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Economic and Labor Force Impact of the Proposed Change in the Wage Structure of the Public Sector

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Vice President:	Inger Andersen
Country Director:	Ferid Belhaj
Sector Director:	Manuela V. Ferro
Sector Manager:	Bernard G. Funck
Task Team Leader:	Chadi Bou Habib

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Abstract

Amid uncertain growth prospects and shrinking fiscal space, the government's initial decision to significantly increase public sector employees' salaries is raising significant challenges. While the cost of living increase aims to offset the erosion of real wages over time, the change in the structure of salary scales is not accompanied by a similar structural revision of tasks and efficiency of public sector employees. At the macro-economic level, the overall increase in wages would weaken the Lebanese economy through the return of unsustainable debt dynamics, pressures on the peg, lower economic growth, and increased unemployment. Introducing revenue measures would reduce these negative impacts but would lower resilience to shocks and impede the use of counter-cyclical fiscal policies. Reforming the pension system would further reduce the negative impact, but such reform cannot be separated from the need for strengthening social safety nets.

ملخص:

وسط توقعات النمو الغير المؤكدة وتقلص هامش حركة المالية العامّة، يشكل قرار الحكومة زيادة رواتب موظفي القطاع العام تحديا كبيرا. وفي حين يمكن فهم زيادة كلفة المعيشة من منطلق التعويض عن تآكل قيمة الأجور مع مرور الوقت، إلا أن التغيير في هيكلية سلسلة الرواتب في المقابل لا يتزامن مع أي مراجعة لوظيفة القطاع العام ولا يمكن تبريره بأي تعديل لمهام موظفي القطاع العام. فعلى مستوى الاقتصاد الكلّي، سوف تؤدّي الزيادة الإجمالية في الأجور إلى وضع الدين العام مجددا على مسار غير قابل للاستمرار، وإلى زيادة الضغط على نظام تثبيت سعر العملة، مع انخفاض في مستوى النمو الاقتصادي، وارتفاع في مستوى البطالة. ويسمح إدخال التدابير المناسبة على مستوى الإيرادات بالحدّ من الآثار السلبية لزيادة الأجور، الا أن قدرة الاقتصاد على مواجهة الصدمات سوف تضعف وسيتقلص الهامش المتاح لاستخدام السياسات المالية في مواجهة التقلبات الدورية عند حدوثها. كما يسمح إصلاح نظام التقاعد بضبط إضافي للتأثيرات السلبية، لكن هذه الاصلاحات لا يمكن فصلها عن ضرورة تعزيز شامل لشبكات الأمان الاجتماعي في لبنان.

Lebanon: Economic and Labor Force Impact of the Proposed Change in the Wage Structure of the Public Sector

Introduction

1. **In 2012, the government announced and partly implemented measures boosting public sector wages: a cost of living (CoL) adjustment and an adjustment to the salary scales**. Nominal salaries in Lebanon are adjusted for inflation relatively infrequently, in part due to a policy decision taken to freeze nominal wages when the country was experiencing fiscal duress. As public debt dynamics had improved significantly, the government introduced a CoL in 2012 (the increase was retroactive to February 2012 but disbursements occurred throughout the year). Prior to the 2012 adjustment, a lump-sum adjustment was provided in 2008, and the one prior to 2008 was in 1997. The CoL increase is aimed at restoring some of the lost purchasing power of public wages. In addition to the CoL, in March 2013 the government adopted a salary scale adjustment along with a package of measures aiming to secure the budget neutrality of the proposed adjustment. These measures are: (1) introducing a revenues package, (2) paying the increase by installments,[1] and (3) cutting the salary scale adjustment down from the original proposal and reforming the pension system by including an increase in pension contributions and a revision in pension benefits so as to reduce the total cost of the salary scale adjustment.[2]

2. **If adopted in its entirety, the proposed package of measures would lead to a substantial salary increase for all public sector employees and pensioners in Lebanon**. The beneficiaries from CoL and salary scale adjustment are civilian and military staff of the government and own-budget agencies, which represents approximately 16 percent of the labor force and 22 percent of wage earners in Lebanon. Retirees would also benefit from the increases as their pensions increase is linked to public sector salary increases. The 2012 accrual annual cost of CoL and salary adjustment is estimated at LBP1,995 billion, or 3 percent of 2012 GDP—1.3 percent of GDP for the CoL and 1.7 percent of GDP for the salary scale adjustment. If cash payment of these increases are back-loaded through installments, the payment for 2013 is estimated at LBP1,319 billion while the payment for 2016 would reach LBP3,077 billion.

[1] These installments are implemented according to the following scheme: (i) no salary adjustment payments occur until April 2013, (ii) from April 2013 to March 2014, installment represent 50 percent of the monthly due, (iii) from April 2014 to March 2015, installments amount to 75 percent of the monthly due, (iv) from April 2015 onward, the full monthly scale adjustment is paid, and, (v) from January 2016 to June 2017, the government pays in monthly installments the backload of salary adjustment due from February 2012 to April 2013 and the residual of the installments of the period April 2013 – March 2015.

[2] The salary scale adjustment can be traced to the increase in the salaries of judges passed by the parliament, which triggered demands for further adjustments by the rest of the public sector. This episode shows that the legal control of the government over the budget is not complete, since parliamentarians can propose binding amendments with fiscal implications within the fiscal year. Moreover, the increase in the salary of judges was immediately followed by an increase in the salaries of university professors after several weeks of strike. Both targeted increases could not be justified by any restructuring of the public sector or by the need for the government to attract talents for specific positions since the number of judges and professors in Lebanon is relatively important. Hence, the incentive for other public sector personnel to express their own demands for salary increases.

3. **The scale and scope of the proposed wage measures raise significant concerns regarding their economic impacts.** The various areas of concerns include public finances (e.g., are these affordable?), the labor market (e.g., impacts on private sector wages, on reservation wages, on unemployment?), on inflation (e.g., will the additional spending prove inflationary, will public sector wage increases result in similar increases in the private sector?), on the balance of payments (will the increased public sector wage bill result in higher imports to meet higher consumption, and in lower exports as price competitiveness could be impacted by rising domestic prices/cost of production), and on economic growth in general.

4. **This note assesses the economic impacts of the combined CoL increase and salary scale adjustment.** Two complementary models are used for this assessment. First, a Computable General Equilibrium (CGE) model constructed under the MILES project for Lebanon.[3] Second, the standard macroeconomic model of the World Bank (RMSM-X - Revised Minimum Standard Model-eXtended).[4] The CGE is based on a social accounting matrix that puts in relation GDP, investments, forward and backward linkages between sectors, GDP aggregates, factors of production, remunerations, and labor force. The RMSM-X is a macroeconomic consistency framework that puts in relations the major components of national accounts: consumption, investments, fiscal and external balances, and prices.[5]

5. **Five scenarios—reflecting different extent of adoption of the wage measures—are analyzed to better understand the expected impacts and trade-offs of the wage measures**.[6] As the proposed salary scale increase has yet to be approved by Parliament, significant uncertainty exists regarding the scale and scope of the approved package. A baseline scenario simulates the situation in case no wage increases were introduced, not even the CoL increase of 2012. Four additional scenarios are investigated. Scenario 1 (current policies) builds on the baseline by adding the cost of living increase. Scenario 2 contains both the cost of living increase and the full salary scale adjustment (but without the offsetting measures proposed to accompany the salary scale increase). Scenario 3 adds to Scenario 2 the revenue measures proposed. Finally, Scenario 4 builds on the previous scenario by reducing further the net cost of the salary scale increase by adding the expenditure and pension reform proposed by the government. The extent to which the public sector wage increase spills into similar requests and gains from private sector workers have a major impact on economic impact of the wage measures. Therefore, under each scenario, two variants are analyzed: (a) a pass through of 10 percent from public to private wages and variant (b) a pass through of 37 percent.[7]

[3] World Bank, "Republic of Lebanon – Good Jobs Needed: The Role of Macro, Investment, Education, Labor and Social Protection Policies (MILES)", December 2012.

[4] More details on the models used are available in Annex 1.

[5] The models provide limited insights on the distributional impact of fiscal policies. For example, they do not allow simulating the impact of a tax increase affecting high income categories with lower propensity to consume, simultaneous with a wage increase benefiting to lower income categories with higher propensity to consume.

[6] For details about the scenarios see Annexes 2 to 6.

[7] The 10 percent transmission rate corresponds to the average observed in the case of OECD countries and the 37 percent to what has been observed in the case of Morocco. For details about the transmission from public to private wages, see Annex 3

Impact of the public sector wage increases (without revenue measures)

6. **The CoL increase of 2012 is estimated to result in a widening of the fiscal deficit, rising macroeconomic vulnerabilities, and weaker employment and growth.** From the above two models the following key findings emerge compared to our baseline scenario (Table 3, scenario 1). First, public finances would deteriorate. Since no offsetting revenue measure accompanied the CoL increase, it automatically widened the central government's fiscal deficit. Over the period 2013-2019, the resulting cumulated deficits would reach 6 percentage points (pps) of GDP; these would increase the public debt-to-GDP ratio by a similar magnitude by 2019. Second, the current account deficit would widen and foreign reserves shrink by US$2.6 billion in 2019. This arises because the increase in domestic consumption would leak abroad as imports represent around 50 percent of domestic demand. Third, GDP growth would be lower by 0.5pp by 2019. Fourth, labor markets impacts would be mixed: while informality and outmigration would decline due to higher wages in the economy as a whole over a two to three years horizon, the unemployment rate would rise by 0.5pp by 2019 due to a decline in labor demand (under the low pass through assumption). Over the long-term, the steady increase in the unemployment rate ends by putting outmigration on an upward trend starting 2016-17.

7. **Without revenue measures the salary scale increase would further weaken Lebanon's economy if added to the above CoL increase.** Adding the salary scale increase on top of the CoL increase would exacerbate the problems highlighted in the above scenario (Table 6, scenario 2). Compared to the baseline scenario, the fiscal deficit would increase by 0.8 to 3 percent of GDP per year over the 2013-19 period, depending on installments. Consequently, the debt-to-GDP ratio would rise by 14pps of GDP in 2019 compared to the baseline scenario. Imports would increase further. As inflation would accelerate, the real exchange rate would appreciate. The resulting weakening in Lebanon's price competitiveness would, in turn, hurt exports performance. This would lead to a decline in foreign exchange reserves of US$6.4 billion by 2019. Interest rates would increase, driven by higher deficits and higher inflation and would contribute to further increasing deficits through higher debt service. The longer term structural impact would be an additional slowdown in growth by 0.6pp in 2019 compared to scenario 1. Unemployment increase further by an additional 0.4pp (under the low wage pass through assumption) compared to scenario 1. The growth and employment impact comes essentially through the investment channel (i.e., rising fiscal deficits reduce domestic savings, which constrains private investment, reduces growth and labor demand and increases unemployment). Total investment drops by 17.3 percent compared to baseline by 2019.

8. **Construction and manufacturing sectors would be the most impacted by the CoL and salary scale increases** (Tables 7 & 8). The collapse in investment would take a toll on the construction sector, since construction is a major component of gross fixed capital formation. The manufacturing sector, a major input provider to the construction sector, would also suffer. All other sectors would experience a fall in economic activity, but of a lower magnitude than for construction and manufacturing.

9. **Skilled non-youth and unskilled youth would be the most impacted by the CoL and salary scale increases.** Labor demand and unemployment would be affected both by the decline in investment and by the transmission of public sector wage increases to the cost of labor in the

private sector. Unskilled youth would be mostly affected by the decline in the construction sector. Skilled non-youth would be mostly affected by the wage pass through, since their salaries are already on the upper bounds of the market. Indeed, salaries of skilled non-youth are relatively high and any pass-through that would push these salaries further would reduce the demand for skilled non-youth labor

The offsetting revenue package: assessment, alternative options, and impact

10. **The proposed revenue package includes several one-off measures and new fees.**[8] The CoL and salary scale adjustment would increase annual current spending by LBP1,995 billion on average. Revenue measures proposed by the Government are expected to generate LBP3,952 billion additional revenues in 2013. The revenue increase proposed does, however, include a number of large one-off revenue measures. The large 2013 revenue take is, therefore, far higher than the permanent revenue flow that would result from the proposed revenue package. For example, 29 percent of revenues measures arise from one-off fines on illegal constructions, illegal use of public sea-shores,[9] and illegal water wells (LBP265 billion), or to one-off taxes on asset reevaluations (LBP874 billion).[10] An additional 34 percent of the proposed revenue package (LBP1,350 billion) is expected to come from a new investment fee where real estate developers buy the right to increase the size of built areas beyond what is allowed by current regulations.

11. **Some of the one-off revenue measures suffer from uncertain revenue yield, are potentially inequitable and unfair, and depart from fundamental tax policy principles.** More specifically:

- *Revenue uncertainty*. The new investment fee on real estate developers is still debated and might be fine-tuned and adopted as a "green building" code. Hence, its revenue yield is subject to significant uncertainty. As this accounts for more than one third of the estimated 2013 revenue gains, a major revenue shortfall could arise.

- *Equity, fairness, and governance issues*. If not properly designed, the one-off fines on illegal constructions, illegal use of public sea-shores, and illegal water wells could potentially raise significant inequity, fairness, governance issues, and incite further illegal activity. The option of legalizing what are currently illegal activities is one of the two key options available (the other option is to refuse to validate the illegal activities and require these infringements to cease immediately). The penalties imposed on the illegal perpetrators of these activities, however, need to be carefully assessed and designed. They would need to incorporate not only the regular taxes that should have been paid had these activities been legally pursued, but also penalties and interests for the lack of

[8] For details on the revenue package, see Annex 5.

[9] Most of these violations are committed by sea resorts and some by individuals seeking premium locations on the sea-shore.

[10] The proposal is to allow all companies and individuals to proceed with a reevaluation of their fixed assets between the date of acquisition, or of last reevaluation, and December 31, 2012. A one-off 6 percent tax would be then applied to the reevaluation and would be paid in 2013.

payment on these taxes. Most importantly, to regularize their "ownership" the illegal "owners" should be requested to purchase from the state the illegally obtained assets at the current market price.

- *Time inconsistent tax policy.* The tax on asset re-evaluation is time inconsistent[11]—a major red flag in tax policy—as it is imposed on capital "gains" that accrued during a period through which no such tax existed. Investors, therefore, made their investment decision at the time based on the existing tax regime. Retroactively changing the tax regime severely undermines the credibility of the tax regime in Lebanon and could lead investors to assume that further arbitrary retroactive taxation will occur; this could result in a sharp fall of investment due to this "tax uncertainty" premium. Another issue with this tax is that it is applied on an estimated gain between the historical purchase value and the present without any transaction occurring—i.e., no actual gains have been cashed, yet capital gains taxes are claimed.

12. **The permanent revenue measures consist mostly of indirect taxes, administrative and stamp fees, or tariff reform.** These measures represent the remaining 37 percent (LBP1,463 billion) of the proposed revenue package. Of this amount, LBP600 billion is expected to be generated through an increase in stamp fees for construction permits. Various stamp fees on phone bills, travelers departures, administrative and commercial transactions are expected to generate LBP281 billion. The introduction of a 15 percent VAT rate on luxury goods, the lowering of VAT refunds for tourists, and raising excises on alcoholic beverages are estimated to generate LBP251 billion. An increase in electricity tariffs is expected to generate LBP275; this would reduce the central government's deficit by an equivalent amount given the large fiscal transfers EdL is receiving. Finally, a rise in taxes on lottery gains and the introduction of a 15 percent capital gain tax on real estate capital gains would generate LBP56 billion.

13. **The sustainability, efficiency, and equity of proposed revenue package could be improved.** An alternative to the one-off tax on asset re-evaluation would be to introduce a property tax that applies to the estimated value of the property on yearly basis. Such tax is sustainable, since it will be providing a continuous stream of revenues, time consistent since this revenue is related to a yearly estimation of property value, efficient (limited distortionary effect as it taxes an immovable asset), and progressive as home ownership rises with income (the property tax rate could also be increasing with the underlying asset value so as to further increase progressivity).[12] The introduction of a second VAT rate would complicate the administration of the VAT, increase compliance costs, and increase the potential for fraud. A similar revenue gain could be achieved through the use of excises targeting the same luxury goods. Excises would be efficient on luxury goods as these are relatively price-inelastic.

[11] See Kydland and Prescott (1977) "Rules rather than discretion: the inconsistency of optimal plans," *Journal of Political Economy*, for a description of the time inconsistency problem and its application to taxation.

[12] Introducing a property tax would, in the medium term, allow the Government to gradually consolidate all revenues and shares of revenues earmarked for municipalities with the overall budget and substitute them with a property tax that finances local Governments. In parallel, a property tax would be a powerful instrument for the implementation of the land-use plan and can support the implementation of the "green building" code. Finally, the equity dimension of introducing a universal property tax is very important in a country where only occupied residential built properties are subject to a built property tax, while land and vacant built properties are exempted from property taxation, even in premium locations.

14. **Recurrent and sustainable measures can significantly reduce the negative macroeconomic and structural impacts of wages increases.** Revenue measures would restore the upward trend in revenues observed up to 2011 and would bring revenues up from the low 22 percent of GDP observed in 2012 to 25.5 percent of GDP in 2019, the level generally observed in middle-income countries. Moreover, of the 3.5pps of GDP increase in revenues, 2.0pps would correspond to restoring revenues to the average of 24 percent of GDP observed in 2006-2011. Revenue measures would strongly reduce the negative impacts of the CoL increase and salary scale adjustments. The debt-to-GDP ratio would be only 0.9pps of GDP higher in 2019 than in the baseline scenario where the wage increases have not occurred. Increase in imports would remain moderate and reserves would be only US$648 million lower than the baseline. One major structural impact is limiting the decline in GDP growth to 0.3pp against 1.1pps in 2019 under the no-revenues scenario with low transmission. Also, unemployment would increase by a more modest 0.5pps. Importantly, outmigration and informality would decline throughout the period. Indeed, by maintaining savings and investments, revenue measures maintain growth and labor demand which has a positive effect on labor supply. These positive compensatory effects should, however, be weighed against the loss of fiscal space which lowers resilience to shocks and impede the use of counter-cyclical fiscal policies when needed.

Expenditure reforms aimed at reducing the total cost of the wage increases

15. **Beyond revenue measures, the Government is proposing a package of reforms to reduce the overall cost of the salary scale adjustment.** The proposed package includes a cut of 5 percent of the previously announced increase in wages and a reform of the civil service pension system, including an increase in pension contribution and a revision in pension benefits (e.g., imposing taxes on benefits, changing the eligibility of dependents to benefit from the pension of a defunct beneficiary). The overall saving from these measures is expected to reach a cumulative LBP800 billion over the period 2013-19.[13] These savings would improve further the macroeconomic and structural outcome of revenue measures, and GDP growth would be only 0.2pp lower than the baseline scenario (see Annex 6 for details).

16. **Reforming the private sector pension and health systems could promote stronger public pension reforms and would further mitigate the impact of the wage increases.** Around 50 percent of the Lebanese population lacks any formal health insurance coverage. Pensions are also a rarity in the private sector as end-of-service (lump sum) indemnity is the rule. In contrast, public sector pension is generous and public sector health coverage is guaranteed. Hence, the incentive for queuing for public sector job is already high and will be reinforced by the increase in public sector wages. The eligibility of widows, children and single daughters to the pension and subsequent benefits of the dead beneficiary can be looked at as a social safety net in the absence of social protection and universal health coverage. In this context, a radical reform of the public pension system, although needed, is difficult to implement since it would be assimilated to a weakening of one major alternative to the absence of an efficient social safety net. Also, the substandard pension system in the private sector and the uneven access to health

[13] We exclude the expected additional tax on wages on salaries collected due to the salary increase (LBP250 billion over the period) since we have included it under the revenues package.

services reinforces the perception of public employment as a safe choice and deepens the distortions related to CoL and salary scale adjustment. In sum, public pension reform can be reinforced, and the distortive impact of CoL and salary scale adjustment can be further mitigated if they are accompanied with a reform of the pension system, health coverage and social safety nets for the rest of the population.

Conclusion

17. **Increasing revenues to accompany the CoL and salary scale increase is crucial to maintain macroeconomic stability.** A CoL and salary scale increase entirely financed through deficit and money creation would result in a notable worsening of Lebanon's economy: debt would remain high, foreign currency reserves would shrink drastically, inflation and interest rates would rise, the real exchange rate would appreciate sharply thereby hurting the competitiveness of Lebanese exporters, and real GDP growth would be lower by 1.1 pp. On the labor market, while informality and outmigration would decline until 2016-17 due to higher public (and private) wages, they would increase again from 2017 onward as a result of the drop in economic activity and the rise in unemployment. Also, unskilled-youth and skilled-non youth would suffer the most from unemployment. Revenue compensation and expenditure reforms would reduce macro imbalances and allow Lebanon to maintain fiscal consolidation and reach a debt-to-GDP ratio of 119 percent by 2019, the same ratio as in the baseline scenario where no wage increases takes place.

18. **Revenue compensation would also limit distortions in the economy and the labor markets.** When revenue measures are introduced to compensate for the fiscal cost of the wage increases, the unemployment rate increases slightly while informality and outmigration decline. With around two thirds of revenues generated through property tax, the scenario we propose places much of the burden of the revenue increase on capital income rather than on labor income and consumption. If this distributional approach is adopted, revenue compensation would not bear any additional burden for labor cost nor for the welfare of wage earners. Reducing the overall package of salary scale adjustment and reforming the pension system produces good macroeconomic outcome and reduces further the negative impact of wage increases on economic growth and labor markets.

19. **More fundamentally, such large wage and revenue increases and pension reforms need to be accompanied by a reform of public employment, social protection, and health insurance.** While the cost of living increase aims to offset the erosion of real wages over time, a structural salary scale adjustment of the magnitude proposed in Lebanon should be the counterpart of structural reforms. The latter should (i) define the mission of the public sector, (ii) define the functions of public institutions and, (iii) reshuffle the terms of reference of public sector staff. Reforms of public sector salaries and pensions, however, have to be linked to an overall reform of social protection and health insurance systems so as to widen coverage of the population. In sum, increasing public wages and reforming public pensions system should go hand on hand with the reform of private pension systems and health coverage, which would increase the attractiveness of private employment and reduce the reliance on public employment as source of welfare.

ANNEXES

Annex 1 - Importance and Limitations of the Models Used

1. **The models used in this policy note help assessing the impact of policy decisions on prices, employment, growth, and macroeconomic aggregates.** Models set the boundaries and focus the discussion and they are used to quantify the impact of different reform (or no reform) options. In fact, the main purpose of models is to help decision makers and support policy actions with quantitative evidences. But although a model can respond to a set of questions, it cannot be designed to respond to all questions. More specifically, the models used here help assessing the impact of policy decisions on prices, employment, growth, and macroeconomic aggregates. The two models we use in this note, the CGE – MILES and the Macro – RMSM-X, are complementary and enable a more refined understanding of the likely impact of the wage increases being considered. However, they provide limited insights on the distributional impact of fiscal policies and on the economic impact of asset reallocation. For example, these models do not allow simulating the impact of a scenario of a tax increase affecting high income categories with lower propensity to consume, simultaneous with a wage increase benefiting to middle and low income categories with higher propensity to consume.

2. **The CGE – MILES model is designed to capture sector dynamics and their interaction with labor force dynamics and characteristics**. The CGE-MILES model is based on a social accounting matrix for Lebanon. The model puts in relation forward and backward linkages between sectors, aggregates, factors of production, and remunerations. The CGE-MILES provides growth and investment estimates and captures sector and labor force dynamics. The labor force module in the CGE-MILES is well developed. It takes into account the age dimension, formalizes formal employment through an extended wage curve, models the formal/informal trade-off, models emigration decision, and takes into account education and social security variables. The CGE-MILES allows the simulation of the impact of a government wage increase at the global level and at sector level through several channels of transmission. The main channels of transmissions at the global level are total investment, which depends on savings which in turn depend on the level of government deficit, and the sensitivity of private wages to the change in public wages. The main channels of transmission at the sector levels are capital composition, which relates to the impact of investment on the activity in the construction sector knowing that construction provides 60 to 70 percent of capital goods, and input-output effects related to the consumption and provision of intermediary goods by sectors. The CGE model does not capture the dynamics of prices; the public sector is aggregated, and it does not capture the dynamics of the foreign sector beyond the trade in goods and services.

3. **The Macro – RMSM-X model is a macroeconomic consistency framework that puts in relations the main components of national accounts.** The Macro-RMSM-X allows for the simulation of fiscal and external accounts dynamics. The Macro-RMSM-X takes into account both real and nominal variables, translates the macroeconomic dynamic of the domestic economy into a positive or negative financing gap, models the revenues versus deficit financing of additional spending, models the domestic versus external financing of fiscal deficit, and takes into account monetary and prices variables. The first channel of transmission of the model is through the increase in aggregate demand which affects the current account and reserves through the increase in imports and the widening of trade deficit. The second channel of transmission is through the widening in fiscal deficit which increases interest rates and debt service. Both

aggregate demand and fiscal deficit channels affect money supply, prices, and real exchange rate. Hence, the model captures the dynamics of prices, real exchange rate, interest rate, money supply, and international reserves.

4. **The Macro – RMSM-X model has its own limitations,** and does not allow for an assessment of the differentiated impact on different sectors of the increase in both fiscal revenues and wages. In addition, the model does not allow for an assessment of the impact of wage increases on the structure of the labor force, on employment, and on the distribution of labor between sectors. Also, the model does not allow for non-linearity related to behavioral changes that could arise from a worsening in fiscal and external balances. Indeed, there are reasons to believe that above certain level of deficits (or tax increases), investment and consumer behavior may change rapidly inducing an amplified deceleration in economic growth and activity. Behavioral changes are to some extent captured through the interactions of sensitivities and elasticity under the CGE model.

Annex 2 – The Baseline Scenario

1. **Under the baseline scenario, we assume that the cost of living increase did not occur in 2012.** Revenues recover the ratio to GDP of 2011 (23.5 percent) in 2014 and remain stable over the period 2014-2019. Current spending to GDP declines gradually while capital spending increases. The scenario, therefore, reflects the economic environment that is projected to prevail in the case where the CoL did not occur, the salary scale has not been implemented and the offsetting revenue measures are not introduced. Growth recovers slowly and reaches in 2014 the long-term potential of 4.0 percent observed between 1997 and 2010. The renewed dynamic of the economy is related to an improved investment climate due to gradual removal of infrastructure bottlenecks. The unemployment rate would be declining slowly between 2013 and 2019. Skilled Lebanese youth are the largest beneficiary of unemployment reduction. CPI inflation stabilizes at below 3.0 percent from 2015 onward and money supply increases by 9.6 to 9.9 percent a year from 2014 onward. Budget deficit improves slightly starting 2013 but current account deficit remains high. Debt to GDP declines to 119 percent at the end of projection period (See Tables 1 & 2).

Annex 3 – Scenario 1: Current Situation – CoL Increase with no Revenue Measures

1. **Under the current situation scenario, we consider the CoL increase as it has been implemented from February 2012, with no revenue measure.** Revenues remain unchanged compared to the baseline, but current spending increases by 1.0 ppt at the end of the projection period driven by additional wages and increased debt service. Debt service increases due to higher deficit and debt and to higher interest rates. Debt reaches 125 percent of GDP at the end of the projection period, up from 119 percent under the baseline. Money supply accelerates to provide financing for fiscal deficits and inflation accelerates. Increase in wages stimulates aggregate demand and imports increase. Exports decrease due to real exchange appreciation and loss of competitiveness and current account deficit widens while reserves decline by US$2.6 billion.

2. **There is transmission from wage increases in the public sector to the private sector.** However, with the absence of labor surveys in Lebanon, it is not possible to calculate the transmission rate. A plausible alternative would be to have a bracket with an upper-bound and a lower bound transmission rates. Hence, the scenario would have two variants: variant (a) with a low transmission rate of 10 that corresponds to the average observed in the case of OECD countries, and variant (b) with the 37 percent transmission rate to that has been observed in the case of Morocco. Results of simulations show that growth in 2019 would be lower by 0.5 ppt under the low transmission assumption compared to the baseline (0.6 ppt under the high transmission assumption). The difference between the low and high transmission assumptions shows clearly in unemployment figures. Hence, while unemployment is higher by only 0.5 ppt under the low transmission assumption, it is higher by 0.9 ppt under the high transmission assumption. The most affected are the unskilled youth and the high skilled non-youth. Much of public sector employees are under the categories of low and medium skilled labor and the increase in their wages would affect the employability of their peers in the private sector. On the positive side, higher public (and private) wages reduce the incentive to migrate and the supply of informal labor. However, migration resumes starting 2016 under the pressure of higher unemployment and declining labor demand (See Tables 3, 4 & 5).

Annex 4 – Scenario 2: CoL and Full Salary Scale Increases without Revenue Measures

1. **Scenario 2, builds on scenario 2 by using the full wage increase projected by the government for the period 2013-2019.** The payment of the increase is supposed to be through installments according to the scheme proposed by the government. These installments are implemented according to the following scheme: (i) no salary adjustment payments occur until April 2013, (ii) from April 2013 to March 2014, installment represent 50 percent of the monthly due, (iii) from April 2014 to March 2015, installments amount to 75 percent of the monthly due, (iv) from April 2015 onward, the full monthly scale adjustment is paid, and, (v) from January 2016 to June 2017, the government pays in monthly installments the backload of salary adjustment due from February 2012 to April 2013 and the residual of the installments of the period April 2013 – March 2015. The years 2018 and 2019 would not witness any installment.

2. **Wage increases are not accompanied with any increase in revenues.** Under this scenario, the impacts observed under scenario 2 will be amplified, with a particularly strong impact in 2016, the year of the highest installment. The economy would be in dire straits with widening twin-deficits. The fiscal deficit would swell to 10.4 percent of GDP in 2016, a level not seen since 2004, and would remain 2.7 percentage points higher than the baseline in 2019. Money growth accelerates slightly and nominal interest rates increase. Debt service ratio to GDP raises and is 1.5 ppt higher than the baseline in 2019, at the end of the projection period. Debt to GDP remains above 130 percent and is 14 ppt higher than the baseline in 2019. Pressure on the peg would be large as current account deficit increase and reserve losses would reach US$6.4 billion in 2019 compared to the baseline. CPI Inflation remains above 3.0 percent and real exchange rate appreciates further, pointing to additional loss of competitiveness and deeper structural impacts of the salary increase.

3. **The structural long term impact is indeed important on sector dynamics and employment.** Large fiscal deficits reduce domestic savings, which constrains private investment. Total investment drops by 17.3 percent compared to baseline by 2019 under the low transmission variant and by 19 percent under the high transmission variant. The crowding out of private investments leads to a contraction by almost the same magnitude 26.7 percent in the activity of the construction and infrastructure sector and overall growth is hampered by the collapse in investments. The slowdown in the activity of the industrial sector is substantial. Activity deceleration in sectors producing non-traded goods, such as services, is less acute; the income elasticity in these sectors being higher than for other consumption items and their production being solely domestic. Formal wages become more attractive and lead to decline in informal labor supply compared to the baseline and to slowdown in the emigration of Lebanese nationals. However, emigration resumes in 2018 due to the strong deceleration in economic activity and to the lack of labor demand. Indeed, unemployment is constantly higher than the baseline, and low skilled youth and medium and high skilled non-youth are the categories that are the most hit by increasing unemployment. Finally, the higher the transmission is from public to private wages the stronger is the deceleration of economic activity and the higher are the swings in labor dynamics (see Tables 6, 7 & 8).

Annex 5 - Scenario 3: CoL and Full Salary Scale Increases with Revenue Measures

1. **Scenario 3, builds on scenario 2 by assuming a full wage increase as projected by the government for the period 2013-2019, accompanied with revenues increases.** Building on what is proposed by the government; we suggest a series of measures that are consistent with the principles of sustainability, equity, effectiveness and time consistency (see Section 3). Hence, total recurrent revenues in 2013 would be LBP1220 billion, including: LBP20 billion tax on wages and salaries, LBP150 billion increase in excises on luxury goods, LBP96 billion increase in excises on alcoholic beverages, LBP30 billion increase in notary fees, LBP874 billion property tax, and LBP50 billion tax on capital gain. One time revenues are: LBP100 billion fines on illegal constructions and LBP155 billion on illegal occupations of sea-shores. The tariff increase on electricity, LBP275 billion, is not a revenue for the government and would be introduced as decline in subsidies to the electricity company. For the purpose of simulations, we consider the LBP874 billion expected from the tax on asset reevaluation as the revenue occurring from the proposed property. This number is consistent with the worldwide average of property tax to GDP ratio, estimated at 1.4 percent. For projections, we consider that the tax on wages to evolve with the CoL increase and the salary scale adjustment. Excises and electricity tariff evolve at the same rate as nominal GDP, while property tax and tax on capital gains evolve at the same rate as CPI inflation.

2. **Under scenario 3, the economy would be in a much better shape than under the no revenue increase scenario (scenario 2).** Revenue measures would over-compensate CoL and salary scale increases in 2013 and 2014, and then in 2018 and 2019, which brings deficit in these years below the baseline figure. For other indicators, we observe either slight drawbacks compared to the baseline or neutralization of the effect of the wage increases at the end of the projection period. Money supply increases beyond the baseline levels in the years of heavy installments (2015 to 2017) but later goes slightly below the baseline. Nominal interest rates increase much less than under the no-revenues scenario. Also, the rise in debt service is moderate and the debt to GDP ratio in 2019 is at 119.6 percent of GDP, only 0.9 ppt above the baseline level. Reserve losses are limited to US$648 million. The CPI inflation and real exchange rate increase beyond the baseline only in the tears 2015 to 2017. Impact on growth is also largely muted and the dynamics of economic sectors are only slightly different from the baseline. The dynamics of the labor force are also largely close to the baseline, and unemployment increases slightly. Moreover, and unlike under the no-compensation scenario, the drop in informal labor and in the outmigration of Lebanese labor continues all over the period and is not reversed at any time. The use of a higher elasticity of transmission between public and private wages worsens growth and employment outcomes that however remain in a much better shape than under the no-compensation scheme (see Tables 9, 10 & 11).

Annex 6 - Scenario 4: CoL and Full Salary Scale Increases with Revenue Measures, Deductions and Pension Reform

1. **In addition to measures taken under scenario 3, there are discounts on the salary scale adjustment and a reform of the pension system.** The government is proposing to reduce the salary scale adjustment by 5 percent, to increase pension contributions, and to modify the eligibility criteria governing the disbursements of pension to the family members of a defunct beneficiary. These measures were estimated to generate LBP800 billion worth of savings over the period 2013-2019.

2. **Under this scenario, the economy would be slightly better than under the revenue compensation scenario.** Since deficit of the pension system would be reduced and salary scale adjustment would be lower, fiscal deficit would in fact improve compared to the baseline for all years, except 2016 and 2017, Compared to the baseline, indicators either witness a slight drawback, or remain unchanged, or in some cases are in better shape. Compared to the no-revenues scenario, all indicators are in a much better shape. Money supply remains close to baseline levels, and nominal interest rates dynamics are dampened further compared to scenario 3. Rise in debt service is moderate and the increase in the debt to GDP ratio is totally eliminated in 2019. Decline in reserves is limited to US$495 million at the end of the projection period, hence reflecting further reduction in aggregate demand, imports and current account deficit. Impact on growth is muted further and sector dynamics is much more affected by salary increase rather than by the decline in private investments and savings. Labor force dynamics are better than those under scenario 3. The use of a higher elasticity of transmission between public and private wages worsens growth and employment outcomes that however remain better than under scenario 3 (see Tables 12, 13 & 14).

TABLES

Table 1 - Baseline

	2012 (Est.)	2013	2014	2015	2016	2017	2018	2019
Money and prices (%)								
CPI Inflation	5.3	4.5	3.3	2.6	2.7	2.8	2.8	2.9
Money Growth (M3)	5.7	7.6	9.6	9.7	9.8	9.8	9.9	9.9
Nominal Interest rate	7.1	6.8	6.8	6.9	6.7	6.7	6.7	6.7
Real Exchange Rate Appreciation	4.2	3.1	1.5	0.9	1.3	1.3	1.4	1.4
Government finance (%GDP)								
Revenue (including grants)	22.0	22.9	23.5	23.5	23.5	23.5	23.5	23.5
o/w. tax revenue	17.7	18.0	18.5	18.5	18.7	18.7	18.7	18.7
Total expenditure and net lending	29.9	30.6	30.3	30.4	29.8	29.6	29.2	28.8
Current	27.8	27.6	26.7	26.6	25.9	25.6	25.3	25.0
Capital	2.1	3.0	3.6	3.8	3.9	3.9	3.9	3.9
Overall balance	-7.8	-7.7	-6.9	-6.9	-6.3	-6.0	-5.7	-5.3
External sector (US$ million)								
Current Account	-5,919	-6,929	-7,797	-8,591	-9,344	-10,044	-10,815	-11,644
Export (GNFS)	12,326	13,345	14,621	15,925	17,552	19,153	20,905	22,823
Import (GNFS)	20,876	22,430	24,366	26,069	27,878	29,414	31,288	33,334
Gross Reserves	32,598	34,519	36,480	37,685	38,973	40,092	41,144	41,806
Gross Reserves (Months of Imports GNFS)	18.7	18.5	18.0	17.3	16.8	16.4	15.8	15.1
Current Account balance (% of GDP)	-13.8	-15.2	-15.9	-16.5	-16.7	-16.8	-16.8	-16.9
Total Debt								
Total Debt Stock (US$ billion)	57,002	60,507	63,869	67,469	70,994	74,607	78,264	81,918
Debt to GDP Ratio (% GDP)	133.3	132.5	130.4	129.4	127.0	124.5	121.8	118.8
Debt Service Ratio (% GDP)	8.1	7.9	7.8	7.8	7.7	7.6	7.4	7.2

Source: World Bank and Government data

Table 2 - Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill - LBP billions (000s)	3.4	3.6	3.8	4.1	4.3	4.5	4.7	4.9
Total investment - LBP billions (000s)	19.2	19.6	20.7	21.8	23.0	24.3	25.7	27.2
GDP Growth	1.8%	2.6%	4.4%	4.2%	4.4%	4.5%	4.5%	4.5%
Formal labor demand (000s)	724.8	747.8	774.1	797.2	818.4	836.9	852.9	866.6
Share informal labor supply (pp)	43.7%	43.6%	43.6%	43.5%	43.6%	43.6%	43.7%	43.9%
Emigration of Lebanese (000s)	29.6	30.2	29.7	29.0	28.2	27.3	26.4	25.6
Total Unemployment	8.1%	7.4%	6.5%	5.6%	4.7%	4.0%	3.3%	2.8%
Production by sector - LBP billions (000)s								
Agriculture	3.7	3.8	4.0	4.2	4.4	4.6	4.8	5.1
Energy	3.3	3.4	3.5	3.7	3.9	4.1	4.2	4.5
Industrie	13.7	14.2	14.9	15.6	16.4	17.2	18.0	19.0
Construction	13.4	13.9	14.7	15.5	16.5	17.6	18.7	20.0
Transports	6.7	6.9	7.2	7.5	7.8	8.1	8.5	8.9
Services	19.6	20.0	20.8	21.5	22.4	23.2	24.1	25.0
Commerce	9.8	10.1	10.6	11.1	11.7	12.2	12.8	13.5
Administration	5.4	5.4	5.5	5.5	5.6	5.7	5.7	5.8
Unemployment by skill								
Low skilled	6.4%	6.2%	5.5%	4.9%	4.3%	3.8%	3.2%	2.8%
Medium skilled	7.5%	6.9%	5.9%	5.1%	4.4%	3.7%	3.2%	2.7%
High skilled	11.3%	10.1%	8.5%	7.2%	5.8%	4.6%	3.6%	2.8%
Unemployment by age								
Low skilled								
Youth	12.6%	12.0%	10.8%	9.6%	8.4%	7.2%	6.1%	5.2%
Non Youth	2.3%	2.4%	2.2%	2.1%	1.9%	1.8%	1.6%	1.5%
Medium skilled								
Youth	10.4%	8.9%	7.0%	5.4%	4.0%	2.9%	2.0%	1.4%
Non Youth	4.9%	5.1%	5.0%	4.9%	4.6%	4.3%	3.9%	3.6%
High skilled								
Youth	14.6%	12.2%	9.5%	7.1%	4.9%	3.2%	1.9%	1.1%
Non Youth	7.7%	7.9%	7.7%	7.2%	6.6%	5.8%	4.9%	3.9%

Table 3 - Current Situation - Scenario 1 - Change from Baseline

	2012 (Est.)	2013	2014	2015	2016	2017	2018	2019
Money and prices (%)								
CPI Inflation	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1
Money Growth (M3)	0.5	0.4	0.4	0.3	0.2	0.2	0.1	0.1
Nominal Interest rate	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.1
Real Exchange Rate Appreciation	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.1
Government finance (%GDP)								
Revenue (including grants)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w. tax revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total expenditure and net lending	1.6	1.5	1.4	1.4	1.2	1.1	1.0	0.9
Current	1.6	1.5	1.4	1.4	1.2	1.1	1.0	1.0
Capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	-1.6	-1.5	-1.4	-1.4	-1.2	-1.1	-1.0	-1.0
External sector (US$ million)								
Current Account	-285	-319	-328	-332	-335	-333	-332	-329
Export (GNFS)	-12	-30	-50	-70	-91	-113	-136	-159
Import (GNFS)	273	287	272	252	230	207	181	151
Gross Reserves	-285	-604	-932	-1,264	-1,599	-1,932	-2,264	-2,594
Gross Reserves (Months of Imports GNFS)	-0.4	-0.6	-0.7	-0.7	-0.8	-0.9	-1.0	-1.0
Current Account balance (% of GDP)	-0.6	-0.6	-0.5	-0.4	-0.3	-0.2	-0.2	-0.1
Total Debt								
Total Debt Stock (US$ billion)	698	1,407	2,147	2,936	3,657	4,388	5,112	5,855
Medium & Long Term	0	0	0	0	0	0	0	0
Short Term	0	0	0	0	0	0	0	0
Debt to GDP Ratio (% GDP)	1.0	1.9	2.8	3.7	4.3	4.9	5.5	6.0
Debt Service Ratio (% GDP)	0.4	0.3	0.4	0.5	0.4	0.4	0.4	0.4

Source: World Bank and Government data

Table 4 - Current Situation - Scenario 1 (a) - Change from Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill	13.6%	13.4%	12.1%	10.8%	9.8%	8.9%	8.1%	7.4%
Total investment	-4.3%	-4.9%	-5.2%	-5.8%	-6.5%	-7.2%	-8.1%	-9.0%
GDP Growth (pp)	-0.4%	-0.3%	-0.4%	-0.4%	-0.4%	-0.5%	-0.5%	-0.5%
Formal labor demand	-0.1%	-0.1%	-0.2%	-0.3%	-0.3%	-0.4%	-0.5%	-0.5%
Share informal labor supply (pp)	-1.1%	-1.1%	-1.1%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
Emigration of Lebanese	-3.1%	-2.7%	-1.8%	-0.9%	0.1%	1.1%	2.1%	3.1%
Total Unemployment (pp)	0.3%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%	0.5%
Production by sector								
Agriculture	0.2%	0.2%	0.0%	-0.3%	-0.7%	-1.0%	-1.4%	-1.8%
Energy	0.2%	0.2%	0.0%	-0.3%	-0.6%	-0.9%	-1.3%	-1.6%
Industrie	-0.3%	-0.6%	-0.9%	-1.3%	-1.6%	-2.0%	-2.4%	-2.9%
Construction	-2.3%	-3.5%	-4.5%	-5.3%	-6.2%	-7.0%	-8.0%	-9.0%
Transports	0.3%	0.3%	0.2%	0.0%	-0.2%	-0.5%	-0.8%	-1.1%
Services	0.2%	0.2%	0.1%	-0.1%	-0.3%	-0.5%	-0.8%	-1.1%
Commerce	-0.2%	-0.4%	-0.7%	-1.0%	-1.4%	-1.8%	-2.3%	-2.7%
Administration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unemployment by skill (pp)								
Low skilled	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%
Medium skilled	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
High skilled	0.3%	0.4%	0.5%	0.5%	0.6%	0.6%	0.6%	0.6%
Unemployment by age (pp)								
Low skilled								
Youth	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.7%	0.7%
Non Youth	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%
Medium skilled								
Youth	0.4%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%	0.2%
Non Youth	0.3%	0.3%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%
High skilled								
Youth	0.3%	0.4%	0.5%	0.5%	0.5%	0.5%	0.4%	0.3%
Non Youth	0.2%	0.3%	0.4%	0.5%	0.7%	0.8%	0.8%	0.8%

Table 5 - Current Situation - Scenario 1 (b) - Change from Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill	13.6%	13.4%	12.1%	10.8%	9.8%	8.9%	8.1%	7.4%
Total investment	-4.8%	-5.4%	-5.8%	-6.4%	-7.2%	-8.0%	-8.9%	-9.9%
GDP Growth (pp)	-0.6%	-0.3%	-0.4%	-0.4%	-0.5%	-0.5%	-0.5%	-0.6%
Formal labor demand	-2.0%	-1.9%	-1.8%	-1.7%	-1.6%	-1.6%	-1.5%	-1.5%
Share informal labor supply (pp)	-0.6%	-0.6%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%	-0.8%
Emigration of Lebanese	-3.5%	-3.0%	-2.0%	-0.9%	0.2%	1.3%	2.4%	3.5%
Total Unemployment (pp)	1.1%	1.2%	1.1%	1.1%	1.0%	1.0%	1.0%	0.9%
Production by sector								
Agriculture	0.2%	0.1%	-0.1%	-0.4%	-0.8%	-1.2%	-1.6%	-2.0%
Energy	0.1%	0.0%	-0.2%	-0.4%	-0.8%	-1.1%	-1.5%	-1.9%
Industrie	-0.4%	-0.7%	-1.1%	-1.4%	-1.8%	-2.3%	-2.7%	-3.2%
Construction	-2.5%	-3.9%	-4.9%	-5.8%	-6.7%	-7.7%	-8.7%	-9.7%
Transports	0.1%	0.1%	0.0%	-0.2%	-0.5%	-0.8%	-1.1%	-1.4%
Services	-0.1%	-0.1%	-0.2%	-0.3%	-0.6%	-0.8%	-1.1%	-1.4%
Commerce	-0.3%	-0.6%	-0.9%	-1.3%	-1.7%	-2.1%	-2.6%	-3.1%
Administration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unemployment by skill (pp)								
Low skilled	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	0.8%
Medium skilled	1.2%	1.2%	1.1%	1.1%	1.0%	1.0%	0.9%	0.9%
High skilled	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%
Unemployment by age (pp)								
Low skilled								
Youth	1.6%	1.6%	1.5%	1.4%	1.4%	1.4%	1.3%	1.3%
Non Youth	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Medium skilled								
Youth	1.5%	1.4%	1.3%	1.1%	0.9%	0.8%	0.6%	0.5%
Non Youth	1.0%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
High skilled								
Youth	1.2%	1.3%	1.3%	1.2%	1.1%	1.0%	0.8%	0.6%
Non Youth	0.9%	1.0%	1.1%	1.2%	1.3%	1.4%	1.5%	1.5%

Table 6 - CoL & Salary Scale Increase without Revenue Measures - Scenario 2 - Change from Baseline

	2013 (Proj.)	2014	2015	2016	2017	2018	2019
Money and prices (%)							
CPI Inflation	0.6	0.7	0.7	0.9	0.8	0.5	0.3
Money Growth (M3)	0.7	0.7	0.7	1.0	0.6	0.3	0.2
Nominal Interest rate	0.7	0.8	0.8	1.1	0.8	0.4	0.3
Real Exchange Rate Appreciation	0.7	0.8	0.8	1.1	0.8	0.4	0.3
Government finance (%GDP)							
Revenue (including grants)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o/w. tax revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total expenditure and net lending	2.3	2.7	2.9	4.1	3.4	2.8	2.7
Current	2.3	2.7	3.0	4.2	3.5	2.8	2.7
Capital	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Overall balance	-2.3	-2.7	-2.9	-4.1	-3.4	-2.8	-2.7
External sector (US$ million)							
Current Account	-467.3	-618.5	-752.2	-1216.3	-1094.8	-959.2	-1000.3
Export (GNFS)	-35.5	-70.4	-111.2	-173.2	-231.5	-281.7	-332.8
Import (GNFS)	429.6	539.8	625.9	1019.8	835.8	640.9	623.0
Gross Reserves	-752.0	-1370.5	-2122.6	-3338.9	-4433.8	-5392.9	-6393.2
Gross Reserves (Months of Imports GNFS)	-0.7	-1.0	-1.4	-2.0	-2.2	-2.3	-2.5
Current Account balance (% of GDP)	-0.9	-1.0	-1.0	-1.6	-1.1	-0.8	-0.7
Total Debt							
Total Debt Stock (US$ billion)	1773.7	3154.0	4799.6	7299.4	9560.4	11557.7	13636.3
Debt to GDP Ratio (% GDP)	2.5	4.1	6.0	8.6	10.7	12.4	14.0
Debt Service Ratio (% GDP)	0.5	0.7	0.9	1.1	1.3	1.4	1.5

Source: World Bank and Government data

Table 7 - CoL & Salary Scale Increase without Revenue Measures - Scenario 2 (a) - Change From Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill	13.6%	19.8%	22.8%	24.0%	36.1%	26.3%	18.0%	16.3%
Total investment	-4.3%	-6.8%	-8.7%	-10.6%	-16.0%	-15.4%	-15.4%	-17.3%
GDP Growth (pp)	-0.4%	-0.5%	-0.6%	-0.7%	-1.1%	-1.0%	-1.0%	-1.1%
Formal labor demand	-0.1%	-0.2%	-0.2%	-0.3%	-0.4%	-0.5%	-0.7%	-0.9%
Share informal labor supply (pp)	-1.1%	-1.6%	-1.9%	-2.1%	-3.2%	-2.6%	-2.1%	-2.1%
Emigration of Lebanese	-3.1%	-4.0%	-4.0%	-3.3%	-4.6%	-0.9%	3.0%	5.4%
Total Unemployment (pp)	0.3%	0.5%	0.6%	0.7%	1.0%	1.0%	0.9%	0.9%
Production by sector								
Agriculture	0.2%	0.3%	0.1%	-0.2%	-0.5%	-1.3%	-2.3%	-3.2%
Energy	0.2%	0.3%	0.2%	-0.1%	-0.4%	-1.1%	-2.0%	-2.8%
Industrie	-0.3%	-0.7%	-1.3%	-1.9%	-2.9%	-3.7%	-4.5%	-5.4%
Construction	-2.3%	-4.5%	-6.7%	-8.8%	-12.7%	-14.4%	-15.6%	-17.3%
Transports	0.3%	0.5%	0.5%	0.3%	0.3%	-0.3%	-1.1%	-1.8%
Services	0.2%	0.3%	0.3%	0.1%	0.0%	-0.5%	-1.2%	-1.8%
Commerce	-0.2%	-0.5%	-0.9%	-1.5%	-2.3%	-3.2%	-4.1%	-5.0%
Administration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unemployment by skill (pp)								
Low skilled	0.3%	0.5%	0.6%	0.7%	1.0%	0.8%	0.8%	0.8%
Medium skilled	0.4%	0.5%	0.6%	0.7%	1.0%	0.9%	0.8%	0.9%
High skilled	0.3%	0.5%	0.7%	0.9%	1.2%	1.2%	1.2%	1.3%
Unemployment by age (pp)								
Low skilled								
Youth	0.6%	0.8%	1.0%	1.1%	1.6%	1.4%	1.3%	1.3%
Non Youth	0.2%	0.3%	0.4%	0.4%	0.6%	0.5%	0.5%	0.5%
Medium skilled								
Youth	0.4%	0.6%	0.7%	0.7%	0.8%	0.6%	0.5%	0.4%
Non Youth	0.3%	0.5%	0.6%	0.8%	1.1%	1.1%	1.0%	1.1%
High skilled								
Youth	0.3%	0.5%	0.7%	0.8%	1.0%	0.9%	0.7%	0.5%
Non Youth	0.2%	0.4%	0.6%	0.9%	1.3%	1.5%	1.6%	1.7%

Table 8 - CoL & Salary Scale Increase without Revenue Measures - Scenario 2 (b) - Change From Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill	13.6%	19.7%	22.8%	24.0%	36.1%	26.3%	18.0%	16.3%
Total investment	-4.8%	-7.6%	-9.8%	-11.8%	-17.7%	-17.0%	-16.9%	-19.0%
GDP Growth (pp)	-0.6%	-0.6%	-0.7%	-0.8%	-1.4%	-0.9%	-1.0%	-1.2%
Formal labor demand	-2.0%	-2.8%	-3.1%	-3.4%	-4.8%	-3.7%	-3.1%	-3.1%
Share informal labor supply (pp)	-0.6%	-0.9%	-1.2%	-1.3%	-2.1%	-1.8%	-1.5%	-1.6%
Emigration of Lebanese	-3.5%	-4.5%	-4.3%	-3.5%	-4.7%	-0.7%	3.6%	6.1%
Total Unemployment (pp)	1.1%	1.7%	1.9%	2.1%	3.0%	2.5%	2.0%	2.0%
Production by sector								
Agriculture	0.2%	0.2%	0.0%	-0.4%	-0.8%	-1.6%	-2.6%	-3.6%
Energy	0.1%	0.1%	-0.1%	-0.5%	-0.9%	-1.6%	-2.5%	-3.4%
Industrie	-0.4%	-0.9%	-1.5%	-2.2%	-3.4%	-4.2%	-5.0%	-6.0%
Construction	-2.5%	-4.9%	-7.3%	-9.6%	-13.8%	-15.7%	-16.9%	-18.8%
Transports	0.1%	0.1%	0.1%	-0.2%	-0.4%	-0.9%	-1.6%	-2.4%
Services	-0.1%	-0.1%	-0.2%	-0.4%	-0.8%	-1.2%	-1.7%	-2.4%
Commerce	-0.3%	-0.7%	-1.2%	-1.9%	-2.9%	-3.7%	-4.7%	-5.7%
Administration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unemployment by skill (pp)								
Low skilled	1.0%	1.5%	1.7%	1.9%	2.8%	2.2%	1.8%	1.8%
Medium skilled	1.2%	1.8%	2.1%	2.2%	3.2%	2.5%	2.0%	1.9%
High skilled	1.1%	1.6%	2.0%	2.3%	3.1%	2.8%	2.4%	2.4%
Unemployment by age (pp)								
Low skilled								
Youth	1.6%	2.3%	2.7%	2.9%	4.2%	3.4%	2.7%	2.7%
Non Youth	0.6%	1.0%	1.1%	1.3%	2.0%	1.6%	1.3%	1.3%
Medium skilled								
Youth	1.5%	2.1%	2.2%	2.3%	3.0%	2.1%	1.4%	1.1%
Non Youth	1.0%	1.5%	1.9%	2.2%	3.3%	2.8%	2.3%	2.4%
High skilled								
Youth	1.2%	1.8%	2.2%	2.3%	2.9%	2.2%	1.6%	1.2%
Non Youth	0.9%	1.4%	1.8%	2.2%	3.3%	3.1%	3.0%	3.1%

Table 9 - CoL & Salary Scale Increase with Revenue Measures - Scenario 3 - Change from Baseline

	2013 (Proj.)	2014	2015	2016	2017	2018	2019
Money and prices (%)							
CPI Inflation	-0.1	0.0	0.1	0.5	0.3	0.1	0.0
Money Growth (M3)	-0.2	0.0	0.1	0.5	0.2	-0.1	-0.1
Nominal Interest rate	-0.1	0.0	0.1	0.6	0.3	0.0	0.0
Real Exchange Rate Appreciation	-0.1	0.0	0.1	0.6	0.3	0.0	0.0
Government finance (%GDP)							
Revenue (including grants)	2.1	2.0	2.0	2.0	2.0	2.0	2.0
o/w. tax revenue	1.7	2.0	2.0	2.0	2.0	2.0	2.0
Total expenditure and net lending	1.3	1.7	2.0	3.3	2.6	1.9	1.8
Current	1.3	1.7	2.0	3.3	2.6	1.9	1.8
Capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	0.8	0.3	0.0	-1.4	-0.6	0.1	0.2
External sector (US$ million)							
Current Account	126.6	21.7	-20.5	-413.6	-210.2	36.3	96.5
Export (GNFS)	-11.8	-14.6	-21.7	-50.2	-72.6	-82.5	-89.7
Import (GNFS)	-140.7	-38.0	-2.8	361.7	132.8	-125.3	-192.3
Gross Reserves	-158.1	-136.4	-156.9	-570.5	-780.7	-744.4	-647.9
Gross Reserves (Months of Imports GNFS)	0.0	0.0	-0.1	-0.5	-0.4	-0.2	-0.1
Current Account balance (% of GDP)	0.3	0.1	0.0	-0.6	-0.2	0.2	0.3
Total Debt							
Total Debt Stock (US$ billion)	342.6	226.9	257.0	1059.5	1485.3	1462.1	1368.4
Debt to GDP Ratio (% GDP)	0.4	0.1	0.0	0.8	1.1	1.0	0.9
Debt Service Ratio (% GDP)	-0.2	-0.2	0.0	0.2	0.3	0.3	0.3

Source: World Bank and Government data

Table 10 - CoL & Salary Scale Increase with Revenue Measures - Scenario 3 (a) - Change From Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill	13.6%	20.5%	24.3%	26.2%	39.1%	29.7%	21.6%	20.3%
Total investment	-4.3%	1.2%	-1.4%	-2.4%	-6.8%	-5.0%	-3.6%	-4.0%
GDP Growth (pp)	-0.4%	-0.1%	-0.1%	-0.2%	-0.5%	-0.3%	-0.2%	-0.3%
Formal labor demand	-0.1%	-0.1%	-0.1%	0.0%	0.2%	0.3%	0.4%	0.4%
Share informal labor supply (pp)	-1.1%	-1.5%	-1.9%	-2.1%	-3.2%	-2.6%	-2.0%	-2.0%
Emigration of Lebanese	-3.1%	-4.8%	-5.0%	-5.2%	-7.4%	-4.9%	-2.3%	-1.4%
Total Unemployment (pp)	0.3%	0.5%	0.6%	0.6%	0.8%	0.7%	0.5%	0.5%
Production by sector								
Agriculture	0.2%	-0.3%	-0.3%	-0.3%	-0.1%	-0.4%	-0.8%	-1.1%
Energy	0.2%	-0.1%	0.0%	0.0%	0.2%	0.0%	-0.3%	-0.6%
Industrie	-0.3%	-0.5%	-0.6%	-0.7%	-1.1%	-1.3%	-1.5%	-1.7%
Construction	-2.3%	-0.5%	-1.1%	-1.8%	-4.4%	-4.8%	-4.5%	-4.6%
Transports	0.3%	-0.3%	-0.2%	-0.2%	0.2%	0.0%	-0.3%	-0.5%
Services	0.2%	-0.4%	-0.3%	-0.2%	0.0%	-0.1%	-0.4%	-0.5%
Commerce	-0.2%	-0.4%	-0.4%	-0.5%	-0.7%	-1.0%	-1.2%	-1.5%
Administration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unemployment by skill (pp)								
Low skilled	0.3%	0.3%	0.4%	0.5%	0.7%	0.5%	0.4%	0.3%
Medium skilled	0.4%	0.5%	0.6%	0.6%	0.8%	0.6%	0.5%	0.5%
High skilled	0.3%	0.6%	0.8%	0.8%	1.0%	0.9%	0.9%	0.8%
Unemployment by age (pp)								
Low skilled								
Youth	0.6%	0.5%	0.7%	0.8%	1.2%	0.8%	0.6%	0.6%
Non Youth	0.2%	0.2%	0.2%	0.3%	0.4%	0.3%	0.2%	0.2%
Medium skilled								
Youth	0.4%	0.5%	0.6%	0.6%	0.7%	0.4%	0.3%	0.2%
Non Youth	0.3%	0.4%	0.5%	0.6%	0.9%	0.7%	0.6%	0.6%
High skilled								
Youth	0.3%	0.8%	0.9%	0.8%	0.9%	0.7%	0.5%	0.3%
Non Youth	0.2%	0.5%	0.7%	0.8%	1.1%	1.1%	1.1%	1.1%

Table 11 - CoL & Salary Scale Increase with Revenue Measures - Scenario 3 (b) - Change From Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill	13.6%	20.5%	24.3%	26.2%	39.1%	29.7%	21.6%	20.3%
Total investment	-4.8%	0.3%	-2.5%	-3.7%	-8.7%	-6.8%	-5.3%	-5.9%
GDP Growth (pp)	-0.6%	-0.2%	-0.2%	-0.3%	-0.8%	-0.3%	-0.2%	-0.3%
Formal labor demand	-2.0%	-2.8%	-3.1%	-3.1%	-4.2%	-3.0%	-2.0%	-1.8%
Share informal labor supply (pp)	-0.6%	-0.8%	-1.1%	-1.3%	-2.0%	-1.7%	-1.4%	-1.5%
Emigration of Lebanese	-3.5%	-5.2%	-5.4%	-5.4%	-7.6%	-4.7%	-1.8%	-0.6%
Total Unemployment (pp)	1.1%	1.6%	1.9%	2.1%	2.9%	2.2%	1.7%	1.5%
Production by sector								
Agriculture	0.2%	-0.4%	-0.4%	-0.5%	-0.4%	-0.7%	-1.2%	-1.6%
Energy	0.1%	-0.3%	-0.3%	-0.3%	-0.3%	-0.5%	-0.8%	-1.1%
Industrie	-0.4%	-0.7%	-0.8%	-1.0%	-1.6%	-1.8%	-2.1%	-2.4%
Construction	-2.5%	-0.9%	-1.7%	-2.7%	-5.6%	-6.2%	-6.0%	-6.3%
Transports	0.1%	-0.7%	-0.7%	-0.7%	-0.6%	-0.6%	-0.9%	-1.1%
Services	-0.1%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-1.0%	-1.1%
Commerce	-0.3%	-0.7%	-0.8%	-0.9%	-1.3%	-1.6%	-1.8%	-2.2%
Administration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unemployment by skill (pp)								
Low skilled	1.0%	1.3%	1.6%	1.7%	2.6%	1.9%	1.4%	1.3%
Medium skilled	1.2%	1.7%	2.0%	2.1%	3.0%	2.2%	1.7%	1.5%
High skilled	1.1%	1.9%	2.2%	2.3%	3.1%	2.5%	2.1%	1.9%
Unemployment by age (pp)								
Low skilled								
Youth	1.6%	2.0%	2.5%	2.7%	3.9%	3.0%	2.2%	2.0%
Non Youth	0.6%	0.8%	1.0%	1.1%	1.7%	1.3%	1.0%	0.9%
Medium skilled								
Youth	1.5%	2.0%	2.3%	2.2%	2.8%	1.9%	1.2%	0.9%
Non Youth	1.0%	1.5%	1.9%	2.1%	3.1%	2.5%	2.0%	1.9%
High skilled								
Youth	1.2%	2.1%	2.4%	2.4%	2.9%	2.1%	1.4%	1.0%
Non Youth	0.9%	1.6%	2.0%	2.3%	3.2%	2.9%	2.5%	2.5%

Table 12 - CoL & Salary Scale Increase with Revenue Measures and Deductions - Scenario 4 - Change from Baseline

	2013 (Proj.)	2014	2015	2016	2017	2018	2019
Money and prices (%)							
CPI Inflation	-0.1	0.0	0.1	0.4	0.3	0.1	0.0
Money Growth (M3)	-0.2	0.0	0.1	0.5	0.2	0.0	-0.1
Nominal Interest rate	-0.1	0.0	0.1	0.5	0.3	0.0	0.0
Real Exchange Rate Appreciation	-0.1	0.0	0.1	0.5	0.3	0.0	0.0
Government finance (%GDP)							
Revenue (including grants)	2.1	2.0	2.0	2.0	2.0	2.0	2.0
o/w. tax revenue	1.7	2.0	2.0	2.0	2.0	2.0	2.0
Total expenditure and net lending	1.3	1.6	1.9	2.9	2.4	1.8	1.7
Current	1.3	1.6	1.9	2.9	2.4	1.8	1.7
Capital	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	0.8	0.4	0.1	-1.0	-0.4	0.2	0.3
External sector (US$ million)							
Current Account	123.0	30.9	-8.5	-332.0	-178.6	51.3	103.9
Export (GNFS)	-12.0	-14.2	-20.4	-44.5	-64.2	-72.6	-78.7
Import (GNFS)	-137.2	-46.9	-13.3	285.9	110.5	-129.3	-187.6
Gross Reserves	-161.7	-130.8	-139.3	-471.3	-649.9	-598.6	-494.6
Gross Reserves (Months of Imports GNFS)	0.0	0.0	-0.1	-0.4	-0.3	-0.2	-0.1
Current Account balance (% of GDP)	0.3	0.1	0.0	-0.5	-0.1	0.2	0.3
Total Debt							
Total Debt Stock (US$ billion)	340.1	177.5	141.1	707.7	1003.6	881.2	686.4
Debt to GDP Ratio (% GDP)	0.4	0.0	-0.2	0.3	0.5	0.2	0.0
Debt Service Ratio (% GDP)	-0.2	-0.2	0.0	0.1	0.2	0.3	0.3

Table 13 - CoL & Salary Scale Increase with Revenue Measures and Deductions - Scenario 4 (a) - Change From Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill	13.6%	20.4%	23.4%	25.1%	35.5%	28.1%	20.5%	19.3%
Total investment	-4.3%	1.2%	-1.2%	-2.1%	-5.9%	-4.4%	-3.1%	-3.4%
GDP Growth (pp)	-0.4%	-0.1%	-0.1%	-0.2%	-0.4%	-0.3%	-0.2%	-0.2%
Formal labor demand	-0.1%	-0.1%	-0.1%	0.0%	0.2%	0.3%	0.4%	0.4%
Share informal labor supply (pp)	-1.1%	-1.5%	-1.8%	-2.0%	-2.9%	-2.4%	-1.9%	-1.9%
Emigration of Lebanese	-3.1%	-4.7%	-4.8%	-5.0%	-6.8%	-4.7%	-2.3%	-1.4%
Total Unemployment (pp)	0.3%	0.5%	0.6%	0.6%	0.7%	0.6%	0.5%	0.5%
Production by sector								
Agriculture	0.2%	-0.3%	-0.3%	-0.3%	-0.2%	-0.4%	-0.8%	-1.1%
Energy	0.2%	-0.1%	0.0%	0.0%	0.2%	0.0%	-0.3%	-0.5%
Industrie	-0.3%	-0.5%	-0.6%	-0.6%	-1.0%	-1.2%	-1.4%	-1.5%
Construction	-2.3%	-0.4%	-1.0%	-1.6%	-3.8%	-4.2%	-3.9%	-4.0%
Transports	0.3%	-0.3%	-0.3%	-0.2%	0.1%	0.0%	-0.3%	-0.5%
Services	0.2%	-0.4%	-0.3%	-0.3%	0.0%	-0.1%	-0.3%	-0.5%
Commerce	-0.2%	-0.4%	-0.4%	-0.5%	-0.6%	-0.9%	-1.1%	-1.3%
Administration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unemployment by skill (pp)								
Low skilled	0.3%	0.3%	0.4%	0.4%	0.6%	0.5%	0.3%	0.3%
Medium skilled	0.4%	0.5%	0.5%	0.6%	0.7%	0.6%	0.5%	0.4%
High skilled	0.3%	0.6%	0.8%	0.8%	0.9%	0.9%	0.8%	0.7%
Unemployment by age (pp)								
Low skilled								
Youth	0.6%	0.5%	0.7%	0.7%	1.0%	0.8%	0.6%	0.5%
Non Youth	0.2%	0.2%	0.2%	0.3%	0.4%	0.3%	0.2%	0.2%
Medium skilled								
Youth	0.4%	0.5%	0.6%	0.5%	0.6%	0.4%	0.3%	0.2%
Non Youth	0.3%	0.4%	0.5%	0.6%	0.8%	0.7%	0.6%	0.6%
High skilled								
Youth	0.3%	0.7%	0.8%	0.8%	0.8%	0.6%	0.5%	0.3%
Non Youth	0.2%	0.5%	0.7%	0.8%	1.0%	1.1%	1.1%	1.0%

Table 14 - CoL & Salary Scale Increase with Revenue Measures and Deductions - Scenario 4 (b) - Change From Baseline

	2012	2013	2014	2015	2016	2017	2018	2019
Gov Wage Bill	13.6%	20.4%	23.4%	25.1%	35.5%	28.1%	20.5%	19.3%
Total investment	-4.8%	0.3%	-2.3%	-3.4%	-7.7%	-6.1%	-4.7%	-5.2%
GDP Growth (pp)	-0.6%	-0.2%	-0.2%	-0.3%	-0.7%	-0.3%	-0.2%	-0.3%
Formal labor demand	-2.0%	-2.7%	-3.0%	-3.0%	-3.9%	-2.8%	-1.9%	-1.6%
Share informal labor supply (pp)	-0.6%	-0.8%	-1.0%	-1.2%	-1.8%	-1.6%	-1.4%	-1.4%
Emigration of Lebanese	-3.5%	-5.2%	-5.2%	-5.2%	-6.9%	-4.5%	-1.8%	-0.7%
Total Unemployment (pp)	1.1%	1.6%	1.9%	2.0%	2.6%	2.1%	1.6%	1.4%
Production by sector								
Agriculture	0.2%	-0.4%	-0.5%	-0.5%	-0.4%	-0.7%	-1.1%	-1.5%
Energy	0.1%	-0.3%	-0.3%	-0.3%	-0.3%	-0.5%	-0.8%	-1.0%
Industrie	-0.4%	-0.7%	-0.8%	-1.0%	-1.5%	-1.7%	-1.9%	-2.1%
Construction	-2.5%	-0.9%	-1.6%	-2.4%	-5.0%	-5.6%	-5.3%	-5.6%
Transports	0.1%	-0.7%	-0.7%	-0.7%	-0.5%	-0.6%	-0.8%	-1.0%
Services	-0.1%	-0.8%	-0.8%	-0.8%	-0.8%	-0.8%	-0.9%	-1.1%
Commerce	-0.3%	-0.7%	-0.7%	-0.9%	-1.2%	-1.4%	-1.7%	-2.0%
Administration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Unemployment by skill (pp)								
Low skilled	1.0%	1.3%	1.6%	1.7%	2.3%	1.8%	1.3%	1.2%
Medium skilled	1.2%	1.7%	2.0%	2.1%	2.7%	2.1%	1.6%	1.4%
High skilled	1.1%	1.8%	2.1%	2.3%	2.8%	2.4%	2.0%	1.8%
Unemployment by age (pp)								
Low skilled								
Youth	1.6%	2.0%	2.4%	2.6%	3.5%	2.8%	2.1%	1.9%
Non Youth	0.6%	0.8%	1.0%	1.1%	1.6%	1.2%	0.9%	0.8%
Medium skilled								
Youth	1.5%	2.0%	2.2%	2.1%	2.6%	1.8%	1.1%	0.8%
Non Youth	1.0%	1.5%	1.8%	2.0%	2.8%	2.4%	1.8%	1.8%
High skilled								
Youth	1.2%	2.1%	2.3%	2.3%	2.7%	2.0%	1.3%	0.9%
Non Youth	0.9%	1.6%	1.9%	2.2%	3.0%	2.8%	2.4%	2.4%