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To Dollarize or not to Dollarize?
A Preliminary Comparison of Some Dollarized Economies

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Abstract

Panama is a typical example of official dollarization adopted by an independent country. The use of US dollars in Panama is often considered as a strength in that foreign trade and other international financial transactions are made relatively smoother and more efficient. The absence of exchange rate risk also works as an advantage for some sectors including finance. Furthermore, dollarization reduces the transactions costs on foreign trade.

Ecuador abandoned its national currency and adopted US dollars as legal tender in 2000. El Salvador implemented the official dollarization in 2001. There are a number of cases of unofficial dollarization, for example, in Costa Rica, Guatemala, and the Philippines. In a small open economy, the main strength of issuing a national currency lies in the fact that the government can retain its ability to try to control directly the terms of trade. Hence the lack of autonomous control of the nominal exchange rate in Panama, Ecuador, and El Salvador creates a potential source of instability in adjusting the international trade. Costa Rica, Guatemala, and the Philippines can maintain the price competitiveness of their exports by adjusting the nominal exchange rate.

As long as there is a possibility that Costa Rica, Guatemala, or the Philippines is occasionally hit by shocks unrelated to the US economy, the advantage of issuing a local currency should exceed the alternative gains. Added to these advantages is the significant seignorage income accruing to the government.

If the economy is more stable, free from high inflation and macroeconomic volatility, Ecuador and El Salvador can have reasons to revert to official de-dollarization. Even Panama could gain by adopting its own paper currency in the future. Advocates of official dollarization of Costa Rica, Guatemala, or the Philippines have yet to prove that reliable evidence exists in favor for that policy option.

Key words: Dollarization, Hyperinflation, Seignorage

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1 Introduction

It has been well known that the economy of Panama is a typical example of official (or de jure) dollarization adopted by an independent country.[2] The use of US dollars in Panama, originated in 1904, is often considered as a strength in that foreign trade and other international financial transactions, especially banking, are made relatively smoother and more efficient than those in other countries under a similar development stage, attracting global economic activities in general. The absence of exchange rate risk also works as an advantage for some sectors including finance. Furthermore, dollarization reduces the transactions costs on foreign trade.

Two more cases of official dollarization stand out. As a way to combat a serious economic crisis including persistent high inflation, Ecuador abandoned its national currency sucre and adopted US dollars as legal tender in 2000. Ecuador was less dollarized in the first half of the 1990s but increased dollarization prior to adopting officially the US dollar in 2000.[3] In El Salvador, the use of US dollars had already been quite prevalent, due to a significant flow of US dollars from the US through the Salvadoran immigrants residing in the US. 700,000 Salvadorans lived in the US in 2000, with the current figure exceeding 2 million.[4] The economy of El Salvador was not in crisis as was that of Ecuador, but El Salvador implemented the official dollarization in 2001, switching from its national currency colon. In June 2021 El Salvador made headlines when it became the first country to announce its plan to accept Bitcoin as legal tender starting September 7, 2021, in addition to the US dollar. It is expected that such a move will help the country gain foreign investment and decrease the cost of remittances.[5]

On the other hand, there are a number of cases of unofficial (or de facto) dollarization, where individuals save and borrow in US dollars as well as use them as means of payments. In Costa Rica, a small open economy north of Panama, the use of US dollars in transactions including banking and tourism services is also wide-spread, although there exists and circulates its national currency colon. Likewise, Guatemala is not an officially dollarized economy, but the US dollars are widely accepted and used. The use of US dollars is also quite common in the Philippines, driven by the significant amount of

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[2] The official name of Panama's currency is balboa, and there do exist issued coins used together with the US coins. However, the paper currency circulating in Panama is purely the US dollar.

[3] See Alvarez-Plata and Garcia-Herrero (2008).

[4] "El Salvador: Crypto creep," *The Economist*, September 11th – 17th 2021, 39.

[5] "Satoshis for cervezas: Bitcoin as legal tender," *The Economist*, September 4th – 11th 2021, 55-56.

remittances sent from abroad as in the case of El Salvador. The US had ruled the Philippines before, and the branch in Manila of the United States Mint operated from 1920 to 1941. Other examples of informal and spontaneous dollarization are observed in Argentina, Cuba, and Venezuela.[6]

In this study, the implications of dollarization are examined specifically comparing officially dollarized countries (Panama, Ecuador, and El Salvador) and partially dollarized countries (Costa Rica, Guatemala, and the Philippines). In Section 2, some economic observations are described for these six countries. Section 3 will address the pros and cons of dollarization in general. Section 4 will analyze important implications dollarization has for exchange rate policies toward the international trade. And Section 5 will conclude the study.

2 Observations

Figure 1 compares GDP per capita in US dollars of the six countries over time. In 2020 the per capita GDP of Panama was $12,373, followed by Costa Rica ($12,057), Ecuador ($5,643), Guatemala ($4,317), El Salvador ($3,799), and the Philippines ($3,323), based on the World Economic Outlook (October 2021) of the IMF. According to the World Bank, Panama, Costa Rica, Ecuador, and Guatemala belong to the upper middle-income economies (GNI per capita between $4,046 and $12,535), while El Salvador and the Philippines belong to the lower middle-income economies (GNI per capita between $1,036 and $4,045).

[6] "¿Cómo les ha ido a los 3 países de Latinoamérica que se han dolarizado?" *Semana*, October 17, 2020.
https://www.semana.com/economia/articulo/como-les-ha-ido-a-los-paises-que-se-han-dolarizado-en-america-latina/303885/

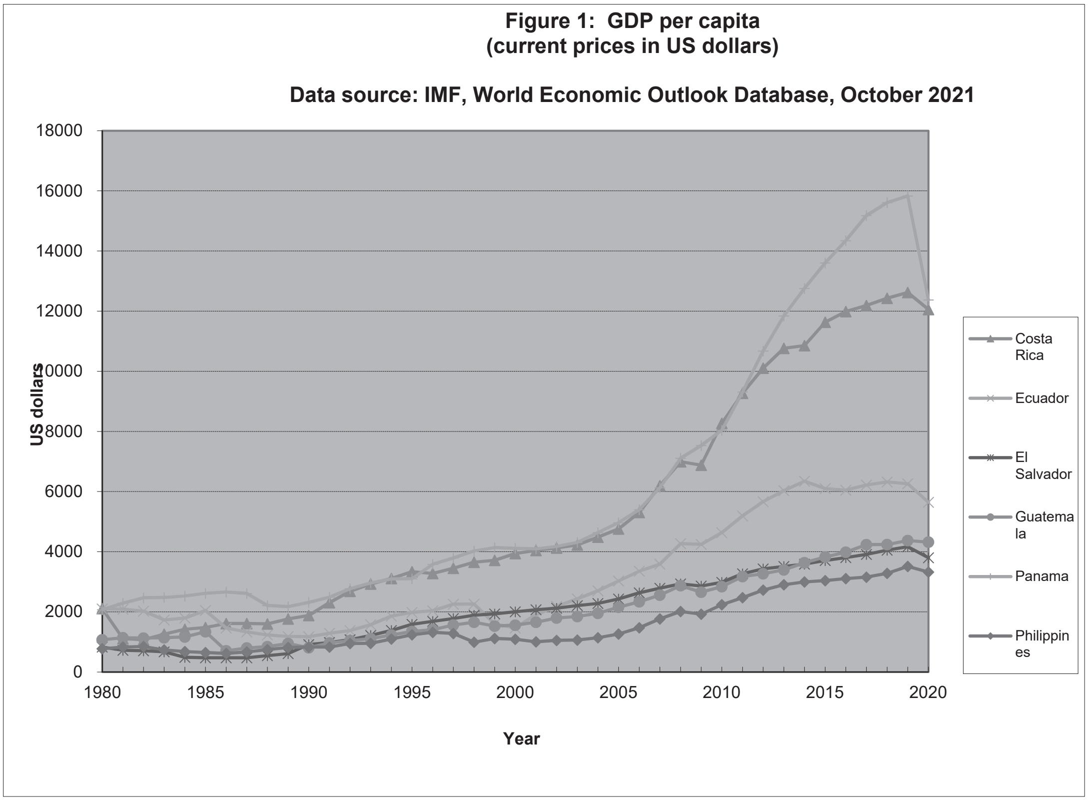


Figure 2 is a comparison of growth performance. The overall growth performance of the six countries appears to follow a somewhat comparable pattern. The Philippines had been sustaining higher growth since 2012 before suffering severely from the COVID-19 recession.

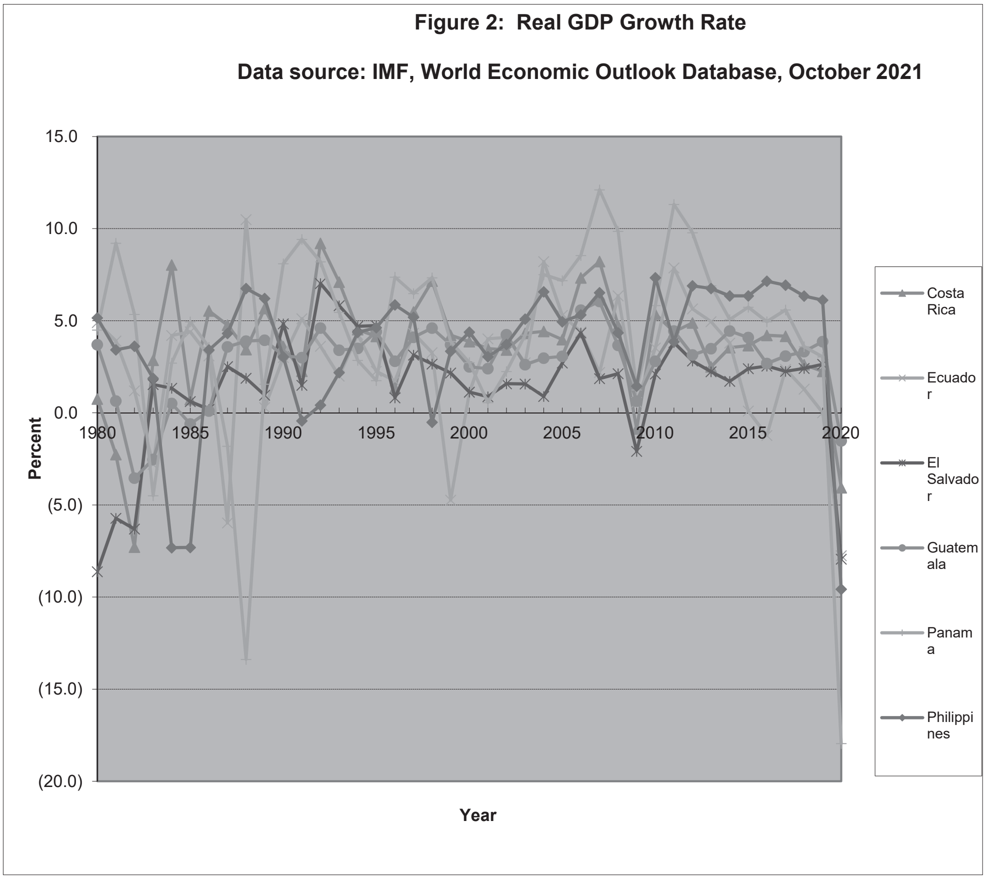
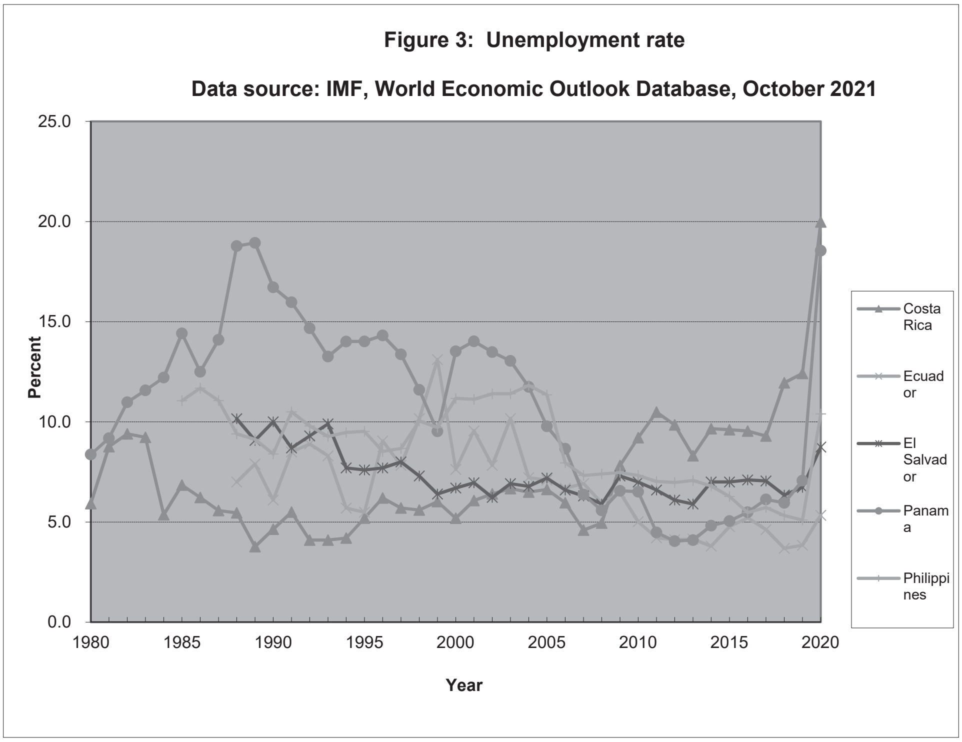


Figure 3 compares unemployment rate over time. As expected from Okun's Law, the performance reflects the real growth rate, and thus demonstrates a somewhat similar trend. The employment condition of Costa Rica has deteriorated significantly since 2009, provoked by the Great Recession.



As can be seen in Figure 4, the inflation has come to be under control in all the six countries. Ecuador succeed in disinflation by adopting dollarization. El Salvador's inflation performance has been comparable to that of Panama since its dollarization. Inflation has come to be checked both under official and partial dollarization.

Figure 4: Inflation
(Average consumer prices)

Data source: IMF, World Economic Outlook Database, October 2021

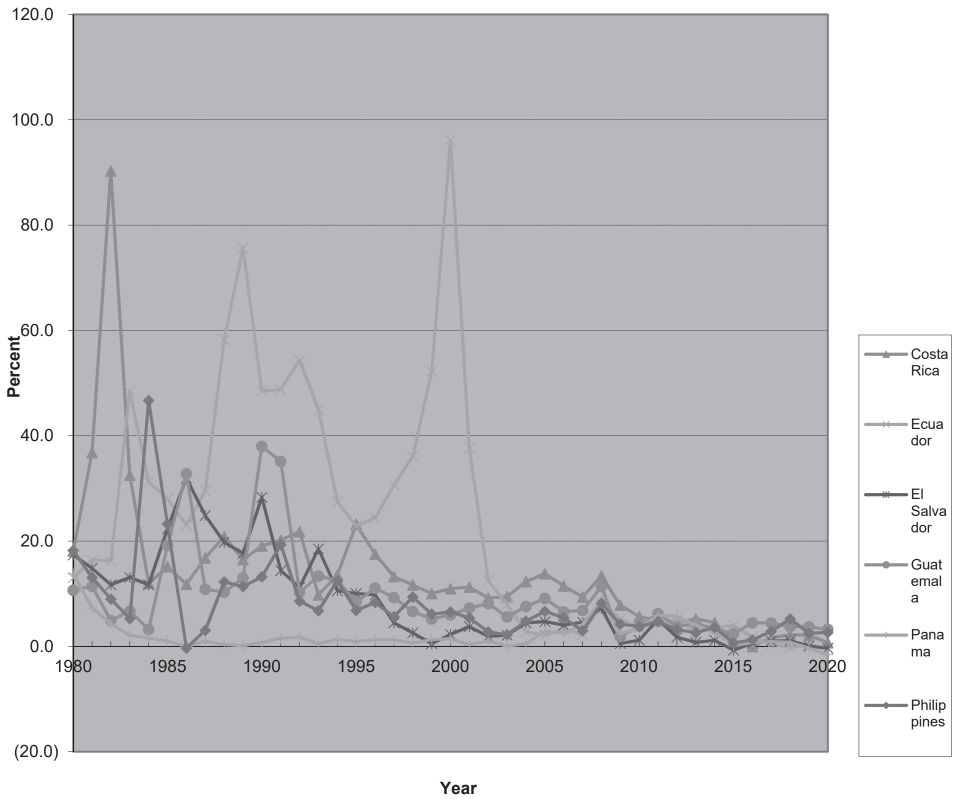


Figure 5 compares the investment as a ratio to GDP over time. Officially dollarized Panama particularly and Ecuador have lately performed better. The investment has recently increased in the Philippines, boosted by the government's "Build, Build, Build" infrastructure program actively applying public-private partnership (PPP). Investment in Costa Rica has lost dynamism since the Great Recession. Investment has been rather stagnant in El Salvador and Guatemala.

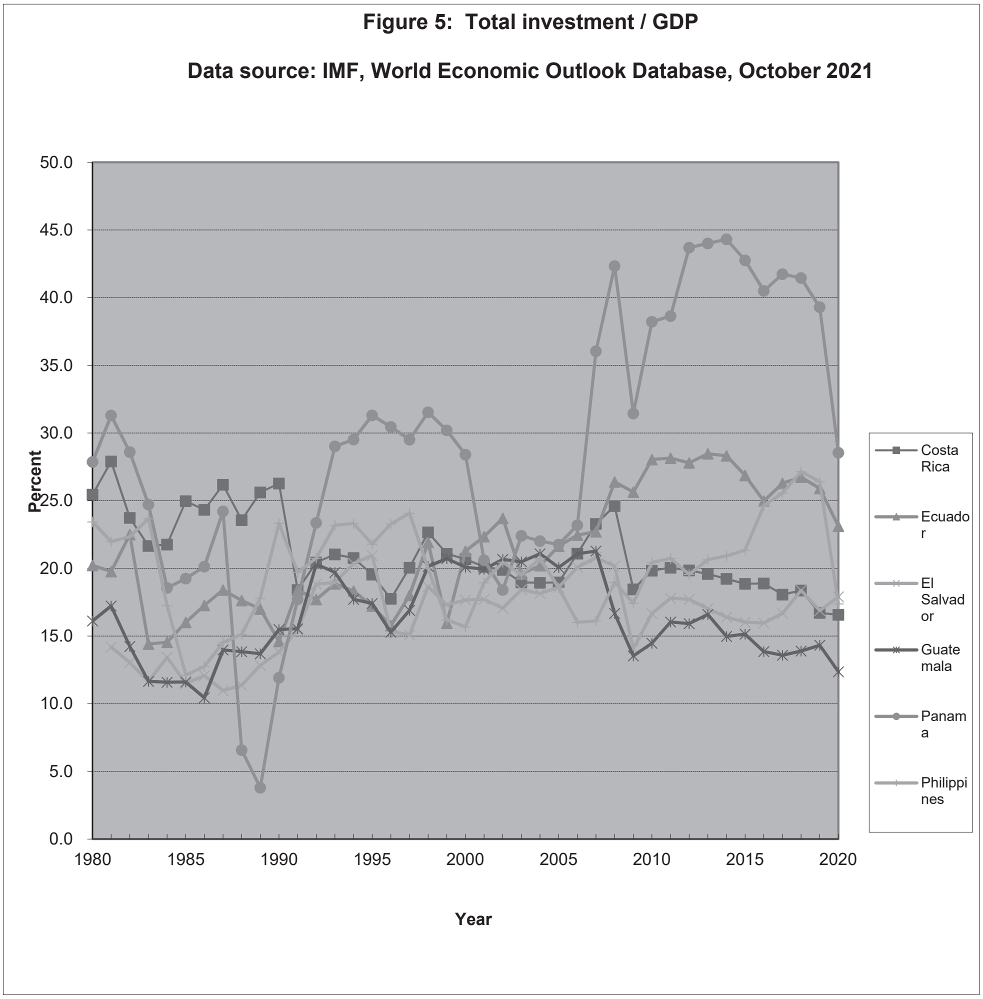


Figure 6 is a comparison of the current account as a ratio to GDP. The effects of official dollarization are not clearly observed. In spite of its advantage in the service trade, Panama has kept large current account deficit. Ecuador's cyclical performance can be caused by the fluctuations in the oil price. The Philippines has often recorded current account surplus, helped by steady remittances mainly from Overseas Filipino Workers (OFWs).

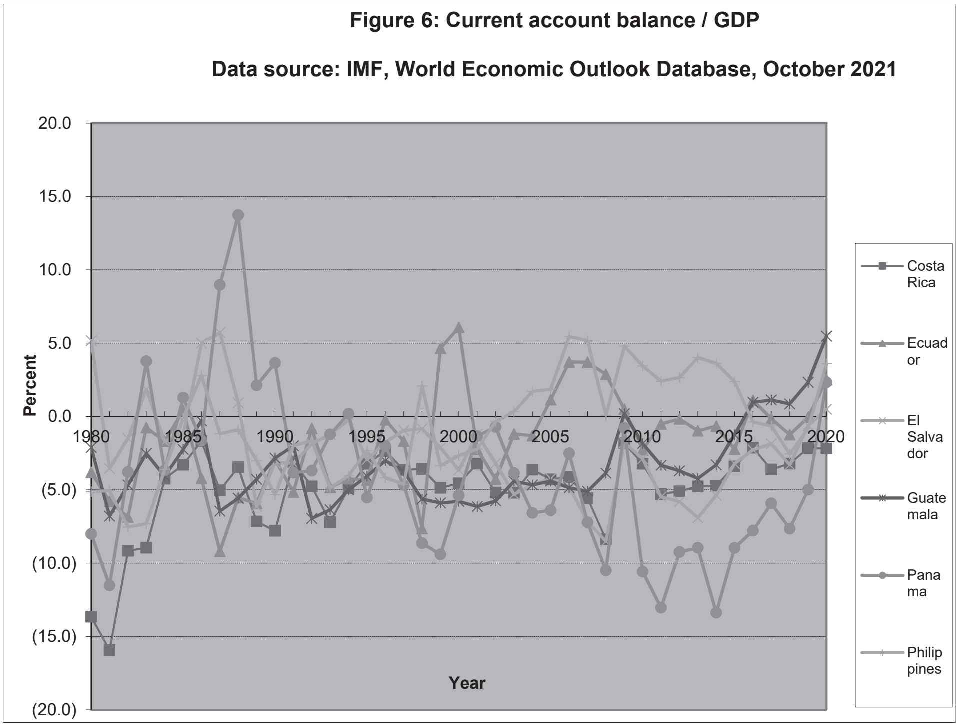
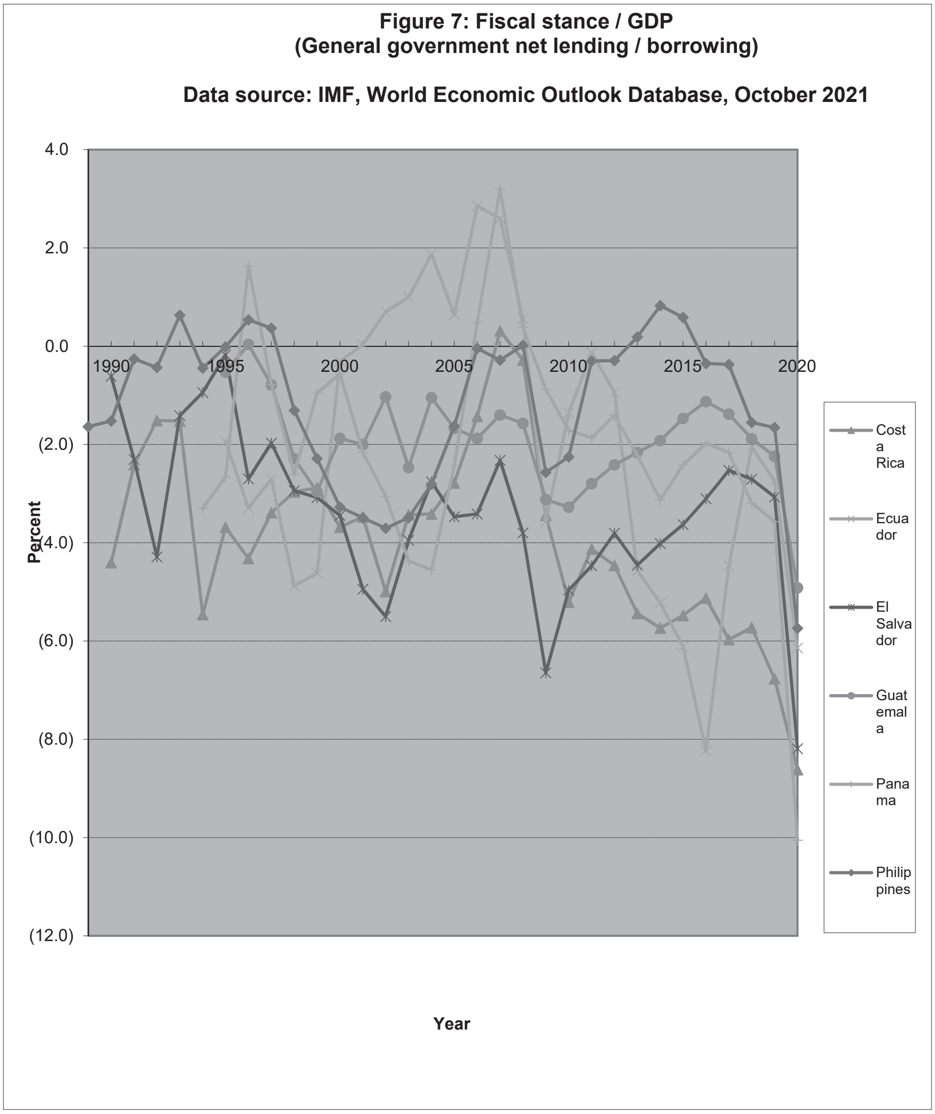


Figure 7 compares fiscal stance of the six countries over time. The relations with official dollarization are ambiguous. Fiscal stance has generally deteriorated since the Great Recession except the Philippines. Costa Rica's persistent budget deficit is leading to a discussion of public sector reform combined with the IMF program.



3 Pros and Cons of Dollarization

In this section, a general view on dollarization is summarized, where its pros and cons are contrasted.

3.1 Merit of Dollarization

Several direct cases for dollarization can be summarized as follows.

In officially dollarized Panama, Ecuador, and El Salvador, there exists no exchange rate volatility obviously, when it can often be a great concern in emerging economies. This can be advantageous in making several aspects of the international trade and business transactions in general smoother and freer from the exchange rate risk and transaction costs, as observed with the trade among the countries in the Eurozone. Use of US dollars attracts domestic and foreign savings in the manner of deposits to the banking system, since it provides a potential hedge from inflation. Furthermore, dollarization can facilitate exports of services, as typically seen in Panama.

Dollarization is often considered to keep inflation under control. As can be seen from Figure 4, Ecuador's adoption of the US dollar in 2000 led to a successful disinflation. Inflation has been under control in Panama and El Salvador. This advantage has not been outstanding, as the inflation in all the six countries has become more stable in this century.

Ecuador's disinflation experience is similar to that of Argentina, which suffered from a hyperinflation in 1989-1991. Argentina adopted the currency board, which linked the Argentine peso to the dollar at a fixed rate on April 1, 1991. The Argentine currency board succeeded in controlling inflation and achieving macroeconomic stability.[7] The currency board became unsustainable in 2002, when Argentina experienced another severe and chaotic economic crisis.[8] De la Torre et al. (2003) explore possibilities in which full dollarization could have been a less destructive alternative to the adopted exit strategy from the Argentine currency board.

Furthermore, dollarization could have implications for debt management. If an economy is officially dollarized, it can mechanically facilitate issuing government bonds denominated in US dollars in the international financial market, assuming that the country maintains credit worthiness. As the international interest rates are generally lower than the domestic rates that prevail in Costa Rica, some argue in favor of dollarization with a view to converting smoothly part of the internal public debt into external.

As a result of the comparison among the six countries, the implication of official dollarization for the growth (Figure 2) and unemployment (Figure 3) performance is not clear.

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[7] See Kiguel (1999).

[8] See Daseking et al. (2004) for the lessons learned from the crisis in Argentina.

3.2 Demerit of Dollarization

On the other hand, dollarization is not free from potential difficulty.

In an officially dollarized economy, the amount of money stock is demand-determined. When Panama, Ecuador, or El Salvador is hit by a unique shock, totally independent of the US, the fact that the country lacks a proper monetary authority makes it difficult to deal with the specific local shock. If a particular state within the US like Hawaii gets exposed to a local shock such as a natural disaster damaging the economy, the US federal government can offer assistance to help normalize the local economy. As independent countries, Panama, Ecuador, and El Salvador are not entitled to such a special treatment. Only the country’s fiscal policy, instead of monetary policy, can be used to deal with such a local shock to the economy.

It is also impossible for an officially dollarized country to try to adjust the trade balance via the nominal exchange rate, which is always totally fixed. This aspect became quite relevant during the Greek government-debt crisis in the aftermath of the Great Recession. As a member of the Eurozone, Greece lacked monetary policy flexibility. As related, Hong Kong has kept a currency board for a long time, resulting in a remarkably stable exchange rate of the Hong Kong dollar vis-à-vis the US dollar. This can lead to a macroeconomic stability on one hand. Yet, as was the case with the Argentina currency board, the inflexible exchange rate can also be a cause of losing competitiveness especially when the economy is not performing well.

Another critical disadvantage of official dollarization is the loss of “seignorage” income, or the revenue raised by a government by printing money. If Costa Rica, Guatemala, and the Philippines had not been issuing their national currencies, the whole seignorage income would have simply been forgone.

Apart from the benefit of seignorage, the presence of national currencies and the proper central banking system can be linked to the sense of sovereignty of an independent country. This explains to some extent why the former Soviet Union countries opted to issue their own national currencies upon independence, even if the option of sticking to the use of rubles was quite convenient, given the initial lack of expertise in the area of monetary policies.

4 Trade Implication

In addition to the factors discussed in Section 3, dollarization has a major implication for the adjustment of the trade balance. This section specifically studies this issue.

The trade balance, TB, can be expressed as follows:

$$TB = p_x X(p, y^*) - E\, p_m^* M(p, y),$$

where p_x denotes the export price, p_m^* the import price in US dollar, X is the export volume, M stands for the import volume, and E is the nominal exchange rate (home currency / US dollar). Export volume depends on the terms of trade[9] p, defined as $p_x / E\, p_m^*$, and foreign income y^*, while import volume depends on the terms of trade and domestic income y.

Shocks to the terms of trade influence the trade balance as in the above relation. Depending on the relative size of the initial trade imbalance and also on the response of the export and import to a change in the terms of trade, the overall effect of the terms of trade on the trade balance is determined. Provided that the trade account is close to zero initially and that the sum of absolute value of the price elasticity of the export and import exceed unity, it can be proved that a worsening (improvement) of the terms of trade will improve (deteriorate) the trade balance.[10]

For example, the government of Costa Rica, Guatemala, or the Philippines can worsen the term of trade $p = p_x / E\, p_m^*$ by raising E, namely through depreciation, as long as the export and import prices remain unchanged. It is expected that the trade balance will improve in the long run, as the export and import volume behave more favorably for the country. This is important because the dollar import price p_m^* is usually out of control for Costa Rica, Guatemala, or the Philippines, a relatively small entity in the world market, and because the export price p_x is also subject to foreign influences, since the traditional exports of Costa Rica, Guatemala, and the Philippines such as banana, coffee, meat, and sugar have their international dollar prices determined mainly outside of the country.[11] In this case the nominal exchange rate can serve as a crucial element in controlling the terms of trade and hence in maintaining the price competitiveness among the exports sector.

For the case of Panama, Ecuador, or El Salvador, the terms of trade will be $p = p_x / p_m^*$ as the absence of national currency implies E=1. p_x is no longer a local currency price but a US dollar price. The government cannot control the terms of trade through the use of the nominal exchange rate, simply because it is always constant. The dollar import price is generally independent of Panama, Ecuador, or El Salvador, a relatively small

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9 The terms of trade is the reciprocal of the real exchange rate.
10 This is known as the Marshall-Lerner condition.
11 Expansion of non-traditional exports could make the export price relatively less influenced by foreign factors.

participant in the world market. And the export price could also be influenced strongly by foreign factors, mainly because Panama, Ecuador, and El Salvador are small open economies and they tend to export commodities and services whose dollar prices are controlled abroad. Hence an officially dollarized country is deprived of an economic policy tool, the nominal exchange rate, which would be useful if the terms of trade had to be controlled with the initiative of Panama, Ecuador, or El Salvador. If, for example, a major social instability affects the dollar price of exports significantly, the country is subject to an abrupt change in the terms of trade, as the government cannot mitigate the shock through a countervailing control of the nominal exchange rate.

In general the existence of the nominal exchange rate can lead to an intrinsic risk of a speculative attack on the exchange rate, as seen in the Mexican peso crisis in 1994 and the Asian financial crisis in 1997. In the case of Costa Rica and Guatemala, this type of risk has been of minor importance in recent years. With the traditional exports still being important, the government's ability to influence the term of trade should dominate the case for eliminating exchange rate risks, in terms of the overall economic welfare. The goods exports are crucial for the economy of Cost Rica, Guatemala, and the Philippines.

It is true that the commodity trade deficit in Panama can be compensated for the significant revenues from the service transactions including the Canal, Colon free trade zone, and banking. Thus, in effect, the terms of trade has been of less importance there than in neighboring Costa Rica. However, it can be stated that if the economy of Panama becomes more dependent on the international commodity trade and more frequently attacked by shocks independent of the US, the country could even be better off issuing its own currency to regain partial control of the terms of trade. This case is strengthened if the value of the US dollar begins to fluctuate to a larger degree in the future, and also if Panama begins to trade more with countries other than the US. As Panama gained a total control of the Canal, the economy has become less dependent on the US than before. At present, the continuing dominant presence of Panama's service trade does not support a strong case for the importance of terms of trade adjustment. Nonetheless, the future possibility cannot be excluded altogether. It should also be remembered that seignorage income does accrue to the government every year, as long as the national currency is being issued.

5 Concluding Remarks

Noting the prevalent use of the US dollars both in officially dollarized countries (Panama, Ecuador, and El Salvador) and partially dollarized countries (Costa Rica, Guatemala, and the Philippines), the merit and demerit of dollarization have been reviewed and discussed in this study.

In a small open economy, the main strength of issuing a national currency lies in the fact that the government can retain its ability to try to control directly the terms of trade, when it is frequently subject to shocks. Hence the lack of autonomous control of the nominal exchange rate in Panama, Ecuador, and El Salvador creates a potential source of instability in adjusting the international trade, although for Panama the current exports contents concentrated on services mitigate this possible difficulty. Costa Rica, Guatemala, and the Philippines are able to maintain the price competitiveness of their exports by adjusting the nominal exchange rate, aiming to improve the trade balance in the long run.

As long as there is a good possibility that the economy of Costa Rica, Guatemala, or the Philippines is occasionally hit by shocks unrelated to the US economy, the advantage of issuing a local currency should exceed the alternative gains from the exchange rate stability and from the smoother trade and financial activities with less transactions cost, that is, the advantage observed in Panama, Ecuador, and El Salvador. Unlike Panama, where the service revenues can compensate for the commodity trade deficit, the merchandise trade balance is crucial for the economy of Costa Rica, Guatemala, or the Philippines. Added to these advantages is the significant seignorage income accruing to the government.

Thus, if the economy is more stable, free from high inflation and macroeconomic volatility, Ecuador and El Salvador can have reasons to revert to official de-dollarization. Even Panama could gain by adopting its own paper currency in the distant future, if (1) the international trade of goods becomes more important, (2) the economy behaves quite differently from that of the US, or (3) the value of the US dollar fluctuates more. At least the scenario (2) can be realistic, in view of the completed transfer of the ownership of the Canal to Panama.

If there are advocates of official dollarization of Costa Rica, Guatemala, or the Philippines, they have yet to prove that a reliable set of evidence exists in favor for that policy option.

References

Alvarez-Plata, Patricia and Alicia Garcia-Herrero (2008), “To Dollarize or De-dollarize: Consequences for Monetary Policy,” *Discussion Papers of DIW Berlin*, 842, December 2008, German Institute for Economic Research, Germany.
https://www.diw.de/documents/publikationen/73/diw_01.c.92705.de/dp842.pdf

“¿Cómo les ha ido a los 3 países de Latinoamérica que se han dolarizado?” *Semana*, October 17, 2020.
https://www.semana.com/economia/articulo/como-les-ha-ido-a-los-paises-que-se-han-dolarizado-en-america-latina/303885/

Daseking, Christina, Atish Ghosh, Timothy Lane, and Alun Thomas (2004), “Lessons from the Crisis in Argentina,” *Occasional Paper* 236, 2004, International Monetary Fund, Washington, DC.
https://www.imf.org/external/pubs/nft/op/236/op236.pdf

De la Torre, Augusto, Eduardo Levy Yeyati, and Sergio L. Schmukler (2003), “Living and Dying with Hard Pegs: The Rise and Fall of Argentina’s Currency Board,” *Policy Research Working Paper* No. 2980, March 2003, The World Bank, Washington, DC.
https://openknowledge.worldbank.org/bitstream/handle/10986/19040/multi0page.pdf?sequence=1

“El Salvador: Crypto creep,” *The Economist*, September 11th – 17th 2021, 39.

Kiguel, Miguel A. (1999), “The Argentine Currency Board,” *CEMA Working Papers: Serie Documentos de Trabajo*, 152, Univerdidad del CEMA, Argentina.
https://ucema.edu.ar/publicaciones/download/documentos/152.pdf

“Satoshis for cervezas: Bitcoin as legal tender,” *The Economist*, September 4th – 11th 2021, 55-56.