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A proven solution for Lebanon's economic crisis: A currency board

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Abstract. Lebanon is currently facing a financial crisis marked by rising inflation rates and a black-market exchange rate that is significantly diverging day-by-day from the official exchange rate. In this paper, the author dives into Lebanon's financial history and what actions undertaken by the government since the civil war have led to this crisis. After a thorough examination of the current economy, the author compares Lebanon's present day financial crisis to the one faced by Bulgaria in the 1990s and concludes that the implementation of a currency board is a viable solution for restoring the strength of the Lebanese pound and ushering in financial stability.

Keywords. Currency board, Lebanon, Bulgaria.

JEL. E58; G01; L25.

1. Introduction

In August 2019, Lebanon entered a period of financial instability as the black-market exchange rate for the lira (Lebanese pound) began to substantially diverge from the official exchange rate of 1,507.5 LBP/USD [Retrieved from]. Further fueled by the inability of the government to form a cabinet, massive loss of public trust in the banking system, and extended COVID-19 lockdowns and regulations, the lira has depreciated by more than 80%, as of November 2021, against the U.S. dollar since January 1, 2020 [Retrieved from]. While currency in circulation has remained high, and is currently 242% of GDP, that is not the case for broader monetary aggregates [Retrieved from]. When M1, M2, M3 and M4 are converted into U.S. dollars at the average black market exchange rate per month, they have declined substantially as a share of GDP due to high inflation. The accompanying currency depreciation has eroded the real value of Lebanese pound deposits, and the public no longer feels inclined to hold pound deposits at commercial banks, though it has retained some deposits because of limits on withdrawals.

2. Lebanon's economy pre-financial crisis

The roots of Lebanon's financial crisis go back much earlier than 2019. Following the Lebanese Civil War (1975-1990), the country began to rapidly rebuild its war-torn infrastructure (Charles, & Saleh, 2008). During the 15-year long war, the capital city of Beirut had suffered at least USD 25 billion

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in damages, and the international airport, electrical grid and telephone lines had been destroyed. Approximately 180,000 housing units were also damaged and anywhere from 300,000 to 500,000 people were left homeless (Stewart, 1996). Such massive destruction, however, inspired an ambitious wave of post-war restructuring. The government instituted the post-war reconstruction plan in two steps: the National Emergency Reconstruction Program and subsequently the Horizon 2000 program (IMF, 1999). These programs greatly increased the number of residential, commercial, and business structures in the country and amplified the productive capability of Lebanon. The result was a rapid rise in GDP, and the economy swiftly recovered in the years following the war.

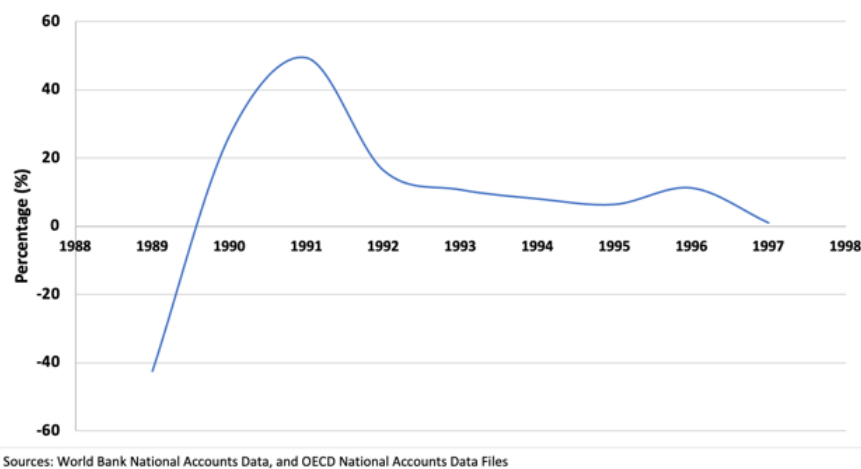


Figure 1. GDP growth (annual %) from 1989 to 1997

The Lebanese economy quickly expanded following the end of the civil war, and although real growth declined after 1991, the economy continued to improve. Production and industrial output began to approach and eventually exceeded pre-war levels, and massive efforts of reconstruction translated into greater urbanization, increased productivity, and innovation in physical capital. But, underlying this period of prosperity was growing public debt.

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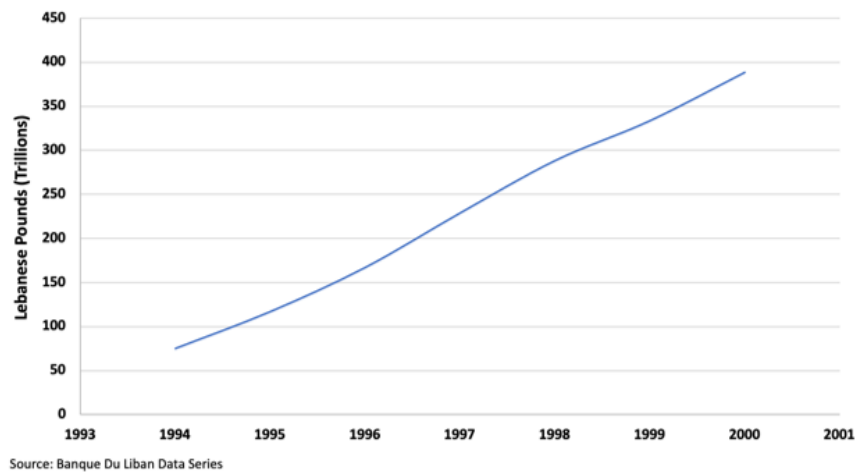


Figure 2. *Public dept – Net total dept*

Budget deficits had begun during the civil war, and the government's borrowing during the post-war era added to the growing burden of debt. Financing for massive public projects required the Lebanese government to borrow money, resulting in high levels of public debt and a stringent servicing requirement (Nisreen, 2019). Between 1994 and 2000, the net total public debt grew from 75.4 trillion LBP to 388.1 trillion LBP (Banque du Liban, n.d.).

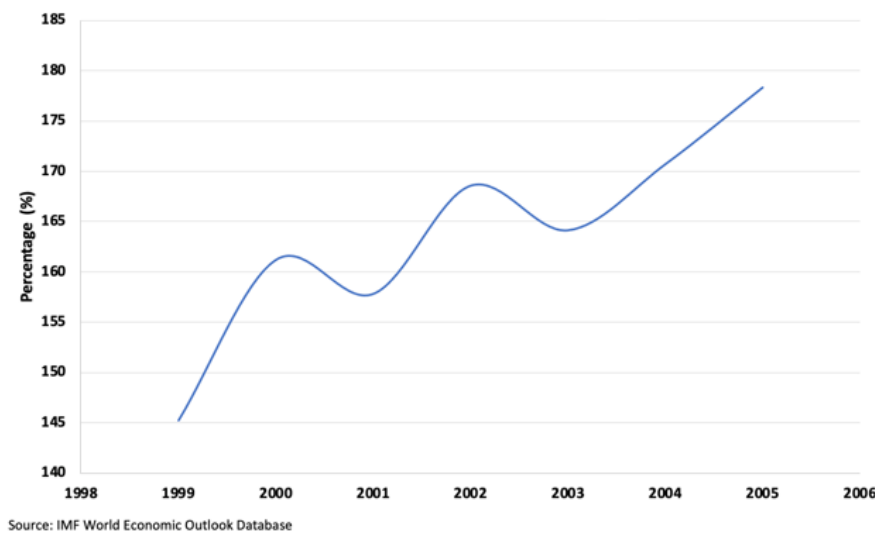


Figure 3. *General government net dept as a percentage of GDP*

By 2000, Lebanon's net debt to GDP ratio stood at a staggering 145%. The ratio continued to increase until 2006, when it hit an all-time high of 178% (IMF, 2020). The country's short-term reconstruction and post-war stabilization plans endangered the economy's long-term fiscal policy goals. As the debt to GDP ratio continued to grow, many foreign investors and international banks began to fear that Lebanon might begin defaulting on its loans.

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During July and August 2006, the country faced another financial predicament as it entered into a state of war with Israel. The 34-day war destroyed 77 bridges, 150,000 homes and inflicted overall losses estimated at around USD 9.5 billion, or 40% of GDP ([Arab NGO Network for Development, n.d.](#)). Damage to property, infrastructure, and industrial sites was around USD 2.5 billion ([Arab NGO Network for Development, n.d.](#)). The war, although brief, had a devastating impact on the country's infrastructure and had damaged many of the post-civil war reconstruction projects. The Lebanese government now faced high levels of debt with a substantial risk of defaulting, and many of its recently funded infrastructure projects had been damaged by the war. Growing public debt and pressures on the government to rebuild infrastructure and develop post-war programs for displaced citizens placed incredible stress on Lebanon's already strained economy.

Lebanon's financial situation was further exacerbated by the worsening job market. The country witnessed large groups of college-educated students and skilled young people exit, while labor inflows (mainly from neighboring troubled Syria) were dominated by low-skilled workers. Almost 40% of the college-educated population in Lebanon had emigrated by 2017 ([Deutsche Gesellschaft für Internationale Zusammenarbeit, 2019](#)). This loss in human capital resulted in job loss in high-productivity sectors and a reorientation toward low-productivity sectors. This brain drain was probably the largest ever witnessed in the Middle East, even outranking the rates present in Morocco and Iran ([Deutsche Gesellschaft für Internationale Zusammenarbeit, 2019](#)). Nearly one in every five Lebanese citizens exited the country following the civil war, and most were skilled professionals. This situation led to a weak job market, that lacked certain technical skills and abilities, and to stagnation in the labor market for highly skilled jobs ([Deutsche Gesellschaft für Internationale Zusammenarbeit, 2019](#)). Innovation and technological progress were also comparatively low. Lebanon's growing debt and its worsening job market trapped the economy and set the scene for the public's loss of trust in the banking system and the rapid depreciation of the lira in 2019.

3. Lebanon's economy since 2019

October 17, 2019, marked the breaking point for citizens across Lebanon as anti-government protests erupted. This "October Revolution" was partially the result of economic hardships that made it difficult for most citizens to keep up with the rapid pace of increasing expenses ([World Bank, 2020](#)). Gross public debt had also reached an alarming high of USD 86.2 billion in 2019. Following the revolution, 34% of all companies went on to reduce employee salaries, and youth unemployment soared ([World Bank, 2020](#)). The crippled economy then began to show signs of deterioration as the black-market exchange rate began to diverge significantly from the official exchange rate of 1,507.5 LBP/USD.

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Lebanon, which is a highly cash-reliant economy, witnessed currency in circulation grow steeply as the financial crisis worsened. Currency in circulation grew from 6.2 trillion LBP in October 2019 to 38.0 trillion LBP in August 2021. As a percentage of annual GDP, currency in circulation was about 87% in 2019, but within a year, it had rapidly grown to 237%. Lebanese pound currency in circulation skyrocketed as the cost of living began to increase and eventually matched or exceeded many lower middle-class consumers' entire monthly salaries.

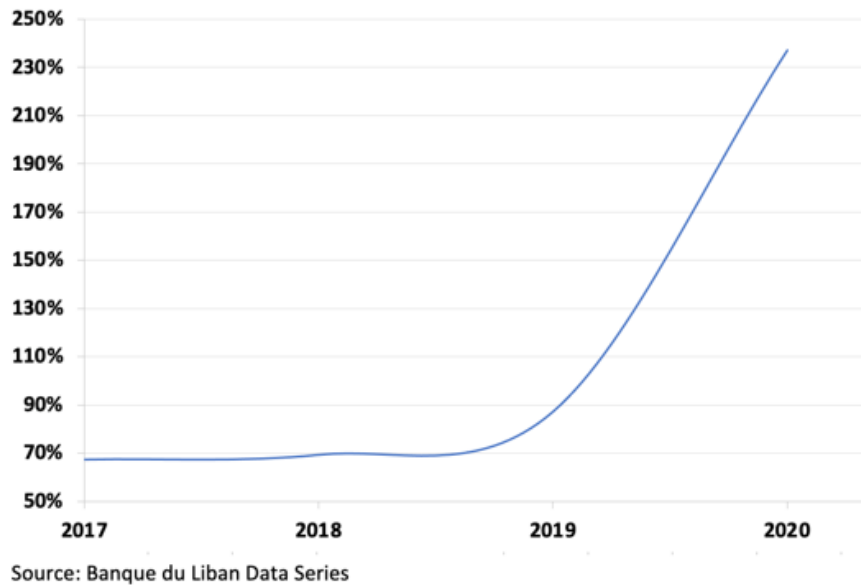


Figure 4. *Currency in circulation (% of GDP)*

Official annual inflation reached 44% per year during January 2020 (Lebanon. Central Administration of Statistics, 2021). Increasing inflation eroded consumer purchasing power, causing people to withdraw more and more money from banks. Then, as banks began to restrict people's access to dollars and other foreign currencies, there was a general loss of public trust in the banking system, which resulted in more people holding currency. As a result of these swift transitions, marked by increasing inflation and loss of public trust in banks, currency in circulation grew at a nearly exponential rate (Lebanon. Central Administration of Statistics, 2021).

Loss of trust in the banking sector was evident in the significant decrease in public deposits at commercial banks. Throughout most of the 21st century, bank deposits have risen as people began to rely on the banking system to safely preserve deposits and utilize technology to access savings and funds in an efficient manner. However, in Lebanon, 2019 marked a tipping point at which the public chose to hold on to cash instead of depositing it in banks. Deposits of the public at commercial banks as a percentage of GDP fell from a high of 98.8% in 2019 to 79.8% in 2020. As of August 2021, all of the deposits of the public at Lebanese commercial banks denominated in Lebanese pounds amounted to only about 6.5 trillion LBP.

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By 2020, foreign exchange inflows had substantially declined and subsidies on imported goods had drained foreign reserves, Lebanese banks began to impede depositors from accessing their savings denominated in dollars. Many banks began closing their doors or limited withdrawals. Panic ensued and massive bank runs began to occur throughout the country (Bisat, Cassard, & Diwan, 2021). Consequently, deposits in commercial banks made by the public began to decline.

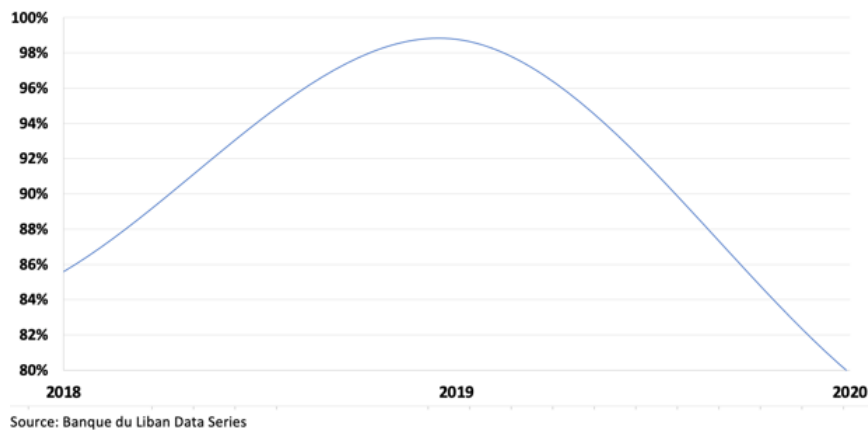


Figure 5. Deposits of the public at commercial banks denominated in Lebanese pounds (% of GDP)

Banque du Liban, the central bank, had since 1997 pegged the Lebanese lira at 1,507.5 LBP/USD. However, as inflation rose, a black market in currency began to emerge. People began assembling at gas stations, local stores, and phone shops to exchange dollars for Lebanese pounds and vice versa. The economics of supply and demand dictate that, due to the sharp rise in liras in circulation, the lira's value relative to other currencies would decrease. As of October 25, 2021, the lira had depreciated to 20,450 LBP/USD, an 88% depreciation compared to the black-market exchange rate of 2,300 LBP/USD in January 2020 and a 92% depreciation compared to the official rate (Lirarate, 2021).

Using black-market exchange rates reveals an even more striking story regarding the deterioration of the Lebanese banking system. The graph below shows that bank deposits, converted into U.S. dollars at average black-market exchange rates per month, are highly volatile, responding to the political tensions and socio-economic events transpiring within the country. The dollar equivalent of deposits plunges when the political situation worsens or when food prices or electricity prices surge. Economic instability has translated into magnified social, ethnic, and religious tensions within the country. These tensions often lead to protests and social uprisings, which in turn impact the economy and the vicious cycle of currency depreciation continues.

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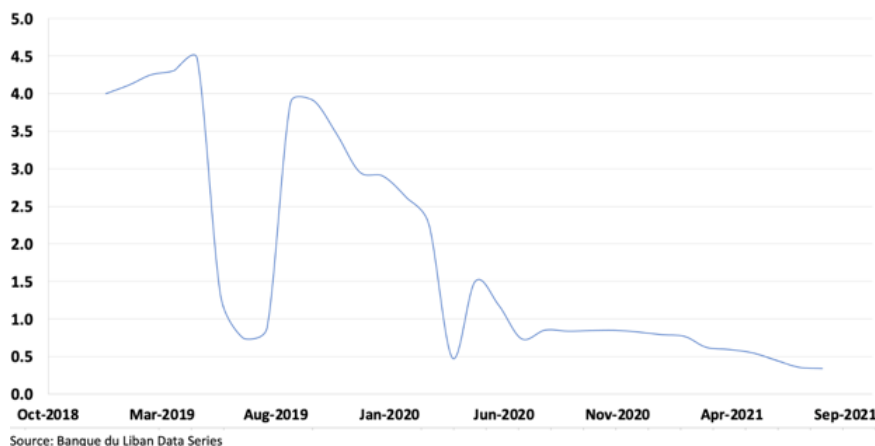


Figure 6. Deposits of the public at commercial banks denominated in pounds, converted into USD at the average black market rate per month

The state of the economy is also evident in the decline in broad monetary aggregates (M2, M3, and M4). The graphs on the following page encapsulate how these aggregates have been declining as a percentage of GDP. M4 was 3,258% of GDP in 2017, but it has fallen to 2,673% in 2020. When converted at the average black-market exchange rate per month, all the monetary aggregates show similar declines; however, there is much volatility caused by the various economic and socio-political events that give rise to changing black-market exchange rates. While the currency in circulation has been increasing, leading to a rise in M1, savings deposits, large time deposits in banks and money market mutual funds have all decreased. Such a reduction is indicative of the public losing trust in the banking system. It is also a sign of falling economic activity. Banque du Liban lacks the credibility to undertake the kind of measures that the Federal Reserve or the Bank of Israel would be able to undertake without igniting expectations of high inflation. Without a sharp change in monetary policy, the Lebanese economy is most likely going to be trapped in a state of continuing poor performance.

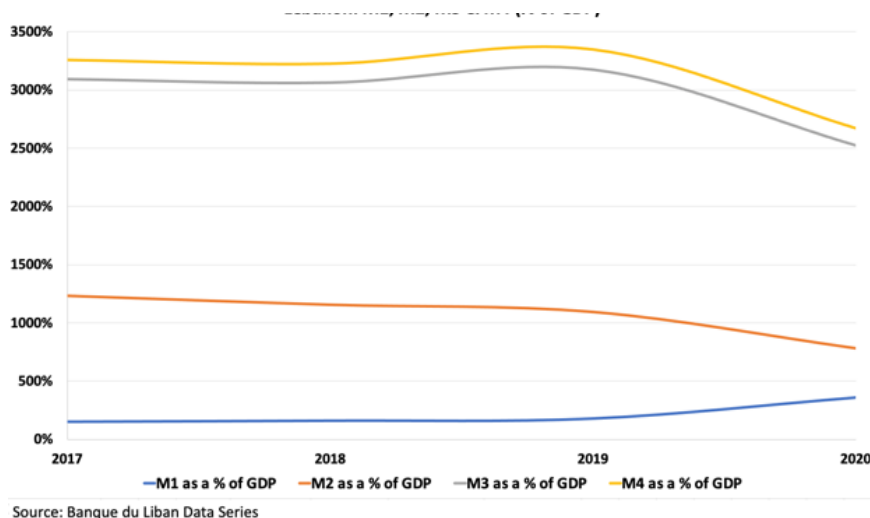
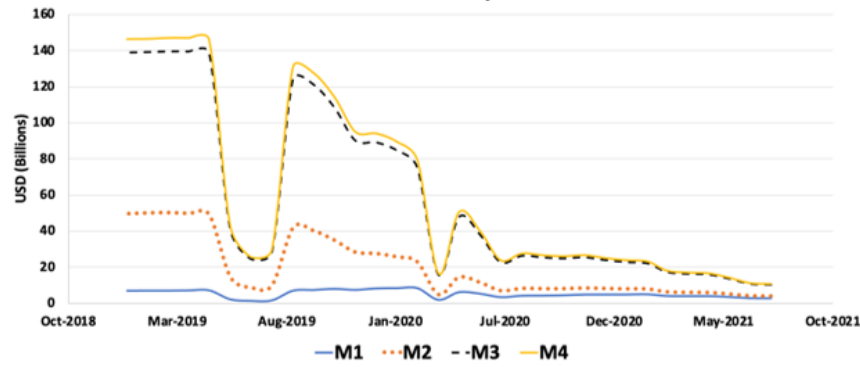


Figure 7. M1, M2, M3 and M4 (% of GDP)



Source: Banque du Liban Data Series

Figure 8. M1, M2, M3 and M4 in US dollars, converted at the average black market rate per month

4. A solution to Lebanon's worsening economy: Implementation of a currency board

While Lebanon's economic situation continues to worsen and the loss of trust in the banking system lands it in perilous waters, there is a viable solution to strengthen the country's economy. Currency boards have been implemented in the past to restore confidence in national currencies and banking systems. Currency boards require domestic currency to be backed up by a foreign anchor currency. This means that the domestic currency will become a "clone" of the foreign currency. This requirement effectively prevents the monetary authority from printing unlimited amounts of money since it must maintain its foreign exchange reserves (Hanke, & Schuler, 2015). Currency Boards are uniquely suited as a simple but effective solution for guaranteeing monetary stability since they do not require any preconditions for implementation (Hanke, 2021). This solution for Lebanon has been formally proposed by Dr. Steve H. Hanke, Senior Fellow and the Director of the Troubled Currencies Project at the Cato Institute in Washington, D.C, and Jacques de Larosière, President of the European Bank for Reconstruction and Development (Hanke, & Larosière, 2021).

Currency boards have successfully stabilized economies many times. A classic example of this phenomenon is the Bulgarian economy in 1997. Similar to the Lebanese economy in the present, Bulgaria was plagued with hyperinflation, as high as 242% per month. Real GDP had also shrunk.

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Figure 9. Bulgaria: Inflation and real GDP growth

On July 1, 1997, the Bulgarian National Bank instituted currency board rules and required that the Bulgarian lev be fully backed by reserves in German marks (later euros, after Germany became part of the euro area). The years from 1997 to 2000 witnessed a remarkable recovery of the Bulgarian economy. Bulgaria's economic revival now stands as an example to Lebanon of how the country could dramatically improve its current situation by adopting a currency board (Hanke, & Todor, 2019).

5. Bulgaria's recovery under the currency board

The implementation of the currency board in Bulgaria allowed the economy to improve in three significant ways. First, by fully backing the hitherto unreliable Bulgarian lev with German mark reserves, the government restored public trust in the banking system. Deposits of the public at commercial banks as a percentage of annual GDP rose from 12% in 1997 to 153% in 2001. This monumental increase shows that public trust in the banking system was restored. A restoration of trust also allowed the government to institute a wider range of monetary and fiscal policy tools without fearing backlash and enormous adverse reactions from the populace (Hanke, & Todor, 2019).

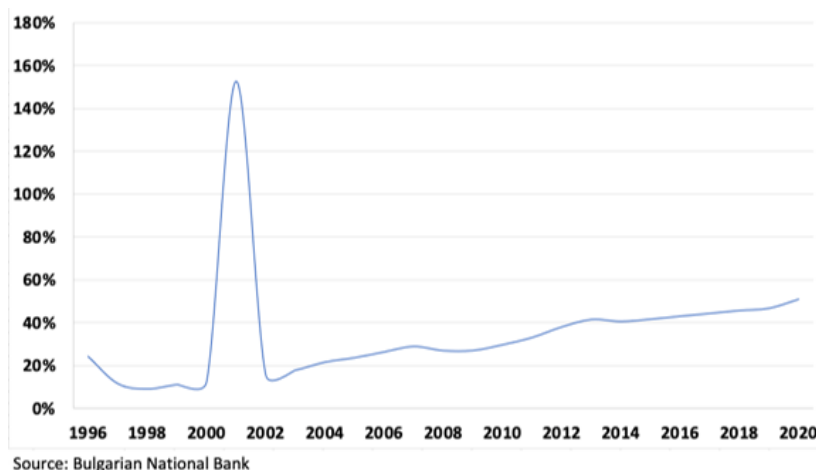


Figure 10. Bulgaria: Deposits of the public at commercial bank denominated in BNG (% of GDP)

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Second, currency in circulation increased, which signified that economic activity might grow. In fact, all monetary aggregates grew. M3 as a percentage of GDP increased from 31.3% in 1997 to 49.5% in 2004. Not only did these measures grow immediately following the implementation of the currency board; they continued to grow while neighboring countries underwent currency collapses (Russia in 1998) and financial crises (Greece in 2009). The lev's firmly fixed exchange rate to the German mark and the mark's successor, the euro, preserved it from witnessing volatile shifts in demand for the local currency and the accompanying effects of inflation and currency depreciation.

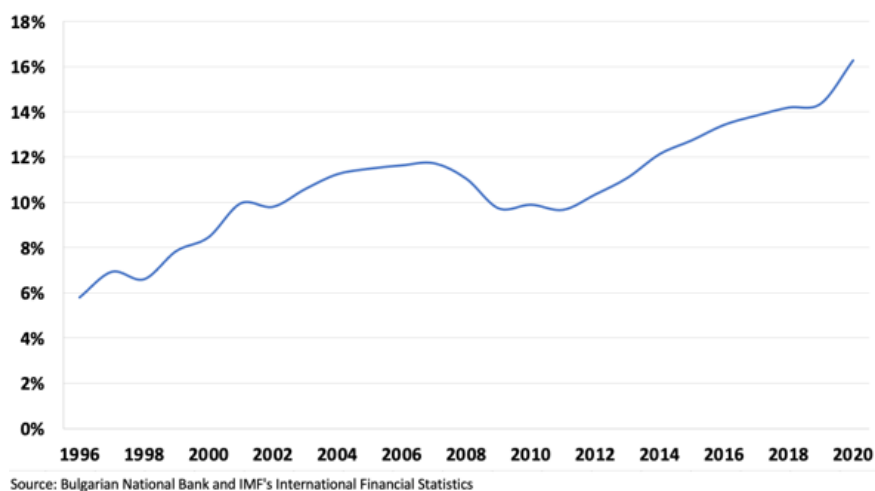


Figure 11. *Currency in circulation at the end of each year as a % of GDP*

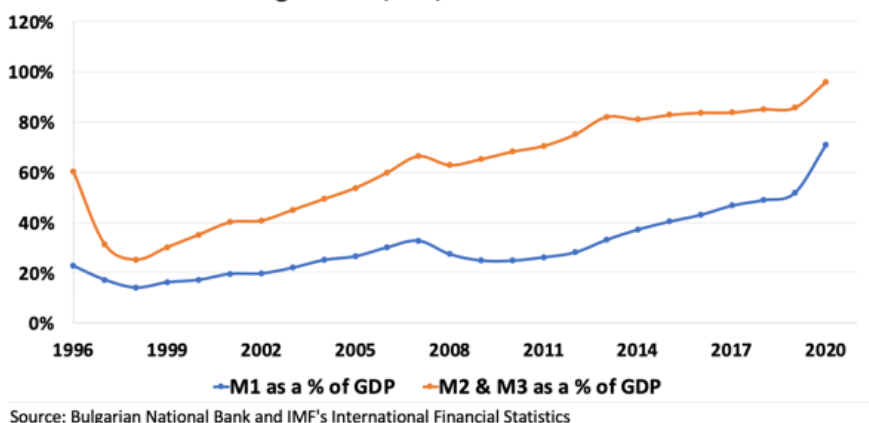


Figure 12. *M1, M2, M3 as a % of GDP*

Finally, the establishment of currency board rules imposed fiscal discipline on politicians as the government could not borrow from the currency board. This not only allowed foreign reserves to grow swiftly, but also helped to control fiscal deficits. The level of debt to GDP plunged, and “debt reduction made Bulgaria a star fiscal performer in the 28-country European Union.”

6. Conclusion

The Lebanese economy is entrapped in one of the worst peacetime economic crises of the last 150 years. Its growing level of public debt since the civil war and its weak labor market, combined with socio-ethnic tensions spawned by an unreliable government, have given rise to a situation in which the official exchange rate is grossly below the black-market exchange rate. While the lira continues to depreciate, consumer purchasing power is declining further. Entire social classes have been displaced due to the loss of their savings. The result has been a loss of public trust in the financial system. Although currency in circulation continues to grow due to Lebanon being a cash-reliant society, all other monetary aggregates are declining, measured in U.S. dollar terms. This situation is indicative of a shrinking economy.

The implementation of a currency board could lead to many much-needed changes within the Lebanese economy, just as one did in 1997 in Bulgaria. Under Bulgaria's currency board rules, bank deposits increased, showing a restoration of public trust in the banking system. Inflation plummeted, and all monetary aggregates began to rebound and grow. The growth in monetary aggregates was steady even during turbulent economic times for neighboring countries. The currency board system also instituted fiscal discipline and kept the government budget roughly in balance over time. Lebanon's troubles are very similar to those of Bulgaria's in 1997, and the implementation of a currency board can greatly ameliorate its economic situation and help the country escape the massive financial burden it currently bears.

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