



Following several years of economic slowdown, the political breakthroughs that took place by the end of 2016 bolstered optimism regarding the coming year and potential prospects of easing the strains on the country's financial burdens in the medium and long term. However, scrutinizing the current economic situation reveals that huge efforts should be made to create a healthy economic atmosphere where public debt could be reduced to manageable levels.

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Lebanon's Debt-to-GDP Ratio: Elevated but Insufficient to Get the Full Picture

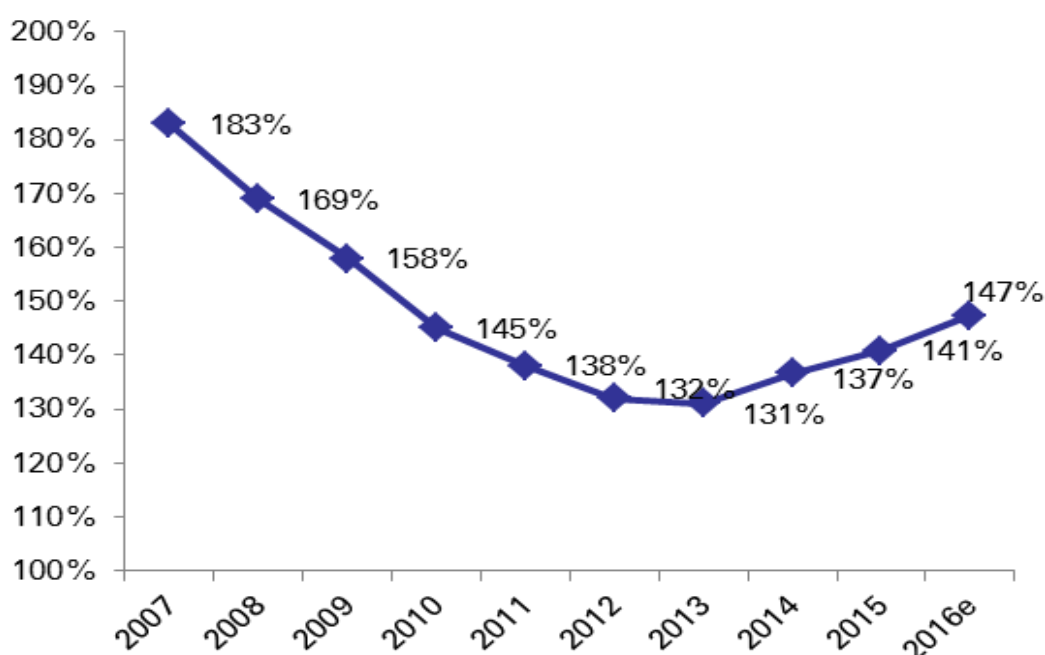
To start with, the Lebanese republic suffers from one of the highest debt-to-GDP ratios in the world, which could threaten the country's credibility towards foreign lenders. According to the International Monetary Fund (IMF), in 2015, debt-to-GDP ratio was the highest in Japan (249%), followed by those of Greece (180%) and Lebanon (139%). In addition, Italy (133%) and Portugal (129%) respectively ranked fourth and fifth.

Despite the importance of the debt-to-GDP ratio, other main indicators should also be examined when assessing a country's risk of default such as the debt's quality, cost and the main lenders. For instance, debt-to-GDP ratios in Japan and Singapore revealed alarming levels of 249% and 103%, yet the facts that the majority of Japan's debt is locally held and most of the Singaporean debt is held by its social security trust fund reduce the risk of default. In contrast, Greece's sovereign debt was mostly held by foreign entities, which increased pressure on the country when the foreign borrowing became due. In turn, this has led global rating agencies to downgrade Greece's public debt, which sent interest rates higher. The resulting economic slowdown further reduced the country's ability to repay its obligations.

As for Lebanon, according to an international consensus, the quality of public debt can still be considered as relatively acceptable, which attenuate the risk emanating from the considerable level of the debt-to-GDP ratio. Despite the eruption of the war in Syria and the lingering political deadlock over the past few years, the Lebanese government has always been able to pay down its debt with the main holders being the local commercial banks and the Central bank. In reality, Lebanon

managed to reduce its public debt from 183% in 2006 to 131% in 2012, just when the spillovers of the Syrian crisis started to materialize on the local scene. This was coupled with satisfactory 2012's ratings for Lebanon foreign denominated currency debt (42% of gross public debt) of B1/stable (Moody's) and B/negative (Standard and Poor's). Still, with the 2-year political deadlock that began in 2014, Lebanon's debt-to-GDP ratio is expected to stand at 147% by the end of 2016, with its ratings being downgraded to B2/negative (Moody's) and B- /stable (Standard and Poor's).

Debt to GDP ratio Yearly Evolution



Source: Association of Lebanese Banks (ABL), BLOMINVEST Research department

In the same context, debt service or the cost of debt plays also a major role in determining the extent of risk default in a country. In fact, despite the significant levels of debt-to-GDP ratios in each of Japan and Singapore, the effective interest rate on public debt in each of the two countries is minimal (below 1%). However, in Lebanon that also suffers from substantially elevated debt-to-GDP ratio, the cost of debt can be considered as relatively higher given that the effective interest rate on public debt hovered in the past few years above 6%. This constitutes an additional burden for the Lebanese debt, especially that high interest levels inflate the cost of refinancing and augment the yearly fiscal costs.

Given that the Lebanese banks are the main holders of sovereign debt, the banking sector in Lebanon can be considered as a safety valve for government debt. This can be better reflected by the debt-to-deposits ratio that stood at 47.5%

in 2016, which means that deposits at Lebanese commercial banks constitute more than twofold of the country's gross public debt. Hence, the risk of default is mitigated thanks to the banking sector that constitutes an enduring cushion for Lebanon's frail public finances.

Albeit the debt-to-GDP ratio is insufficient by itself, it remains the first indicator to be considered when laying down a fiscal framework for a country. In the beginning of the 90s, one of the fundamental conditions for the formation of the Eurozone was that the median debt-to-GDP ratio should stand at 60%. Another debt-to-GDP threshold was set at 90% in advanced economies, according to papers such as Reinhart and Rogoff.

Even though reducing the level of the debt-to-GDP ratio remains a must, setting the actual level of the sovereign debt on a downward trend is also important. In absolute terms, Lebanon's public debt hit the \$74.54B in November 2016, increasing by 6.02% since year-start. This substantial level may increase if no prudential fiscal measures were put in place. In fact, reducing the level of the debt-to-GDP ratio is a slow and uncertain process since it involves the nominal GDP's evolution. Hence, aiming to narrow the level of debt can successfully moderate risk and reduce the country's vulnerability against unexpected shocks. Therefore, there is a necessity to deal with such issue through the initiation of different measures starting with maintaining the current level of debt, meeting short-term dues and hence weathering interest rates levels, and expanding the primary surplus by rationalizing fiscal spending and increasing the government's revenues. This will help primary surplus become higher than debt service and able to cover it hence tightening public debt over the medium and long term.

Will Lebanon's Public Debt Remain Sustainable?

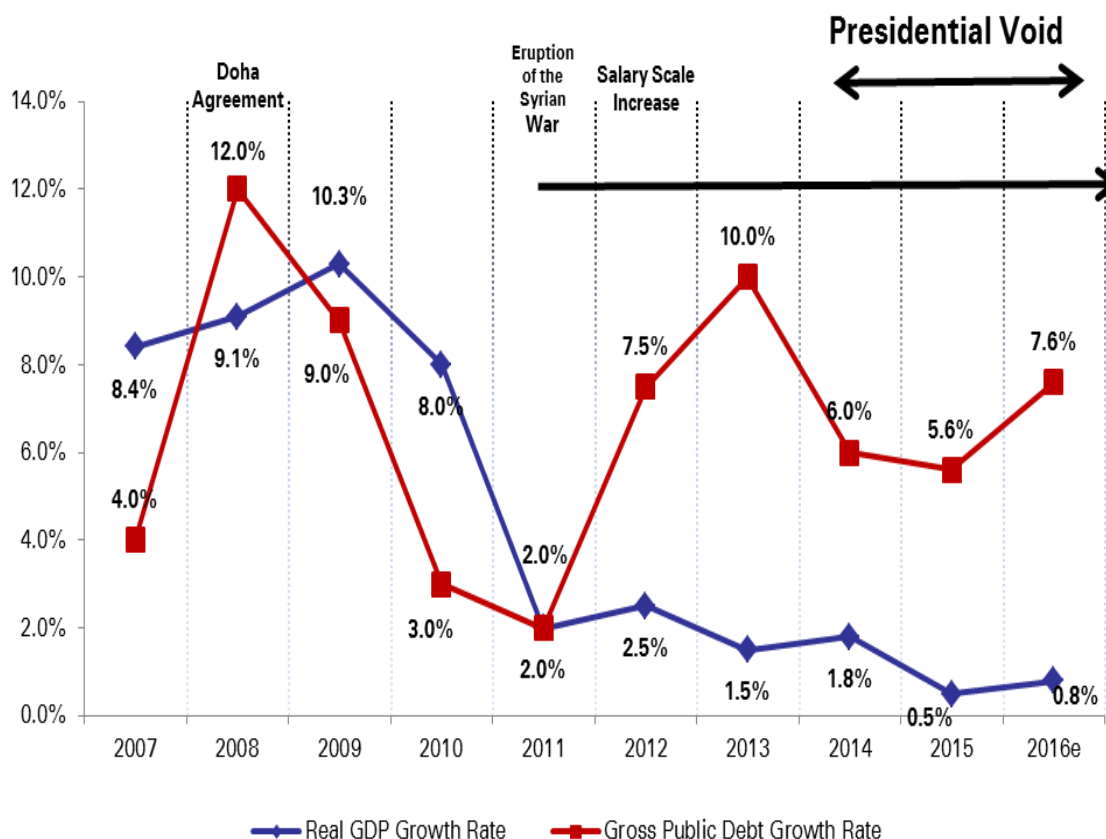
Since 2016 was sealed with the election of a new president after more than 2 years of void and by the formation of a new cabinet, several questions occur to mind related to the consequences of such political events on the health of the Lebanese economy and the sustainability of its significant debt. In this context, the concept of debt sustainability should be tackled in order to provide a better insight regarding the repercussions of the actual public debt dynamics on its evolution.

➤ *A Quick Glimpse into the Public Debt and Economic Growth Dynamics since 2007*

Going back to the period 2007-2010, the increase in gross public debt (12%), mainly in 2008, following the Doha agreement, was coupled to an improving economic performance in the country where the real GDP growth rate stood at 9.1%. Several factors contributed to the progress, of which the improving investment sentiment resulting from the political consent between different

political parties, donors' support, and the dipping international interest rates after the emergence of 2008's global financial crisis. The following 2 years (2009 and 2010) recorded slower growth levels in terms of public debt and were coupled with superior economic growth rates (as shown in the graph below).

Yearly Evolution of Economic and Public Debt's Growth Rates



Source: Association of Banks in Lebanon, BLOMINVEST Research Department

However, the economic bounce was short-lived as the public debt rose again over the period 2011-2016, while the real GDP growth rate underwent an ongoing downward trend. Even though the economic slowdown was indirectly impacted by the widening sovereign debt, the worsening geo-political consequences along with local political and economic developments took their toll on the country's economic situation in general, and on its external and fiscal positions, in particular. In details, the eruption of the Syrian war in 2011 constituted a substantial setback for the country's public finances, which was clearly reflected by the country registering its first primary deficit in ten years. This was trailed by 2012's salaries' increased that heightened fiscal pressure on the Lebanese government. Shortly after, a presidential void painted the country from mid-2014 and up until the end of 2016 triggering down economic growth rates to negligible levels hand in hand with amplifying public debt.

➤ *Debt Sustainability Analysis*

While the concept of debt sustainability assumes that the change in debt's level should be held below that of the level of growth, Lebanon's case reveals that the country is suffering from highly growing public debt amid slowing economic growth. Hence, reaching a sustainable level of debt requires maintaining the current level of debt-to-GDP ratio or setting it on a downward trend, if possible.

In order to check the current situation, we created a baseline scenario for the year 2016 where all official yearly data were collected or estimated for the year end. Several assumptions were also put in place for the period 2017-2022 to check their implications on the Debt-to-GDP ratio and to assess whether it is sustainable or not. We consider that the optimal debt-to-GDP ratio for Lebanon should be below the 90% threshold for the debt to become sustainable over the coming 5 years. This is expected to ease pressure on interest rates and help in upgrading the current credit ratings.

Below two scenarios were presented, Baseline Scenario and Best-Case Scenario, where the expected influence of the latest political developments, the anticipated fiscal measures for the years to come and international interest rates movements were taken into consideration:

- The election of General Michel Aoun as a president for the Lebanese Republic and the cabinet formation in the last quarter of 2016 are expected to positively impact most of the economic parameters in 2017 and will be mainly reflected in the year's real GDP growth rate.
- The positive effects on the economic growth, derived from the expected parliamentary elections in 2017 were also embedded.
- We anticipate that the adjustment of the wage and salary scale may take place in 2018, costing the government around \$1.3B. As a result, new taxation schemes are expected to be imposed aiming to boost fiscal revenues at a projected amount of \$1.0B.
- In line with the Lebanese interest rates, the effective interest rate on debt mainly follows US interest rates movements. Hence, the 25 basis points (bps) rate hike that took place in the US in 2016 was embedded in the year's estimated interest rate. As for 2017, we anticipate several interest rate hikes in the U.S, resulting in the 100 bps uptick in the Lebanese parameter. While 2018's effective interest rate on debt will mostly stabilize at 7.9%, the period 2019-2022 may post a marginal 10 bps rise in the rate to 8%.

It is also worth noting that government's debt has been calculated based on the equation below:

$$Dt = Dt-1 + Dt-1 * rt - PSt + SDIt$$

Dt= Total Debt at time t

Dt-1= Total Debt at time t-1

rt=Weighted interest rate at time t on total debt at time t-1

Dt-1 rt = Interest Payments

PSt= Primary Surplus at time t

SDIt = Surplus in Debt Issuance and Arrears at time t

It is worth noting that the SDI variable indicates the additional amount of debt issued by the government on top of the amount needed to finance the deficit and the existing debt.

- **Baseline Scenario: Precarious Fiscal Situation that Needs Immediate Intervention (Annex 1)**

This scenario considers the situation where no changes occur to the current economic indicators, except for the impacts of the events mentioned above. Given these conditions, real GDP growth is expected to rise from an estimated 0.6% in 2016 to 2.5% by the end of 2017 and 3.5% over the period 2018-2022. At respective GDP deflators of 2% for 2016 and 3.5% for the forecast period 2017-2022, Lebanon's nominal GDP is expected to expand from \$51.36B in 2016 to \$76.86B by the end of 2022.

When it comes to public finances, fiscal deficit is forecasted to substantially widen over the mentioned period from \$4.83B in 2016 to \$13.57B in 2022, mainly due to the inclusion of public employees' salaries and wages adjustment. In details, while expenditures are expected to grow at the same 10% yearly level of 2016, the year 2018 is forecasted to reveal a 14.5% annual jump in government's spending. In parallel, increasing tax revenues are expected to be registered, hovering near \$1.0, in order to partially cover the cost of the salaries' modification. Similarly, the primary balance is expected to start showing a deficit in 2018 following four years of surpluses (from 2014 and up until 2017).

As a result, Lebanon's public debt is expected to rise at a faster pace due to weak fiscal position and interest rate hikes that are inflating debt service. This will be mirrored by a substantial rise in the level of the debt-to-GDP ratio to 175% by 2022, close to 2007 and 2008's levels. Similarly, the burden of such an extensive

public debt will weigh more on banks' deposits as reflected by the debt-to-deposits ratio that is forecasted to grow to 63% in 2022.

Impact of the Baseline Scenario on the Gross Public Debt Ratios

Gross Public Debt Ratios	2014	2015	2016e	2017f	2018f	2019f	2020f	2021f	2022f
% change	4.9%	5.6%	7.6%	8.1%	9.2%	9.9%	10.5%	11.1%	11.5%
% GDP	136.6%	140.8%	147.3%	150.0%	152.9%	156.9%	161.9%	167.9%	174.8%
% Total Deposits	46.1%	46.4%	47.5%	48.9%	50.9%	53.2%	56.1%	59.3%	63.0%

Source: BLOMINVEST Research department

Conclusion: a weak fiscal position will derive from such scenario, with the primary surplus turning into a deficit, thus aggravating the debt-to-GDP ratio. Sovereign debt will definitely become unsustainable and needs immediate intervention to limit its negative repercussions on the economy as a whole.

- **Best Case Scenario: Sustainable Public Debt, Dependent on Fiscal Reforms (Annex 2)**

Under our best case scenario, and besides the main considerations mentioned above for the two scenarios, we assumed for the period 2017-2022 that:

- Transfers to Electricité du Liban (EDL), which almost total \$1.2B per year, could be slashed in half in 2018. We also expect that this positive step will be completed by the full removal of these subsidies in 2019.
- Growth in fiscal revenues will become higher than that of expenses due to fastening economic growth and consumption (hence higher tax revenues).
- Growth of total deposits will mimic that of the nominal GDP.

In the light of these assumptions, we optimistically considered that the real GDP growth rate will hit the 3% by the end of 2017 and will maintain an upward trend over the next two years to stabilize at 6% in the period 2020-2022. We forecast that Nominal GDP will respectively witness a substantial rise from \$51.36B in 2016 to \$85.39B in 2022.

On the fiscal front, the deficit is forecasted to keep on widening yet at much slower rates than those of the Baseline scenario. This will mainly result from governmental expenditures augmenting at smoother rates and revenues rising faster. While we forecast a faster increase in revenues than in expenditures, the latter will be mainly influenced by the expected adjustment of the salaries and wages in 2018 and the concomitant partial ceasing of EdL subsidies with total spending growing at 14.5% to substantially slow down to an increase of 6.0% in 2019 following the full seizure of the remaining amount of yearly EdL transfers. In parallel, 2018's fiscal revenues will reflect the increasing amount of tax income, following the salaries' adjustment, by recording a 14.5% yearly uptick. The difference in this scenario is that fiscal revenues will keep on growing at a faster pace than that of the Baseline scenario. This will help the primary balance to register a surplus after 2018 and partially cover the broadening debt service.

Under this scheme, Lebanon's public debt will keep on growing, yet at a slower rate than that of the real GDP starting 2022. In addition, the level of the debt-to-GDP ratio will decline to 135.4% by 2022, near 2012 and 2013's levels. As for its burden on the banking sector, the debt-to-deposits ratio will drop to as low as 44.3%.

Impact of the Best Case Scenario on the Gross Public Debt Ratios

Gross Public Debt Ratios	2014	2015	2016e	2017f	2018f	2019f	2020f	2021f	2022f
% change	4.9%	5.6%	7.6%	8.1%	8.5%	8.0%	7.2%	6.5%	5.8%
% GDP	136.6%	140.8%	147.3%	149.3%	149.7%	148.1%	144.7%	140.4%	135.4%
% Total Deposits	46.1%	46.4%	47.5%	48.9%	50.5%	52.0%	53.0%	53.8%	54.2%

Conclusion: under this scenario, debt sustainability is checked if efforts continued to trigger the debt-to-GDP ratio below 90%. However, the primary surplus should further increase to stand above the interest payments on debt. However, this is found to be a difficult task as the primary surplus will have to reach 10% of GDP.

Baseline Scenario (Annex 1)

*Assumptions in Red	2014	2015	2016	2017	2018	2019	2020	2021	2022
Real GDP Growth Rate (%)	1.8%	0.5%	0.8%	2.5%	3.5%	3.5%	3.5%	3.5%	3.5%
GDP Deflator	2.8%	2.0%	2.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Nominal GDP (\$M)	48,731	49,954	51,361	54,488	58,369	62,526	66,979	71,750	76,860
Government Revenues (\$M)	10,879	9,576	10,054	10,557	12,085	12,689	13,324	13,990	14,689
<i>% of GDP</i>	22.3%	19.2%	19.6%	19.4%	20.7%	20.3%	19.9%	19.5%	19.1%
<i>% of Change</i>	15.5%	-12.0%	5.0%	5.0%	14.5%	5.0%	5.0%	5.0%	5.0%
Government Expenditures (\$M)	13,952	13,527	14,880	16,368	19,304	21,235	23,358	25,694	28,264
<i>% of GDP</i>	28.6%	27.1%	29.0%	30.0%	33.1%	34.0%	34.9%	35.8%	36.8%
<i>% of Change</i>	2.3%	-3.0%	10.0%	10.0%	17.9%	10.0%	10.0%	10.0%	10.0%
Fiscal Balance (\$M)	-3,073	-3,952	-4,825	-5,811	-7,220	-8,546	-10,035	-11,704	-13,574
Primary Balance (\$M)	1,307	724	27	166	-762	-1,404	-2,186	-3,029	-3,938
<i>% of Change</i>		-44.6%	-96.2%	506.9%	-558.7%	84.4%	55.6%	38.6%	30.0%
Surplus in Debt Issuance and Arrears (\$M)	429	91	500	300	300	300	300	300	300
Effective Interest Rate on Debt (%)	6.58%	6.65%	6.9%	7.90%	7.90%	8.00%	8.00%	8.00%	8.00%
Gross Public Debt (\$M)	66,564	70,311	75,636	81,747	89,267	98,113	108,447	120,452	134,326
Debt Service (\$M)	4,380	4,677	4,853	5,977	6,458	7,141	7,849	8,676	9,636
Primary Balance (% GDP)	2.7%	1.4%	0.1%	0.3%	-1.3%	-2.2%	-3.3%	-4.2%	-5.1%
Total Private Sector Deposits	144,425	151,585	159,165	167,123	175,479	184,253	193,465	203,139	213,296
<i>% change</i>		4.96%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%

Best Case Scenario (Annex 2)

*Assumptions in Red	2014	2015	2016	2017	2018	2019	2020	2021	2022
Real GDP Growth Rate (%)	1.8%	0.5%	0.8%	3.0%	4.5%	5.5%	6.0%	6.0%	6.0%
GDP Deflator	2.8%	2.0%	2.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Nominal GDP (\$M)	48,731	49,954	51,361	54,754	59,220	64,664	70,943	77,831	85,389
Government Revenues (\$M)	10,879	9,576	10,054	10,557	12,085	13,052	14,226	15,507	16,902
<i>% of GDP</i>	22.3%	19.2%	19.6%	19.3%	20.4%	20.2%	20.1%	19.9%	19.8%
<i>% change</i>			5.0%	5.0%	14.5%	8.0%	9.0%	9.0%	9.0%
Government Expenditures (\$M)	13,952	13,527	14,880	16,368	18,704	19,825	20,817	21,857	22,950
<i>% of GDP</i>	28.6%	27.1%	29.0%	29.9%	31.6%	30.7%	29.3%	28.1%	26.9%
<i>% change</i>			10.0%	10.0%	14.3%	6.0%	5.0%	5.0%	5.0%
Fiscal Balance (\$M)	-3,073	-3,952	-4,825	-5,811	-6,620	-6,774	-6,590	-6,351	-6,048
Primary Balance (\$M)	1,307	724	27	166	-162	320	1,069	1,860	2,695
<i>% change</i>		-44.6%	-96.2%	506.9%	-197.3%	-297.9%	234.4%	74.0%	44.9%
Surplus in Debt Issuance and Arrears (\$M)	429	91	500	300	300	300	300	300	300
Effective Interest Rate on Debt (%)	6.6%	6.7%	6.9%	7.9%	7.9%	8.0%	8.0%	8.0%	8.0%
Gross Public Debt (\$M)	66,564	70,311	75,636	81,747	88,667	95,740	102,631	109,281	115,629
Debt Service (\$M)	4,380	4,677	4,853	5,977	6,458	7,093	7,659	8,210	8,743
Primary Balance (% GDP)	3%	1%	0%	0%	0%	0%	2%	2%	3%
Total Private Sector Deposits (\$M)	144,425	151,585	159,165	169,669	183,582	200,472	218,915	239,055	261,049
<i>% change</i>		5.0%	5.0%	6.6%	8.2%	9.2%	9.2%	9.2%	9.2%

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