

# Macro Dev

## Twenty years of official dollarization in Ecuador: a blessing or a curse?

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Ecuador adopted the U.S. dollar as its legal tender in January 2000, in a context of deep economic and political crisis. Almost two decades later in December 2019, the Executive Board of the International Monetary Fund (IMF) approved a total disbursement of US\$498 million<sup>[4]</sup> after the completion of the second and third reviews under the Extended Fund Facility Arrangement. The financial agreement with the IMF had been concluded in March 2019, under the presidency of Lenin Moreno, in order to address the country's growing external financing needs. Within the framework of the macroeconomic program supported by the IMF, Ecuadorian authorities committed to ensure fiscal sustainability, re-build the international reserves of the Central Bank of Ecuador (BCE), and strengthen the institutional foundations of official dollarization.

Twenty years on from Ecuador's radical decision to abandon its currency (the sucre), the country is struggling with anemic economic growth, mounting external debt and low international reserves that cover only a meagre portion of the banking sector's liabilities. Moreover, socio-political tensions are adding to the worsening economic conditions, while the government is seeking to pursue austerity policies on wages, taxation and subsidies. Even worse, like many other Latin American countries, Ecuador was seriously hit by the outbreak of the Covid-19<sup>[5]</sup> pandemic. The drastic shock on demand (both external and domestic), coupled with the steep

4 On March 11, 2019, Ecuador reached a three-year agreement with the IMF under the Extended Fund Facility, for a total financing support of US\$4.2 billion. The country received a first disbursement of US\$651 M in March 2019 and a second disbursement of US\$250 M after completion of the first review of the programme on 28 June 2019. The second and third reviews were completed on December 19, 2020.

5 The Covid-19 outbreak happened while we were finalising this publication. Although our data coverage ends in 2019, we discuss the impact of this unprecedented shock on the Ecuadorian economy in Section 4.

drop in oil prices, has sharply reduced government revenues. The overall economic losses due to the Covid-19 crisis are estimated to reach 7% of GDP in 2020.

In a context of mounting political and economic fragility, a number of questions arise linked to the decision to adopt dollarization. What are the precise consequences for Ecuador of having abandoned its own currency two decades ago in favor of the U.S. dollar? To what extent has full dollarization<sup>[6]</sup> contributed to the current economic woes of the country? Or, on the contrary, would the economic conditions be even worse had the sucre been kept as the official currency of Ecuador?

The main contribution of our analysis rests on recent and fact-based evidence of the economic consequences of dollarization. In fact, although the topic of full dollarization was widely discussed in the early 2000s (in the wake of the currency board crises in emerging countries), it was seldom revisited in the 2010s. In the early 2000s, the idea of full dollarization was sometimes viewed by scholars and international organizations as a possible solution to significant financial and exchange rate instability in some emerging countries. While Ecuador took the “radical” step towards official dollarization, Argentina seriously considered abandoning the peso in favor of the U.S. dollar in 1999/2000. Back then, an abundant theoretical literature lent support to dollarization (e.g., optimal currency areas, sustainable exchange rate regimes) even though empirical evidence on the “actual” benefits of dollarization remained scarce.

6 In this study, we use the terms of “official” and “full” dollarization interchangeably to refer to the case of countries that have unilaterally abandoned their currency to adopt another as legal tender.

In this study, we investigate Ecuador's experience with official dollarization over the past two decades. Ecuador constitutes a particularly interesting research case in many aspects. First, with a population of about 17 million, Ecuador is by far the largest country to have given up its own currency and adopted official dollarization.<sup>[7]</sup> Second, unlike most countries that have unilaterally adopted full dollarization,<sup>[8]</sup> Ecuador's historical or political proximity with the United States was only partial. In other words, the country did not share a common border with the United States and the economic or financial integration of the two countries was relevant but limited. In fact, dollarization in Ecuador came as a sudden political decision in the context of unprecedented financial and macroeconomic turmoil.

The remainder of this analysis is structured as follows. Section 1 discusses the reasons behind full dollarization, while Section 2 presents the historical background that led to full dollarization in Ecuador. Section 3 explains the mechanics of full dollarization in Ecuador, particularly with regard to international reserves. The impact of dollarization on the external sector and competitiveness is analyzed in Section 4.

7 The GDP of Ecuador is roughly equivalent to the cumulative GDP of the twelve other fully dollarized or euroised countries in the world (Winkler et al. 2004).

8 Here the term "dollarization" also applies to the adoption other foreign currencies as legal tender, such as the euro, the British pound, the Australian dollar.





# 1. Why dollarization?

The pros and cons of full dollarization were widely discussed in the early 2000s within the framework of the sustainable exchange rate regimes (bipolar review) and the (new) theory of optimum currency areas.<sup>[9]</sup> According to this literature, the main benefits of full dollarization can be summarized as below.

## **1.1 – BENEFITS OF FULL DOLLARIZATION**

### **1.1.1 – Macroeconomic stabilization**

In countries where monetary policy has lost credibility, the adoption of a foreign currency may offer a strong commitment device (Del Negro et al. 2001) and stabilize monetary and financial conditions. This substantial benefit in terms of monetary policy credibility is mostly related to its near irreversibility. Reversing dollarization is almost impossible and would entail tremendous costs<sup>[10]</sup> compared to abandoning a currency board arrangement or a pegged exchange rate regime.

After explicitly adopting the currency of another country (e.g., the United States) that has a more credible monetary policy, inflation and interest rates in a dollarized economy are expected to converge towards the level of the issuing country (Winkler et al., 2004). Some studies (Fischer, 1982; Eichengreen, 2000) suggest that dollarization would enhance fiscal discipline by ruling out the possibility of monetary financing of fiscal deficits. Moreover, by definitively rejecting the possibility of inflationary finance, dollarization might also strengthen financial institutions and create a positive sentiment for both domestic and international investors.

In this sense, the early years of dollarization in Ecuador effectively illustrated the improvement of macroeconomic stability thanks to a credible monetary policy. The initial legal framework for the central bank after Ecuador's dollarization imposed a clear system of priorities within its balance sheet that strongly limited monetary financing of the central government. However, this framework was modified over the period 2008–2014 and paved the way for an increase in the central bank's holding of government bonds. Central bank financing of government debt allowed for strong fiscal expansion between 2008 and 2014, while the budget deficit grew continuously over the period 2008–2016. Such financing could also have taken place in a non-dollarized economy but would have likely had inflationary consequences.

### **1.1.2 – Lower risk premia**

Official dollarization excludes the possibility of sudden and steep exchange rate devaluations, thus reducing the risk premium for external borrowing. In addition, dollarization is likely to improve access to international financial markets. Lower currency risk and information costs are likely to lower borrowing costs for the government and private sector (Calvo, 1999). In addition, full dollarization is expected to prevent sudden capital outflows motivated by fears of devaluation. Finally, theoretical evidence suggests that dollarization can enhance financial stability and mitigate the risk of sudden capital controls (Berg and Borensztein, 2000).

Nevertheless, adopting full dollarization does not systematically preclude sovereign defaults. In some cases, dollarization could even raise the risk of sovereign default by impairing the capacity of the economy to adjust to asymmetric shocks. As in other countries that issue their own currency, unsustainable public finances, political instability or poorly supervised financial systems would also negatively affect borrowing costs in dollarized economies.

9 See Winkler et al. (2004) for a detailed discussion on the theoretical foundations of dollarization.

10 Indeed, cases of abandoning dollarization are rare, and mostly connected to a country's accession to independence (Winkler et al. 2004). Liberia illustrates one of the very rare cases of a reversal of official dollarization where political turmoil and civil war (in a context of strong fiscal imbalances) put an end to the dollarization regime that had lasted over a hundred years. More recently, Zimbabwe abandoned dollarization in 2019 following a period of large fiscal deficits financed by quasi-currency non-convertible instruments, combined with foreign exchange and deposit withdrawal controls, which led to significant economic distortions.

### 1.1.3 – Elimination of transaction costs and stronger economic and financial integration with the anchor country

Official dollarization is expected to foster a country's economic integration with the issuing country<sup>[11]</sup> by eliminating exchange rate uncertainty and foreign currency-related transactions costs (Frankel and Rose, 1998; Rose and Engel, 2000). Theoretically speaking, as a next step towards deeper economic integration, the business cycles of the two economies (i.e., the currency issuer and the fully dollarized country) could be expected to converge gradually.

In fact, the savings arising from the elimination of transaction costs are proportional to the volume of financial transactions conducted and the share of trade that is invoiced in the adopted foreign currency. In the case of Ecuador, the impact of full dollarization on the development of international trade has been relatively marginal. As a commodity exporter, around 74% (1995–1999 average) of Ecuadorian exports were already denominated in U.S. dollars before the country opted for full dollarization. Looking at historical data, Ecuadorian trade with the United States has seen only a marginal average increase since the countries started to share a common currency.<sup>[12]</sup> Indeed, Ecuador's trade and financial integration with the United States has remained limited as, unlike its neighbors Peru and Colombia, it has not yet concluded a free trade agreement. All in all, it is hard to argue that in Ecuador full dollarization has enabled greater economic integration with the United States than would have been possible otherwise.

### 1.1.4 – Financial sector development and greater investment

By providing currency stability, official dollarization is expected to promote the development of the domestic financial sector. For developing countries, deeper financial markets are generally seen as a pre-condition for economic development. More precisely, greater availability of funding is expected to sustain investment, thereby spurring economic growth. In addition, financial development is found to disproportionately boost incomes of the poorest and thus to reduce income inequality (Beck et al., 2007).

Greater credibility of monetary policy and elimination of the exchange rate risk are expected to attract foreign investment to dollarized countries. However, in the case of Ecuador, the decision to fully dollarize was not accompanied by a surge in foreign direct investment (FDI) inflows. Indeed, eliminating the exchange rate risk has not sufficiently offset the numerous impediments to foreign investment. Among other aspects, foreign investment is likely to be discouraged by the constitutional impossibility of recourse to international arbitration outside the Latin American region and by the 5% tax on the repatriation of capital. Likewise, the development of the financial sector after full dollarization has been significantly impeded by regulatory barriers such as interest rate ceilings and a complex system of liquidity requirements for commercial banks.

11 Assuming that trade barriers between the countries are negligible.

12 Between 1980 and 2000, total Ecuadorian exports and imports with the U.S. represented, on average, 8.4% and 4.7% of GDP respectively. After full dollarization, Ecuadorian exports and imports to the U.S. increased slightly to 9.5% and 5.9% of GDP respectively over the period 2001–2018.

## **1.2 – COSTS OF FULL DOLLARIZATION**

After reviewing the main economic benefits of full dollarization, we will now summarize the substantial costs implied by this radical monetary policy choice.

### **1.2.1 – Loss of the lender of last resort function**

A fully dollarized economy naturally loses its ability to issue its own currency and gives up control of monetary and exchange rate policy. Consequently, the central bank loses its function of “lender of last resort” in the traditional sense. Foreign exchange reserves (plus potential external lending to that end) determine the maximum amount of liquidity that can be injected into the financial system to prevent a solvency or liquidity crisis (Berg and Borensztein, 2000). As discussed later, dollarized countries may have alternative liquidity assistance mechanisms in place to allow the central bank to act as a lender of last resort. For instance, the liquidity fund and deposit guarantee schemes in Ecuador, or assets held by the sovereign wealth fund and offshore banks<sup>[13]</sup> in Panama, could provide a complementary emergency liquidity supply in case of stress.

### **1.2.2 – Greater vulnerability to asymmetric shocks**

By adopting full dollarization, the central bank almost entirely forgoes the monetary policy instrument (e.g., policy interest rates) as a means of countering business cycle fluctuations or asymmetric shocks. This means that, to avoid large output fluctuations, the dollarized economy would need to rely on alternative adjustment mechanisms, such as fiscal buffers. That said, the cost of losing the monetary policy instrument may be negligible in cases where monetary policy is already ineffective and has no credibility (Summers, 2000; Calvo and Reinhart, 2001).

### **1.2.3 – Loss of seigniorage**

The loss of seigniorage revenues for the central bank from the issuance of a domestic currency is one of the most direct costs of full dollarization. This cost includes not only one-off “stock” costs incurred by replacing the national currency in circulation with foreign banknotes and coins, but also “flow” costs linked to the loss of the future earnings generated by the flow of new currency printed every year.<sup>[14]</sup>

<sup>13</sup> Here we refer to USD deposits of offshore banks held in Panama. Yet, it remains questionable how quickly and to what extent these resources would be used to address a liquidity shortage at systemic level.

<sup>14</sup> For a detailed discussion on seigniorage revenues, please refer to Berg and Borensztein (2000).

## 2. Dollarization in Ecuador: what historical background?

In Ecuador, the 1980s and 1990s were characterized by low economic growth (2.5% on average in real terms) and the stagnation of income per capita. By the end of 1990s, monetary policy had lost credibility,<sup>[15]</sup> and two decades of high inflation (40% on average) and continuous local currency depreciation brought the country to the brink of a major economic and political crisis. Importantly, the widely shared chronic fear of inflation and monetary instability resulted in high interest rates charged on domestic currency loans and, over the years, spurred a growing dollarization.

## **2.1 – Monetary and financial systems under severe stress in 1998/99**

Ecuador experienced the worst financial and economic crisis of its history in 1998/99. Unprecedented monetary and banking crises occurred as a result of a weak external environment, the continued monetization of the budget deficit, increasing financial system instability, and the sharp depreciation of the national currency (sucre). Ecuador had abandoned its crawling peg regime in early 1999 (Fischer, 2001) in favor of an independently floating regime as a response to sharp devaluations of the sucre as of 1997. According to the Central Bank of Ecuador, the devaluation of the sucre reached 36% between 1997 and 1998, before climbing to 115% between 1998 and 1999.

In this context, the depreciation of banking sector assets put financial institutions under stress by weakening their balance sheets. During these two years, the share of non-performing loans over total loans rose dramatically to reach 57% in December 1999,<sup>[16]</sup> plunging many institutions into bankruptcy. To contain the propagation of bank failures, in 1998 the government hastily approved a deposit insurance scheme (covering deposits both in sucre and dollars). While the banking sector was encountering substantial solvency and liquidity

problems, the central bank was facing the imperative of acting as lender of last resort. This implied issuing large amounts of currency. Eventually, by the end of 1999 the narrow measure of money supply M1<sup>[17]</sup> increased by almost 90% and the monetary base<sup>[18]</sup> by 136%. The authorities also put larger insolvent banks under the newly created Deposit Guarantee Agency, while many smaller financial institutions were closed.

End-1999, Ecuador experienced one of the most severe banking crises in Latin America. The failure of several banks and financial institutions incurred total losses of over US\$4,000 million (almost 20% of GDP). Ultimately, fifteen banks, two financial institutions and one mutual fund ended up in the hands of the government. The proportion of bank assets held by the public sector reached 59% of the sector's total assets (Naranjo, 2003). The rescue of the financial system involved an unprecedented high cost to public finances and by the end of 1999 it had eroded international reserves by 25%. Another destabilizing effect of the banking sector turmoil was massive capital outflows, as about US\$2 billion drained out of the country, representing around 10% of the GDP in 1999 (Banco Central del Ecuador, 2017).

In March 1999, and after the failures of several large banks, the government took the unprecedented step of freezing private funds across the whole banking sector. The rationale for the freeze (initially set to last one week, but later a one-year freeze on deposit withdrawals was introduced) was to halt deposit withdrawals spurred by the public's lack of confidence, and to facilitate the introduction of a new tax on financial transactions. A 1% tax on each deposit withdrawal and other bank transactions had been in place since November 1998, replacing income tax (on both individuals and firms), and was re-introduced in April 1999. The financial transaction tax was suppressed in November 2000 after the deposit freeze had been lifted. As expected, the freeze heightened public distrust in the banking system and boosted cash holdings at home and deposits in offshore banks. During the freeze period, deposits in offshore banks grew by US\$755 M in 1999 (about

15 In 1992, the Central Bank of Ecuador introduced an "exchange rate-based stabilization program" with the aim of curbing inflation. The exchange regime, which was initially a dirty float (Jácome, 2004), shifted in 1994 to a pre-announced crawling band in order to anchor inflation expectations. However, between 1995 and 1998, the exchange rate band parameters were adjusted six consecutive times, resulting in a loss of credibility of the exchange rate regime.

16 Between August 1988 and August 1999, liquidity in the banking system halved from US\$1,600 M to US\$860 M; total credit dropped by 40%; non-performing loans grew from US\$300 M to US\$1,100 M; and total deposits fell by 33%, from US\$5,100 M to US\$3,400 M.

17 M1 is a monetary aggregate that includes the most liquid portions of the money supply, such as physical currency and coin, demand deposits, travellers' checks, and other checkable deposits.

18 The monetary base refers to total amount of a currency that is either in general circulation in the hands of the public or in commercial bank deposits held in the central bank's reserves.

one-tenth of total deposits in onshore banks) and fed massive capital outflows (Naranjo, 2003).

Following the banking sector turmoil, Ecuador's public finances deteriorated dramatically on the back of costly bank recapitalizations and weak external conditions. In 1999, the non-financial public sector deficit reached 4.7% of GDP, while public debt became unsustainable. The debt-to-GDP ratio rapidly exploded, increasing from 67% of GDP in 1998 to 100% of GDP in 1999. In addition to public sector financing needs, bonds issued by the Deposit Insurance Agency to repay depositors (and subsequently purchased by the central bank in exchange for liquidity) fueled the mounting public debt (Cueva and Díaz, 2019). Debt service grew from 7.3% of GDP in 1998 to 11.4% in 1999, while external debt increased from 47% of GDP in 1998 to 70% of the GDP by 1999. In the end, Ecuador became the first country to default on its Brady bonds,<sup>[19]</sup> which in turn brought a halt to all external financing to the country.

### 2.1.1 – Deep economic recession with a dramatic decline of internal demand

In a context of economic crisis and a highly challenging international environment, Ecuador entered into deep recession in 1999. The country's GDP contracted by 4.7% in one year and the unemployment rate climbed to 14%. On top of this, the current account deficit, which had reached 7.2% of GDP as a result of a 41% fall in oil export prices, decreased to 4.5% reflecting a 45% decline in imports.

The immediate economic consequences of the crisis were devastating for the population. The sharp depreciation translated into a rapid wage decline, while poverty increased. In 1999, real per capita income fell back to the same level as in 1977. Labor market conditions deteriorated dramatically. In 1999, out of the economically active population, 14.4% were unemployed (up from 6.9% in 1995), while 58.5% were underemployed (up from 48.3% in 1998), earning meager incomes in the informal sector. In 1999, only 27.0% of the active population had a formal job with adequate social protection (down from 36.0% in 1995).

19 Brady bonds are sovereign debt securities, denominated in U.S. dollars (USD), issued mostly by Latin American countries in the late 1980s. The bonds were named after U.S. Treasury Secretary Nicholas Brady, who proposed a novel debt-reduction agreement for emerging economies once they began defaulting on bonds issued by their respective governments.

## 2.2 – The final decision to fully dollarize

Against a backdrop of severe political instability, the sucre again came under heavy pressure in the foreign exchange markets<sup>[20]</sup> at the end of 1999. Finally, in January 2000, the Ecuadorian authorities decided to adopt the U.S. dollar as the official currency at the fixed conversion rate of 25,000 sucres per U.S. dollar,<sup>[21]</sup> which was chosen to ensure adequate coverage of central bank liabilities with existing international reserves.

For the then President Jamil Mahuad, the adoption of dollarization certainly represented a short-cut towards securing a reliable nominal anchor against inflation and re-establishing political and economic stability. In other words, dollarization in Ecuador was improvised and adopted “on the ropes,” without having met the necessary preconditions to ensure its sustainability, such as sound public finances, an oil stabilization fund to reduce fiscal revenue volatility, a strong and well-supervised financial sector, and a flexible labor market (De la Torre et al., 2001).

Shortly after this radical decision to officially dollarize, widespread discontent and social unrest forced President Mahuad to resign. Yet, his successor and former Vice President Gustavo Noboa, reaffirmed the official dollarization of the economy. Importantly, Noboa sent to Congress the Law of Economic Transformation, which established the legal framework for dollarization and made the necessary changes to the financial and fiscal realms. The law designated the central bank as the “guardian” of the officially dollarized system while terminating its role as “money issuer.”

Ecuador adopted full dollarization in a context of financial, economic and political instability that seriously jeopardized the credibility of domestic monetary policy. One could even argue that, by adopting official dollarization, the Ecuadorian authorities did not have to relinquish

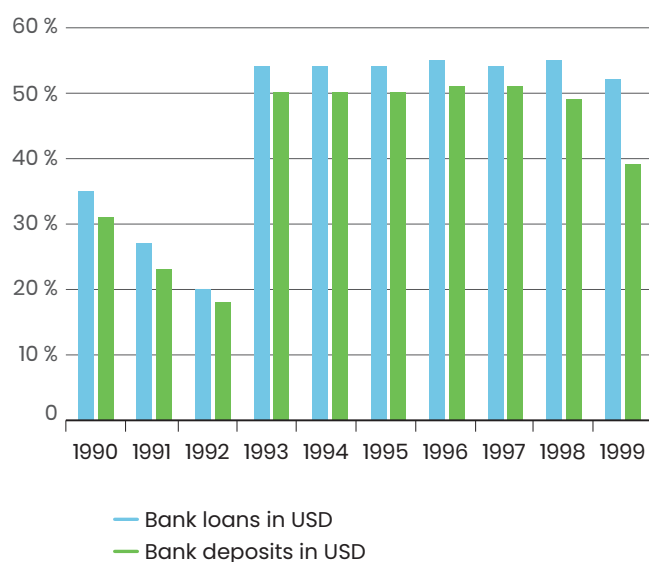
20 The exchange rate change depreciated from 7,123 sucres per USD in January 1999 to 24,617 sucres per USD in January 2000.

21 When the deposits were frozen in 1999, 1 USD was equivalent to 5,000 sucres. A year later, when Ecuadorians had access to their deposits again, for every dollar (Ecuador's new official currency), they had to pay five times more, i.e., 25,000 sucres. This was good news for those with high debts in local currency (e.g. households with large bank loans, businesses with high export or other credits) who saw their debt amounts significantly reduced. On the other hand, households' savings and retirees' pensions were eroded dramatically within a year.



any policy instrument that they had not already lost in the process (Beckerman and Solimano, 2002). Furthermore, increasing levels of informal dollarization acted as a key facilitator for the shift towards full dollarization. The proliferation of offshore branches of local banks<sup>[22]</sup> also fueled the gradual dollarization of the economy. As a result, the share of USD-denominated deposits in total deposits grew from 30.6% in 1990 to 38.8% in 1999. In parallel, similar trends were observed for customer borrowing in U.S. dollars. The share of USD-denominated loans grew from 35.0% in 1990 to 52.2% in 1999 (Figure 1).

Figure 1 – Evolution of USD bank deposits and loans (% total loans)



Source : Central Bank of Ecuador

In addition to mounting partial dollarization, a conjunction of various structural factors and political inaction set the stage for official dollarization in Ecuador (Jácome, 2004; De la Torre et al., 2001).

22 These institutions mostly received deposits from Ecuadorian residents and benefitted from lenient regulation (e.g., absence of reserve requirements, weak supervision).

• **Institutional factors:** Along with other Latin American countries, financial liberalization during the 1990s had exacerbated the vulnerabilities of Ecuador's banking system, given that an adequate regulatory and supervisory environment to accompany financial liberalization had not been properly enabled. The new banking law, the *Ley General de Instituciones del Sistema Financiero* (LGISF), adopted in 1994 was designed to address the challenges of a more liberalized financial sector. However, implementation of the LGISF was not adequately accompanied by regulation, supervision, and enforcement measures and failed to materialize in a timely fashion. Moreover, the new legal framework itself had critical flaws. For instance, there was still no appropriate legal and institutional framework to prevent and manage banking crises (e.g., bank resolution framework). This meant that the government lacked the capacity to respond to the financial turmoil in late 1998 in time to prevent the escalation of the banking crisis.

• **Weakness of public finances:** The exacerbation of financial vulnerability during 1997–1998 was also the result of a highly accommodative fiscal stance. Rigidities in public finances limited the government's capacity to correct the mounting fiscal imbalances associated with the costs of banking sector recapitalization. Other factors constraining the government's fiscal margin of maneuver included the sizeable proportion of fiscal revenues earmarked to specific purposes, the absence of fiscal prudential rules, and the difficulty of reaching a political consensus on stable fiscal revenue sources. Facing strong political and social pressure from the opposition, the government ended up reversing several fiscal adjustment decisions (except for the financial transaction tax of 1999). Moreover, the government's borrowing capacity on international capital markets was seriously impeded due to the heavy debt burden, the weakness of public finances, and the reputational damage related to the debt default in 1987.

• **Financial sector vulnerabilities:** Reform prior to the 1998 crisis gave way to severe banking system vulnerabilities. Increasing unofficial dollarization (i.e., increasing share of USD-denominated bank loans and deposits) reduced the effectiveness of capital buffers in local currency. The solvency of banks deteriorated with an increasing share of non-performing loans in U.S. dollars, while the main revenue source of bank customers was in sucres. Most importantly, the central bank did not have sufficient international reserve buffers to prevent the weakening of the domestic currency.



Figure 2 – EMBI Global Government bond Spreads (all maturities)



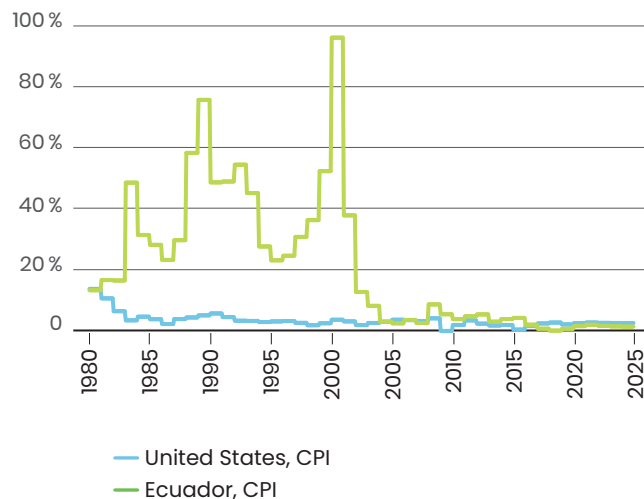
Source : JP Morgan

### 2.3 – Official dollarization had immediate positive effects

In the middle of an unprecedented economic and political crisis, adopting official dollarization offered a “magic” solution to rapidly restore the economy to normal. In fact, full dollarization of the economy did indeed help to quickly stabilize the monetary and financial conditions. The shift towards full dollarization finally ended the dual currency system, put a floor on depreciation of the real exchange rate and eased liquidity pressures. It also restored confidence in the banking sector more strongly than expected. Ultimately, the full unfreezing of deposits in March 2000 did not trigger massive withdrawals, and bank deposits even increased slightly in 2000 and 2001.

Thanks to this strong commitment to monetary policy, Ecuadorian bond spreads immediately decreased on international capital markets and, in 2003, converged to the average of Latin American countries (Figure 2).

Figure 3 – Consumer price index in Ecuador and the U.S.



Source : IMF (WEO)

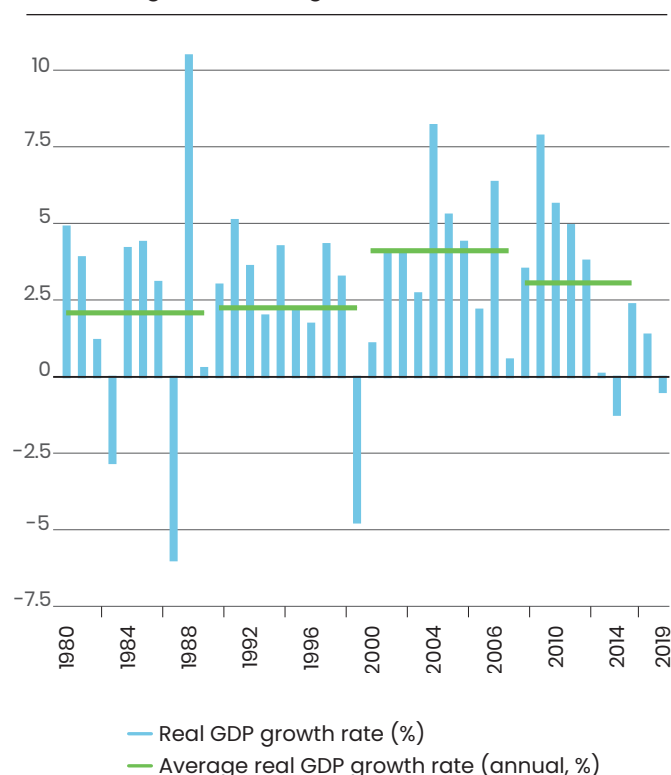
Turning to inflation, the consumer price index declined drastically from 96% in 2000 to 12.5% in 2002 (World Bank data) and converged to near U.S. levels by 2005 (Figure 3). Inflation remained at 3.1% on average per year over the period 2004–2019, significantly down from the 28% average between 1970 and 1999. The control of inflation under full dollarization enabled companies and households to operate in a stable macroeconomic framework and benefit from a reliable store of value, also enabling a longer-term horizon for economic decisions and credit. All things considered, defeating hyperinflation and ensuring price stability are among the major benefits of dollarization in Ecuador.

A favorable international environment lent substantial support to the early years of dollarization in Ecuador. The country's economy, which strongly depends on commodity exports (74% of total exports in 2004), benefitted significantly from the commodity boom in the early 2000s (Sinnott et al. 2010). Growth rebounded and remained sustained (4.3% on average) between 2000 and 2008. Strong oil-export revenues (accounting for nearly half of

total government revenue back then) helped to resorb fiscal imbalances. Moreover, depreciation of the real effective exchange rate in the early 2000s – which reflected the dollar's weakness against the currencies of Ecuador's trade competitors – helped to contain import expansion. International reserves began to build up again, supported by strong current account surpluses driven by revenue from oil exports, as well as lending from multilateral financial institutions (IMF, WB). All in all, the choice of dollarization was perceived as an undisputable success until the unfavorable side effects began to appear in the late 2000s, and the international economic environment deteriorated.

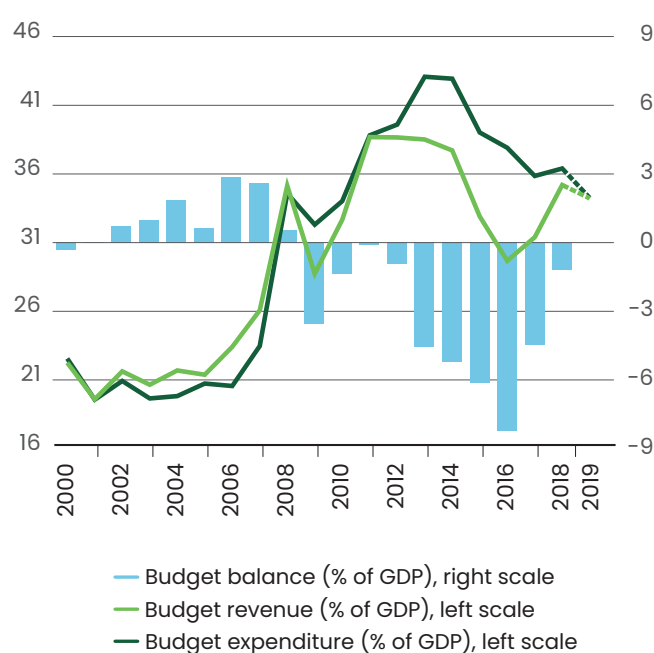
The immediate benefits of full dollarization started to fade progressively when international conditions became less favorable. For instance, full dollarization did not appear to automatically boost Ecuador's economic growth. The sustained economic activity of the 2000s was closely tied to oil prices and oil exports (Figure 4). Real GDP growth in Ecuador averaged 3.9% a year between 2000 and 2010 and then slowed down to an average 2.8% between 2011 and 2019. More worryingly, under a restrictive fiscal policy, GDP per capita began to decrease as of 2014 and is unlikely to recover in the next few years under the current IMF-backed macroeconomic program.

Figure 4 - GDP growth (%)



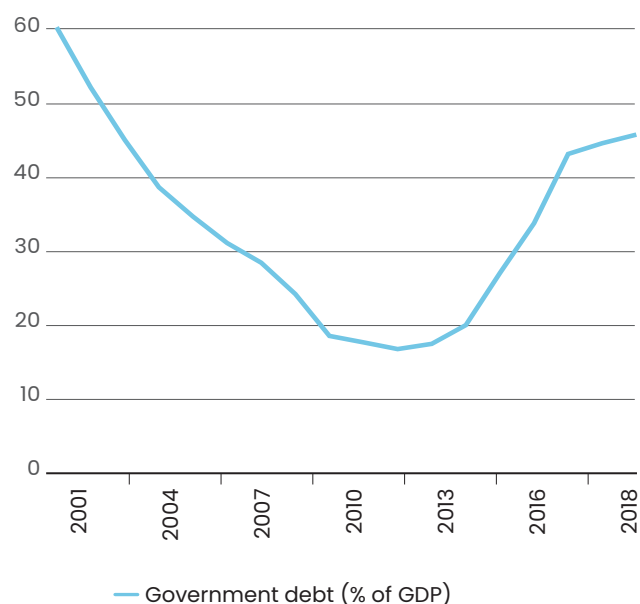
Source : IMF (WEO)

Figure 5 – Public finances (% of GDP)



Source : IMF (WEO)

Figure 6 – Public debt (% of GDP)



Source : IMF (WEO)

The experience of Ecuador clearly illustrates that full dollarization does not necessarily lead to fiscal discipline in the long run. Paradoxically, the country's central bank abandoned its lender of last resort function in the midst of a major banking crisis. Although the country adopted various fiscal prudence rules and different oil stabilization funds or schemes over the period 2002–2006, most of them were subsequently abandoned between 2007 and 2014 when the country adopted a procyclical fiscal stance in a highly favorable external environment (Cueva et al., 2018). As of 2007, in a very favorable international environment with very high oil and commodity prices, government expenditure soared to reach 43.5% of GDP in 2014 and remained elevated even after the oil price shock, at 37% of GDP in 2018, for instance (Figure 5). In parallel, government debt rapidly increased and became barely sustainable at 45.8% of GDP in 2018 (Figure 6). The IMF expects the public debt to peak in 2020 at around 50% of GDP, well above the sustainability ceiling of 40% of GDP. Indeed, the IMF (2019a) suggests that the debt ceiling in Ecuador should be lower than the cap for other emerging market economies in view of fiscal revenue volatility and the past difficulties in establishing durable expenditure cuts. The Fund thus recommends that “a prudent debt ceiling in Ecuador should not be larger than 40% of GDP and it would be desirable to lower the debt ceiling close to 30% in the longer term.” Finally, in 2018, the government's gross financing needs amounted to US\$9.1 billion (8.5% of GDP), of which US\$7.8 billion (7.3% of GDP) was to be used for the amortization of the existing debt.



### 3. Mechanics of full dollarization in Ecuador: How does it work?

Before delving into the specific mechanisms that Ecuador put in place, we should first clarify what “international reserves” actually include in an officially dollarized economy. For a country with its “own” currency, foreign exchange reserves correspond to liquid foreign currency assets held by a central bank, such as bonds, treasury bills and other foreign government securities. Typically, international reserves provide the monetary authority with a buffer against idiosyncratic shocks. Thus, international reserves are mainly used to back foreign-currency liabilities and (if need be) to defend the exchange rate of the local currency. On the other hand, in an officially dollarized economy, say in Ecuador, “international reserves” correspond only to claims on liquid nonresident sources, although the central bank’s entire balance sheet is denominated in U.S. dollars. In other words, claims on domestic entities or government are not accounted as international reserves.

### 3.1 – Who plays the lender of last resort role in Ecuador?

The adoption of official dollarization in Ecuador means that the central bank could no longer issue money and act as lender of last resort for the economy. Yet, this ability to print money is what guarantees that all claims (in domestic currency) would be fully met in case of financial stress. As a result, in fully dollarized countries, government and banks are compelled to build up sizeable buffers to cope with liquidity tensions. This is one of the reasons why Ecuadorian banks are faced with strong liquidity requirements, which may sometimes weigh on their financial intermediation activity.

To investigate who is the effective lender of last resort in Ecuador, we will present two institutions in charge of building liquidity buffers for the financial system.

**The Deposit Insurance Scheme** was put in place in 2008, based on the Deposit Guarantee Agency created in 1998. The scheme guarantees<sup>[23]</sup> the funds that would be available to depositors

should a financial institution become unable to fulfill its obligations. However, the bulk of the insurance scheme’s assets are currently invested in government bonds, which may impair its liquidity access in troubled times.

**The Liquidity Fund**, created in 2009, is the main actor able to act as lender of last resort and serve the liquidity needs of financial institutions. The main resources of the Fund comprise the contributions of financial institutions, investment yields and annual cash earnings, donations, loans or contingency lines used to finance its activities. Importantly, all Fund resources must be invested in line with criteria similar to those of international reserves (i.e., in multilateral or supranational organizations with an international AA rating or higher), with investments being carried out through the central bank (and mostly in assets issued by the Bank of International Settlements and the Fondo Latinoamericano de Reservas).

The Liquidity Fund constitutes an important buffer for banking liquidity (for very short-term and up-to-one-year needs), with strict withdrawal rules. The assets of the Fund are private and not subject to seizure. The Fund offers one-day renewable credit lines to cover the shortcomings of the clearing houses managed by the central bank. It also offers loans of up to a year to meet extraordinary liquidity needs of financial institutions. The Liquidity Fund, which would be the emergency line of assistance for institutions in distress, has built up significant resources since its creation. These amounted to US\$2.9 billion in September 2019 (about 2.7% of GDP), representing 9.5% of deposits, while the target is 10%. For each contributing bank, 70% of its contribution is reserved for its own potential liquidity needs, while the remaining 30% goes into a pooled fund to support small financial institutions.

Although it has accumulated considerable resources since its creation, the Liquidity Fund has not yet been tested in the face of a systemic risk. Should there be a generalized loss of confidence and a sudden run on bank deposits, the Fund’s ability to guarantee the stability of the entire payments systems and ensure the full backing of bank deposits could be endangered.

In addition to the Liquidity Fund as the first line of defense for financial distress, the central bank’s international reserves constitute a second liquidity lifeline. In a fully dollarized economy,

23 The deposit insurance scheme guarantees all checking and savings accounts and term deposits, up to US\$32,000 in private banks and financial institutions that belong to segment 1 (i.e., with assets over US\$80 M) and up to US\$1,000 in other financial institutions, with the legal obligation to cover depositors within 10 days after the forced liquidation of a financial institution.

financial sector shocks exert immediate pressure on foreign reserves. However, in Ecuador, the central bank could only continue to act as “quasi” lender of last resort if it had sufficient international reserves or is able to borrow (USD) from external sources, such as private investors or multilateral organizations (Davidson, 2002).

### 3.2 – The Central Bank international reserves and balance sheet structure

#### 3.2.1 – What are international reserves used for in a fully dollarized economy?

Traditionally speaking, a country’s international reserves help to preserve macroeconomic and financial stability by preventing balance of payment crises. Put differently, international reserves provide the monetary authority with precautionary liquidity to react to shocks and disorderly market conditions. Yet, holding international reserves generally entails some opportunity costs, given that they bring lower yields than alternative placements.

In a fully dollarized economy, the assessment of international reserve adequacy requires keeping in mind some particularities. To start with, fully dollarized economies do not need to hold international reserves to defend the exchange rate of their currency, smooth its fluctuations or serve as a cushion for currency mismatches. Yet, there is a need in fully dollarized countries to build up liquidity cushions to address episodes of volatility in foreign currency flows (Davidson, 2002; IMF, 2015).

If external financing is not easily available, international reserves become particularly crucial to mitigating fiscal shocks and the reserves accumulated at the central bank constitute the main source of financing for the government. In this sense, an additional reason for maintaining reserves is to create the capacity to address unexpected swings in fiscal revenues or spending in difficult times (e.g., in the event of natural disasters). Certainly, public sector accounts held at the central bank can act as short-term liquidity buffers for the government (even for seasonal short-term funding requests). This is particularly relevant for Ecuador given that the country still lacks an alternative fiscal stabilization mechanism, such as an active and operational sovereign wealth fund, as previously explained. The political choice of not actively feeding the oil stabiliza-

tion fund during the oil price boom in the 2000s exacerbated strong external vulnerabilities over the following decade.

In addition to acting as fiscal buffers, the international reserves of fully dollarized countries also serve to mitigate shocks linked to the banking sector. As the central bank cannot not issue legal tender currency, financial shocks and even the most trivial seasonal liquidity shortages – say during the holiday season – could put pressure on the central bank’s international reserves. It goes without saying that more acute financial shocks, such as bank runs, would put the foreign exchange reserves under severe pressure and potentially cause a balance-of-payment crisis.

To summarize, **in addition to absorbing balance-of-payments shocks and acting as a lender of last resort, international reserves in fully dollarized countries have the key function of mitigating fiscal and financial shocks.** Fully dollarized countries should therefore build adequate liquidity cushions to smooth out large budgetary fluctuations and preserve the stability of their financial system.

#### 3.2.2 – What is the composition of international reserves in Ecuador?

The Fundamental Economic Transformation Law, enacted immediately after the introduction of official dollarization in 2000, reorganized the central bank into four “systems” with segregated balance sheets. It ordered liability items in ascending priority and then assigned assets to match these liabilities. The balance of these four systems, as separate and independent accounting units, were included in the central bank balance sheet and published on a weekly basis:

1. **Exchange System** includes, on the liability side, all the coins and monetary species that the central bank issues<sup>[24]</sup> (small coins issued for operational reasons), and on the asset side international reserve assets to ensure a 100% backing of these liabilities.
2. **Financial Reserve System** includes, on the liability side, the deposits of all the public and private

<sup>24</sup> Ecuador does not issue any USD banknotes and relies on U.S. issues. However, the Central Bank of Ecuador does mint centavo coins of 1c, 5c, 10c, 25c, 50c, which are identical in size and value to their U.S. cent counterparts.

financial institutions with the central bank, and on the asset side international reserves assets (on top of the assets from the first system) to ensure a 100% backing of these liabilities.

3. **Operations System** includes, on the liability side, the deposits (or any other financial asset) of non-financial public sector institutions held with the central bank, and on the asset side international reserves assets (on top of the assets from the first and second systems above) to back those liabilities.
4. **Other Operations System**, where all other assets and liabilities, including net worth, were to be registered.

In sum, the rationale underlying the structure of these balance sheet category systems<sup>[25]</sup> is to ensure that the central bank liabilities to the general public (Exchange System), to the financial system (Financial Reserve System) and to the non-financial public sector institutions (Operations System) are adequately backed by liquid international reserve assets, given that the central bank cannot itself issue legal tender currency. Importantly, the Fundamental Economic Transformation Law put in place a solid and transparent balance sheet system for the central bank. The law empowered the central bank to maintain the quality and liquidity of the assets so that these could effectively back the systems' liabilities. The same law specified that Ecuador's international reserves would include the central bank's foreign exchange net worth (monetary and non-monetary), gold reserves, the central bank's reserve position in international monetary organizations, and all liquid and low-risk investments in foreign financial instruments (issued by nonresidents).<sup>[26]</sup> International reserves needed to be available for immediate use without restriction in order to fully back the first three above-detailed liabilities of the balance-sheet systems. In addition, the central bank was mandated to adequately manage international reserves to mitigate solvency and liquidity risks for the financial system.

25 The order of these balance-sheet systems reflects the priority for such backing in terms of the need to hold a liquidity cushion to mitigate any changes in the public holding of coins and monetary species issued by the central bank (Exchange System), any volatility of financial system deposits (Financial Reserve System) and any need for large budgetary fluctuations (Operations System).

26 The international reserves of Ecuador are mostly in USD but also in other major currencies such as EUR or SDRs. They are accounted at market value and follow international accounting practices.

### 3.2.3 – What drove the dramatic erosion of Ecuador's international reserves after 2009?

As of 2008, in a context of deteriorating government finances, several legal changes progressively modified the four-system structure of the central bank. More specifically, these regulatory changes gradually limited the central bank's independence and set the stage for central bank financing of public debt in subsequent years.

- In 2008, the new **Constitution eliminated the central bank's autonomy** and transferred to the **government** responsibility for drafting monetary, credit, exchange rate and financial policies, to be implemented through the central bank. The central bank thus became a part of the Executive branch,<sup>[27]</sup> and all Board members were replaced by ministers of state in 2009. Importantly, as of December 2008, the **central bank ceased to publish the four-system balance structure** as was customary.
- The Monetary and Financial Policy and Regulation Board was created by the 2014 Monetary and Financial Code. As a part of the Executive branch of government, this new board was responsible for the drafting, regulation and supervision of monetary, credit, exchange rate, financial and securities policies. The members of the Board included three ministers (Finance, Economic Policy and Production), the head of development planning, and a presidential delegate, all appointed (and potentially removed) by the President. **The Code placed the Board above the central bank**, confirmed the central bank as part of the Executive branch, and **formally eliminated the four-systems structure**.
- In parallel, some other **the legal changes paved the way for central bank financing of the government**. The 2014 Monetary and Financial Code **included among the central bank functions that "of acquiring debt securities and bonds issued by the Finance Ministry"** and to invest in domestic financial instruments. The amount of assets that the central bank could use for such investments depended on central bank assessments in coordination with the Finance Ministry.

27 In Ecuador, the 2008 Constitution defines five different powers: executive, legislative, judiciary, electoral (electoral council) and the "fifth" category relative to participation and social control. The latter includes various control entities, such as the Comptroller General and Superintendency of Banks, Insurance, Cooperatives, etc.



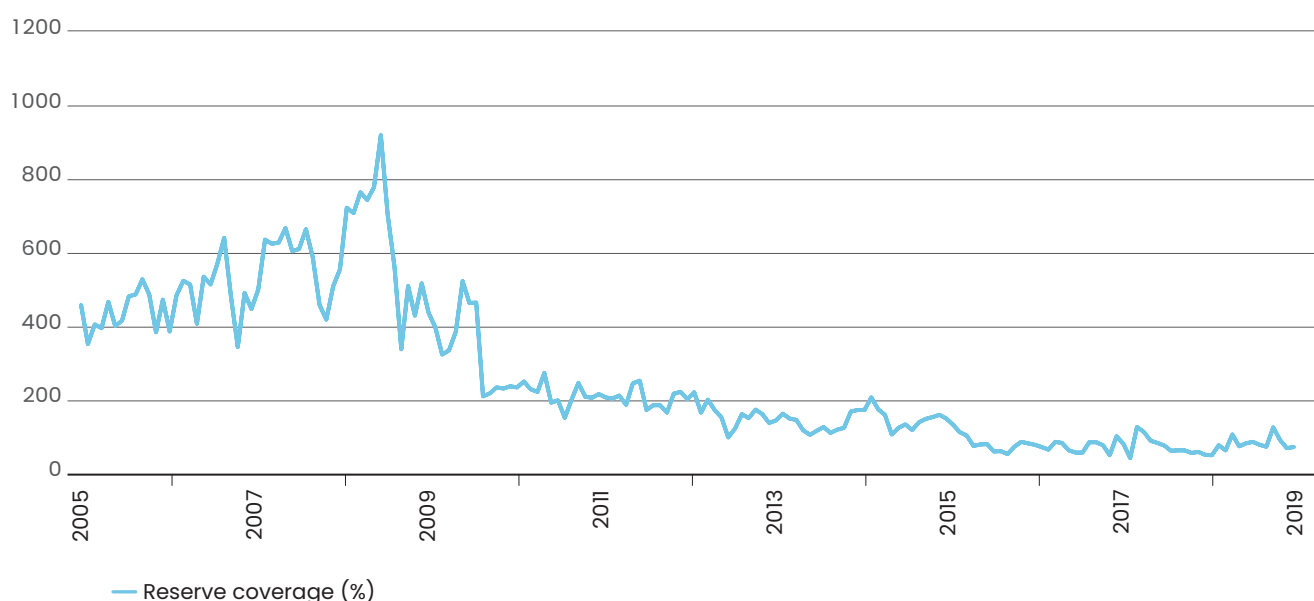
- The Code also established that **financial system institutions should keep a portion of their total liquidity in the country so as to have an “adequate liquidity level** that promotes growth and job creation in the country.” The Board was to determine the portion to be kept domestically, thus channeling banking liquidity into domestic financing.

During the boom years up to 2014, Ecuador had failed to accumulate sufficient amounts of international reserves. This, in part, reflected very high levels of public investment (up to 15% of GDP) financed by exceptionally high oil revenues. Despite this, strong trade surpluses allowed international reserves to build up over these boom years, reaching US\$6.7 billion in September 2014 (IMF, 2019a). Yet, as of 2015 – the bust years of the commodity cycle – the central government’s growing financing needs had to be met by resources other than oil exports. As a result, the government not only began borrowing heavily from international sources, but also had recourse to the internal financing sources at its disposal. For instance, the social security (through short-term excess liquidity) and the central bank (i.e., borrowing either directly or indirectly through public banks) thus began to provide regular funding for the budget.

Ultimately, the central bank’s international reserves gradually dried up in the face of government funding needs and the difficulty in accessing external funding sources. While Ecuador had been able to return to international capital markets in 2004 (five years after the 1999 debt default), President Correa’s administration took the unusual decision in 2008, at a time of buoyant fiscal revenues, to default on private bondholders’ debt. The President argued unwillingness (and not inability) to pay a debt that was considered “illegitimate” – a decision that not only significantly impeded the country’s access to financial markets, but also made debt expensive (i.e., increased risk premia) when Ecuador regained access as of 2014. Furthermore, the country’s relations with multinational financial organizations remained limited during Correa’s ten years in office (2007–2017), but have since regained momentum.

The composition of the central bank’s balance sheet has changed over the past decade in favor of domestic assets, especially government bonds. Regarding the liability structure, deposits from commercial banks became the central bank’s main source of liquidity. This had the obvious effect of eroding the central bank’s reserves for coverage of commercial bank deposits to under 100%, hence leading to negative net international reserves.

Figure 7 – International reserves coverage of the balance systems 1+2

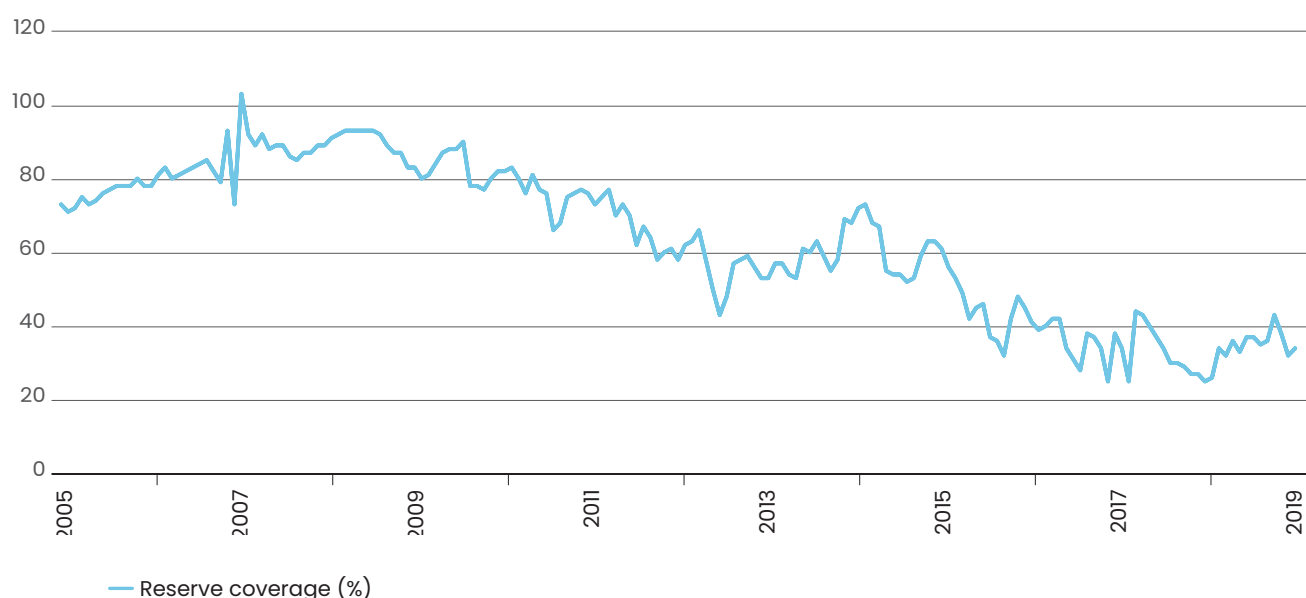


Source : Central Bank of Ecuador

Figure 7 and 8 clearly illustrate the erosion of the central bank reserve coverage under different systems as of 2009. Looking at liabilities, coins issued by the central bank (System 1) are by definition of a small enough amount to be always covered by the international reserves. However, when System 1 deposits are added to those of private financial institutions held in the central bank (System 2), the international reserves coverage has been declining over time (Figure 7).

In 2009, the international reserves coverage ratio of balance 1+2 started a downward trend, declining from 399% in May 2009 to 107% in November 2015. Since December 2015, international reserves covered only 100% of balances 1 and 2 combined, with a few exceptions over time (November 2017, February, March 2018). In December 2019, the international reserves were equal to 76% of these two balances.

Figure 8 - International reserves coverage of balances 1+2+3



Source : Central Bank of Ecuador

As seen in Figure 8, when balances 1, 2 and 3 are combined, **international reserves of the central bank have never fully covered these liabilities since 2005** (though with some fluctuations). This reflects the increased lending to government, as government bond holdings constitute domestic assets that cannot be included in the definition of international reserves. From January 2005 to April 2009, international reserves covered, on average, 84% of balances 1, 2 and 3. Since then, this coverage has further declined to extremely low levels, with coverage averaging 36% from December 2015 to December 2019 and reaching 34% in December 2019.

**To sum up, in a situation of strong fiscal dominance, central bank financing of central government** (either directly or indirectly through public banks) and **limited access to financing from international organizations (e.g., IMF or World Bank) became key drivers of reserve volatility in Ecuador**. Until 2014, deposits of public-sector entities with the central bank remained relatively elevated since high oil prices and sustained domestic activity during the concurrent commodity boom buoyed up public-sector revenues. In the wake of the 2015 commodity bust, fiscal revenues were hit hard but fiscal expenditures were not greatly reduced until 2017. This was made possible thanks to a combination of some external financing through bond issuance, various commercial loans and a US\$364-million rapid financing loan from the IMF related to the 2016 earthquake, along with a growing use of social security and central bank financing to the government.

On the other hand, banking regulation over the past decade has required commercial banks to build sizeable liquidity buffers. The increasingly complex liquidity requirement framework for banks triggered a vicious circle that weakened the central bank's balance sheet. Under the banking regulations, commercial banks are required to keep an sizeable share of their customers' deposits at the central bank (which lent to the government) or invest their liquidities in securities issued by government and other public entities. In 2019, central government bonds and public bank securities represented up to 38% of the net assets of commercial banks. The strengthening of the linkage between **the banking sector and the sovereign debt has also heightened Ecuador's financial vulnerabilities**.

In light of these vulnerabilities, rebuilding international reserves in Ecuador would mean a progressive reduction of the government's negative position with the central bank. Obviously, this will only be possible through a **gradual strengthening of the fiscal position and the implementation of a banking supervision framework that supports both the liquidity and intermediation activity of the banking sector**.

### 3.2.4 – What is the concrete plan to rebuild international reserves in Ecuador?

Ecuador's international reserves are currently well below the thresholds recommended in view of shoring up dollarization and mitigating potential economic shocks (IMF, 2019b). At the end of 2018, the gross international reserves stock amounted to US\$2.1 billion (i.e., around 1½ months of imports and 12% of the ARA metric). Net international reserves (excluding commercial bank deposits at the central bank) had a negative balance of US\$1.7 billion at the end of 2018, creating serious concerns about the stability of the financial system. Considering a set of standard and non-standard criteria, the IMF (2019a) signals that Ecuador's international liquidity buffers are well below prudent levels (not only for dollarized economies but also for all economies).

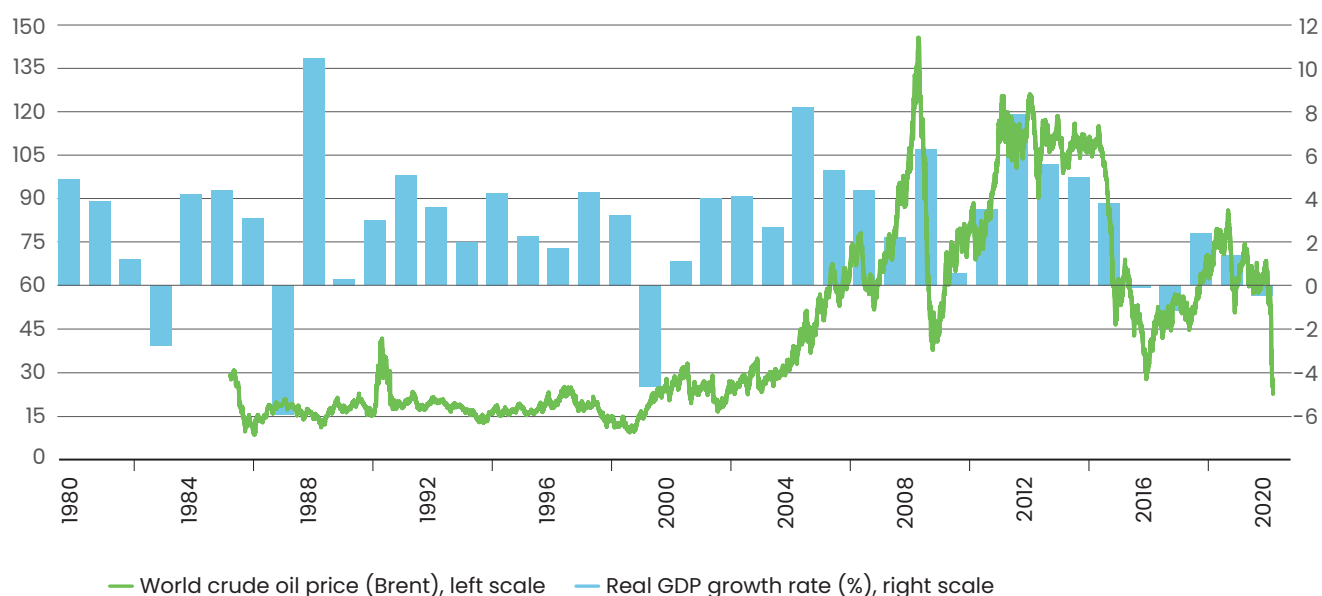
Looking ahead, the government's existing macroeconomic program, supported by an IMF Extended Fund Facility arrangement (March 2019), has set the priority of rebuilding international reserves through the following paths:

- Ensure central government's gradual repayment of central bank financing
- Establish fiscal mechanisms to take into account oil price fluctuations, so as to protect international reserves and the central bank balance sheet from the fiscal cycle
- Gradually recover adequate reserve coverage for private sector claims on the central bank (i.e., above-mentioned balances 1+2)
- Re-establish central bank independence and reinstate the central bank's four-system structure (or a similar scheme) to facilitate transparent reserve management rules and priorities.

Importantly, a new law (*Ley de Fomento Productivo*) enacted in May 2018 has prohibited the central bank from purchasing bonds and/or other financial instruments issued by the Finance Ministry or any public institutions. With this law, the possibility for the central bank to be a significant lender to central government going forward ended, while all pre-existing bonds are expected to be repaid at maturity. In addition, as indicated by IMF (2019b), one of the structural reforms envisaged under the Extended Fund Facility is the reform of the Organic Monetary and Financial Code in order to align it with best practices for central banks in dollarized economies, and especially to ensure enhanced autonomy and accountability, an independent Board, and the implementation of the above-mentioned paths.

# 4. What impact on the external sector and competitiveness?

Figure 9 – GDP growth and oil prices



Source : IMF, ICE

#### 4.1 – Increased fragility after 2008 and poor competitiveness

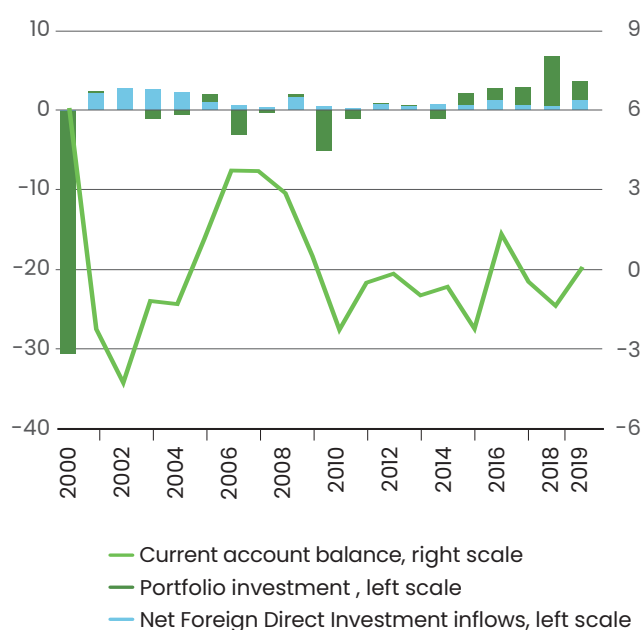
As a small oil exporting country, Ecuador's economy is highly exposed to oil market developments. This strong dependence on oil exports is clearly visible in the volatility of the country's economic growth (Figure 9). Despite its continuing downward trend since the 2000s, the oil sector accounted for 36% of Ecuador's total exports in 2019 (down from 57% in 2013) and roughly one-third of total government revenues. In addition to oil, Ecuador mainly exports basic products and commodities that are highly sensitive to international price variations.<sup>[28]</sup>

Another important characteristic of Ecuador's external accounts relates to its exchange rate regime. Under full dollarization, the country cannot address a balance of payments crisis in the conventional ways, as it is not exposed to a "currency mismatch" in international transactions. However, a sharp deterioration in the terms of trade would impede export revenues in dollars, hence reduce domestic money supply and put the financial system under liquidity pressures.

The shock adjustment mechanism of a dollarized economy is very different from that of an economy with its own currency. Deprived of monetary policy and a «lender of last resort," the authorities can only rely on fiscal policy, external financing and central bank liquidity management through foreign exchange reserves to mitigate the impact of terms-of-trade shocks and manage the associated liquidity pressures.

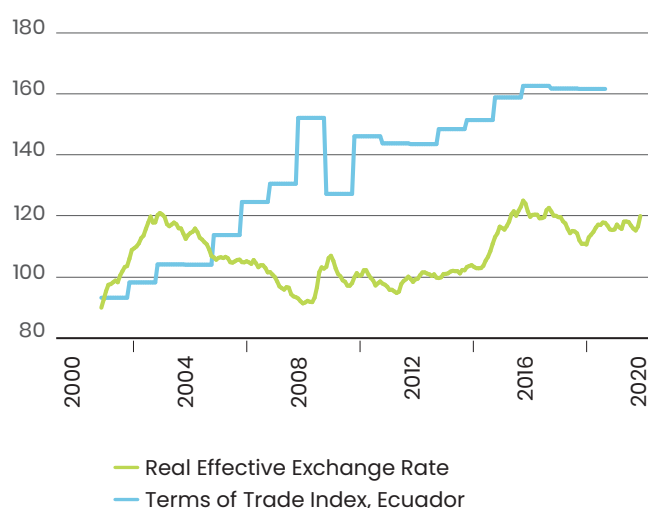
28 Ecuador remains the world's leading exporter of shrimps (15.6% of total Ecuadorian exports in April 2019), bananas (15.6%), canned fish (5.3%) and natural flowers (4.6%). Ecuador's main trading partners are the United States and Latin American countries, followed by Asian and European countries.

Figure 10 – Current account and Foreign investment flows (% of GDP)



Source : IMF (FSI, WEO)

Figure 11 – Terms of Trade and Real Effective Exchange Rate



Source : UNCTADO

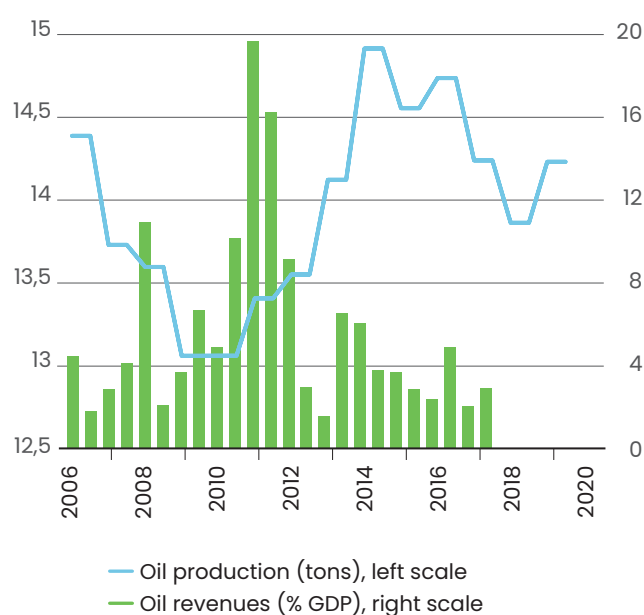
#### 4.1.1 – Favorable external conditions boosted the current account after full dollarization

- In the course of 2000 (after the adoption of full dollarization), inflation initially increased in Ecuador, reflecting the pass-through of the steep depreciation of 1999 and some price liberalization. As a result, Ecuador experienced a significant real exchange rate appreciation accompanied by a severe deterioration in the current account. As a result, the 2000 surplus of 2.3% of GDP turned into a deficit of 2.5% of GDP in 2002 (Figure 10 and 11).
- An enabling international environment supported the current account until 2002. During this period, not only were commodity prices rising, but international interest rates were low, as Ecuador benefitted from an accommodative U.S. monetary policy. This helped to attract capital flows to the country from investors seeking high yields. The exchange rate depreciation of the U.S. dollar against major currencies also supported the price competitiveness of Ecuadorian exports. While initially triggered by the U.S. Federal Reserve's accommodative stance, the dollar continued to depreciate. In fact, economic expansion in the United States created excess aggregate demand and the associated build-up of external imbalances weakened the exchange rate of the U.S. dollar. Benefitting from these favorable developments in the United States, Ecuador's real effective exchange rate significantly depreciated between 2003 and 2008 and remained fairly competitive until 2013 (Figure 11). In the meantime, the current account registered an average surplus of 2.8% of GDP between 2005 and 2008. During these years, Ecuador benefitted from both higher terms of trade (due to the increasing price of oil and other commodities) and a real exchange rate depreciation. While the former translated into higher oil revenues, the latter supported the competitiveness of other export products.

#### 4.1.2 – Current account started to deteriorate as of 2008

- These favorable developments came to an end in 2008 with the global financial crisis, which triggered a fall in oil prices (reflecting lower global demand) and an appreciation of the U.S. dollar (considered as safe haven currency by international investors). As a result, Ecuador experienced a fall in its terms of trade, leading to a gradual deterioration of its competitiveness. Despite some resilience in export revenues, the country's current account began to erode gradually as of 2008 to become negative in 2010 (-2.2% of GDP). In addition to adverse export shocks, expansionary public policies under President Correa boosted demand for foreign products and large investment projects in oil and mining industries spurred imports of services.

Figure 12 – Oil production and the government oil revenues



Source : IMF, BP Statistical Review of World energy

#### 4.1.3 – External imbalances widened further due to the dramatic decline in oil prices

The dramatic decline in oil prices mid-2014 reduced Ecuador's oil-related revenues and widened the existing external imbalances (Figure 12). Moreover, during this period, the country experienced a significant exchange rate appreciation induced by the normalization of U.S. monetary policy after a long period of accommodation. Despite falling oil prices, the strong appreciation of Ecuador's real effective exchange rate as of 2014 triggered an increase in terms of trade. The deterioration of the terms of trade adversely affected the country's export price competitiveness on non-oil products and reduced overall export volumes.

Importantly, the fall in oil prices from 2014 onwards has exposed the structural vulnerabilities of Ecuador's growth model. Extremely high public expenditures resulted in a crowding-out of private investment while total factor productivity stagnated (IMF, 2019b). This negative shock introduced considerable macroeconomic stress and confronted Ecuador with key policy challenges. As was the case for other commodity exporters, reducing aggregate domestic spending in line with the lower export income became imperative for Ecuador. Yet, the impact was delayed

for several years due to hefty recourse to foreign financing (international capital markets, oil presale agreements and oil-backed loans with China, as well as as-backed loans) increased use of domestic financing (social security and central bank). Subsequently, a sharp decline in public spending transferred the oil price shock to the real sector. The private sector, constrained by structural rigidities and under-investment, was unable to cushion the fall in activity. In 2016, Ecuador registered a short-lived current account surplus of 1.1% of GDP mainly due to a strong contraction of imports (-23% year-on-year) in a context of economic downturn (real GDP growth of -1.2%). Following this temporary surplus, the current account returned to negative territory in 2017 (-0.1% of GDP), 2018 (-1.2% of GDP) and 2019 (-0.1% of GDP).

In Ecuador, the financing of the current account deficit also reveals the structural fragilities of the economy. As the country's deficit financing mainly relies on short-term capital flows, the external accounts are highly sensitive to international investors' mood swings and exposed to the risk of sudden-stops. Ecuador, in fact, was confronted with a boom-bust phenomenon in the 1990s. The upswing of capital inflows and domestic credit in 1993 and 1994 was followed by a sudden halt of financial flows in 1995 and 1996. In those years, the overexposure of Ecuador to volatile capital flows laid the ground for unprecedented financial turmoil in late 1998. By contrast, long-term external account financing has remained limited even after full dollarization. FDI remains structurally weak (US\$1 billion, 0.9% of GDP in 2019) and is not sufficient to cover the current account deficit.<sup>[29]</sup> The deterioration of the current account balance has gradually increased Ecuador's external financing needs, particularly the need to amortize the increasing external debt and cover the fiscal deficit. The country's external financing needs, estimated at US\$10 billion (9.3% of GDP) in 2019, were mainly covered by public debt owed to the private sector and international multinational and bilateral organizations. External debt (public and private) has continued at almost unsustainable levels since the 2014 oil shock to reach 41% of GDP in 2018 (against 25.2% in 2014). Most of this debt is issued by the public sector (33.6% of GDP), while the private-sector external debt remains moderate (7.5% of GDP).

29 On the other hand, net migrant remittances (2.5% of GDP in 2018), mostly from the United States and Spain, contribute to the financing of the current account deficit.



#### 4.2 – What specific challenges for external imbalances in Ecuador?

Regarding the external account adjustment, the case of Ecuador is specific for three main reasons:

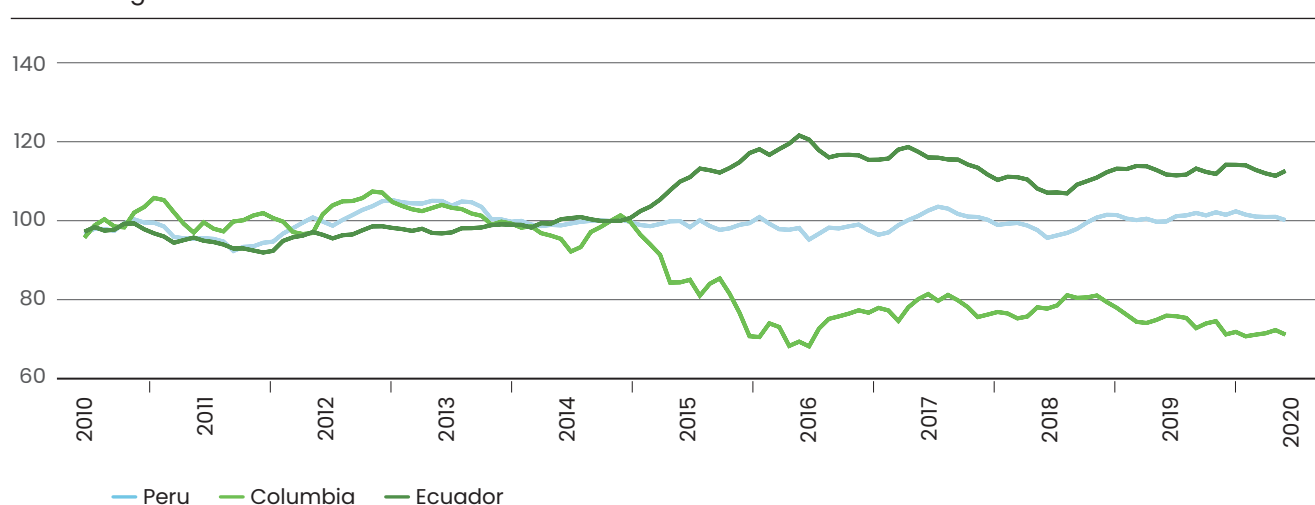
1. Dollarization prevents the country from using an adjustment mechanism to influence exchange rate movements and penalizes competitiveness.
2. The country's external accounts are highly dependent on oil revenues, which fluctuate in line with highly volatile oil prices.
3. Changes in the fiscal stance over the last decade has put the external accounts at risk due to increased imports – deteriorating the trade balance – and increased the external debt burden due to high public debt held by foreign investors.

Each of these features presents a specific challenge that Ecuador needs to tackle.

First, concerning **the exchange rate regime**, we have seen that the adoption of dollarization initially brought significant benefits to Ecuador. Although the early 2000s were particularly favorable to a fully dollarized oil-exporting economy, the recent period has also shown that dollarization could present a greater challenge in a more adverse international environment. In countries that issue their own currency, the exchange rate depreciates following a negative shock, which induces a change in relative prices and favors domestic production and exports. By contrast, in a dollarized economy, the exchange rate no longer functions as a buffer and economic activity has to absorb the full impact of external shocks (De la Torre et al., 2020). For instance, in other commodity-exporting Latin American countries, when commodity prices declined in 2014–2015, their exchange rates depreciated thanks to flexible exchange rate regimes and low inflation (reflecting credible monetary institutions). Being an officially dollarized country, Ecuador did not have the power to devalue its currency to gain in competitiveness compared to its main competitors such as Peru or Colombia (Figure 13).

In a fully dollarized economy which has no possibility of influencing the exchange rate, the following alternative solutions become key to restoring competitiveness: (i) a downward adjustment of wages and profit margins (i.e., internal devaluation) and (ii) achieving significant productivity gains through large-scale structural reforms.

Figure 13 – Terms of Trade



Source : JP Morgan

IMF calculations (2019b) suggest that the real effective exchange rate of Ecuador is overvalued by about 32% and thus weighs on international price competitiveness. In light of this, there is a need for strong and rapid adjustments if Ecuador is to resorb its external imbalances. Generally speaking, we can distinguish two main types of adjustment of external imbalances for countries in a similar situation, namely expenditure-switching or expenditure-shifting.

Expenditure-switching requires a depreciation in real exchange rates, which – **in the absence of a nominal exchange rate – implies a strong internal devaluation, i.e. a period of painful deflation and wage containment/reduction.** In addition to wage moderation, another way of restoring **competitiveness would be to significantly improve productivity.** Importantly, lowering nominal wages and adjusting downward domestic prices would only be possible in economies with **flexible labor and product markets.** Yet, in Ecuador, labor rigidity is quite high (one-size-fits-all labor contract, high severance costs), labor mobility is limited and minimum wage and public sector wage increases over the last decade were much higher than productivity improvements. Firms are thus unable to adjust their production costs when needed. Ecuador performs poorly on many aspects of **international competitiveness.** The country was ranked 90th out of 141 countries by the World Economic Forum (WEF) in its 2019 Global Competitiveness Report, below other Latin American economies such as Mexico (48th), Colombia (57th), Peru (65th) and Brazil (71st). In the report, the lack of dynamism in the business environment, rigidities in product and labor markets and the poor quality of institutions appear as the main impediments to the country's competitiveness.

When expenditure-switching is hampered by structural issues, external adjustments could take place through **expenditure-shifting, i.e. through a reduction in aggregate demand leading to a severe contraction in imports.** As was actually the case for Ecuador in 2016–17, this adjustment generally takes the form of a severe economic recession. **This situation resembles what happened in the most vulnerable countries in the euro area during the sovereign crisis of 2011,** with external adjustment reporting drastic contractions in GDP in the absence of country-specific exchange rates or flexible labor and product markets.

The second challenge for Ecuador relates to the **lack of export diversification.** Highly dependent on oil revenues, the country is vulnerable to oil-market shocks that trigger a fall in oil prices or reduce oil demand. Owing to the large share of oil production in GDP, the Ecuadorian economy is highly volatile and economic cycles are amplified by oil price fluctuations. Over the period 2000–2019, the standard deviation of real GDP growth was 2.6 in Ecuador, considerably higher than in Chile, Colombia and Peru.

Moreover, as the **price of oil tends historically to be inversely related to the U.S. dollar exchange rate,**<sup>[30]</sup> Ecuador, as a dollarized economy, has to deal with amplified cycles in oil prices. For instance during good times (as in 2002–2008), the economy benefitted from both an increase in oil revenues linked to higher oil prices and a depreciation of the U.S. dollar that boosted competitiveness of non-oil products on external markets. In more adverse conditions (as in 2008 or in 2014), falling oil prices were accompanied by an appreciation of the U.S. dollar, the former leading to declines in oil revenues and the latter deteriorating external competitiveness.

As discussed earlier, the competitiveness issue can be tackled by structural reforms aimed at rendering labor and product markets more flexible and spurring productivity gains. As for reducing the dependence of external accounts on oil price fluctuations, this could only be achieved by diversifying the export base towards more sophisticated (i.e. high value-added) products. Structural reforms could also encourage long-term capital inflows (notably FDI projects) that would support the development of manufacturing industries, enlarge the country's specialization and increase technology transfers. In addition to rendering the country more resilient to the sudden-stops of volatile capital flows, these FDI flows would be capital for Ecuador to move towards the production of higher value products.

30 Several explanations have been provided in the literature to explain this negative correlation. First, changes in the USD exchange rate may impact oil prices because they affect the global demand for oil and lead to a change in oil producers' price-setting behavior. Changes in oil prices could also affect the USD exchange rate as they may lead to revisions in the U.S. and global growth outlook and could impact the global allocation of capital and trade flows. For further discussion, see Coudert, et al. (2008).

The final challenge specific to Ecuador relates to the need to restore fiscal sustainability. Since 2008, fiscal policy has actively contributed to the build-up of the external imbalances in Ecuador. In particular, increases in public spending has directly increased the import of services dedicated to large projects in the oil and mining industries and contributed to the deterioration of the external current account. Moreover, in the case of a dollarized economy, fiscal imbalances translate into declining international reserves, which – when excessive – can lead to liquidity crises. As shown above, the increasing lending to the public sector through government bond holdings has continuously eroded the central bank's international reserves. Regardless of the source of an external imbalance, fiscal policy most often plays a key role in the external adjustment process. This is even more important in the case of a dollarized economy, where fiscal policy becomes key for preserving a level of international reserves sufficient to ensure the viability of the financial system. As monetary financing of public debt is impossible, maintaining fiscal equilibrium remains central to ensuring a well-functioning system that preserves the liquidity of the economy. In this sense, if Ecuador had a sovereign wealth fund actively fed with oil revenues during “good times” (when prices are high), it would certainly be a game changer when it comes to weathering an economic downturn. Yet, having barely any fiscal buffer, Ecuador **needs to go through a severe fiscal adjustment process that implies heavy social costs.** The failed sudden suppression of fuel subsidies in October 2019, which led to a strong social and political unrest, underlines the importance of achieving social consensus for difficult fiscal measures considering their impact on vulnerable segments of the population in a highly unequal country.<sup>[31]</sup> Moreover, compounded by rigid labor market regulations, austerity measures could generate negative side effects such as pushing the labor force into the already sizeable informal sector. This means that fiscal adjustment should rely on the right combination of expenditure cuts and revenue-enhancing measures. Diversifying fiscal revenues, establishing schemes to improve their stability and reducing the volatility of cyclical developments seem as important as keeping expenditures in check in order to maintain the sustainability of public finances.

#### 4.3 – How does the Covid-19 outbreak affect the economy of Ecuador?

While this article was mainly written before the Covid-19 crisis, such an unprecedented episode deserves a brief comment to highlight how a severely adverse environment can challenge most of the weaknesses that Ecuador has accumulated over recent decades. The Covid-19 crisis has hit most Latin American countries in terms of the dramatic impact it has had on international demand for goods and services. This is coupled with a sharp reduction in domestic supply linked to the lockdown measures put in place to contain the virus contagion and reduce the pressure on generally weak local health systems.

For Ecuador, the crisis has also sharply reduced government revenues due to the sharp fall of international oil prices, lower tax revenues in a depressed scenario and the loss of expected revenues following the transfer of public assets in the energy sector to private management. The combined effect of these impacts is estimated at 7% of GDP. In addition, the country needs to increase expenditures for emergency health assistance to help its poor populations and the vulnerable groups that typically depend on their daily work for subsistence. It also needs to try to minimize the impact on employment and businesses, especially micro, small and medium enterprises.

Ecuador appears as one of the most vulnerable countries in the region in the face of the Covid-19 crisis. The country is up against several challenges that were previously documented simultaneously: 1) no fiscal space, as the economic program was already facing financing shortages; 2) no sovereign wealth fund; 3) no access to international capital markets, as that access was already limited and very costly, and has since become inexistent; 4) no capacity for central bank financing, as reflected in the documented weakening of its balance sheet; and 5) no ability to use currency depreciation to restore competitiveness in the short run.

31 As of September 2019, adequate employment (i.e., population with proper full-time labour contracts and related social protection) reached 38.5% of the economically active population, 10 percentage points lower than 5 years previously.

Several other Latin American countries have announced large countercyclical fiscal and monetary packages to attenuate the crisis impact, financed through local or international market access, pre-existing fiscal buffers, and the use of currency issuance. Ecuador, on the other hand, has very limited room to maneuver. Relations with the IMF, following the approval on May 1, 2020 of US\$643 million in emergency assistance for the pandemic, will need to be renegotiated with a view to agreeing on a new Extended Fund Facility Arrangement. In the meantime, the country has nonetheless been seeking available external exceptional financing to withstand the shock. The renewed use of external financing combined with an expected real GDP decrease of 6% at the very least – and potentially much more according to different institutions including the IMF and the World Bank – would likely result in a substantial increase of debt-to-GDP figures. In addition, Ecuador decided not to pay interest payments on its foreign commercial obligations. This decision, after agreement of a bondholders majority to engage in friendly debt renegotiation procedures, highlights that full dollarization does not systematically protect countries against sovereign defaults.

While deposit withdrawals have so far remained at manageable levels, and in view of the limited amount of international reserves, the Liquidity Fund and private banks net foreign assets have been instrumental in managing the first response to the crisis. The ability of the financial system to withstand the crisis would depend on several factors, including (i) the duration of the international crisis and the local sanitary protection measures; (ii) the ability of businesses (particularly micro, small and medium enterprises) to reinvent themselves and reach agreement with their different stakeholders to preserve as many jobs as possible and ensure financial viability; (iii) Ecuadorian society's capacity to reach minimum consensus on sharing the crisis costs; and (iv) the availability of sufficient external financing. This is undoubtedly a critical moment to observe the capacity of dollarization to withstand an unprecedented shock.

# Conclusion

Although widely discussed in the early 2000s, there has since been scant research into economies that have officially adopted a foreign currency as legal tender. The experience of Ecuador – by far the largest fully dollarized economy – provides specific insights for other countries that are considering such a radical monetary policy shift. From an empirical point of view, twenty years is a short period of time to analyze long-term issues such as the sustainability of public finances and external accounts. Despite these caveats, several interesting insights emerge from a fact-based analysis of the Ecuadorian experience.

Ecuador adopted full dollarization in 2000, in the midst of a severe economic and financial crisis. Full dollarization produced significant immediate benefits by stabilizing the economy and providing a reliable nominal monetary anchor. **Overall, between 2000 and 2008, the dollarization experience turned out to be an obvious success as the following conditions were in place:** high oil prices, a certain degree of budgetary discipline, an independent central bank and a competitive real effective exchange rate (thanks to an accommodative U.S. monetary policy). **However, after 2008, Ecuador began to lose these enabling ingredients one by one.**

For a start, public expenditure soared between 2009 and 2013, while the increase in government revenues (mainly from oil exports) remained moderate. During this period, the central bank lost its independence and began to lend massively to the government, thus gradually eroding the country's foreign exchange reserves. Second, as a commodity exporter, Ecuador was dramatically hit by the decline of oil prices in 2014. Over the same period, the appreciation of the real effective exchange rate significantly impaired external competitiveness for non-oil exports. While government revenues dwindled significantly, the absence of an active stabilizing sovereign wealth fund (as usually found in oil-exporting countries) and fiscal prudential rules fueled public sector imbalances. Consequently, the financial system was put under acute liquidity pressure and the country's external financing needs continued to soar.

**Yet, it would be erroneous to argue that official dollarization is the main culprit for Ecuador's economic woes.** First, even though full dollarization eliminated the exchange rate risk, Ecuador failed to attract large foreign direct investment inflows and capture international liquidity through its banking sector. Certainly, numerous political and regulatory barriers prevented Ecuador from reaping the full benefit of having the U.S. dollar as legal tender. As the Panamanian experience of over a hundred years of full dollarization illustrates, ensuring strong international backing for the banking system is key in the absence of a traditional lender of last resort (i.e., the central bank).

Second, **some of the economic issues that Ecuador is facing are common to many small commodity exporters, irrespective of whether or not they are officially dollarized.**

Generally speaking, these economies are highly vulnerable to sudden price shocks that also deteriorate their fiscal revenues down the road. It is true that, **in Ecuador, full dollarization exacerbated the vulnerability to external shocks as nominal exchange rate adjustments and money creation were no longer possible options.** Nevertheless, even in fully dollarized economies these issues can be tackled in three main ways by: (i) extending the export base to high value-added goods to reduce dependence on oil, (ii) rendering the labor and product markets more flexible to enable relative price adjustments through internal devaluation and (iii) creating fiscal buffers during boom years (e.g., setting up an active sovereign wealth fund) and implementing sound fiscal policy (without recourse to central bank financing) to avoid liquidity crises.

All in all, Ecuador's twenty-year long experience suggests that full dollarization helped overcome a severe economic crisis in 1999 by offering a quick fix for financial and exchange rate instability. In addition, full dollarization turned out to be a clear success in defeating hyperinflation and ensuring price stability. Yet, this full dollarization did not systematically boost economic growth or lead to fiscal discipline. In other words, dollarization alone was neither a substitute nor a **sufficient catalyst for sound fiscal and financial policies and growth-oriented structural reforms.** More worrying still, with the outbreak of the Covid-19 pandemic, Ecuador is facing an unprecedented economic shock in 2020 and the authorities have very limited fiscal and monetary space to absorb its impact. Yet, it is still too early to say whether full dollarization will enable the country to avoid a sovereign default.

That said, the choice of official dollarization continues to be strongly supported in Ecuador, and the debate on a possible de-dollarization of the economy is almost non-existent. For most Ecuadorians, the idea of the country issuing its own currency is associated with weak monetary credibility, hyperinflation and sharp devaluations that dramatically eroded their savings and incomes in 1999. In addition, international experience suggests that there is no simple or orderly exit from dollarization, and such reversal would entail tremendous costs and an unpredictable outcome.

Dollarization in Ecuador was adopted "on the ropes," without the necessary preconditions to ensure its sustainability being met. In general, before taking such a radical monetary policy step, countries should carefully assess their ability to meet the specific challenges that would arise from abandoning their own currency.



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