Management Studies and Economic Systems (MSES), 7 (1/2), 25-35, Winter & Spring 2022
© ZARSMI

Should the Lebanese Economy Be Fully Dollarized? Lessons from Panama and Liberia

*Aaed Amer

Department of Business Administration, Beirut Arab University, Beirut, Lebanon

Received 1 May 2022, Accepted 23 May 2022

ABSTRACT:
In this paper, we shed the light on the dollarization effect on the Lebanese economy and explained its high impact on the current economic and financial crisis. In addition to further explanation and analysis about adopting a full dollarized regime, and evaluation of the predictions of the suggested regime by examining the risks and benefits of full dollarization, and how it is implemented, and discovering the effects of macroeconomics factors specific for each country. The main conclusions drawn from Panama and Liberia are that on one hand, dollarization does not guarantee fiscal discipline, Seignorage loss is the predominant result, and dollarization does not guarantee default risk. On the other hand, the dollarized economy showed inflation performance, financial stability, and avoided currency risk. For the Lebanese case, the adoption of a full dollarization regime is an inevitable step to cope with the actual unprecedented severe crisis. Implementation of a hard peg regime guarantees credibility and is used for open markets; it is a long-term strategy.

Keywords: *Dollarization, Seignorage, Panama, Liberia, Lebanon, Hard peg, Inflation, Fiscal discipline*

INTRODUCTION

Lebanon has faced recently numerous crises due to many compounded factors starting by chronic fiscal deficit, geopolitical factors, demographical change, and non-ending with the fascinated collapsing of the economy. Lebanon is grappling with a deep economic crisis (Reuters, 2022).

The aim of my research paper is to shed the light on the effect of dollarization rate in the economic crisis and respond to the question about adopting full dollarization regime as an essential part of a potential rescue plan by benefiting from lessons learned from Panama and Liberia.

The remainder of the paper is structured as follow: Clarification about Dollarization, Lessons from Panama, Lessons from Liberia, Implementation of full Dollarization regime, The case of Lebanon: Overview, Multidimensional effects of Dollarization, Types of potential currency regimes, Benefits of full Dollarization regime in Lebanon, Risks of Full Dollarization regime. Conclusion and Recommendation.

Dollarization

Dollarization means that country abandons its own currency and adopts a more stable currency of another country as its legal tender (Andrew Berg, Eduardo Borensztein, 2000).

An economy is dollarized when an asymmetric reaction resulting of the use of foreign currency to changes in the determinants is observed (Johannes M, William A, 1994).

Dollarization ratio is calculated by converting the foreign currency deposits to local currency

***Corresponding Author, Email:** *aja211@student.bau.edu.lb*

using the exchange rate and deflated by either broad money or total deposits in local currency. To avoid exchange rate bias, a real dollarization index is computed by converting both foreign currency deposits and bank deposits to dollars and multiplying both (back to domestic currency) by a fixed base-year nominal exchange rate (Nkunde Mwase, Francis Kumah, 2015).

For a country to be classified as highly dollarized, the dollarization ratio should exceed 30 percent (Balino, Bennett, and Borenstein, 1999).

Several studies have found that money demand in foreign currencies in dollarized countries, like Lebanon, is highly correlated with sudden collapse and systemic crises (Calvo et al., 2008, Durdu et al., 2009, Gonçalves, 2007). This confirms that the dollarization ratio is an essential financial vulnerability indicator to be taken in consideration while assessing country's economic status.

Lessons from Panama

Referring to the international business center at Michigan State University[1], it is useful to assess and evaluate Panama's economy by looking to its geographical location, demographic, and economic determinants (Table 1).

Figure 1 reflects high GDP relative to population size, it gives a primary idea about economic growth despite global economic falling due to pandemic.

Table 1: Author's elaboration- Key Facts about

GDP per capita, PPP (current international $)	Population, total	Ease of Doing Business Rank
26,773	4,314,768	66.6 (85 out of 189)

Panama (2020), (GlobalEdge).

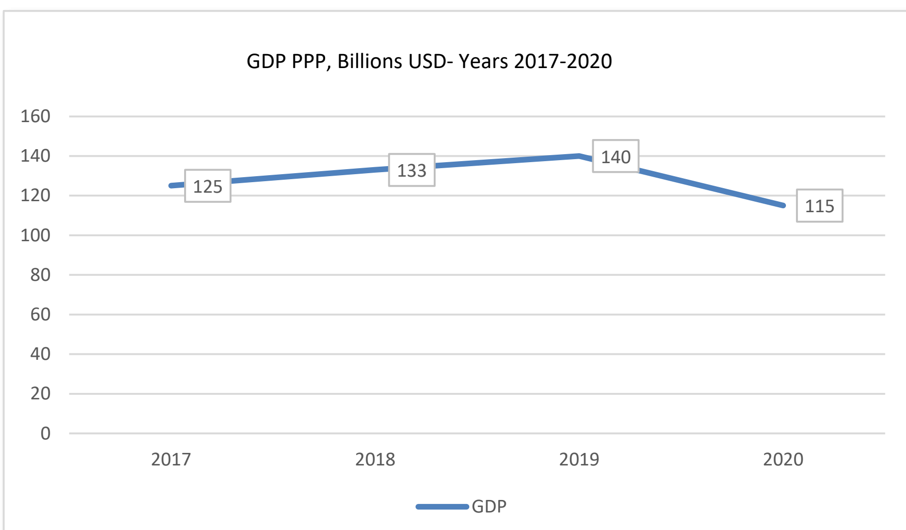


Figure 1: Author's elaboration-GDP growth for the last 5 years (GlobalEdge)

1- GlobalEdge.

Figure 2 is relatively close to Lebanese economy's composition, with one difference: Adverse distribution between agriculture and industry.

Figure 3 shows valuable number of imports relative to population size, similarly to Lebanese case.

After the holistic view of Panama's economy, it is time to interpret its experience with adopting the full dollarization regime into its economy:

First, Panama's experience confirms that an exchange peg generates stable inflation. The extreme pegs deliver better inflation performance.

Second, this positive return in inflation performance is done without compromising average GDP growth. However, Panama's experience does not show any gain in average growth.

Third, Panama has a high volatility in GDP growth. This could be attributed to the lack of flexibility in monetary and exchange policy.

Fourth, the absence of monetary financing did not prevent Panama from having large and persistent fiscal deficits.

Fifth, full dollarization does not reduce spreads on foreign debt bonds, it reduces currency risk but not default risk.

Sixth, we can conclude that discipline was not an achievement of the Panamanian authorities despite the absence of seignorage[2] revenues (Ilan Goldfajn, Gino Olivares, 2001).

Lessons from Liberia

Referring to the international business center at Michigan State University, the following facts and statistics are useful to evaluate and assess Liberia' economy (Table 2).

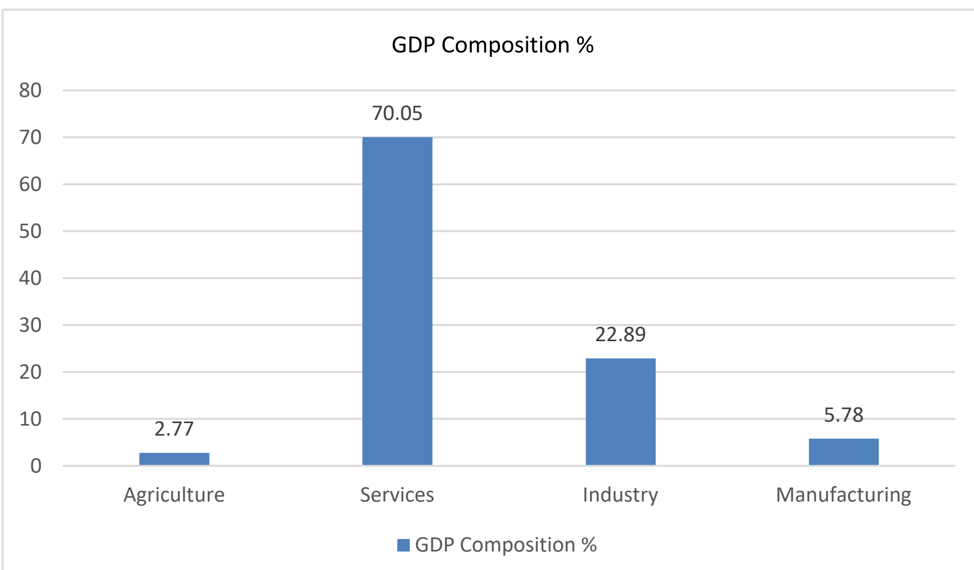


Figure 2: GDP Composition (GlobalEdge)

2- Seignorage is the Value of money after deduction of its cost of production.

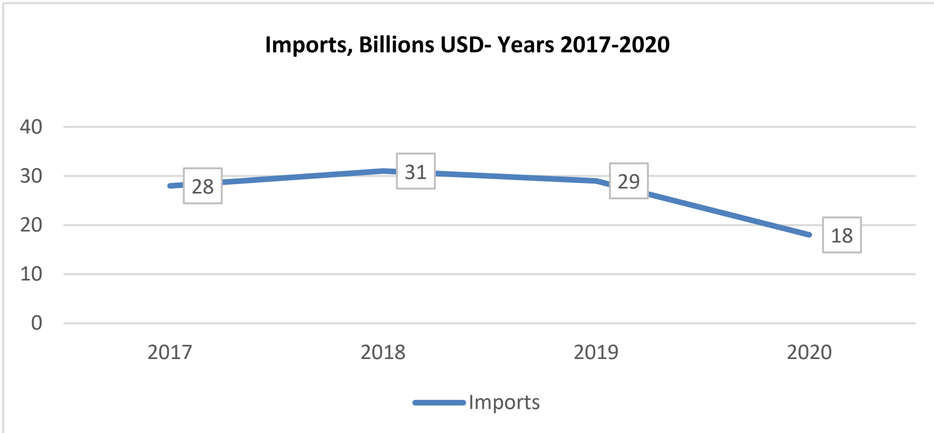


Figure 3: Author's elaboration- Imports of Panama (GlobalEdge)

Table 2: Author's elaboration- Key facts about Liberia (GlobalEdge)

GDP per capita, PPP (current international $)	Population, total	Ease of Doing Business Rank
1,468	5,057,677	43.2 (173 out of 189)

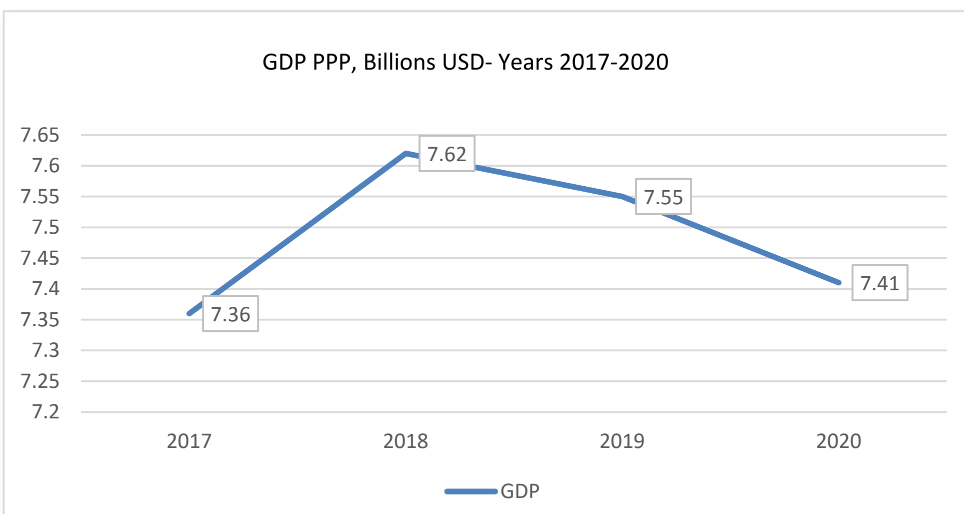


Figure 4: Author's elaboration- GDP growth (GlobalEdge)

Figure 4 shows relatively low GDP comparing to population size and to Panama's GDP.

Figure 5 clearly shows the diversification in GDP composition with great emphasis on services and agricultures. This is different than both cases of Panama and Lebanon.

Figure 6 shows relatively small number of imports which might reflect low volatility to external determinants.

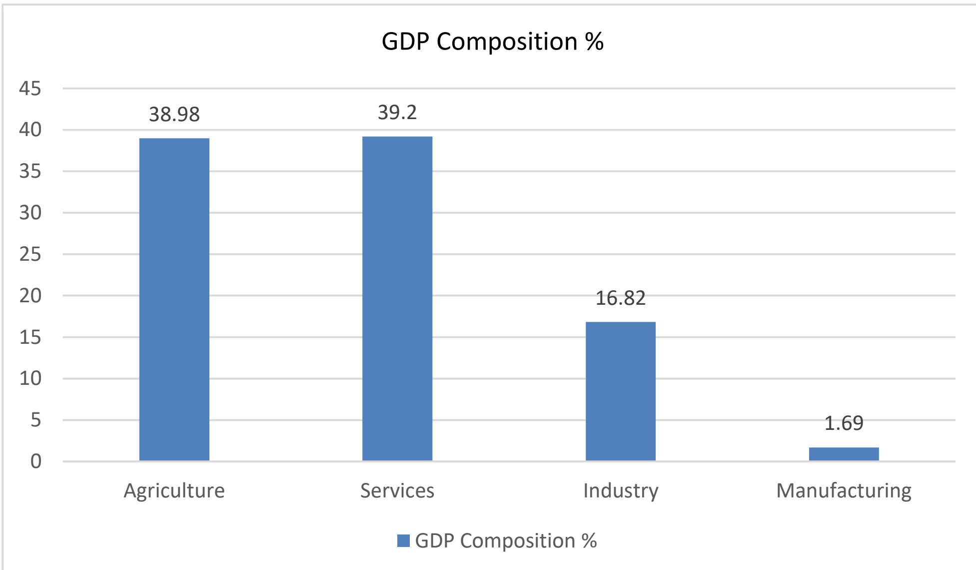
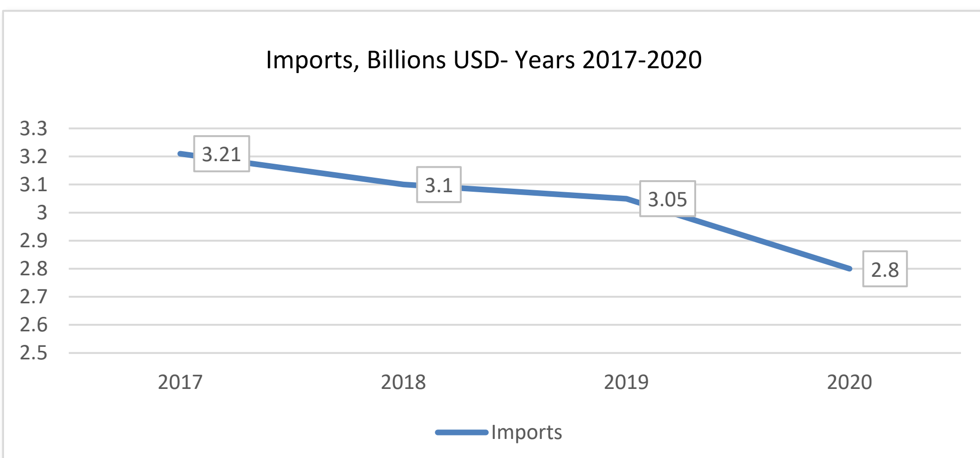


Figure 5: GDP composition (GlobalEdge)



+

Figure 6: Author's elaboration- Imports of Liberia (GlobalEdge)

The applied regime in Liberia differs from the one implemented in Panama. Liberia adopted the dual currency regime by circulating both US dollar and Liberian Dollar. It is a member of West Africa monetary union.

The following lessons are learned after examining Liberia's case study:

First, Loss of effective control over monetary policies. A study of 85 dollarized countries proves that dollarization has a significant negative impact on the effectiveness of monetary policy (Reinhart, Rogoff, and Savastano, 2003).

Second, low seignorage since only a small portion of monetary base is in local currency.

Third, low international reserves due to execution of transactions on foreign currency.

Forth, loss of effective exchange policy.

Fifth, loss of lender of last resort due to currency board implementation.

Sixth, balance sheets are vulnerable due to excessive dollars in liabilities side.

Seventh, large fluctuations are vulnerable in respond to external and internal shocks.

Eighth, Dollarization is hard to reverse even if underlying causes been removed.

Nineth, for the full dollarization to be implemented successfully, a macroeconomic management, policies and procedures must be implemented (Lodewyk Erasmus; Jules Leichter; Jeta Menkulasi, 2009).

Tenth, in my opinion, it is useful to keep the local currency, by creating innovative and symbolic name, in circulation as national heritage. This will have positive impact from psychological perspective.

How to Implement the Full Dollarization

Legal Mandate: The full dollarization requires the legally mandated use of another country's currency.

It is a complete monetary union between one country (usually a small country in terms of population and GDP) and an economically strong foreign partner country whereby the smaller country imports foreign currency from the partner country as full legal tender and makes it legalized. Under full dollarization, there is no existence of domestic currency other than the imported one, therefore there is no currency crises. Moreover, the domestic interest rate structure tends to be like the one prevailing in the wider monetary area. By virtue of their small size, most often, officially dollarized economies are highly open. Most have convertibility for current account transactions, few or no restrictions on capital account transactions, and transactions for external payments are relatively free (Layal Ishrakieh, 2022).

The Case of Lebanon

Overview

Despite the relatively small population size in Lebanon which is 6,825,442[3]; the actual economic crisis is classified by the World bank[4] as the third worst crisis in the world.

According to the World Bank Lebanon Economic Monitor (LEM, 2021), Lebanon's deliberate collapse is orchestrated by the country's leaders that has long captured the state and lived off its economic rents. This is what recently called the "great denial". In my opinion, it is better to name it the "flawed denial".

This comes to threaten the country's long-term stability and social peace; the terrible scene shows collapsing in public services and utilities. This is due to cumulative bad governance practices which has grown in a culture of corruption and belong to few decades.

In fact, Lebanon's GDP has fallen from close to US$ 52 billion in 2019 to US$ 21.8 billion in 2021, marking a 58.1 percent contraction; the highest contraction in a list of 193 countries. With real GDP per capita fell by 37.1 percent and reached 4649.55 $ in 2020 (world bank, 2022).

The hysteresis[5] effect by addicting to dollars will be the dominant scene in Lebanon. The argument is the scene of stampede in front of Lebanese banks to benefit from BDL circular 161 issued to permit customers, especially the public sector employees, to withdraw their salaries in cash in US dollars instead of Lebanese Lira on "Sayrafa"[6] exchange rate; the result of such a withdrawal is gaining roughly 10 US dollars by converting obtained dollars to Lebanese Lira in the parallel market.

3- World bank, 2020, datacatalog.worldbank.org

4- World bank, Oct 17, 2021. www.worldbank.org

5- An event in an economy that continues to exist even after the factors, causing it, have been removed.

6 The rate adopted by BDL on daily basis.

Herein some statistics about Lebanese economic situation.

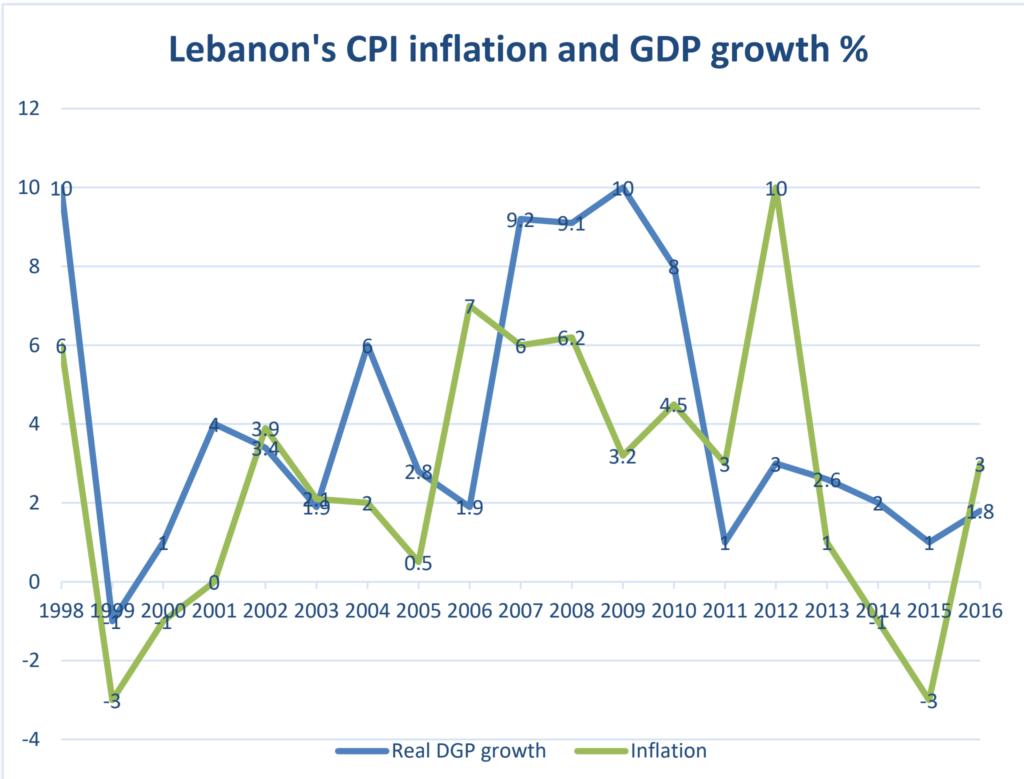


Figure 7: Author's elaboration- Lebanon's CPI[7] inflation and real GDP growth (%)[8]

Figure 7 shows clearly how GDP growth is directly related to inflation.

In Lebanon, the total deposits registered a contraction of 12% in 2020, with the deposit dollarization ratio reaching a new high of 80.4% at end December 2020, as compared to 76% at end December 2019 (BDL, 2020).

Lebanon's economy heavily relies on imports of grain, meat, medicaments, and oil, representing 25.91% of GDP in 2020 (World bank). Therefore, it needs to use a currency that is traded worldwide and is easy to spend across borders.

During high volatility period, central bank should operate as lender of last resort, especially during sudden stop in cash inflows and during bank runs, by releasing international reserves in an effective manner (Calvo, 2006). This was not the Lebanese case since the central bank wasted about 25 trillion US dollars for subsidiaries, since central bank's reserves decreased from 40$ billion in 2016 to 15$ billion in 2020 (Reuters, 2021), and printed Lira cash notes till reaching money supply of about 40 trillion Lira (Tradingeconomics).

7- Consumer Price Index.

8- IMF WEO in Joseph Bitar, The unique dollarization case of Lebanon, 2021.

Magud (2010) showed in his model that the lower the share of tradable in a country's GDP, the more likely it is that a fixed exchange rate regime is the optimal choice. It is the opposite case in Lebanon.

The Guru of monetarist school and flexible currency regime strictly rejected the flexible exchange rate regime for weak emerging dollarized economies. Unified currency regime is preferable instead (Milton Friedman). In Lebanon, it is not recommended to adopt flexible exchange rate regime.

Multidimensional Effects of Dollarization

Figure 8 shows the interdependence and direct effects of dollarization on the essential determinants of economy.

Money Demand According to the IMF country report for Lebanon in 2017, for each one percent increase in demand of dollar, there will be equivalent to a 3.7 percent drop of BDL foreign reserves. Money demand in foreign currencies in dollarized countries is highly correlated with sudden stop, bank runs and systemic crisis.

Accordingly, the IMF today regards adequacy of FX reserves as one of the most insightful early warning indicators for a country's vulnerability. In assessing the adequacy of foreign reserves, the following ratios are examined:

• FX to Gross Domestic Product Ratio: General assessment usually used as a scaling factor for countries comparative analysis.

• FX to Broad Money Ratio: Used for large banking sector and very open capital accounts.

• FX/M2: Useful to capture capital flights risks since many recent capital account crises have been accompanied by outflows of residents' deposits (20 percent is the upper end of prudent range of FX holdings).

In Lebanon, the FX is roughly 28$ billion (Cash+Gold) as declared by BDL's governor during repetitive TV appearances, and the money supply M2 is roughly 73618 billion Lira in 2022 (Tradingeconomics).

• FX to Import Ratio: Import Cover ratio is used usually for less open capital accounts. In case a shock occurs, a duration of 3 months of import activities are subject to be tested against coverage by FX reserves.

• FX to Short-term External Debt Ratio: Known as Guidotti-Greenspan Rule where FX level should cover hundred percent of short-term external debt.

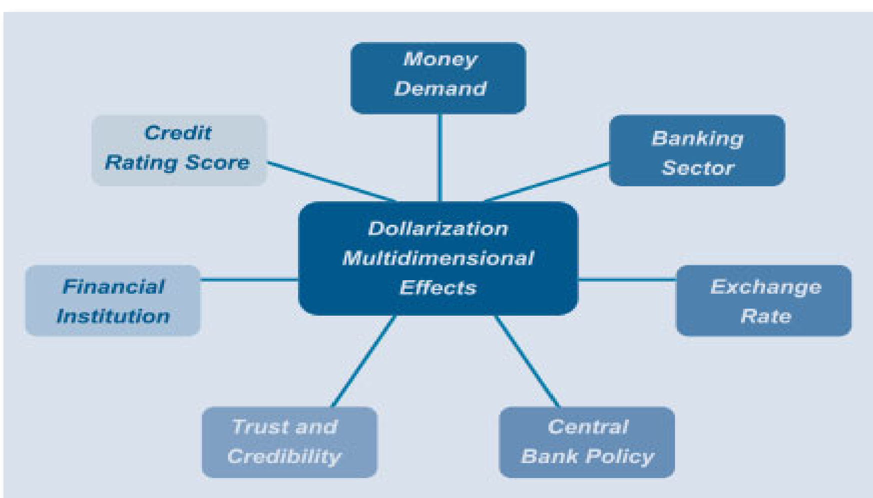


Figure 8: Dollarization's multidimensional effects (Layal Ishrakieh, 2022)

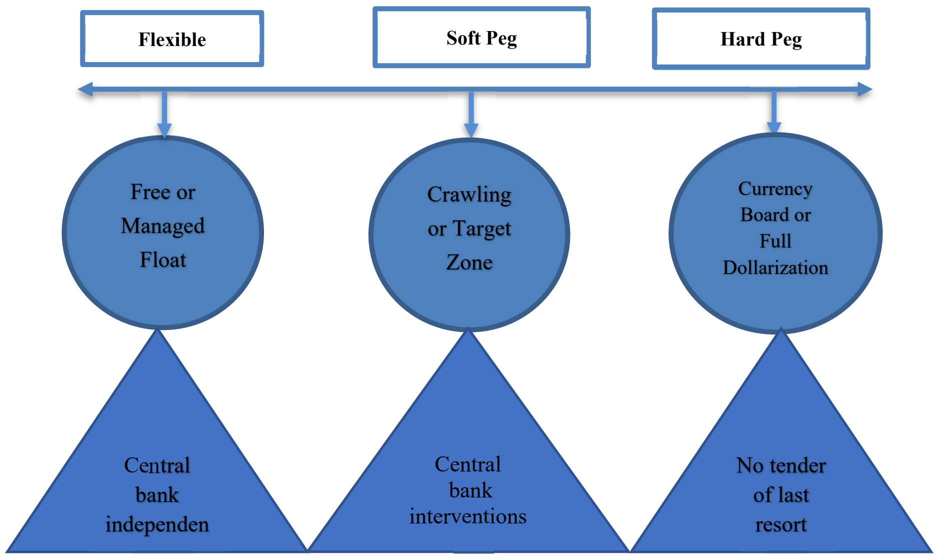


Figure 9: Author's elaboration- Currency regimes (Layal Ishrakieh, 2022)[9].

Types of Currency Regimes

- Hard Peg: Full Dollarization or Currency Board.
- Soft Peg: Crawling peg, Stabilized Arrangements, …
- Floating: Free or Managed Float.

Figure 9 shows that to rebuild trust and recover credibility, it is mandatory to adopt the hard peg by choosing between implementing full dollarization or currency board regime.

Since in Lebanon, trust is almost lost and credibility becomes out of reach, and moreover there is no trust in the country's governance, I recommend going through full dollarization.

Benefits of Implementing Full Dollarization in Lebanon

Elimination of the risk of sharp and sudden country's exchange rate devaluation (Andrew B, Eduardo B, 2000).

No lender of last resort: Banks would seek for alternative contingent credits, particularly for foreign funds. This gives a competitive edge to international banks over domestic banks, inducing a more international banking system (Ilan Goldfajin, Gino Olivares, 2000).

Credibility and fiscal Discipline: Exchange rate regime provides the maximum credibility. This is supposed to improve fiscal discipline and facilitate the ability to collect taxes due to inflation rate's mitigation (Layal Ishrakieh, 2022),

Fighting corruption: Government cannot borrow to finance the budget deficit, wasting money will be controllable.

Economic adjustment: The economy deals with external shocks by relying on the internal financial system, rather than by adjusting exchange rates.

Interest Rate: Adopting the US dollar instead of Local Lira will reduce the interest rate since it is directly related to the legal tender.

Credit rating: Fiscal discipline, credibility, open markets, and controlling inflation rate and interest rate will guarantee higher grades by the credit rating agencies, and this will help for rebuilding favorable climate for business.

Growth: The result of the above-mentioned facts will be the attraction of foreign direct

9- Layal Ishrakieh 2022. The Dollarization Curse.

investment and other investment inflows, which will generate employment and economic growth.

Expectation: Countries with hard peg regimes usually maintain their exchange rate policies unchanged for long periods, unless their economies undergo large structural and sometimes radical changes that could help for a safe exit from the full dollarization regime. The generally long duration of hard peg regimes provides a higher degree of certainty in pricing of international transactions. However, official dollarization holds an advantage of greater permanence over a currency board (Layal Ishrakieh, 2022).

Risks of Adopting Full Dollarization

For those who choose to adopt the US dollar as legal tender, two risks must be taken into consideration:

The ultimate control of country's future over to the stability of America, a country characterized for bending political powers to its will through sanctions.

The shortage in USD cash notes circulation worldwide especially after COVID-19 pandemic (Tatiana Koffman, 2020).

Another encountering risks:

Exit option: It is very critical to choose the adequate exit time from adopted regime since in most cases it is non-reversed. A country adopting full dollarization gives up control of monetary and exchange rate policy (Andrew B, Eduardo B, 2000).

Loss of seignorage value of the local currency since it will be totally replaced by another external currency.

We think that a prerequisite condition must exist, real intention by government to start a recovery plan with serious reform implications.

CONCLUSION

There is no common and effective regime for all countries. There are many macroeconomic and internal factors which affect the decision of choosing the best fit. Geographical location, Demography, GDP, financial system, corruption level, openness, and many other factors are key in the decision process to choose the adequate regime to implement. Lebanon is a small country regarding its population and GDP, and it is relatively opened to global economy due to its liberal market. In addition, Lebanese economic model is a volatile economy characterized by the absence of adequate policies and laws or simply by non-applying of existing ones and governed by corruption and clientelism, therefore, regaining credibility is a must.

For these reasons and after examining the cases of Panama and Liberia, it is mandatory and inevitable to adopt hard peg regime in Lebanon by implementing full dollarization approach.

RECOMMENDATION

We think it will be useful for future research to focus on the adequate time to exit from full dollarization regime since it is very critical to precise when to exit; especially, if in the future macroeconomic conditions would be changed, and in that time, we might implement gradual market-driven approach and recover our national heritage the Lebanese Lira by creating "The Cedar Dollar" as substitute.

And it would be useful to start thinking about the feasibility of implementing one currency worldwide even a digital one.

REFERENCES

Balino, B. and Borenstein (1999). In Lodewyk Erasmus; Jules Leichter; Jeta Menkulasi, March 2009. *Dollarization in Liberia-Lessons from Cross-Country Experience.* Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1361379

Berg, A. and Eduardo, B. (2000). *Full Dollarization: The Pros and Cons*. Available: www.imf.org

Calvo et al. (2008). Durdu et al. (2009). Gonçalves (2007). In Layal Mansour Ishrakieh, Leila Dagher, Sadika El Hariri (Jan 2020). *Not the Usual Suspects: Critical Indicators in a Dollarized Country's Financial Stress Index.* Available: https://www.sciencedirect.com/science/article/pii/S1544612318307451

Calvo (2006). In Joseph Bitar (2021). *The Unique Dollarization Case of Lebanon, Economic System*, 45 (2). Available: https://www.sciencedirect.com/science/article/pii/S0939362520300728

Erasmus, L., Leichter, J. and Menkulasi, J. (2009). *Dollarization in Liberia-Lessons from Cross-Country Experience.* Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1361379

Friedman, M. In Layal Ishrakieh (2022). The Dollarization Curse. https://www.researchgate.net/publication/358638055_The_Dollarization_Curse

GlobalEdge: Available: https://globaledge.msu.edu/countries/Panama

Goldfajin, I. and Olivares, G. (2000). *Is Adopting Full Dollarization the Solution? Looking at the Evidence*. *Available:* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=224278

Goldfajn, I. and Olivares, G. (2001). *Full Dollarization: The Case of Panama*. https://web.worldbank.org/archive/website00960A/WEB/PDF/PANAMAWB.PDF

Ishrakieh, L. (2022). *The Dollarization Curse*. https://www.researchgate.net/publication/358638055

Lebanon- Imports of Goods and Services. Available: Tradingeconomics.com

Magud (2010). In Joseph Bitar (2021). *The Unique Dollarization Case of Lebanon, Economic System*, 45 (2). Available: https://www.sciencedirect.com/science/article/pii/S0939362520300728

Nkunde, M. and Francis, K. (2015). *Revising the Concept of Dollarization: The Global Crisis and Dollarization in Low-Income Countries*. Available: www.imf.org

Overview of the Recent Monetary, Banking, and Financial Developments in Lebanon (2020). Available: https://www.bdl.gov.lb/pages/index/1/119/Monetary-Overview.html

Rogoff, R. and Savastano (2003). In Lodewyk Erasmus; Jules Leichter; Jeta Menkulasi (2009). *Dollarization in Liberia-Lessons from cross-country Experience.* Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1361379

Tatiana, K. (2020). *Lebanon's Currency Crisis Paves the Way to a New Future*. Available: www.forbes.com

The World Bank in Lebanon (2020). Available: https://www.worldbank.org/en/country/lebanon/overview#1

William, A. and Johannes, M. (1994). *Dollarization in Lebanon*. Available: www.elibrary.imf.org