage: average wage ratio based on varying ratios across countries⁶:

Table 2.1: World Bank Categorization of the Minimum to Average Wage Ratio

Minimum Wage Level	Percentage of the Average Wage
Low	<20
Modest	20 – 29
Medium High	30 – 39
High	40 – 49
Very high	>50

A high minimum wage level means that the distribution of employees by salary bracket is highly skewed to the right; in other words, most of the salaries are concentrated near the minimum wage.

Furthermore, a high minimum wage level has many implications on the labour force:

- Higher unemployment rates: as discussed previously, employers that are not able to pay the minimum wage for all their employees, would resort to adopting several alternative measures: ranging from reducing their staff to reducing the working hours to suspending the recruitment process;
- Counter-effects the compensation policies of employers: a high increase in the minimum wage will prevent businesses from implementing their planned compensation policies (incentives & merit increases, pay for performance, annual review of compensation package, etc.);

⁶ J. Rutkowski, "The Minimum Wage: Curse or Cure?", The World Bank, 2003

- Discrepancies and employees' inefficiency: since a high minimum wage level would lead to a concentration of salaries within a narrow range above the minimum, this will have a disincentive effect on experienced/efficient employees earning a salary close to unskilled/inefficient employees.

The following table represents the average monthly salary in LBP 1,000 across **all economic sectors** over a period of 8 years⁷, as well as the respective monthly minimum wages and ratios:

Table 2.2: Minimum : Average Wage – All Economic Sectors

Year	2003	2004	2005	2006	2007	2008	2009	2010*
Avg Sal (1)	1,067	1,054	1,087	1,121	1,144	1,264	1,368	1,423
Min Wage (2)	300	300	300	300	300	500	500	500
Ratio of (2):(1)	28%	28%	28%	27%	26%	40%	37%	35%

**Estimates based upon the average annual salary increase*

The above table shows that the Lebanese minimum wage lay in the “Modest” spectrum from 2003 until 2007, while the minimum wage was LBP 300,000 and moved up to the “Medium High” spectrum after the statutory increase of 2008 to LBP 500,000.

The Banking and Insurance Sector within Lebanon, is the highest earning sector on average and therefore it would be prudent to conduct the above minimum/average wage analysis on the Average Salary that *excludes the Banking and Insurance Sector*. The following table depicts this analysis:

Table 2.3: Minimum : Average Wage – Excluding Banking & Insurance Sector

Year	2003	2004	2005	2006	2007	2008	2009	2010*
Avg Sal (1)	932	938	952	981	1,017	1,141	1,225	1,286
Min Wage (2)	300	300	300	300	300	500	500	500
Ratio of (2):(1)	32%	32%	32%	31%	30%	44%	41%	39%

**Estimates based upon the average annual salary increase*

⁷ The discussion on data sources and analysis is available in Section 3

The above table shows that the Lebanese minimum wage lay in the “Medium High” spectrum from 2003 until 2007, while the minimum wage was LBP 300,000 and moved up to the “High” spectrum after the statutory increase of 2008 to LBP 500,000.

It can be stipulated that an increase of the minimum wage to LBP 1,250,000 would raise the average salary to an approximate value of LBP 2,000,000 over the course of 2 to 3 years. This would result in a minimum to average wage ratio of around **60%**, thereby placing the minimum wage level in the “**Very High**” category, which gives us an indication that such a significant increase of the minimum wage is not suited for the current level of wages in the economy.

2.2.2 Minimum Wage, Poverty and the Informal Sector

According to the World Development Report on Labour Markets, “Minimum wages may help protect the most poverty-stricken workers in industrial countries, but they clearly do not in developing nations”⁸. The reason for this is that poverty lines are generally lower in developing countries and workers who benefit from minimum wage increases are usually not the poorest of the poor.

Informal Sector

It comes as no surprise to anyone on the ground that many Lebanese citizens resort to working in the informal sector in order to earn a living or to complement their salaries from the formal sector.

Although little data is available on the magnitude or distributions of people involved in the informal sector, we do know that coverage of the minimum wage laws only apply to salaried employees in the formal sector, thus excluding the self-employed and other categories from coverage as the statutory minimum wage is difficult to enforce in the informal sector.

Furthermore, it may be theoretically stipulated that such a significant increase in the minimum wage may lead to higher unemployment in the formal sector- as employers will need to let go of some employees in order to contain costs- thus pushing more and more Lebanese citizens to the uncovered informal sector.

Minimum Wage and Poverty

A poverty study was conducted by the World Bank in association with UNDP, the Ministry of Social Affairs and the Central Administration of Statistics, in 2008 (all calculations, however, were based on expenditure

⁸ M. Walton et al , World Development Report on Labour Markets: *Workers in an Integrating World*, p.74, World Bank, 1995

data from 2005). The following characteristics of the poor were noted in the report⁹:

- “Unemployment rates in Lebanon are high among the poor. In addition the majority of the employed poor are unskilled workers.
- The salaried employment category predominates over other employment categories for the non-poor group (accounting for 53.7% of all the non-poor in Lebanon).
- But **employees paid on a weekly, hourly or piece-rate basis** are the categories most commonly occupied by the poor: such employees **constitute more than one third of the working poor. Another third of the working poor are self-employed.** *The category of non-salaried employees has the highest risk of poverty, with one out of six workers in this category being poor.*”

The poverty study also included calculations of the upper and lower poverty lines, set at \$4 and \$2.4 per capita, per day, respectively. We developed a general analysis of the minimum wage and poverty line using the following information:

- 2005 Household Income and Expenditure Survey. Household expenditures were increased up until 2009 using the Detailed Price Inflation values available at the Central Administration of Statistics (as shown in Appendix A) ¹⁰.
- Upper Poverty line of \$4 as at 2005, projected in accordance with the increase in total household expenditure up until 2009.
- From the Household Income and Expenditure Survey, we focused on the lowest category of household expenditures as a basis for our analysis, i.e. those households with annual expenditures less than LBP 6 million.
- From the Household Income and Expenditure Survey, we found that the average number of members within this household category is 2.35. The poverty line was adjusted to reflect the poverty line per household, i.e. \$9.4 a day.

The following table summarizes the results per household, per annum. Under Scenario 1, we assume one household member works full time for the minimum wage, while another household member works part time. Under Scenario 2, we assume only one household member works full time for the minimum wage:

⁹ H. El-Laithy, K. Abu-Ismaïl, K. Hamdan; *Poverty, Growth and Income Distribution in Lebanon*, World Bank & UNDP, January 2008

¹⁰ In using the 2005 household expenditures to assess the 2009 poverty line, we are essentially assuming that the expenditure basket and its respective expenditure weights have remained the same over the four years

Table 2.4: Minimum Wage, Household Expenditure and Poverty Lines

	2005	2006	2007	2008	2009
Scenario 1					
<i>Minimum Wage as a %ge of Household Expenditure</i>	120%	116%	111%	172%	168%
<i>Minimum Wage as a %ge of Poverty Line</i>	105%	102%	97%	150%	146%
Scenario 2					
<i>Minimum Wage as a %ge of Household Expenditure</i>	80%	78%	74%	115%	112%
<i>Minimum Wage as a %ge of Poverty Line</i>	70%	68%	64%	100%	98%

Under Scenario 1, with one household member working full time at minimum wage and another working part time, we see that the minimum wage was sufficient to cover household expenditure across all 5 years, although after the minimum wage increase in 2008, the household had more propensities to save. On the other hand, before 2008, the minimum wage was about equal to the poverty line which was corrected with the minimum wage increase in 2008 and 2009.

Under Scenario 2, with only one household member working full time at minimum wage, we see that the minimum wage of LBP 300,000 was not adequate enough to cover expenses. The minimum wage increase in 2008 however corrected this. On the other hand, we see that minimum wage was less than the household poverty line in earlier years and the values became equal after the minimum wage increase of 2008. Therefore this shows that there may be room in the economy for an increase in the minimum wage. But the key question that remains is how much of an increase?

Regional Disparities

The mean annual salary according to the different governorates or regions in Lebanon can be found in 'The Household Income and Expenditure Survey' of 2005, prepared by the Central Administration of Statistics. These figures are depicted in the following table along with the estimated mean annual salaries for the years 2006 to 2009, based upon our data on the average salary increase in those years.

Table 2.5: Mean Annual Salary in each Governorate, in LBP 1,000

	2005	2006	2007	2008	2009
Beirut	10,663	11,003	11,230	12,408	13,428
Mount Lebanon	9,075	9,364	9,558	10,560	11,428
Northern Lebanon	6,631	6,842	6,983	7,716	8,350
Bekaa	7,412	7,648	7,807	8,625	9,334
Southern Lebanon	6,467	6,673	6,811	7,525	8,144
Nabatiyeh	7,189	7,418	7,571	8,365	9,053

Using this data we developed the following table representing the annual minimum wage as a percentage of the mean annual salary across all governorates, taking into consideration the minimum wage increase of 2008:

Table 2.6: Minimum Wage as a Percentage of Mean Annual Salary in each Governorate

	2005	2006	2007	2008	2009
Beirut	34%	33%	32%	48%	45%
Mount Lebanon	40%	38%	38%	57%	53%
Northern Lebanon	54%	53%	52%	78%	72%
Bekaa	49%	47%	46%	70%	64%
Southern Lebanon	56%	54%	53%	80%	74%
Nabatiyeh	50%	49%	48%	72%	66%

The highest ratios of minimum wage to average salary can be seen in Northern and Southern Lebanon respectively. This illustrates the prevalence of low salaries in these regions, as well as in the Bekaa and Nabatiyeh regions. The subsequent impact of a large increase in minimum wage (i.e. the proposed LBP 1,250,000) may very well cut deeply into the wage distribution, leading to unfavourable economic repercussions such as increased unemployment in regions already experiencing high unemployment and poverty.

Estimation of the Required Minimum Wage

In order to aid in the estimation of the required minimum wage we resort to benchmarking the statutory minimum wage to the poverty line. We focus on the lowest category of household expenditures as a basis for our analysis, i.e. those households with annual expenditures less than LBP 6 million with an average number of 2.35 members within the household.

It would be reasonable to consider a statutory minimum wage set at 150% of the poverty line, thus linking the minimum wage more directly to the poor and allowing for an annual increase in the minimum wage, as the poverty line increases slightly each year with inflation. In conducting this analysis we used:

- The 2005 Household Income and Expenditure Survey. Household expenditures were increased up until 2009 using the Detailed Price Inflation values available at the Central Administration of Statistics (as shown in Appendix A) ¹¹.

¹¹ In using the 2005 household expenditures to assess the 2009 poverty line, we are essentially assuming that the expenditure basket and its respective expenditure weights have remained the same over the four years

- The upper poverty line of \$4 per capita per day, as developed by the World Bank and UNDP, projected in accordance with the increase in total household expenditure up until 2009

Using the data listed above as well as a the benchmark of 150% of the poverty line, we obtain a minimum wage level of approximately LBP 750,000 per month. Thus indicating the need for a correction of the current statutory minimum wage.

2.3 Alternatives to a Pure Increase in the Minimum Wage

In order to provide a minimum acceptable standard of living for low-paid workers, the government can take one of, or a combination of, two courses of action:

- Increasing the level of real income for low-paid workers, by increasing the minimum wage, for example
- Reducing the level of household expenditures, by subsidizing expenses such as food, water, electricity, public transportation, housing, telecommunication, healthcare etc.

In this section we explore the effects of the second option as well as any cost and financing implications.

2.3.1 Subsidization of Expenses for Low-Income Groups

Food Subsidies

According to a publication by the International Food Policy Research Institute, a decrease of 10% in food prices is likely to result in an increase of 6 to 8% in the real incomes of the poorest population decile, while the increase may be only 1 to 3 percent among the richest decile. The principle foods that have been explicitly subsidized in other developing countries, such as Egypt, include wheat, rice and sugar¹².

A 50% explicit price subsidy on the expenditure category of “Bread and Other Cereals” would result in a 10% reduction in total food expenditure. We consider this subsidy in the analysis below.

Housing Subsidies

Of the lowest category of household expenditure (i.e. those households that spend less than LBP 6 million per annum), the largest expenditure is that of “Housing, Water, Electricity, Gas and Other Fuels”. The second largest expenditure is on “Food, Tobacco and Alcohol”¹³. Therefore in addition to

¹² “Food Subsidies in Developing Countries: Costs, Benefits and Policy Options”, International Food Policy Institute, 1988

¹³ Household Expenditure Survey 2004-2005, Central Administration of Statistics.

a food subsidy, the government may consider applying a subsidy to the former category of household expenditure.

Alternatively, a reduction of household expenses could come about through reform of both electricity and water sectors, as well as Public Transportation. It was recently quoted in 'The Monthly' that more than USD 600 million are paid by households and offices to bottled water companies (since the public network system of water is either polluted or non-existent) and more than USD 400 million are paid annually to owners of generators¹⁴. This amounts to an approximate monthly cost of USD 45 for water and USD 30 for electricity powered by a generator¹⁵, along with a minimum saving of USD 25 in commuting to work alone. In the event of reforms of the water, electricity and public transportation sectors, household expenses would reduce by *at least* USD 100.

Financing Subsidies

The budget expenditure for food subsidies relative to total government expenditures has been substantial for several countries¹⁶. This can also be expected for housing and transportation subsidies. These costs can be met by tax revenues, foreign aid and concessional loans, external borrowing and deficit spending. In fact, by theory of social solidarity, taxes can be increased for higher earning income brackets in order to finance food and housing subsidies for low earning income brackets, i.e. an equitable tax regime, without furthering the government deficit.

Effect of Subsidies on Low Income Households

Similar to the analysis conducted in the previous section, the following table presents the minimum wage as a percentage of household expenditure and poverty line, for two different households in the same low-income category. The expenditures on housing, food and transportation however, have been reduced by 10% each, representing the reduced expenditures as a result of housing and food subsidies.

Under Scenario 1, we consider a household with expenditures less than LBP 6 million per annum, with one member working full time at minimum wage and another household member working part time. Under Scenario 2, we consider a household with the same level of expenditures as in Scenario 1, except we assume only one member of the house is employed full time at minimum wage.

¹⁴ J.N. Adra, "Drains", The Monthly, p. 3, Information International sal., Issue 103, February 2011

¹⁵ Figures are arrived out by dividing the cost by the total estimated number of households, as stated in the Central Administration of Statistics' Living Conditions Survey in 2004, and offices, as stated in the Central Administration of Statistics' Census of Building Dwellings and Establishments in 2004

¹⁶ "Food Subsidies in Developing Countries: Costs, Benefits and Policy Options", International Food Policy Institute, 1988

Table 2.7: Effect of Subsidies on Low-Income Households

	2005	2006	2007	2008	2009
Scenario 1					
Minimum Wage as a %ge of Household Expenditure	131%	126%	120%	187%	182%
Minimum Wage as a %ge of Poverty Line	105%	102%	97%	150%	147%
Scenario 2					
Minimum Wage as a %ge of Household Expenditure	87%	84%	80%	125%	122%
Minimum Wage as a %ge of Poverty Line	70%	68%	64%	100%	98%

As with the analysis carried out in the earlier section, we see that the minimum wage increase in 2008 aided households under both scenarios to fully cover their expenses. However, the effect of subsidization is mostly seen in the increase in minimum wage as a percentage of household expenditure, when compared to Table 2.4. This allows low-income households to save more or to spend on other categories of general expenditure, such as education or health thus fulfilling one of the objectives of increasing minimum wage i.e. providing a minimum acceptable standard of living.

Scenario 2 of the above table also shows that there is *still* room for an increase in minimum wage, since the minimum wage level is approximately equal to the poverty line of the respective household. However, a moderate increase in minimum wage coupled with the introduction of targeted and explicit subsidies (i.e. subsidies are targeted to low-income households and are explicitly applied on price levels of certain foods or household expenses) would have the same effect of a significant increase in minimum wage, without the negative repercussions on employment that were discussed in the previous section¹⁷.

2.3.2 NSSF Rescue Package

In the spirit of increasing the level of household benefits, as opposed to increasing the level of household income, we consider the following NSSF “Rescue Package” that would aid the NSSF in paying out benefits in a timelier manner. For any minimum wage increase, we consider a portion of the increase going to employees in order to better their consumption levels and standards of living, while another portion can be redirected from the employer to the NSSF; thus generating funds for the financing of NSSF’s deficits.

¹⁷ However, with the introduction of any price subsidy, one must also consider the subsequent effects on inflation and wage levels. Therefore, the introduction of any price subsidy must first be evaluated for the consequent impact on the economy, on micro-and macroeconomic levels.

2.4 Recommendations

2.4.1 Minimum Wage

Our review of the situation in Lebanon as well as the consequent analyses indicate that there may be some room for increasing the minimum wage, albeit not at the proposed level of LBP 1,250,000 which would prove to have negative implications on low-paid workers and the unemployed, as employers would resort to reducing staff or working hours in order to contain costs, pushing more and more employees into the informal sector, thus deepening Lebanon's poverty pockets.

The minimum wage can however be increased in accordance with the inflationary pressures experienced since 2008, subject to employer's capacity to pay such an increase. Adjusting minimum salary is a complex measure that affects the economy as a whole in all its compositions. Thus in order to study salary adjustments in depth, it requires proper planning and regular independent studies that should be based on credible data.

2.4.2 Estimate of the Required Minimum Wage:

Using the benchmark of the statutory minimum wage being set at 150% of the poverty line, we obtain a minimum wage level of approximately LBP 750,000 per month. Thus indicating the need for correction of the current statutory minimum wage.

In a report on the minimum wage developed by the World Bank, nine principles on a prudent minimum wage policy were stated, some of which are listed below:

- Analyse the wage distribution before increasing the minimum wage
- Set the Minimum Wage so as to provide a minimum acceptable standard of living for low-paid workers but simultaneously ensure that it does not cut too deeply into the wage distribution
- Allow for Labour Market Conditions
- Consider regional differentiation in the minimum wage if labour market conditions and productivity vary substantially across regions
- Carry out periodical minimum wage adjustments to allow for the price or wage growth
- Set the minimum wage at a lower level and enforce it effectively¹⁸

In addition to that, a full actuarial valuation would be necessary to quantify the cost on the budget if such salary changes affect the public sector employees.

¹⁸ J. Rutkowski, "The Minimum Wage: Curse or Cure?", The World Bank, 2003

Therefore, although the minimum wage should provide a minimum acceptable standard of living, it should not be set at a level that would encourage evasion or manipulation by employers, nor should it lead employers to reduce working hours or working staff in order to contain costs. The minimum wage level is therefore a balancing act and ought to be based upon:

- Employer- or Household-based income and expenditure surveys
- Study of Labour market conditions
- National and Regional Wage Distributions

2.4.3 Alternatives to a Pure Increase in the Minimum Wage

The purpose of an increase in the minimum wage level is to increase household income for low-paid workers to cover their expenses. An alternative method to increasing household income can therefore be *reducing* household expenses through **government subsidies**.

The two categories that contain the highest level of household expenditure are “Food, Tobacco and Alcohol”, and “Housing, Water, Electricity, Gas and Other Fuels”; therefore the government can consider subsidizing these expenses, as well as transportation to work expenses in tandem with a *moderate* increase in the minimum wage.

Alternatively, a reduction of household expenses could come about through **reform of electricity, water and public transportation sectors**. It was recently quoted in The Monthly that more than USD 600 million are paid annually by households and offices to bottled water companies (since the public network system of water is either polluted or non-existent) and more than USD 400 million are paid annually to owners of generators¹⁹. This amounts to an approximate monthly cost of USD 45 for water and USD 30 for electricity powered by a generator²⁰ along with minimum savings of USD 25 in commuting to work alone. In the event of reforms of the water and electricity sectors as well as public transportation, household expenses would reduce by *at least* USD 100 per month..

Another of our key recommendations includes a proposal to **rescue the NSSF** from its current deficit troubles. Any correcting measures to wages should not over look the necessity in correcting NSSF contribution rates. At such a time, the employees would profit from improved and timely benefits from the NSSF in the long run; thus reducing the healthcare expenses for the NSSF beneficiaries.

¹⁹ J.N. Adra, “Drains”, The Monthly, p. 3, Information International sal., Issue 103, February 2011

²⁰ Figures are arrived out by dividing the cost by the total estimated number of households, as stated in the Central Administration of Statistics’ Living Conditions Survey in 2004, and offices, as stated in the Central Administration of Statistics’ Census of Building Dwellings and Establishments in 2004

3. Financial Implications of Adjusting Salaries on each Economic Sector

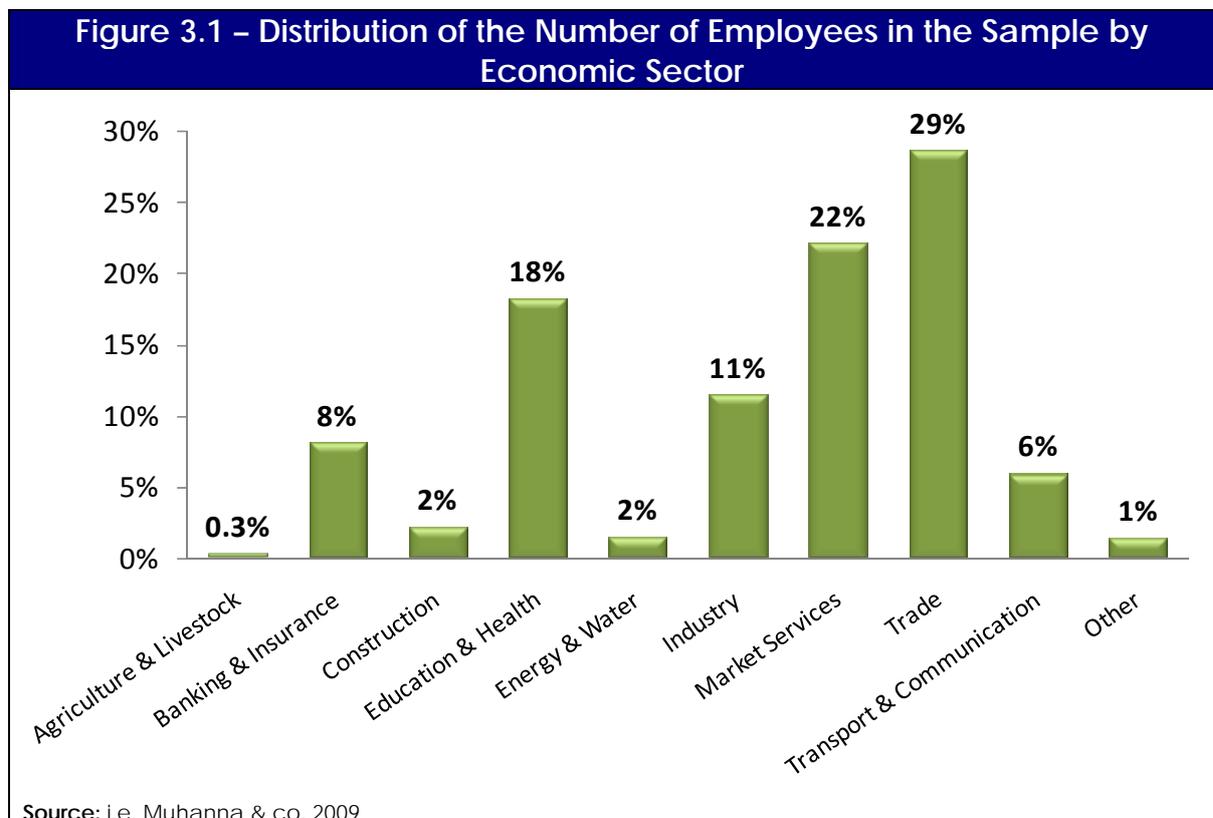
3.1 Data Analysis

3.1.1 The overall sample size consisted of 300,000 private sector employees in Lebanon. The sample corresponds to the year 2009 and it was deemed to be representative of the Lebanese private workforce with respect to the average salary.

3.1.2 The data was compiled from different sources of i.e. Muhanna & co. database. The data available included the following items for each sector:

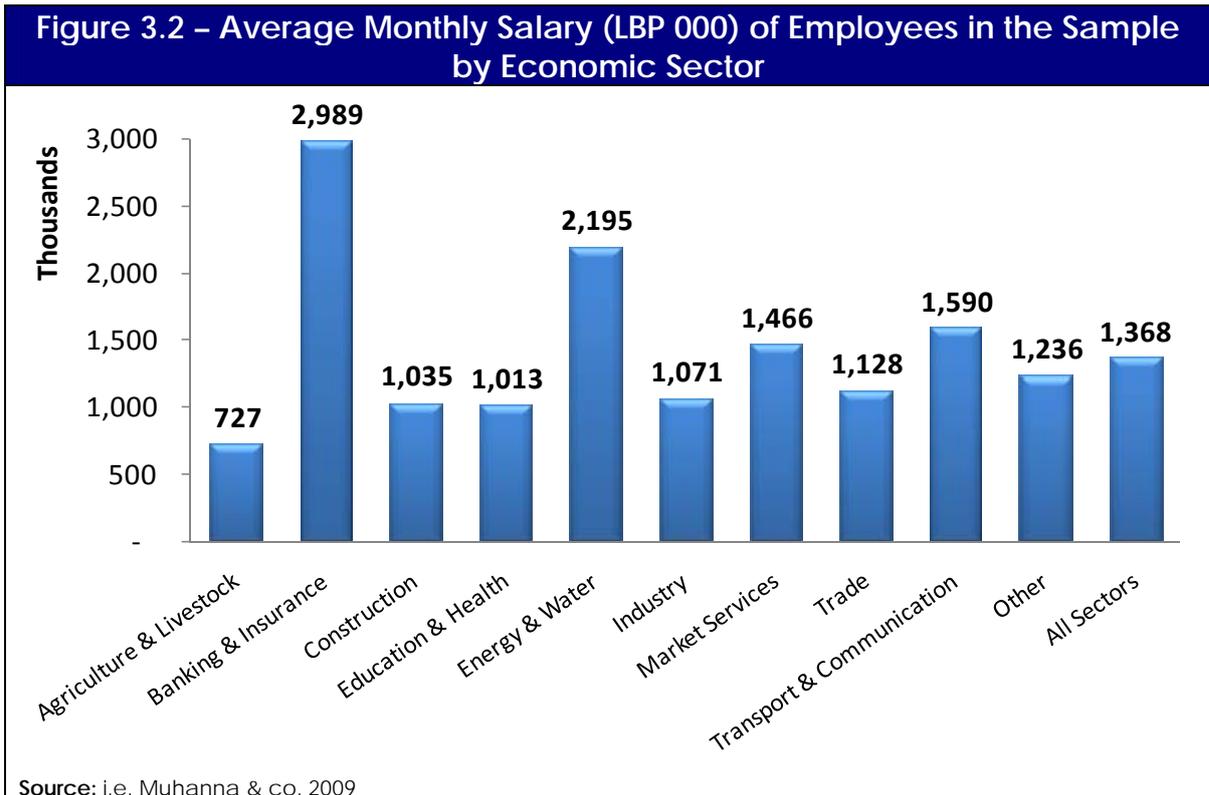
- Total number of employees
- Total amount of salaries paid

3.1.3 The distribution of employees by economic sector is as shown in Figure 3.1 below. It can be seen that around 83% of employees work in the Services (including Banking & Insurance, Education & Health, and Transport & Communication) and Trade sectors.



3.1.4 Figure 3.2 below shows the average monthly salary by sector. It can be seen that, according to this sample, **the average monthly salary is around LBP 1,368,000**. The lowest average salary is in the Agriculture sector (around LBP 727,000) and the highest average salary is in the Banking & Insurance sector (around LBP 2,989,000).

3.1.5 The large difference in average salaries between the Banking & Insurance sector and the other sectors could also be attributed to more proper reporting of salaries.



3.1.6 The following table shows the distribution of employees by salary bracket.

Table 3.1 – Distribution of Employees by Salary Bracket

Salary Range (in LBP)	Distribution of Employees
up to - 600,000	30%
600,001 - 900,000	27%
900,001 - 1,200,000	13%
1,200,001 - 1,500,000	7%
1,500,001 - 2,000,000	7%
2,000,001 - 3,000,000	7%
3,000,001 & above	8%

3.1.7 The above distribution shows that 70% of the employees earn less than LBP 1,200,000.

3.1.8 The tables below show the distribution of the employees in the sample by salary bracket and by economic sector.

Table 3.2 (a) – Distribution of Employees by Salary Bracket and Economic Sector

Salary Range (in LBP)	Agriculture & Livestock	Industry	Construction	Energy & Water	Trade
<i>Up to - 600,000</i>	46%	33%	36%	5%	35%
<i>600,001 - 900,000</i>	35%	32%	32%	7%	32%
<i>900,001 - 1,200,000</i>	16%	13%	12%	13%	12%
<i>1,200,001 - 1,500,000</i>	1%	6%	6%	9%	6%
<i>1,500,001 - 2,000,000</i>	1%	7%	5%	13%	5%
<i>2,000,001 - 3,000,000</i>	0%	5%	5%	31%	5%
<i>3,000,001 & above</i>	1%	4%	5%	22%	5%

Table 3.2 (b) – Distribution of Employees by Salary Bracket and Economic Sector

Salary Range (in LBP)	Banking & Insurance	Market Services	Transport & Communication	Education & Health
<i>Up to - 600,000</i>	5%	29%	18%	38%
<i>600,001 - 900,000</i>	7%	26%	27%	29%
<i>900,001 - 1,200,000</i>	10%	12%	16%	13%
<i>1,200,001 - 1,500,000</i>	12%	7%	9%	6%
<i>1,500,001 - 2,000,000</i>	16%	7%	10%	6%
<i>2,000,001 - 3,000,000</i>	20%	8%	10%	4%
<i>3,000,001 & above</i>	29%	10%	11%	4%

3.2 Labour Component Share of Total Expenditure Costs & Methodology

3.2.1 This section illustrates the inflationary effect of salary' adjustments by labour component share of total expenditure costs and explains the methodology behind our study.

The Labour Component Share of Total Expenditure Costs

3.2.2 One critical factor in estimating the cost implication of salary adjustments for employers is the labour component share of total expenditure costs. In estimating this index by economic sector, we have relied on the ratio of compensation of employees to total operating expenses.

Employee Compensation

3.2.3 "Compensation of employees" represents all labour charges borne by employers in the private and public sectors. They include basic wages, various benefits and allowances as well as employer's contributions to social security bodies. The total operating expenses in each sector has been defined to be the sum of the compensation of employees and of intermediate consumption.

3.2.4 Regarding the Agriculture sector, we have assumed that the ratio is 15% based on a comparison of the same ratio in the Middle East region. For the Banking & Insurance sector, the estimate is based on the Lebanese Association of Banks figures. Finally, salaries & wages in the Education & Health sector represent around 50% of total operating expenses based on the financial accounts of a number of private hospitals in Lebanon.

Intermediate consumption

3.2.5 "Intermediate consumption" includes the value of the goods and services used in the production process excluding the depreciation of assets. Note that depreciation of assets does not exceed 15% of operating expenses in any sector. For the Services sector, it is usually around 2% to 3% of operating expenses.

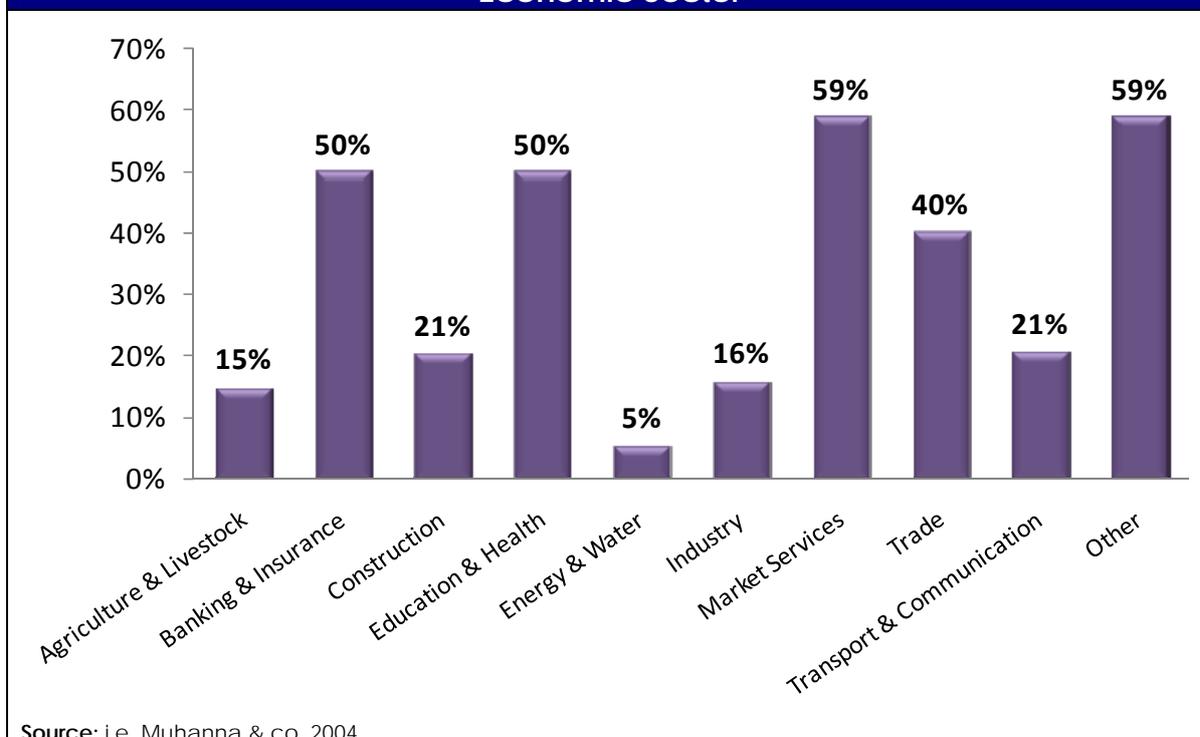
3.2.6 The National Accounts of Lebanon for 2003 – published in May 2006 by the Ministry of Economy & Trade – provide indicators on the intermediate consumption as a percentage of the gross value added by economic sector. The report also includes the results of a survey that was carried out in the year 2004 on big enterprises based on a sample of 240 industrial plants, 270 services establishments (other than telecommunications, finances and education services)

and 96 trade operations. The survey provided the ratios of labour charges to gross value added in 2002 and 2003 for the industrial, services and trade sectors. By combining the two results, we deduced the labour cost component of total operating expenses for the aforementioned sectors.

3.2.7 **The economic burden of adjusting salaries for employers will vary by sector.** Industries with a high salary component of their total operating expenses and a low average salary will be the most affected by the increase in labour cost. Industries with high-skill-high-earning employees and a low salary component will be the least affected by the increase in labour cost. Therefore, the inflationary effects of the adjustment will depend, amongst other factors, on the labour component share of total expenditures by sector.

3.2.8 Figure 4.1 shows the resulting labour cost component as a percentage of total operating expenses by sector, based on the above assumptions. It can be seen that, for the Market Services sector, most expenses are for salaries & wages, which is reasonable. On the other hand, the labour component of total operating expenses is very low for the Energy & Water, Agriculture and Industry sectors.

Figure 4.1 – Labour Cost Component (in % of Total Operating Expenses) by Economic Sector



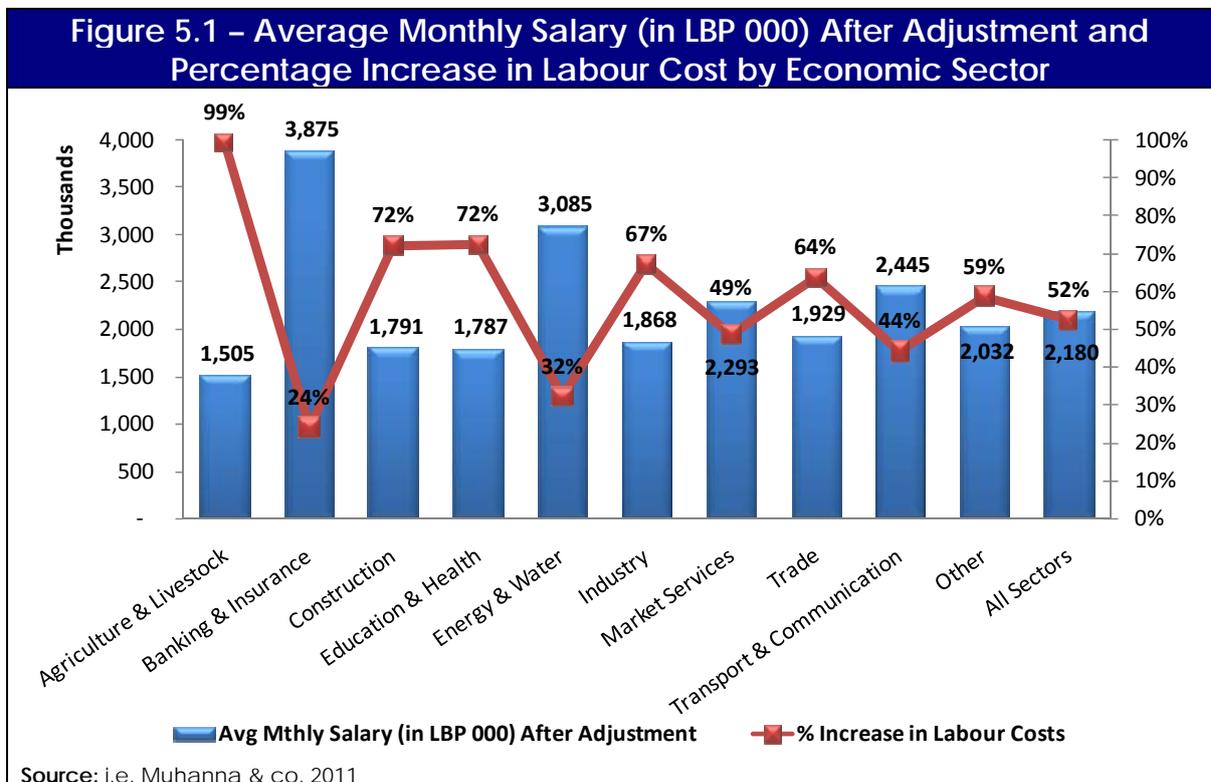
3.2.9 Based on the analysis above, an increase of 10% in the labour cost of an employer with a ratio of labour charges to total operating expenses of 60% would correspond to an actual increase of 6% in total operating expenses.

3.2.10 Firms faced with increased costs may look to offset that cost increase, by passing the cost onto consumers. The firm's ability to pass costs to consumers will depend on the impact on the market demand of a change in prices. The more sensitive demand is to price changes, the less able firms are to pass on costs via price increases.

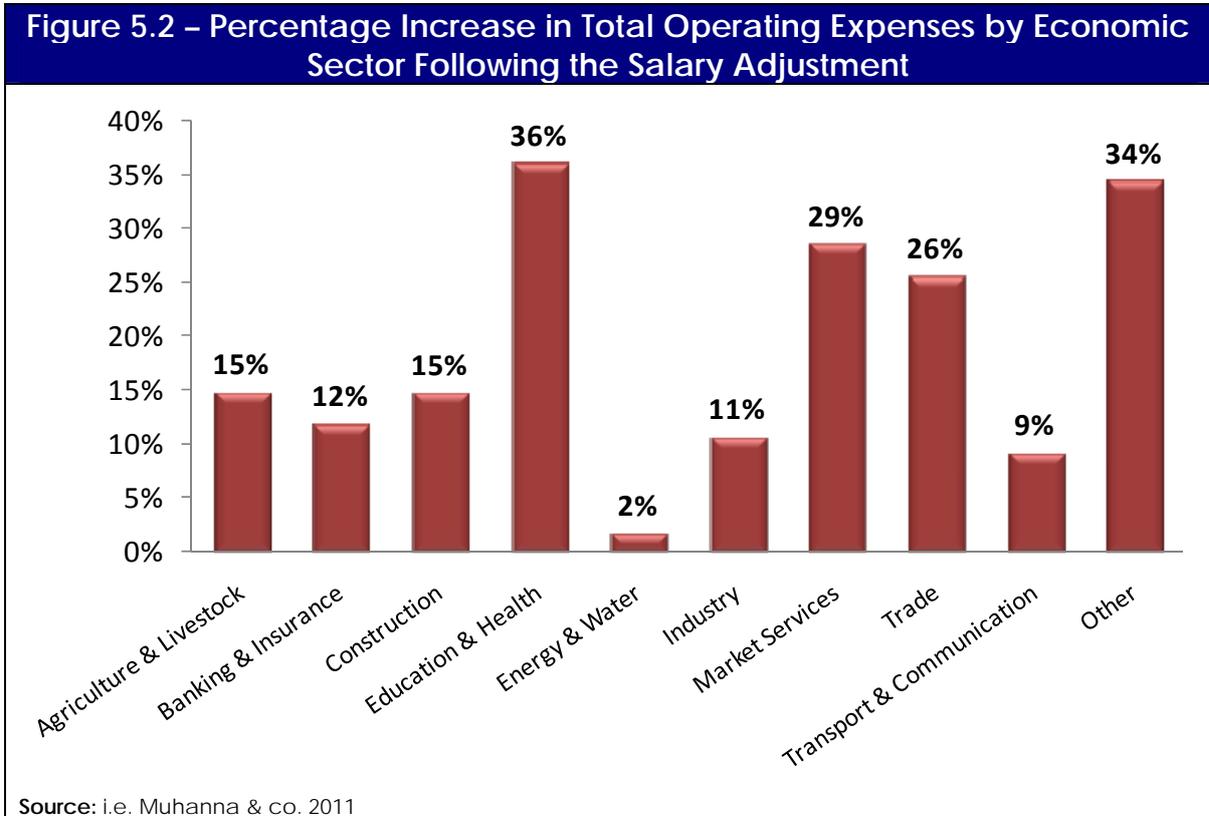
3.3 Estimates on Cost Implications

3.3.1 This section shows estimates on the cost implications of the salary' adjustment as requested by the GLC. The last adjustment in minimum wage (i.e. the LBP 200,000 increase applied in 2008) has been applied equally to all salaries (i.e. all salaries were increased by LBP 200,000). Based on this previous practice, we assume that the requested adjustment in minimum wage (i.e. the LBP 750,000 increase) will be applied similarly to all salaries.

3.3.2 The following figures show the estimated increase in average monthly salary by economic sector. After increasing the minimum wage to LBP 1,250,000, the average salary is expected to increase by **52%** from LBP 1,368,000 (as shown in Figure 3.2) to LBP 2,180,000 (as shown in Figure 5.1).

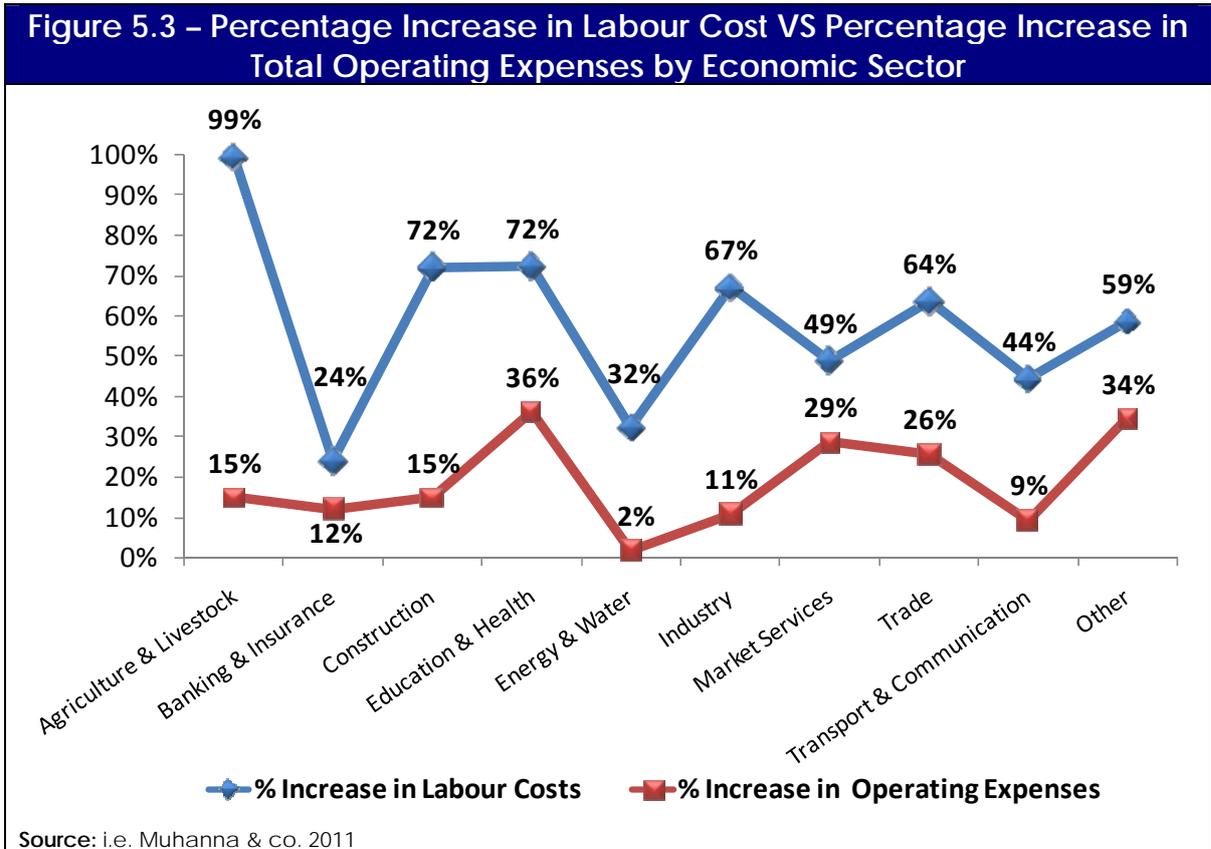


3.3.3 The most important issue is to investigate how such an increase will reflect on the overall cost of each sector bearing in mind the difference in labour cost.



3.3.4 Figure 5.2 shows the expected percentage increase in operating expenses by economic sector based on the requested adjustment in salaries. The highest increases are expected to occur in the Market Services, Education & Health and Trade sectors where the labour cost component is high relative to total operating expenses. On the other hand, although in the Banking & Insurance sector, the labour cost component is high relative to total operating expenses, the latter are affected to a much lower extent because of the higher salaries in this sector.

3.3.5 Figure 5.3 compares the increase in labour costs to the increase in operating expenses.



6. Conclusion

Minimum Wage

- 6.1 Our review of the situation in Lebanon as well as the consequent analyses indicate that there may be some room for increasing the minimum wage, albeit not at the proposed level of LBP 1,250,000 which would prove to have negative implications on low-paid workers and the unemployed.
- 6.2 The minimum wage can however be increased in accordance with the inflationary pressures experienced since 2008, subject to employer's capacity to pay such an increase. Adjusting minimum salary is a complex measure that affects the economy as a whole in all its compositions. Thus in order to study salary adjustments in depth, it requires proper planning and regular independent studies that should be based on credible data.
- 6.3 Although the minimum wage should provide a minimum acceptable standard of living, it should not be set at a level that would encourage evasion or manipulation by employers, nor should it lead employers to reduce working hours or working staff in order to contain costs. The minimum wage level is therefore a balancing act and ought to be based upon:
- Employer- or Household-based income and expenditure surveys
 - Study of Labour market conditions
 - National and Regional Wage Distributions

Estimation of the Required Minimum Wage

- 6.4 In order to provide an estimate of the required minimum wage increase, we consider that the minimum wage should be approximately 150% of the poverty line. Based upon our analysis of the annual household expenditures, minimum wage and poverty line, we see that this places the minimum wage at approximately LBP 750,000 per month. Thus indicating the need for a correction of the current statutory minimum wage.

Alternatives to a Pure Increase in the Minimum Wage

- 6.5 The purpose of an increase in the minimum wage level is to increase household income for low-paid workers to cover their expenses. An alternative method to increasing household income can therefore be reducing household expenses through **government subsidies**.

- 6.6 The two categories that contain the highest level of household expenditure are “Food, Tobacco and Alcohol”, and “Housing, Water, Electricity, Gas and Other Fuels”; therefore the government can consider subsidizing these expenses, as well as public transportation expenses, in tandem with a moderate increase in the minimum wage. This could easily be financed through an equitable tax regime.
- 6.7 Alternatively, a reduction of household expenses could come about through **reform of electricity, water and public transportation sectors**. It was recently quoted in The Monthly that more than USD 600 million are paid by households and offices to bottled water companies (since the public network system of water is either polluted or non-existent) and more than USD 400 million are paid annually to owners of generators²¹. This amounts to an approximate monthly cost of USD 45 for water and USD 30 for electricity powered by a generator²², as well as USD 25 for transportation to work alone. In the event of reforms of both the water and electricity sectors, household expenses would reduce by at least USD 100.
- 6.8 Another of our key recommendations includes a proposal to **rescue the NSSF** from its current deficit troubles.
- 6.9 In such a case, the employees receive higher salaries as well as improved and timely benefits from the NSSF in the long run; thus reducing their healthcare expenses.

Cost Implications of Salary Adjustments

- 6.10 The salary adjustment as requested by the GLC is expected to increase the average salary of employees by 52%, if such an increase were to take effect. Due to disparities in salary levels, this increase would be as high as 100% in the Agriculture & Livestock Sector and as low as 24% in the Banking & Insurance Sector.
- 6.11 The requested salary increase will incur additional operating expenses for all businesses. However, the level of increase in operating expenses differs by economic sector from as low as 2% in the Energy & Water Sector (in which the labour costs component constitutes only 5% of all the operating expenses) to as high as 36% in the Education & Health Sector (in which the labour cost component constitutes around 50% of the operating expenses).

²¹ J.N. Adra, “Drains”, The Monthly, p. 3, Information International sal., Issue 103, February 2011

²² Figures are arrived out by dividing the cost by the total estimated number of households, as stated in the Central Administration of Statistics’ Living Conditions Survey in 2004, and offices, as stated in the Central Administration of Statistics’ Census of Building Dwellings and Establishments in 2004

Other Miscellaneous Economic Issues

6.12 Avoiding penalizing the institutions that are regularly indexing the salaries:

- Some institutions in Lebanon, such as the banking industry are already indexing the employees' salary annually. In this respect, if the salary adjustments are mandatory on all employers, then those institutions will be indirectly penalized.
- On the other hand, for those institutions that have been freezing the employees' salaries, the current mandatory adjustment that is levelled on all institutions would be an indirect reward, as it would not differentiate them from the institutions mentioned in the preceding paragraph.

6.13 Ceiling on NSSF taxable earnings:

- The current level of the ceiling applied on the NSSF Sickness and Maternity Fund taxable earnings is LBP 1.5 million. If the salaries are adjusted, then this ceiling also needs to be adjusted accordingly.

6.14 End of Service Indemnity:

- It is important to mention that the adjustment of salaries has a significant impact on End-of-Service Indemnity.
- The End-of-Service Indemnity is a defined benefit provided by the NSSF for enrolled employees upon leaving service for various reasons. Under the current NSSF regulations, the End-of-Service Indemnity is based on the employee's last salary. Hence, the Indemnity for employees who will retire following the adjustment of salaries can be tremendous relative to what they would have received in case there was no adjustment.
- On the other hand, from the employer's side the past contributions based on previous salary' structure will not be sufficient to cover the increased retirement benefits. According to the current rules, the last employer is liable for the difference between the benefit formula and the employee's accumulated contributions plus interest. This means that employers will incur important Settlement Provisions to cover the End-of-Service Indemnity of their employees.
- The estimation of the cost implications due to End-of-Service Indemnity requires a more comprehensive actuarial study. It should be noted however, that this issue would have been mitigated had salaries been adjusted every year over the past years.

6.15 Family Allowance Income:

- The NSSF provides under its Family Allowance Fund, a monthly income for its members according to their family status. This monthly income starts from LBP 33,000 a month (for a member with one child and an employed wife), representing 11% of the current minimum wage, and can go up to LBP 231,000 a month (for a member with

an unemployed wife and 5 children), representing 77% of the current minimum wage.

- Thus, notwithstanding what was mentioned above regarding the necessary increase in minimum wage, any such increase needs also to take into consideration this other source of income to those earning the minimum wage.
- As an example, the taxi drivers, a separate category of members insured under NSSF and eligible for the family allowance benefit, are considering it as a guaranteed income, to the extent that some of them are actually buying a taxi driver license to be granted eligibility.
- It is also worth noting that if the amounts of the family allowance benefit are not adjusted they will become negligible with time.

6.16 Government Pension Liabilities as an Employer:

- It is important to mention that any adjustment of salaries in the public sector would have significant impact on pension provisions for civil servant employees.

6.17 Consumer Price Inflation

- One critical index to consider as a result of the salary' adjustment is the Consumer Price Index (CPI).
- Appendix A shows the consumer price inflation in Lebanon over the last 11 years for different goods and services based on the Central Administration of Statistics.
- Firms faced with increased costs may look to offset that cost increase by passing the cost onto their customers. The firm's ability to pass costs to customers will depend on the impact on the market demand of a change in prices. The more sensitive demand is to price changes the less the ability of firms to pass on costs via price rises.
- It should be noted that inflation rates ought to be considered from the income level perspective as well. This is because individuals with different income levels have different consumption patterns. Consequently, the inflationary effect of the salary adjustment will be affected by the eventual change in the consumption pattern.
- Furthermore, CPI is age sensitive. Normally, there are separate CPIs for the active population and the retired population.

6.18 Tax on income:

- Another important issue to consider is the effect of the salary' adjustment on the tax revenues for the Government. As salaries increase so will the income generated from tax to government.
- It would be normal practice to expand the tax scale in order to reflect the new salary increase.

Appendix A

Consumer Price Inflation in Lebanon for the Period 1998-2007

Expenditure Divisions	Weights (%) 1997										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	
Food & Tobacco	34.6	-3.6%	-2.8%	0.9%	-0.6%	2.1%	4.9%	-2.8%	11.9%	14.8%	
Clothing and footwear	6.3	4.8%	-0.1%	3.5%	8.0%	3.8%	3.2%	-0.4%	1.3%	0.9%	
Housing, water, electricity, gas & other fuels	8.8										
<i>Housing (Rents)</i>	1.6										
<i>Water, electricity, gas & other fuels</i>	7.2	5.7%	-0.2%	-0.5%	2.6%	2.8%	6.9%	5.4%	-2.5%	20.9%	
Furnishings, household equipment & routine household maintenance	7.9	0.3%	-3.4%	1.0%	4.7%	-2.5%	0.5%	-10.3%	5.6%	11.0%	
Health	8.8	-1.6%	-2.1%	-2.3%	3.3%	4.4%	2.3%	-1.7%	1.8%	2.6%	
Transport & Communication	11.3	7.8%	2.0%	1.5%	19.2%	7.6%	-2.3%	0.5%	5.9%	3.4%	
Education	13.4	1.5%	2.2%	6.2%	0.7%	2.5%	-3.2%	-11.3%	0.2%	2.8%	
Leisure	5.4	2.1%	0.0%	1.2%	4.7%	-0.7%	-2.0%	-0.3%	0.1%	4.8%	
Personal care & other	3.5	3.0%	-0.4%	-4.3%	8.9%	7.5%	2.8%	7.1%	10.2%	12.9%	
General Inflation	100.0	0.7%	-1.0%	1.4%	4.2%	3.0%	1.7%	-2.6%	5.6%	9.3%	

Source: Central Administration of Statistics

Consumer Price Inflation in Lebanon for the Period 2008-2011

Expenditure Divisions	Weights (%) 2007	2008	2009	2010	Jun 2011
Food & non-alcoholic beverages	19.9	18.2%	-0.8%	6.7%	0.9%
Alcoholic beverages, tobacco	2.1	0.1%	7.7%	0.7%	0.4%
Clothing and footwear	6.2	4.9%	-10.2%	20.4%	3.8%
Housing, water, electricity, gas & other fuels	25.7				
<i>Housing</i>	16.2	4.8%	6.1%	0.0%	0.0%
<i>Water, electricity, gas & other fuels</i>	9.5	-8.6%	7.8%	8.0%	5.4%
Furnishings, household equipment & routine household maintenance	3.9	7.0%	0.3%	0.9%	1.0%
Health	6.8	4.4%	2.1%	-2.5%	2.2%
Transportation	12.3	1.1%	17.6%	4.8%	1.4%
Communication	4.8	-0.5%	-13.2%	-0.1%	0.0%
Recreation, amusement & culture	3.7	0.8%	2.8%	2.1%	1.0%
Education	7.7	4.1%	9.6%	6.7%	0.0%
Restaurant & hotels	2.7	25.3%	3.6%	6.3%	1.9%
Miscellaneous goods & services	4.2	5.0%	-0.1%	2.0%	1.0%
General Inflation	100.0	5.5%	3.4%	4.6%	1.4%

Source: Central Administration of Statistics