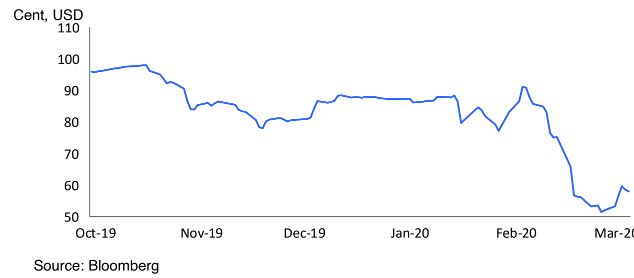
Crisis in Lebanon

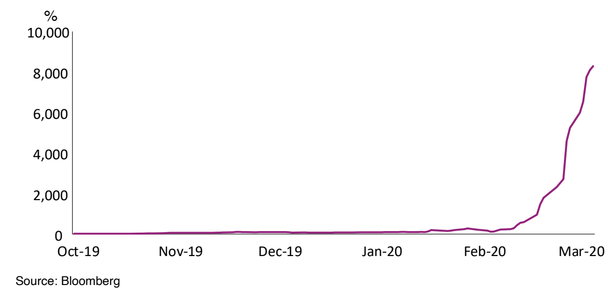
Junko Oguri

THE YALE PROGRAM ON FINANCIAL STABILITY presents CRISIS IN LEBANON. On August 4, a massive explosion hit Beirut, devastating most of the capital city. It became apparent that the explosion was caused by 2,750 tones of ammonium nitrate. The explosive, which would be also used as a fertilizer, had been left at the port without appropriate safety precautions since authorities confiscated it in 2013. The country had already been suffering from a severe economic, financial, and political crisis prior to the explosion, and the annihilation of the capital city has exacerbated the situation, at the worst time ever. In the series of three parts, we will unravel the crisis in Lebanon.

In the PART I, we introduce you to the current situation in Lebanon, focusing on its sovereign default in March and ongoing negotiations with the IMF. In the PART II, we dive deeply into the roots of the crisis and show how Lebanon faces inter-related economic, financial, monetary, banking, and political problems. Finally, in the PART III, we report how COVID-19 has further disrupted the country and how international communities are reaching out to mitigate the ongoing crisis.



(a) Price



(b) Mid Yield to Convention

Figure 1: Lebanon's Sovereign Crisis - the Default on $1.2 billion Eurobond (Defaulted on March 9, 2020)

PART I: THE CURRENT SITUATION

In the first part in a series, we introduce the ongoing crisis in Lebanon. On March 9, the country defaulted on its sovereign debt for the first time in its history. At the time, it had one of the highest ratios of debt to GDP in the world. While the government was in the midst of negotiations with IMF for a support program, on August 4, the country's capital faced a catastrophic explosion caused by neglected ammonium nitrate.

The Eurobond Default

On March 9, Lebanon missed a payment on a $1.2 billion Eurobond. It was Lebanon's first sovereign default in its history. The market had been wary of the solvency. The price fell to 57 cents on the eve of default while the yield on the bond surpassing 1,000 percent (Figure 1). The government subsequently announced it would discontinue all principal and interest payments on foreign currency-denominated Eurobonds.

The government also disclosed that the foreign exchange reserves held by Banque du Liban (BdL), the Lebanese central bank, were experiencing a "rapid downward trend." The $29 billion foreign exchange reserves as of January 2020 were too low to sustain the Lebanese economy facing immense debt (Figure 2). The government claimed that $22 billion out of the $29 billion foreign exchange reserves consisted of liquid assets.

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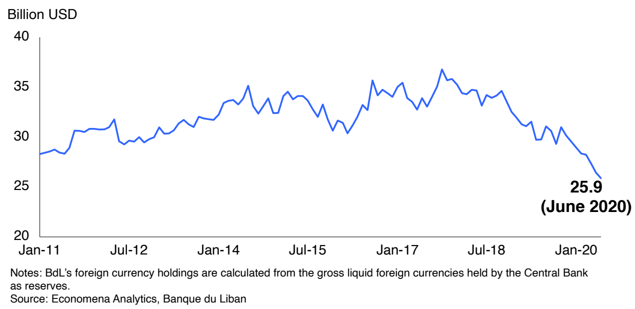
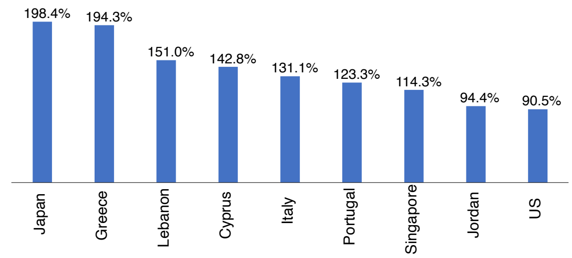
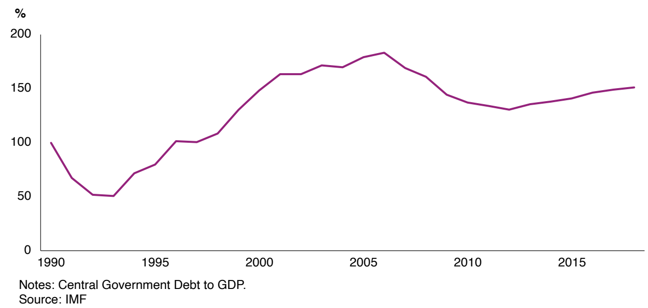


Figure 2: Plunging BdL's Foreign Exchange Reserve



(a) Debt to GDP ratio (2018)



(b) Debt to GDP ratio in Lebanon

Figure 3: Lebanon's Debt Crisis

Meanwhile, given the opacity of the BdL's foreign exchange disclosure, some question the actual size of liquid foreign-currency assets.

The country's debt-to-GDP ratio was 151.0 percent as of 2018, one of the highest in the world (Figure 3). The government estimates that the ratio surged to 178 percent of GDP at end-2019. Meanwhile, Lebanon faces $20 billion in debt amortization in 2020, and even more in coming years (Figure 4).

The accumulating large debt and the outflows of US dollar deposits also led to a severe depreciation of the domestic currency. The country has committed itself to a fixed exchange rate, pegging the Lebanese Pound (LBP) at 1,507.5 to the US dollar since 1997. This was a critical policy to stabilize the financial market back then. In 1992, prior to the introduction of the fixed rate, the LBP saw a severe depreciation by more than two-thirds against the USD and inflation rose above 100 percent (Gaspard, 2017).

However, the fixed exchange rate meant to stabilize the financial market has led to a parallel market with an official rate and a black market rate. There is a huge discrepancy between them. As of September 15, the unofficial currency rate on the black market has depreciated by 79.9 percent compared to the official fixed exchange rate (Figure 5). Furthermore, as Lebanon imports 80 percent of its food needs, the rapid de-facto currency depreciation is significantly affecting households.

In April, the government said that its economy is in "*free fall*" and projected that its 2020 GDP would plummet by 13.8 percent. It expects annual inflation to rise from 2.9 percent in 2019 to 27.1 percent in 2020. Meanwhile, the monthly inflation rate has risen as high as 57 percent. It was 190 percent for food and non-alcoholic beverages (Figure 6).

On July 27, Moody's lowered Lebanon's issuer rating to C, the lowest rating possible, as low as that of Venezuela. S&P and Fitch also had downgraded Lebanon's debt rating in March, to selective default (SD) and restricted default (RD) individually (Figure 7). While the government has not imposed formal capital controls, private banks have limited depositors' access to US dollar cash withdrawals, implementing a kind of de-facto capital control.

The unemployment rate also soared to 11.4 percent. The employment situation has particularly worsened for younger workers. Inequality is already significant in Lebanon. According to a study by the United Nations, in terms of the Gini coefficient, a measure of statistical dispersion intended to represent income inequality, the country is ranked 129 out of 141 countries, implying a severe income disparity.

According to an IMF report, in 2015, 1 percent of bank accounts held 50 percent of total deposits and 0.1 percent of bank accounts held 20 percent of total deposits. Another study by the World Bank shows that 22 percent of the Lebanese population are under the extreme poverty line and 45 percent are under the upper poverty line.

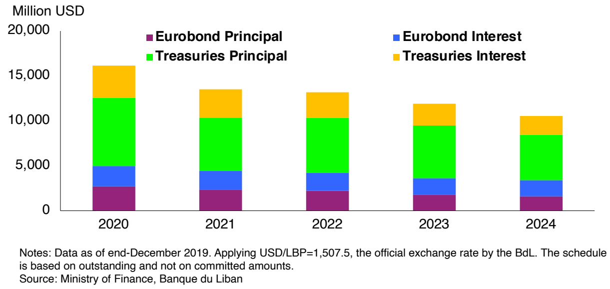


Figure 4: Lebanon's Debt Crisis - Aggregate Debt Amortization Schedule (as of end-December 2019)

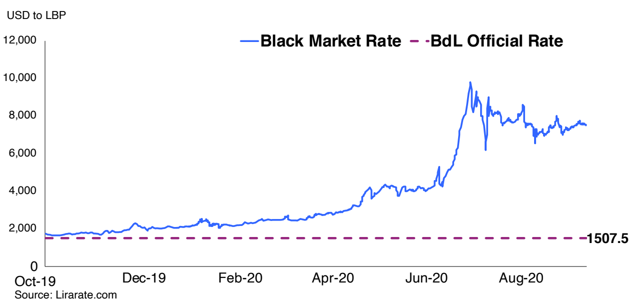
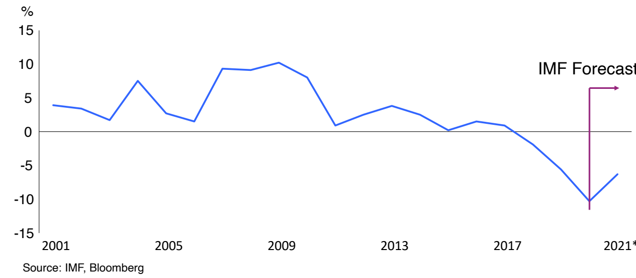
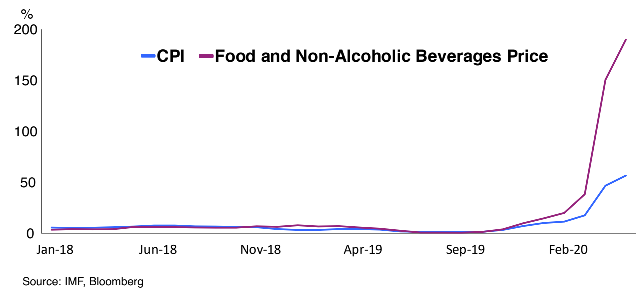


Figure 5: Lebanon's Currency Crisis - USD to LBP Exchange Rate on Black Market



(a) Annual GDP Growth



(b) Consumer Price Index (CPI)

Figure 6: Lebanon's Economic Crisis

The negotiations with the IMF

After the default, the Lebanese government began to work with the International Monetary Fund (IMF) to restructure its debt and negotiate a support program. On April 30, the government proposed an initial financial recovery plan to the IMF.

According to the plan, the country's accumulated loss of LBP241 trillion ($68.9 billion) includes the items shown in Figure 8. These losses are calculated at an exchange rate of 3,500 LBP/USD, and the amount could increase if the currency devalues further. The central bank itself accounts for about $50 billion of these losses.

The total losses of $68.9 billion exceeds Lebanon GDP in 2019, which was $53.4 billion.

The recovery plan incorporates expected support from the IMF, considering the IMF's ability in managing the balance of payment crises. Though the details of the negotiations have not been disclosed, the Lebanon is said to be asking IMF for $10 billion.

However, after more than 17 rounds of discussions, the negotiation with the IMF is still on-going and has not reached a conclusion. In the midst of the negotiations, two members in the Lebanese negotiating teams resigned, "*refused to be part of, or witness to, what is being done*.

At the IMF press conference held on July 13, Athanasios Arvanitis, Deputy Director of the Middle East and Central Asia Department, said that the reform plan was going in "*in the right direction*." However, he noted that for further productive discussions, Lebanese authorities have to "unite around the government's plan." Furthermore, Mr. Arvanitis expressed particular concern about Lebanese authorities' attempts to "present lower losses and difficult measures."

Though the rescue plan backed by a consulting firm, Lazard, was useful to kick off the negotiations, the government and central bank do not seem to agree on the estimates of actual losses. The unconfirmed losses for the private sector have also been wrecking the negotiations. Furthermore, a few have questioned the feasibility of the restructuring plan, which largely depends on tourism. While the government hopes to double the number of tourists from 2 million to 4 million over a 5-7-year period, the outbreak of COVID-19, the global economic downturn, and the explosion in Beirut may keep tourists away from visiting Lebanon.

Meanwhile, in assessing the losses and available foreign

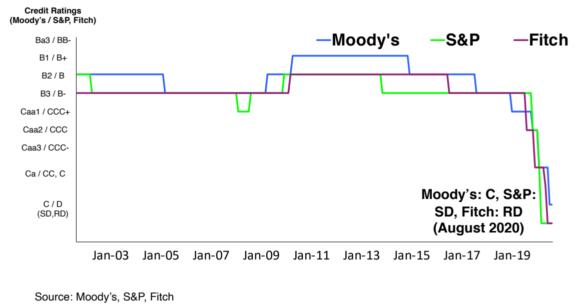


Figure 7: Lebanon's Credit Ratings

exchange reserves, the BdL's balance sheet and its accounting are under scrutiny. Governor Riad Salamé, who has been in charge of the BdL for 27 years, is said to have been relying on discretionary accounting practices, concealing the actual amount of risky liabilities on the central bank's balance sheet. These accounting practices may have burgeoned the BdL's assets by $6 billion.

Indeed, there is no dominant generally accepted accounting framework for central banks (Archer and Moser-Boehm, 2013); some adopt common accounting standards such as IFRS, while others use home-grown frameworks embedded in central bank or other laws. However, recording expected seigniorage, the profit made from printing money, as an asset, apparently a common practice in the BdL, is rather unconventional. Most central banks record seigniorage as an income stream.

On April 14, the BdL published a statement defending its accounting practices. The BdL sought to justify its unorthodox accounting measures, arguing that direct implementation of IFRS would lead to "*the disclosure of market sensitive activities*" and thus excluding certain standards and implementing special treatments should be justified. The BdL also argues that its practice of recording future seignorage profits as assets to offset its losses is not unique; the document refers to Costa Rica in the early 1980s, Peru in the 1980s, Thailand after the Asian Financial Crisis, and Hungary in the 1990s as precedents.

On July 20, a Lebanese judge ordered Governor Salamé to freeze some of his personal assets. It is uncertain whether the court order will be implemented for now. Furthermore, the government called for a forensic audit of the BdL's balance sheet. IMF also underscored the need for the forensic auditing. The audit will be conducted by Alvarez & Marsal, KPMG, and Oliver Wyman.

On July 29, Ministry of Finance published a press release noting that "*[t]he Government stands firm in its belief that an IMF programme is the cornerstone of this recovery pathway.*" However, the deal with the IMF has yet to be announced.

The Beirut explosion

On August 4, 2,000 tons of ammonium nitrate exploded and destroyed most of Beirut port and its surroundings. According to the United Nations, the blast killed approximately 180 people and injured more than 6,000 people. Furthermore, the explosion damaged six hospitals, 20 health clinics, and 120 schools, facilities much needed not only to care for the victims of the blast but also to control the rising COVID-19 pandemic.

The catastrophic explosion could also jeopardize insurance companies in Lebanon, according to the Economist. If the explosion is proven to be an "accident," it would not fall under the force-majeure clauses and insurance companies would need to pay for all claims. The Lebanese financial system is largely dominated by banks (see Part II). Insurance companies and other nonbanks account for only 3 percent of financial-system assets (IMF, 2017). But banks or global financial groups own 18 insurance companies, and these represent most of the market, according to IMF data for 2016. In 2017, IMF warned that the bank regulator and the Insurance Control Commission had not sufficiently collaborated in analyzing the risks posed by insurance companies owned by banking groups.

It became apparent that the 2,000 tons of ammonium nitrate, a component of fertilizer that could turn in to explosives, had been left without appropriate care since 2013. On August 10, Prime Minister Hassan Diab resigned, blaming "political corruption" for the tragedy. Lebanon's president and parliament appointed Mustapha Adib, previously Lebanon's ambassador to Germany, as the new Prime Minister on August 31. Meanwhile, Talal F. Salman, the Finance Ministry advisor who had been Lebanon's lead negotiator with the IMF, resigned and Lebanon has been struggling since then to form a new cabinet due to the sectarian fragmentation.

Consecutive resignations of prime ministers and government officials may complicate and delay the IMF negotiations. Kristalina Georgieva, the IMF's managing director, commented that the devastating explosion was a "*terrible tragedy, coming at a terrible time;*" she said it is now "*the moment for Lebanese policymakers to unite and address* *the severe economic and social crisis."* While she noted that the IMF is *"ready to redouble our efforts,"* she urged the Lebanese government and people to carry out four reforms: (i) restoring the solvency of public finances and soundness of the financial system, (ii) implementing capital controls, (iii) reducing protracted losses in many state-owned enterprises, and (iv) expanding the social safety net for the most vulnerable people.

France, the former colonial power, has reached out to Lebanese officials to facilitate access for aid and reforms (see Part III). French President Emmanuel Macron visited Beirut twice after the blast. However, he emphasized that France does not intend to grant "a carte-blanche, or a blank check," and the aid will be subject to reforms, as underscored by the IMF director.

Part II: The buildup of the crisis

What led Lebanon into this financial crisis, the biggest challenge the nation has faced since its 1975-1990 civil war? The underlying economic problems are complex and interrelated. In this part of the Lebanon series, we provide an overview of the causes, focusing on five areas: 1) the large current account deficit , 2) the unsustainable fiscal deficit , 3) the fragile financial sector, 4) the Bank of Lebanon's "financial engineering," and 5) slow growth, political deadlock, and the impact of the Syrian crisis.

#1 The large current account deficit

For years, Lebanon has run a large current account deficit, equivalent to roughly 25 percent of annual gross domestic product (GDP). The vast majority of imports are composed of fuel and food; Lebanon depends on imports to meet 80 percent of its daily needs of these items (Figure 9).

As introduced in Part I, Lebanon has committed itself to a fixed exchange rate, pegging the Lebanese Pound (LBP) at 1,507.5 to the US dollar since 1997. The fixed exchange rate, which stabilized Lebanon's inflation over a decade, eventually led to the overvaluation of the Lebanese pound (LBP); IMF (2019) suggests that the LBP is overvalued by more than 50 percent. As a result, under the fixed exchange rate regime, Lebanon enjoyed access to imports but its export sector suffered from the lack of competitiveness. Corruption and insufficient business foundation also hinder the development of the export sector (IMF, 2019).

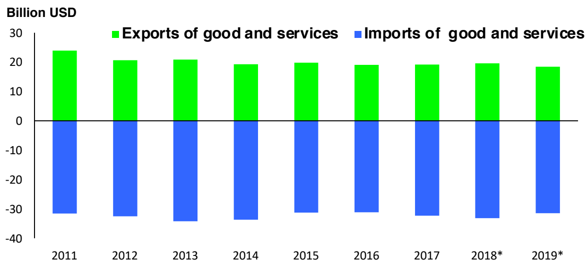
Lebanon depends on imports for petroleum products and fuel; unlike the neighboring Gulf States, Lebanon does not enjoy oil money and its recent attempt to exploit offshore hydrocarbon reserves exploration has been failing. Most of the energy used in Lebanon is derived from oil.

The majority of exports is led by services, namely the tourism industry. The total contribution of the sector was estimated to be $10.4 billion or 19.1 percent of GDP in

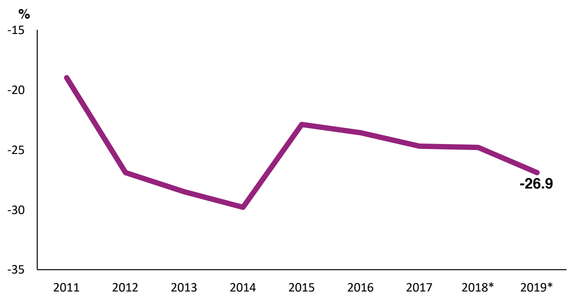
Entity	Amount (% of total loss)	Loss details (from the recovery plan)
BdL (Central Bank) **LBP 177 trillion (73.4%) loss**	LBP73 trillion (30.3%)	Related to the restructuring of the government's debt - Losses generated by excessive fiscal deficits over a long period of time, and notably by very high interests paid to local banks and BdL
	LBP66 trillion (27.4%)	Related to BdL past accumulated losses - losses generated by loss making transactions aimed at preserving the peg and maintain a high dollar inflow, including the financial engineering since 2016
	LBP38 trillion (15.8%)	Net losses on the balance sheets of BdL - The losses will materialize in the balance sheets of the BdL based on an estimation of the Lebanese Pound at the rate of 3500 US$/LBP
Banks **LBP 64 trillion (26.6%) loss**	LBP40 trillion (16.6%)	Net losses on the balance sheets of the banks - The losses will materialize in the balance sheets of the banks based on an estimation of the Lebanese Pound at the rate of 3500 US$/LBP
	LBP24 trillion (10.0%)	Related to banks' losses on their credit portfolio - Losses related to non-performing loans generated by the recession

Note: Applying the Lebanese Pound at the rate of 3,500 LBP/USD, the conversion rate which was referred in the recovery plan.

Figure 8: The Financial Recovery Plan - Total Loss Accounting more than LBP 241 trillion



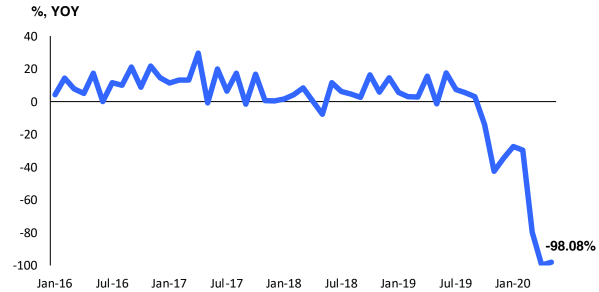
(a) Trade of Good and Services Balance



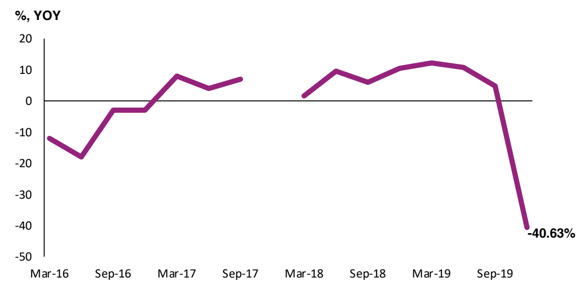
Note: 2018 and 2019 are estimated number.
Source: Lebanese Authorities, IMF World Economic Outlook (October 2019)

(b) Trade balance of goods and service

Figure 9: Lebanon's Sovereign Crisis: the default on $1.2 billion Eurobond (Defaulted on March 9, 2020)



(a) Total Visitor Arribals to Lebanon



Note: December 2017 Tourist Spending data is not available.
Source: Economena Analytics, Central Administration of Statistics, Ministry of Tourism, Global Blue

(b) Tourist Spending

Figure 10: Lebanon's Sovereign Crisis: the default on $1.2 billion Eurobond (Defaulted on March 9, 2020)

2018. However, the outbreak of protests, travel restrictions imposed by COVID-19, and the recent explosion in Beirut cast a dark shadow on the outlook for the leading industry. Compared to the previous year, the total visitor arrivals to Lebanon plunged by 98 percent in May 2020 (Figure 10).

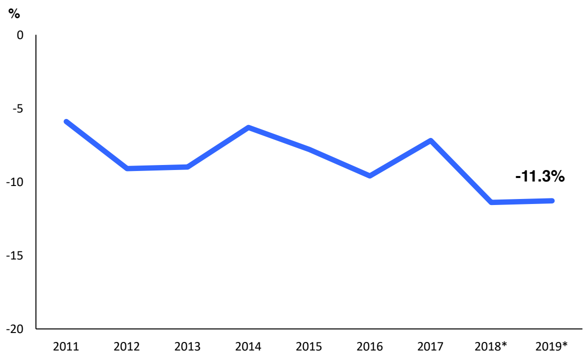
#2 The unsustainable fiscal deficit

The weak tax regime, large and inefficient public sector, and unsustainable debt issuance in foreign currency has led to low government revenue (17,402 billion LBP, or 20.5 percent of its GDP in 2018) and high expenditure (26,754 billion LBP, or 31.5 percent of its GDP). Consequently, Lebanon has been suffering from large fiscal deficits, -11.3 percent of GDP in 2019 (Figure 11). The total public debt increased from 131 percent of GDP in 2012 to an estimated 160 percent of GDP at end-2019.

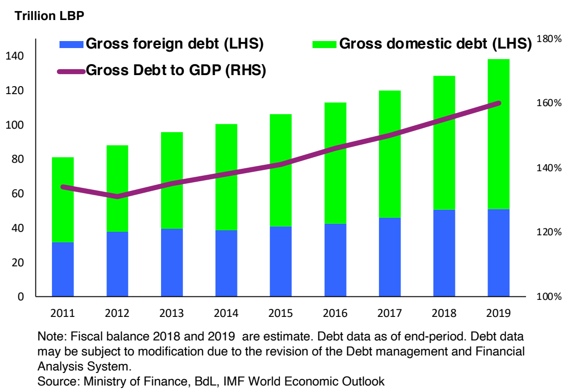
The low tax revenue is the result of slow economic growth and a tax regime riddled with loopholes. In the past, the IMF has encouraged the government to raise and broaden the base for corporate income taxes, property taxes, value-added-taxes (VAT), and fuel taxes; remove tax exemptions; and strengthen compliance by cracking down on tax evasion. For instance, currently, foreign-registered yachts, diesel used for electricity generation, and road vehicles are exempted from VAT. Furthermore, the conflict in neighboring Syria since 2011 has caused a large influx of refugees into Lebanon (see #5). One study suggests the Syrian conflict has led to a negative fiscal impact of $2.6 billion in 2012–14 (about 6 percent of 2013 GDP).

Lebanon is suffering from expenditures that far exceed government revenue. The largest costs include a subsidy to the main state-owned electricity company, personnel costs in the public sector, and interest payments. According to the IMF (2019), personnel costs were 9.7 trillion LBP, the subsidy to the electricity company was 2.6 trillion LBP, and the debt service was 8.2 trillion LBP.

First, the subsidy to Electricité du Liban (EdL), a state-owned electricity company, is sizable at 4 percent of GDP. The EdL is notorious for failing to supply electricity to its citizens. In 2019, the IMF reported that "(i) installed capacity is well below consumers' demand; (ii) losses (technical, non-technical and non-collection) represent 43 percent of production—i.e. only 57 percent of electricity produced is

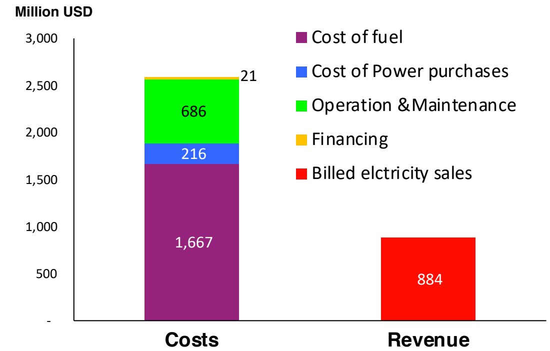


(a) Fiscal Balance

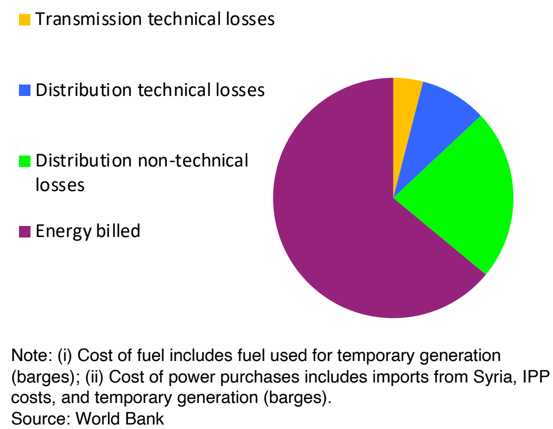


(b) Gross Debt and Gross Debt to GDP

Figure 11: Lebanon's Sovereign Crisis: the default on $1.2 billion Eurobond (Defaulted on March 9, 2020)



(a) Fiscal Balance



(b) Gross Debt and Gross Debt to GDP

Figure 12: Lebanon's Sovereign Crisis: the default on $1.2 billion Eurobond (Defaulted on March 9, 2020)

actually transmitted, billed, and collected; and (iii) electricity tariffs are subsidized, which imposes a heavy burden on the government budget." According to a World Bank estimate in 2018, the sector's overall costs are $2.6 billion, while revenues are only $884 million (Figure 12). Arabnews reported that losses are due to fuel oil subsidies; low consumer tariffs, which have been based on an oil price of $20 per barrel since 1994; and theft. According to the same news source, oil and fuel products are often smuggled to neighboring Syria, contributing to the losses for EdL. Currently, the daytime power cut lasts more than 20 hours.

Second, government personnel costs account for 11.4 percent of GDP. This is due to hiring in state owned enterprises. The Lebanese government owns and often enjoys a monopoly in important sectors such as utilities (telecom landlines, mobile companies, electricity, and water supply), casino, tobacco, and the national airline. In 2017, then-President Michel Aoun raised salaries in the public sector close to parliamentary elections. This new salary scale was more expensive than anticipated, increasing the fiscal burden by spiking expenses related to pension payments and early retirements. Furthermore, IMF (2019) reports that the ongoing new hiring in the public sector despite a hiring freeze has further raised spending on personnel.

Third, debt service accounts for nearly half of government revenues, further aggravating the fiscal balance. Figure 13 compares Lebanon's interest payments to peer countries. The recent currency devaluation will further raise the debt-to-GDP ratio, as more than one-third of the government debt is denominated in foreign currency (Figure 14). This is partially due to the country's history; during the post-civil war era, government had to borrow at high double-digit rates, or issue bonds in US dollars to attract foreign investors (Figure 14). According to an article

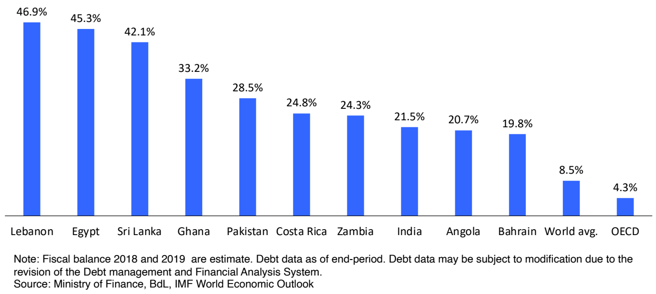


Figure 13: High Interest Payments

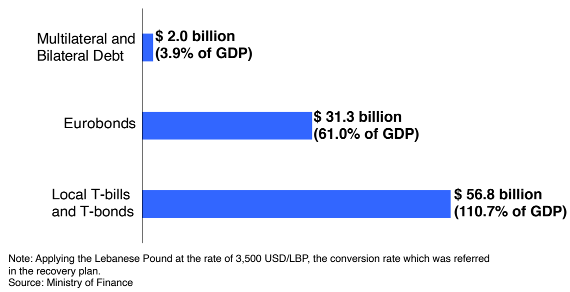


Figure 14: Unsustainable Fiscal Deficit

by Reuters, Lebanon's government does not necessarily know the identity of many of the holders of Eurobonds. This would further challenge the debt-restructuring process.

Lebanon does not have many official bilateral and multilateral loans. Even if all those debts were written off, it would only reduce the debt burden by 3.9 percent in terms of the size of its GDP, or approximately 2 percent of its total debt. According to an analysis by Capital Economics, Lebanese banks hold most of its Lebanese pound-denominated debt and 16 percent of its foreign currency debt. This means that restructuring the debt and forcing banks to take losses could impact those banks' regulatory capital ratios.

#3 The fragile financial sector

For many years, the unsustainable "twin deficits" have been supported by the strong financial sector, which relies on the constant inflow of remittance from diaspora families.

Historically, many people migrated to other countries from Lebanon. Most recently, there were three waves of migration: (i) from the mid-19th century to World War I, (ii) during the civil war (1975–90), and (iii) after the end of the civil war. Consequently, more people of Lebanese origin live outside Lebanon than inside. Some estimate that

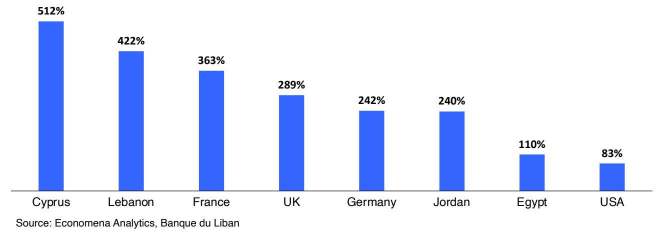


Figure 15: Total Banking Assets (% of GDP) as of December 2019

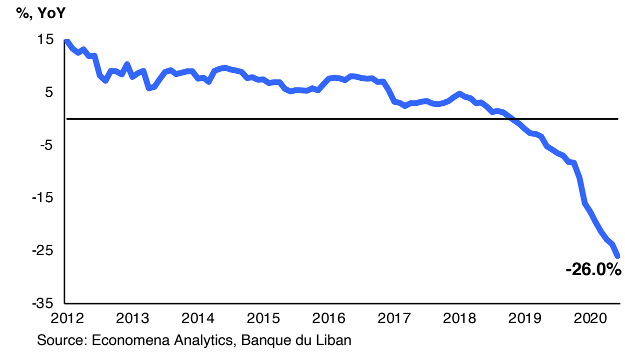
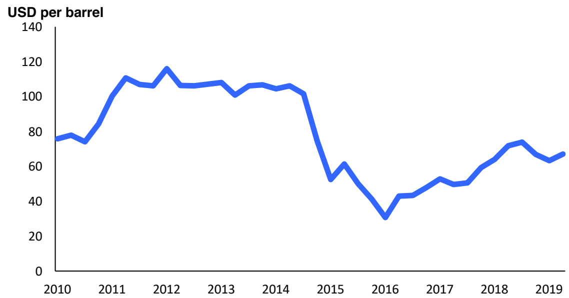


Figure 16: Claim on Private Sector, YoY Changes

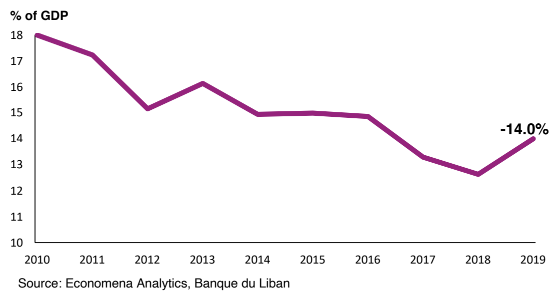
there are 8 to 20 million Lebanese people outside Lebanon in contrast to its 6.8 million population. This diaspora is global but concentrated in Arab countries.

The remittance from these diaspora people has supported the Lebanese economy for years. Over the past decade, the annual remittance has been over $7 billion, more than 10 percent of GDP. Remittance has become an indispensable part of the country's safety net, representing over 40 percent of household income.

The remittance and credit kept flowing into Lebanon even when many other emerging economies suffered from the pullback of credit after the Global Financial Crisis (GFC). In contrast to most countries, private-sector credit growth surged from 2008 to 2010. An IMF report concluded that the improved political environment had contributed to the surge in demand for credit; low domestic interest rates had led to the surge in supply. Salim Chahine, professor at the American University of Beirut, argued that Lebanon benefitted from the GFC as Lebanese people withdrew money from low-rate US banks and parked the money at Lebanese financial institutions with higher rates. The influx of cash caused by the asymmetry in the interest rate further contributed to the growth of the banking sector (Figure 15); retail banks started to campaign for personal



(a) Global Price of Dubai Crude



(b) Personal Remittances, Received

Figure 17: Oil price Drop and the Decline in Remittances

loans. This fueled leverage by households and firms and eventually changed lending habits. From 2006 to 2017, the country's lending via personal loans and credit cards rose from $3.7 billion to $20.5 billion.

Meanwhile, foreign direct investment, which is typically more steady and stable over the long run, have declined by approximately 40 percent after 2010, given the unfavorable investment environment.

Capital inflows from remittances and increasing domestic borrowing supported the growth of the banking sector. By the middle of 2019, banking sector assets had increased 83 per cent in eight years to $253bn, equal to roughly five times the country's economic output. According to IMF (2017), as of December 2015, 66 banks account for 97 percent of financial system assets, while nonbanks play a minor role. As Figure 7 shows, the development of the banking sector eventually turned the small country into the second-largest in the world in terms of banking assets relative to GDP.

Lebanese banks are primarily deposit-funded, and the secondary debt market is undeveloped (IMF, 2017). Deposit concentration, rooted in the significant inequality in the country, has been another concern in the banking sector. The IMF's Financial Sector Assessment Program (FSAP) report in 2016 warned that the largest one percent of deposit accounts held 50 percent of total deposits, while the largest 0.1 percent of accounts held 20 percent of total deposits. Furthermore, those deposits have short maturity. About 60 percent of total deposits by value are either demand deposits or mature in less than 30 days.

Bank assets are somewhat concentrated as well. Banks have large exposures to the public sector. As of September 2019, more than 70 percent of banking sector assets are composed of government securities and deposits at the BdL, the central bank. Under the current treatment in the Basel regulatory framework, in calculating risk-weighted assets under the standardized approach, banks can apply low risk weights to their sovereign exposure or BdL deposits if those are issued or funded in domestic currency. According to the IMF's 2016 FSAP report on Lebanon, such sovereign exposure accounted for more than six times Tier 1 capital owned by assessed banks on a non-risk-weighted basis.

The BdL has been allowing banks to assign a 50 percent risk weight for foreign currency-denominated BdL debt, and 100 percent for foreign currency-denominated Lebanese government debt. That is much more generous than Basel II recommends for internationally active banks. The Basel II standardized approach would require risk weightings of 100 or 150 percent based on Lebanon's sovereign credit ratings, which range from B- to CC (see IMF, 2017). Given the large sovereign exposure, a sovereign debt write-off or a haircut by the Lebanese government could make some banks insolvent. Even after the IMF's 2016 warning, banks' exposures to the BdL and government debt further increased after the implementation of "financial engineering" by the central bank, as described below under #4.

Banks only lend 25 percent of their balance sheets to the private sector. In recent years, the overall lending to the private sector has fallen significantly (Figure 16). The real estate sector, whose performance had been stagnant in recent years, accounts for the majority of private-sector loans; however, more recently, some report that the real estate market is rapidly reviving while other assets rapidly lose value. As the economy slowed down, non-performing loans have surged; they now account for more than 10 percent of total loans.

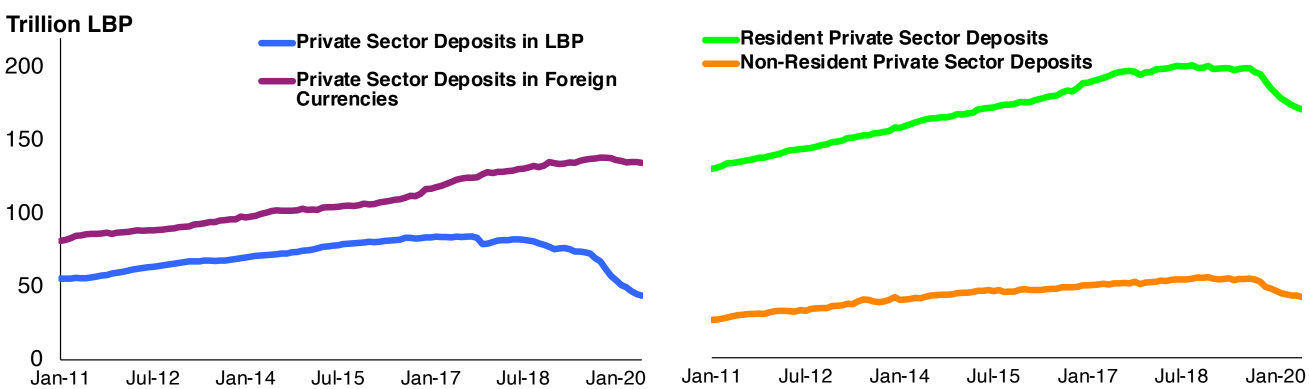
Banks are also vulnerable in terms of liquidity risks, given the currency and maturity mismatches on their balance sheets. Attracted by higher interest rates, banks in recent years increased their exposure to longer-term government debt, sometimes up to 30 years. This has elevated interest-rate risks and maturity-transformation risks, as bank deposits have short maturities.

In order to ensure that banks would have sufficient liquidity, Basel III, the post-crisis regulatory reforms, introduced two liquidity ratios: the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The LCR, designed to ensure that banks survive a period of significant liquidity stress lasting 30 calendar days, requires banks to hold high-quality liquid assets (HQLA). HQLA are cash or assets that can be converted into cash quickly through sales (or by being pledged as collateral) with no significant loss of value.

IMF (2017) questions whether much of the government and BdL debt held by banks could really be convertible in private markets under stress. According to the IMF's 2016 FSAP report, the BdL considers term deposits and certificates of deposit to be safe in a crisis (see #5 for the role of certificate of deposits in Lebanese financial system and the BdL). While Lebanese banks met both LCR and NSFR requirements in the 2016 FSAP, the IMF warned that most banks would fall short of the LCR threshold of 100 percent, if long-term term deposits parked at the BdL were excluded from the HQLA; this indicates that widespread foreign currency liquidity pressures could threaten the financial system.

The constant inflow of remittance from the diaspora kept the fragile financial sector together for many years. However, the remittance has started to ebb in recent years, partially due to the oil price plunge from mid-2014 (Figure 17). Conventionally, an oil-importing country is expected to benefit from a cheaper price of oil. However, in the case of Lebanon, the decline in the oil price could slow the economy by reducing capital inflows and external demand in its service industry, including tourism. Both remittance and tourism dollars rely on Lebanese expatriates who live in oil-producing countries that are affected by falling oil prices. The IMF estimates that the oil price drop led to a decline in capital inflows by at least 19 percent, approximately 3 percent of GDP.

Commercial banks used various approaches to sustain deposits, particularly in foreign currency. According to IMF (2017), banks tried to attract USD by offering very attractive rates on sizable deposits, selling Eurobonds earned by the financial engineering (see #4) to foreign investors, and by repatriating funds from correspondent banks. Recently, despite these attempts, the deposits in commercial banks plummeted and capital inflows dried up significantly after the outbreak of protests in October 2019 (Figure 18; see Part III for the cause of the protest). While the government has not implemented capital controls, banks are implementing de facto capital controls by limiting the withdrawal of cash by depositors. While some in the inter-



Note: Values before December 2009 and after October 2014 are calculated as Resident Private Sector Deposits in LBP/Foreign Currencies + Non-Resident Private Sector Deposits in LBP/Foreign Currencies. Values starting January 2017 are according to IFRS9 accounting standards. Starting February 2018, the Resident/Non-Resident data are calculated by Economena.
Source: Economena Analytics, Banque du Liban

Figure 18: Falling Deposits at Commercial Banks

national community have suggested a haircut on depositors, Lebanese authorities have strongly rejected levying any haircuts on bank creditors.

#4 The BdL's "financial engineering"

Lebanon started to face dwindling inflows from diaspora families in mid-2015. To preserve the large stock of foreign reserves that are the foundation of currency stability, Riad Salamé, the BdL Governor, implemented so-called "financial engineering" in 2016.

The financial engineering scheme involved three steps among the BdL (central bank), Ministry of Finance (Government), and private Lebanese banks. The financial transactions across these actors were designed to resolve the pressing concerns each of them had been facing: the foreign exchange scarcity for the BdL, the high debt service for the Ministry of Finance, and the insufficient capital and liquidity for private banks (Figure 19).

In short, BdL paid banks an extraordinary return on dollar deposits, effectively around 15 percent, in order to maintain its dollar reserves and to provide a windfall boost to bank earnings and capital. However, it created such an incentive to park funds with the government that banks sharply slowed lending to the real economy. Moreover, the BdL's generosity was ultimately financed with Eurobond sales by the Ministry of Finance. While BdL's gross reserves grew, its net reserves (after accounting for liabilities) fell. Its reserve adequacy metric, a measure the IMF uses to evaluate countries' forex risk, fell below 100 percent at the end of 2018 and the situation seems to be worsening as time passes. The government's growing dollar liabilities also made it vulnerable to a potential devaluation in the event it fails to hold the dollar peg.

The scheme included the following steps:

STEP1 BdL swaps Lebanese Pound (LBP) denominated treasury bills (TBs) held in its portfolio with equivalent Eurobonds issued by the Ministry of Finance.

- The government liabilities increase in USD but decrease in LBP. This reduces the cost of debt service, as long as the exchange rate is stable. Furthermore, this lengthens the public debt maturity structure. However, it also increased the government's exposure to the USD.
- The BdL has converted part of its assets from LBP to USD.

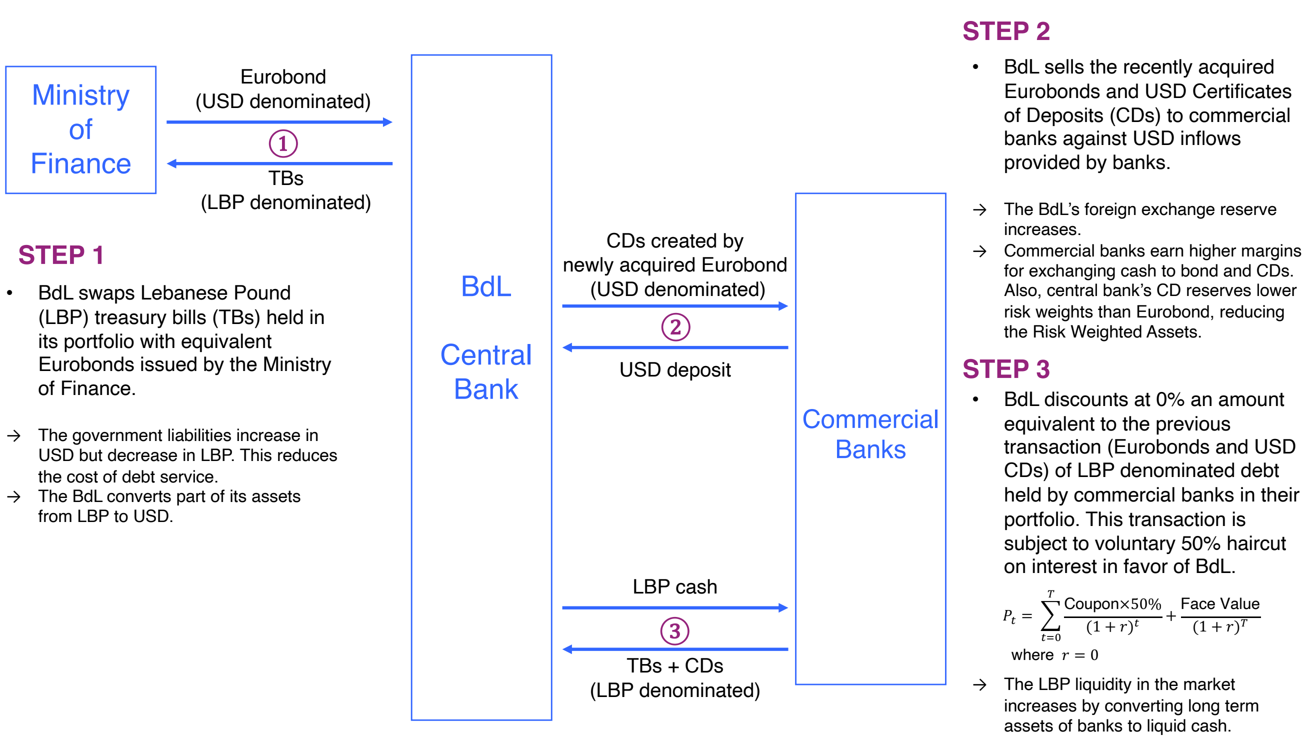


Figure 19: The Financial Engineering by the BdL

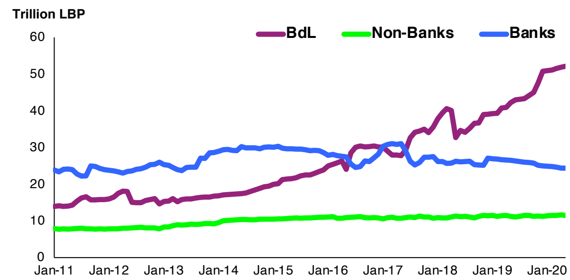
STEP2 BdL sells the recently acquired Eurobonds and issues USD-denominated long-term Certificates of Deposits (CDs) to commercial banks against USD inflows provided by banks.

- The BdL's foreign exchange reserves increase, supporting the currency peg.
- Commercial banks earn higher margins for holding Eurobonds and USD-denominated central bank CDs instead of cash.
- Banks can also reduce their risk-weighted assets (RWAs), increasing their capital ratios, because BdL allows banks to weight the USD-denominated central bank CDs at 50 percent, compared with 100 percent for the Treasury-issued Eurobonds. (As noted in #3, according to IMF (2017), risk weights are currently set at zero for government and BdL debt in LBP, and at 100 percent and 50 percent, respectively, for foreign currency denominated government and BdL debts).

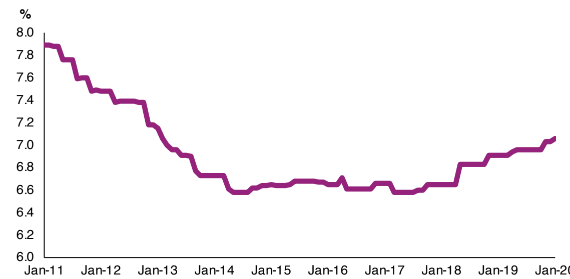
STEP3 BdL pays banks an effective interest rate of about 15 percent to finance LBP-denominated debt (TBs) and LBP-denominated BdL CDs that banks hold on their balance sheets. The amounts of these loans are set at an amount equivalent to the previous transactions (Eurobonds and USD CDs). Banks paid no interest on these transactions, which gave banks an incentive to participate. In exchange, the BdL also benefits from 50 percent haircut on interest rates, which is voluntarily offered by participating commercial banks.

- The LBP liquidity in the market increases by converting long-term assets of banks into liquid cash.
- IMF (2017) notes that the discount at zero percent is "akin to a money-financed capital injection (without any equity stake in return [...]), which helped strengthen banks' capital buffers."

IMF (2019) and others have analyzed the impact of financial engineering. First, they found that, under the quasi-fiscal scheme, the BdL ultimately became the primary actor to finance the government debt. As of 2018, the banking system as a whole provided almost 12 percent of GDP of new financing to the government (more than the overall deficit since foreign investors reduced their Eurobond holdings),



(a) Treasury Bill Holdings



Notes: Weighted average interest rate on Eurobonds does not take into account the contribution of Paris II by parties other than the domestic commercial banks.
Source: Economena Analytics, Banque du Liban, Association of Banks in Lebanon

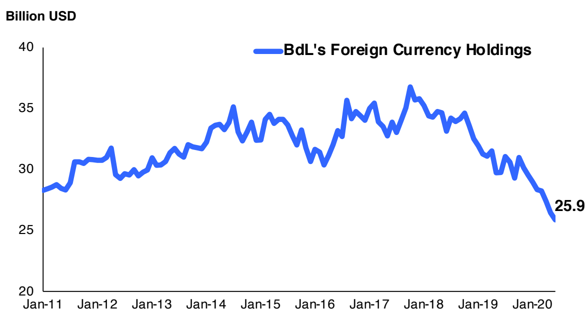
(b) Weighted Average Interest Rate on Eurobonds

Figure 20: Skewed Holdings of TBs by the BdL, Unsettling Eurobond Interest Rate

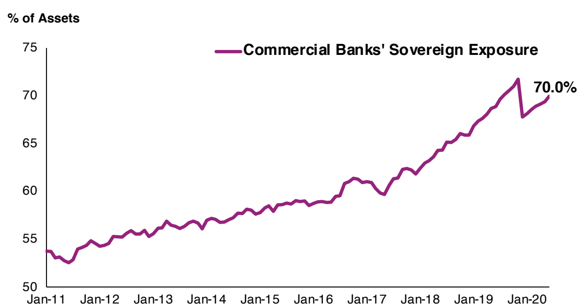
with about three-quarters of the financing coming directly from the BdL (Figure 19).

Second, the Eurobond yields seemed to settle down, but only for a while. In contrast to the expectation, the yield has surged rapidly, particularly after the Prime Minister Hariri's temporary resignation in November 2017 (Figure 20). The sudden disappearance of the Prime Minister was resolved only after a political intervention by French President Emmanuel Macron. This political fiasco seems to have had unsettling impacts on foreign investors and depositors.

Third, the scheme successfully boosted the BdL's foreign currency holdings in the short term (Figure 21). However, the downside was the high rate that BdL offered commercial banks to attract deposits. According to the IMF report, for each new deposit at the BdL in USD, banks would earn a 6.5 percent interest in USD; this interest rate offered by the BdL is very generous, especially given the persistently low interest rates in international markets (Gaspard, 2017). In addition, the BdL would give the bank an opportunity to borrow a slightly larger amount in LBP



(a) Treasury Bill Holdings



Notes: BdL's foreign currency holdings are calculated from the gross liquid foreign currencies held by the Central Bank as reserves. Sovereign exposure indicate government and BdL debts on commercial banks' balance sheets. Values starting January 2017 are according to IFRS 9 accounting standards.
Source: Economena Analytics, Banque du Liban, IMF, author's calculation

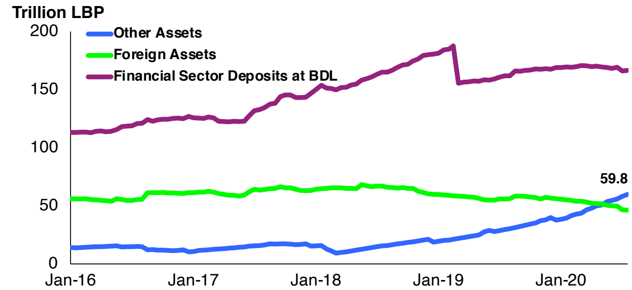
(b) Weighted Average Interest Rate on Eurobonds

Figure 21: Short-term Recovery of the BdL's Foreign Currency Holdings, Increased Sovereign Risk in the Banking Sector

at 2 percent and re-deposit it at the BdL at 10.5 percent for 10 years. As a result, the commercial bank effectively earned approximately 15 percent on its foreign currency holdings, a much higher return than any commercial loans banks would underwrite. Consequently, the high rates banks could earn on USD deposits through the financial engineering scheme affected the USD lending rates. They rose from roughly 7 percent in early 2018 to 9.7 percent in June 2019. This had a negative impact on private-sector credit, as banks preferred to park their money at the BdL rather than take risks by lending.

Fourth, the sovereign-risk exposure of banks significantly increased since the launch of the scheme. As of June 2020, banks' exposures to the BdL and government increased to 70 percent of their total assets, more than eight times their Tier 1 capital (Figure 21).

While the BdL claimed that the financial engineering was *"based on a win-win situation"* and *"didn't burden the Central Bank neither the Lebanese Government with any costs,"*



Source: Economena Analytics, Banque du Liban

Figure 22: Total Banking Assets (% of GDP) as of December 2019

many questioned its long-term viability term. Indeed, in an interview with the Financial Times in 2017, Mr. Salamé, the Governor of the BdL since 1993, admitted that his financial engineering has amounted to short-term fixes to keep the economy afloat until a more sustainable solution is found. *"If the Syrian war ends, then we have major sectors that can drive the economy forward."* Unfortunately, the long-term fix was never implemented.

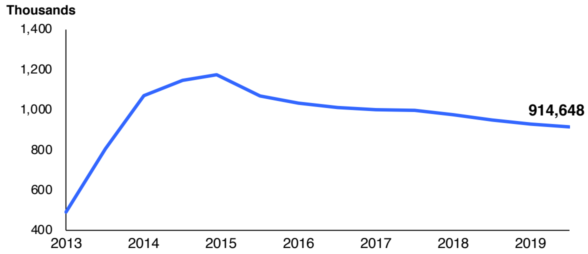
On the other hand, many criticized the potential risks embedded in the framework. Nasser Saidi, a former central bank vice governor, has explained the scheme as a *"Ponzi scheme"* as it relies on fresh borrowing to pay back existing debt.

The recovery plan prepared by the government for the ongoing IMF negotiations said that the financial engineering transactions had *"proved unsustainable and very risky (... They) couldn't address the core imbalances that generated the regular fall in FX reserves (a very large current account deficit) and they transferred to BdL a large exposure to FX risk."*

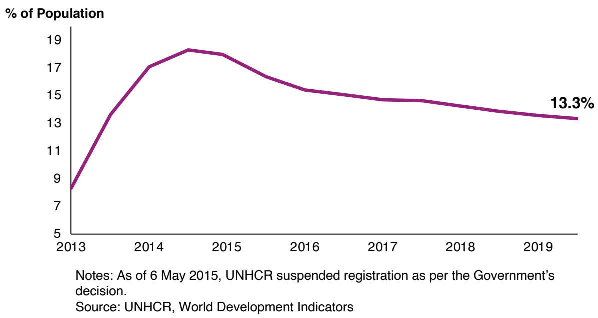
The financial burden on BdL increased. Although BdL has not reported its losses from the scheme, many suspect that these losses are included under the surging "other assets" item on its reported balance sheets (Figure 22).

#5 Slow growth, political deadlock, and the impact of the Syrian crisis

Compared to its peers, the Lebanese economy is known for slow growth. The overvalued currency has diminished the competitiveness of its export sector. High production costs, which could be partially explained by the dependence on imports, also hinder growth. Also contributing to the high costs are the antiquated administrative system,



(a) Total Registered Syrian Refugees



(b) Registered Syrian Refugees in Total Population

Figure 23: The Influx of Syrian Refugees

the poor electricity supply, and other infrastructure and poorly defined or protected property rights. Furthermore, Lebanon is known for rampant corruptions; the country has ranked 137 out of 180 countries on Transparency International's 2019 Corruption Perception Index. Many of the distortions that constrain growth could be attributed to governance and political uncertainties.

Lebanon's politics is known to be inefficient. The Economist in 2018 explained that "it took two and a half years for the country to elect its current president, nine years to hold parliamentary elections and 12 years to pass a budget." This is due to the historical divide in the domestic and international politics.

Excluding refugees, Lebanon has a population of 5.4 million, which is constituted by mixed religions: Christian 33.7 percent (Maronite Catholics are the largest Christian group), 30.6 percent Sunni, 30.5 percent Shia, and others. Following the power-sharing agreements established during the French colonial era, parliamentary seats are allotted proportionally to 18 religious groups, as are government posts and public-sector jobs. This leads to deadlocks in policy planning and implementation.

Political interference by Hezbollah, a Shia Islamist political party and military group, has increased tension with international communities as it has been designated as a terrorist group by the US and several other countries. Hezbollah holds parliamentary seats and has strong social and political influence, including the nomination of the Minister of Public Health and other ministries. A number of municipalities are also run by Hezbollah politicians.

The fragmented political environment also hinders formation of effective cabinets. Not only domestic but also geopolitical risks are material: enmity between Hezbollah and Israel, US policy against Iran (where Shia Islam is dominant), and the rivalry between Saudi Arabia (where Sunni Islam is dominant) and Iran. The sanctions by the US on Hezbollah also disrupt the economy of those areas governed by Hezbollah.

The conflict in neighboring Syria since 2011 has had significant impacts on the country's economy. Although data are unreliable, the influx of Syrian refugees is estimated to account for more than 10 percent of its population (Figure 23). An IMF Report illustrates that the scale of the impact for Lebanon is akin to "*the United States experiencing a refugee influx the size of the Canadian population, or Germany absorbing the combined Austrian and Swiss populations.*" According to the same report, the conflict in Syria not only increased geopolitical tensions but also heightened uncertainty, contributing to the decline in consumption, business investment, and tourism. The fiscal burden for the government has increased, especially in health and education.

Part III: The Future of Lebanon[1]

In the last part of the Lebanon series, we explore how the COVID-19 has impacted the country while it was already undergoing a severe economic and financial crisis. With the limited fiscal space and lack of resources, the most vulnerable Lebanese people are at risk. Aside from the potential IMF support, which is still under discussion, the government could seek to unlock the pledged CEDRE aid or ask for bilateral support. In any case, the road to recovery will be long and winding.

The start of the crumble in late 2019

In October 2019, an austerity plan based on proposed taxes on tobacco, petrol, and voice calls via WhatsApp ignited

[1]The author would like to thank Rana Alayli for research support and comments.

a mass protest against corruption, bad governance, and inequalities. In a speech on October 21, Prime Minister Hariri promised economic and fiscal reforms, including halving government officials' salaries. However, Hariri resigned only eight days later, leaving the government leaderless for months. In late January 2020, the new government was finally formed. Hassan Diab, a professor and former education minister, was named prime minister. His appointment was backed by Hezbollah (Figure 24).

The public has vented its frustration not only toward the government but also toward banks and business elites. Since the outbreak of the protest, most banks either shut down or limited dollar cash withdrawals by their depositors, an unofficial capital control. Meanwhile, according to Alain Bifani, a former top finance civil servant, banks themselves successfully circumvented the de-facto capital control and "smuggled" approximately $6 billion outside the country. The social unrest led to the further flight of deposits and shortage of the USD, exacerbating the ongoing financial crisis.

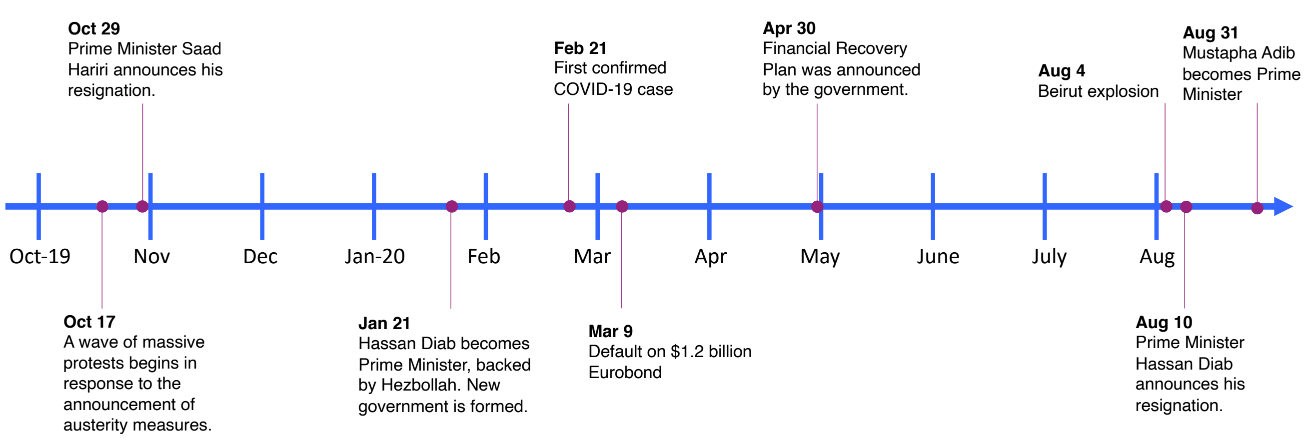
The COVID-19 Crisis

The COVID-19 crisis came on top of an economic, financial, and political crisis that was already underway in Lebanon. The government was relatively swift in responding to the crisis; on January 31, the newly appointed government established a National Committee for Covid-19, issuing stay-at-home orders in March to contain the pandemic. The first case of COVID-19 was confirmed in the country on February 21.

In early April, the Lebanese government announced that it would distribute LBP400,000 (approximately $265 at the official fixed exchange rate) to the poorest. It further pledged LBP 75 billion for sanitary and nutritional assistance. Local media reported that LBP 18 billion out of the 75 billion would be distributed in the form of food and health goods. However, there has been little information on distribution and it is uncertain whether these aids have materialized.

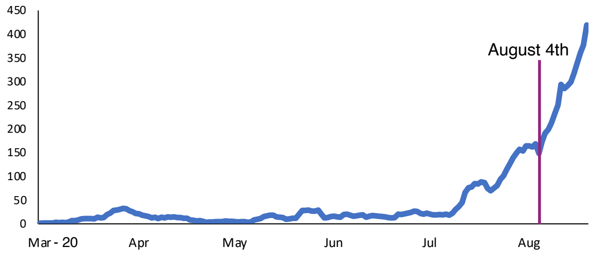
Infection numbers started to surge in mid-July. The government is re-imposing the once-lifted lockdown. The increase was particularly significant after the explosion in Beirut (Figure 25). As of August 20, new confirmed cases (seven-day rolling average) have exceed 400. According to the UNOCHA, the explosion damaged six hospitals and 20 health clinics, facilities much needed for the most vulnerable.

The negative impact of the economic and financial crisis on Lebanon's health infrastructure had been apparent prior to the outbreak of COVID-19. In December 2019, Human Rights Watch reported that the Ministry of Finance had been failing to pay US$1.3 billion in dues to private hospitals, which account for 82 percent of Lebanon's healthcare capacity. Furthermore, Lebanon imports 100 percent of its medical supplies; hospitals receive their payments in LBP and purchase medical equipment in USD. As the LBP plunges in value, hospitals and doctors struggle

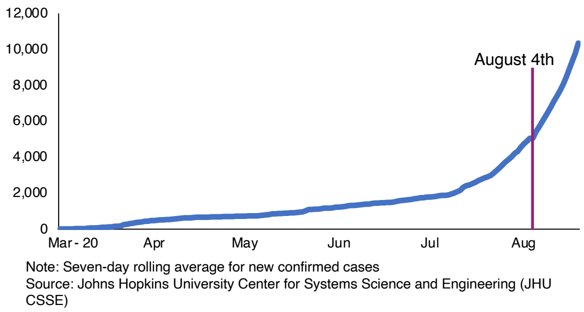


Source: Aljazeera, BBC, CNN, Financial Times

Figure 24: Crisis in Lebanon, Timeline



(a) New Confirmed Cases



(b) Cumulative Confirmed Cases

Figure 25: Number of Confirmed COVID-19 Cases

to secure essential medical supplies. The financial constraint on the healthcare industry is only exacerbating as the COVID-19 spreads. Hospitals are laying off staff, and nearly a third of Lebanon's 15,000 physicians aim to or already have migrated.

The chronic electricity shortage is also hindering the delivery of essential services. Most recently, widespread power cuts lasting longer than 20 hours forced hospitals to restrict their capacity as they rely on generators and fuels to sustain the essential care units.

On July 20, Hamad Hassan, the Minister of Health, said that the country is sliding toward a "critical stage," referring to the spike in positive cases. While the country reopened the economy by early July, the government had to reintroduce lockdown on August 3 due to the rise in cases.

International Support

The lack of fiscal space and political impasse have made it difficult for the government to provide support to the most vulnerable people in Lebanon. The proposed IMF support of about $10 billion could ease some of the pressure; however, the progress of negotiations has been sluggish, and it is uncertain when the government and the IMF could reach to an agreement. Furthermore, structural reforms requested by the IMF will be painful and would be subject to demur by incumbent elites.

Further international support could come from other multinational organizations, such as the Gulf Cooperation Council (GCC). Lebanon could also unlock the $10.8 billion in aid that France and 47 other countries and institutions pledged in 2018. In April 2018, France, led by President Emmanuel Macron, hosted CEDRE (Conférence économique pour le développement, par les réformes et avec les entreprises), an international conference aimed to support Lebanon's development and reforms. At the conference, the Lebanese government presented its Capital Investment Program focusing on infrastructure. The CEDRE participants agreed to support the Program conditional on reforms, including the reform of Electricité du Liban (EdL), the dominant state-owned electricity company that is known to be failing (see Part II for more details). The pledged aid included $10.2 billion in loans and $860 million in grants. The loans are reported to consist of $4 billion from the World Bank; $1.35 billion from the European Bank for Reconstruction and Development; and $1 billion via a credit line from Saudi Arabia, which was a renewal of a previously pledged loan. Pierre Duquesne, a French diplomat assigned by President Macron to monitor the process, notes that those required reforms are "simple" and "achievable" in the short term. However, to date, Lebanon has failed to implement the promised reforms. Thus, CEDRE support has not come through.

Bilateral support is another option included in the recovery plan that the government published in April in preparation for IMF negotiations. According to the plan, the government envisages a deal "similar to what Egypt unsuccessfully tried to do back in 2014 with Saudi Arabia and the UAE to avoid the currency devaluation the IMF was asking for as a precondition to its intervention." The recovery plan hints that such a deal is less likely than that earlier proposal to require austere reforms; it said that the "immediate visible costs to the Lebanese people would be smaller, with only a modest fiscal consolidation." The report also acknowledged that it would leave the burden of accumulated losses to the next generation.

Any of these bilateral deals, if they happen, would need to be sizable. Considering that all countries are suffering from fiscal challenges caused by COVID-19, they may not be forthcoming. Lebanon also faces difficulties in securing international aid due to the geopolitical tensions between Hezbollah and international communities. For instance, US officials are said to be concerned that any humanitarian aid for Lebanon could be routed to Hezbollah; this makes the US hesitant to support aid beyond emergency food and medical supplies.

Meanwhile, the government and Hezbollah may seek help from China. On June 16, Hezbollah leader Hassan Nasrallah hinted that Lebanon should welcome Chinese investments in key infrastructure projects, while blaming the US for the shortage in foreign exchange. According to the Washington Post, China has offered to help Lebanon by building power stations and supporting other infrastructure through Chinese state-owned companies. It is still uncertain whether the Chinese aid will materialize.

Debt restructuring and reform are likely to take a long and winding journey for Lebanon and most likely will require external support.