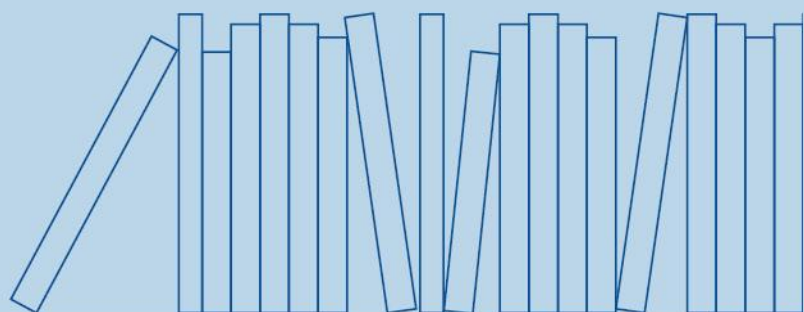


Economic Commission for Latin America and the Caribbean
ECLAC OFFICE IN WASHINGTON, D.C.



Foreign Exchange Reserves

Recent Evolution



UNITED NATIONS



Washington, D.C., 6 December 2016

This document was prepared by Daniel E. Perrotti, Staff, and Helvia Velloso, Economic Affairs Officer, under the supervision of Inés Bustillo, Director, ECLAC Office in Washington, D.C.

The views expressed in this document, which has been reproduced without formal editing, are those of the authors and do not necessarily reflect the views of the Organization.

Contents

Overview	5
I. World	7
A. Accumulation of Foreign Exchange Reserves	7
B. Changes in Reserves Composition.....	9
C. The top 10 Holders of Reserves in the World.....	10
II. Latin America and the Caribbean	11
A. Reserves Accumulation in Latin America and the Caribbean.....	11
B. Reserves as a Share of GDP in Latin America and the Caribbean.....	12
C. Reserves and Nominal Exchange Rates in Latin America and the Caribbean.....	12
D. Stress Testing	13

Tables and Figures

Figure 1 World's foreign currency reserves	7
Figure 2 World's allocated foreign currency reserves	8
Figure 3 World's allocated reserves composition	9
Figure 4 Absolute variation in currency composition: Q2 2014 to Q2 2016.....	9
Figure 5 Top 10 holders of foreign exchange reserves in the world.....	10
Figure 6 LAC foreign exchange reserves by country	11
Figure 7 LAC countries' reserves-to-GDP ratio: August 2016	12
Figure 8 Evolution of total reserves and nominal exchange rates in Latin America and the Caribbean	13
Table 1 Stress tests.....	13

Overview

The world foreign exchange reserves declined 7% from the first quarter of 2014 to the second quarter of 2016, mostly due to a significant reduction in reserve accumulation in emerging and developing economies – a 13% drop – which compares with a slight increase of 4.5% in advanced economies in the same period.

Emerging and developing economies reduced their share of world reserves as a result – from 68% in the second quarter of 2014 to 64% in the second quarter of 2016 – whereas the advanced economies' share rose from 32% to 36% in the same period. The increase in foreign exchange reserves in developed countries was not only in relative but also in absolute terms.

China, the country with the largest foreign exchange reserves in the world, recorded a reduction of almost 8% year-on-year in its total reserves in September 2016 (including both the Mainland and Hong Kong). The downward trend worsened in October, when reserves decreased by an additional US\$ 45.7 billion, falling to their lowest level in more than five years, according to data released by the country's central bank. The decline in Chinese foreign exchange reserves has been concurrent with devaluations of the Chinese Yuan as well as capital outflows pressures, and explains much of the reduction in the emerging and developing economies' share of the world reserves.

The world reserves' currency composition did not change much from the second quarter of 2014 to the second quarter of 2016. The U.S. dollar (including other U.S. dollar-denominated assets) continues to be the primary asset in the world's reserves (with more than 60% of the total portfolio), followed by the Euro (with 20%).

In Latin America and the Caribbean, there were two different trends in the accumulation of foreign exchanges reserves in the period – a downward trend since 2014 up to the end of 2015, and an upward trend for the first eight months of 2016. The behavior of nominal exchange rates in the region (based on a combined index of currencies) was also characterized by two different trends in the same period – a strong depreciation since 2014 up to the end of 2015 and a slight appreciation in the first eight months of 2016.

Brazil has maintained the largest foreign exchange reserves in the region. Brazilian reserves increased US\$ 1.4 billion from August 2015 to August 2016. Mexico has the second largest reserves in the region. It has kept its position despite a reduction in its reserves of almost US\$ 10 billion in the same period.

Peru has the highest reserves-to-GDP ratio in the region (32%), followed by Uruguay (28%), while Argentina has the smallest (5%). The region's average reserves-to-GDP ratio is 17%.

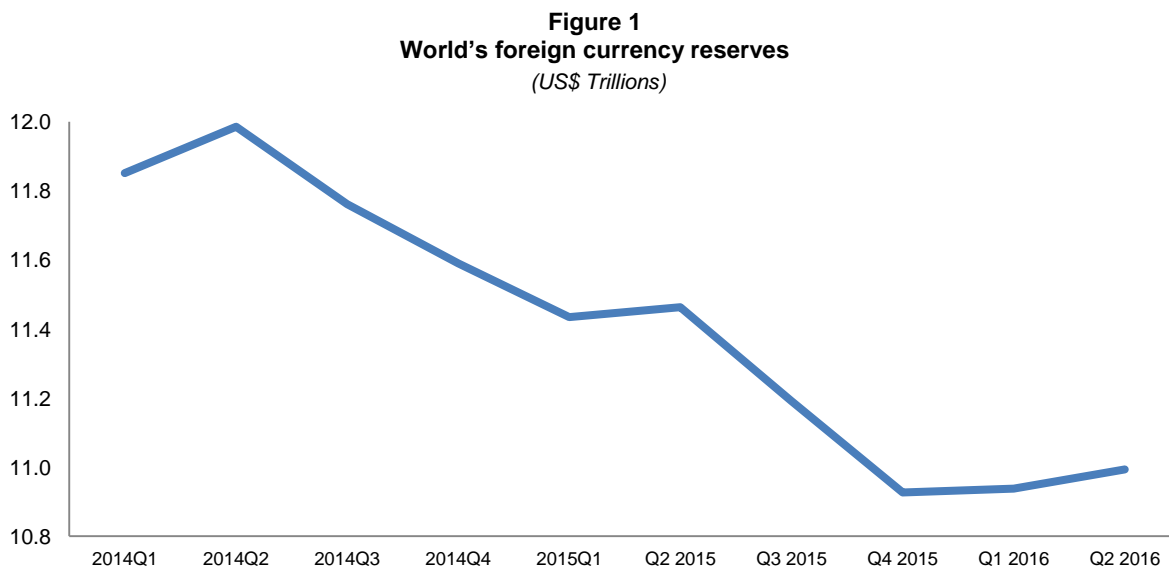
Stress testing the stockpile of foreign exchange reserves in the region show that reserves for most countries are enough to finance their current account deficit for more than two years and at least three quarters of imports.

I. World

There has been a downward trend in the world's foreign exchange reserves since 2014. The recent evolution of the world's foreign exchange reserves is examined below through charts and tables, on the basis of data from the International Monetary Fund.

A. Foreign exchange reserves: recent evolution

Since the second quarter of 2014 the world's foreign exchange reserves have been on a downward trend. Between the first quarter of 2014 and the second quarter of 2016, there was a reduction of over 7% in total world's foreign exchange reserves (figure 1).



Source: ECLAC on the basis of data from the International Monetary Fund (IMF), International Financial Statistics (IFS) world table.
Note: Reserves not including gold.

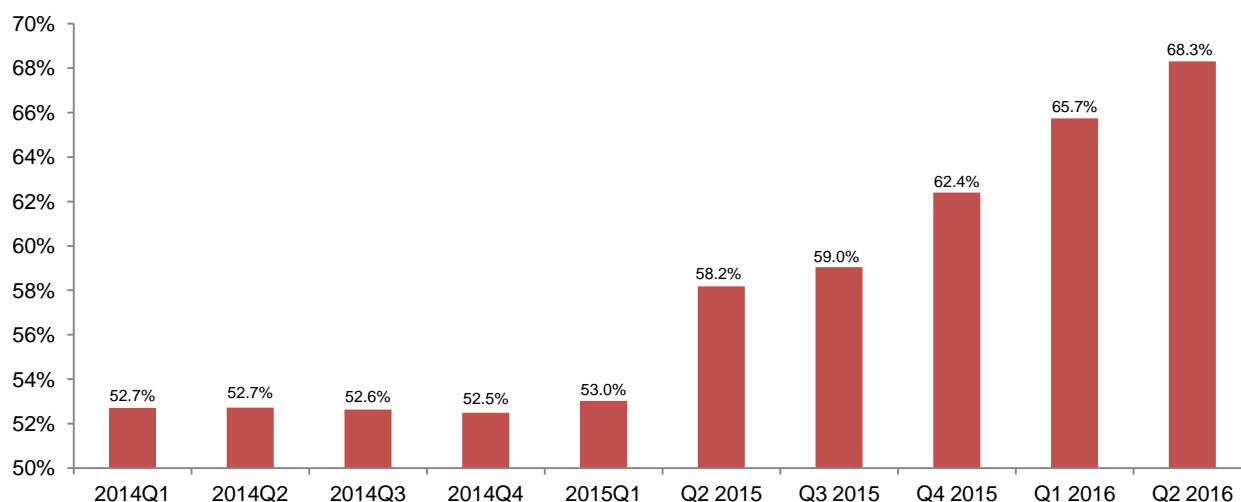
The world's foreign exchange reserves had a slight recovery in the first two quarters of 2016. However, given that heightened global uncertainty is expected in the medium-term, it is too early to consider them as turning points in the overall trend.

Since 2014, advanced economies have expanded their share in the world's reserves with a slight increase in reserves in absolute terms. Meanwhile, in the same period, the participation of emerging and developing countries in total reserves has been reduced both in terms of share of the total and absolute amount.

Total foreign exchange reserves reached US\$ 10.99 trillion in the second quarter of 2016, a reduction of almost US\$ 820 billion from the first quarter of 2014, when the world's reserves were at US\$ 11.81 trillion.

Allocated reserves, which are based on official country reports, increased from 53% to 68% of total reserves from Q1 2014 to Q2 2016 (Figure 2). This is based on aggregated end-of-period quarterly data from the IMF's Currency Composition of Official Foreign Exchange Reserves (COFER) database.

Figure 2
World's allocated foreign currency reserves
(Percentage)



Source: ECLAC on the basis of data from the International Monetary Fund (IMF), Currency Composition of Official Foreign Exchange Reserves (COFER).

At present, there are 145 reporters to the COFER database, consisting of member countries of the IMF, non-member countries/economies, and other foreign exchanges reserve holding entities. The total foreign exchange reserves reported in the COFER database differs from the total in the International Financial Statistics (IFS) world table, which also includes foreign exchange reserves of those countries/territories that currently do not report to COFER. This difference is captured by the total under “unallocated reserves.”

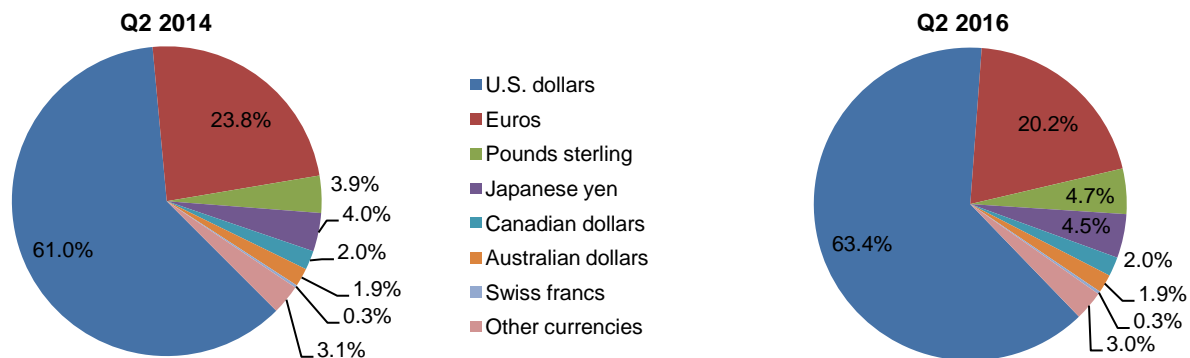
China reported data on its official reserves to the International Monetary Fund for the first time in September 2015, in an effort to provide more transparency as it pushed to have the renminbi (RMB) recognized as a reserve currency. China has reported a representative portfolio on a partial basis and will gradually increase the reported portfolio to full coverage of foreign exchange assets within a period of around two to three years.

Starting in October 2016, the International Monetary Fund (IMF) began to separately identify the renminbi in its official foreign exchange reserves database. The renminbi will join the group of currencies that are currently identified in the survey: U.S. Dollar, Euro, Yen, Pound Sterling, Swiss Franc, Australian Dollar, and Canadian Dollar. All other currencies are listed together.

B. Composition

For the two-year period from Q2 2014 to Q2 2016, the composition of the world's foreign exchange reserves – based on the allocated portfolio from the COFER database – shows an increase in the share of U.S. dollars and a decrease in the share of Euros. The share of allocated reserves comprised of U.S. dollars increased from 61% to 63%, respectively, while the share of Euros decreased from 24% to 20%, respectively, in the two-year period. Other currencies that had an increase in their share include the Japanese yen and Pound sterling, from 4% to 5% (figure 3).¹

Figure 3
World's allocated reserves composition
(Percentage)

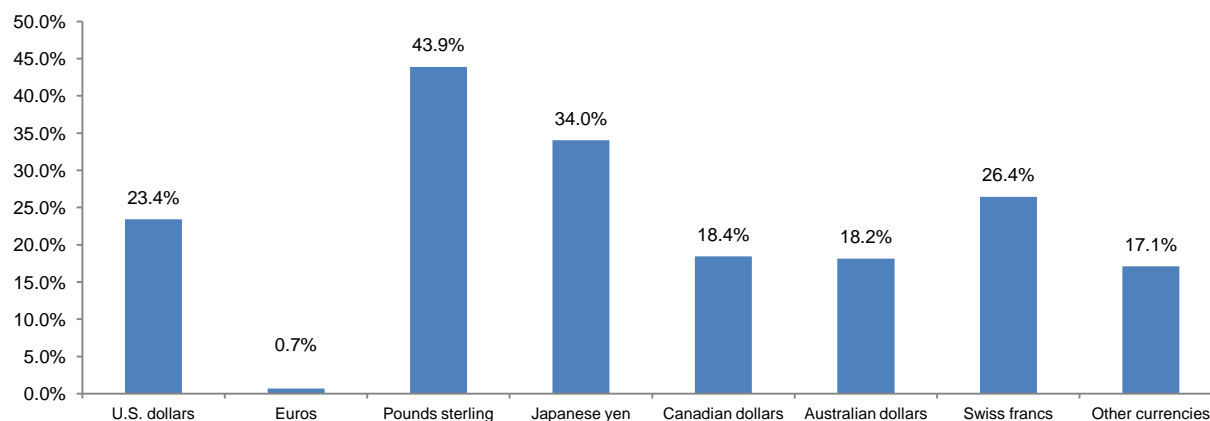


Note: Reserves not including gold.

Source: ECLAC on the basis of data from the International Monetary Fund (IMF), Currency Composition of Official Foreign Exchange Reserves (COFER).

While the Euro share declined, in absolute terms there was an increase of less than 1% in the amount of Euros in the world foreign exchange reserves. However, the amount of other currencies increased by a bigger percentage. The biggest absolute increases belong to the Pound sterling (44%), the Japanese yen (34%), and the Swiss francs (26%), followed by an absolute increase of 23% in U.S. dollars (figure 4).

Figure 4
Absolute variation in currency composition: Q2 2014 to Q2 2016
(Absolute Percentage Variation)



Note: Reserves not including gold.

Source: ECLAC on the basis of data from the International Monetary Fund (IMF), Currency Composition of Official Foreign Exchange Reserves (COFER).

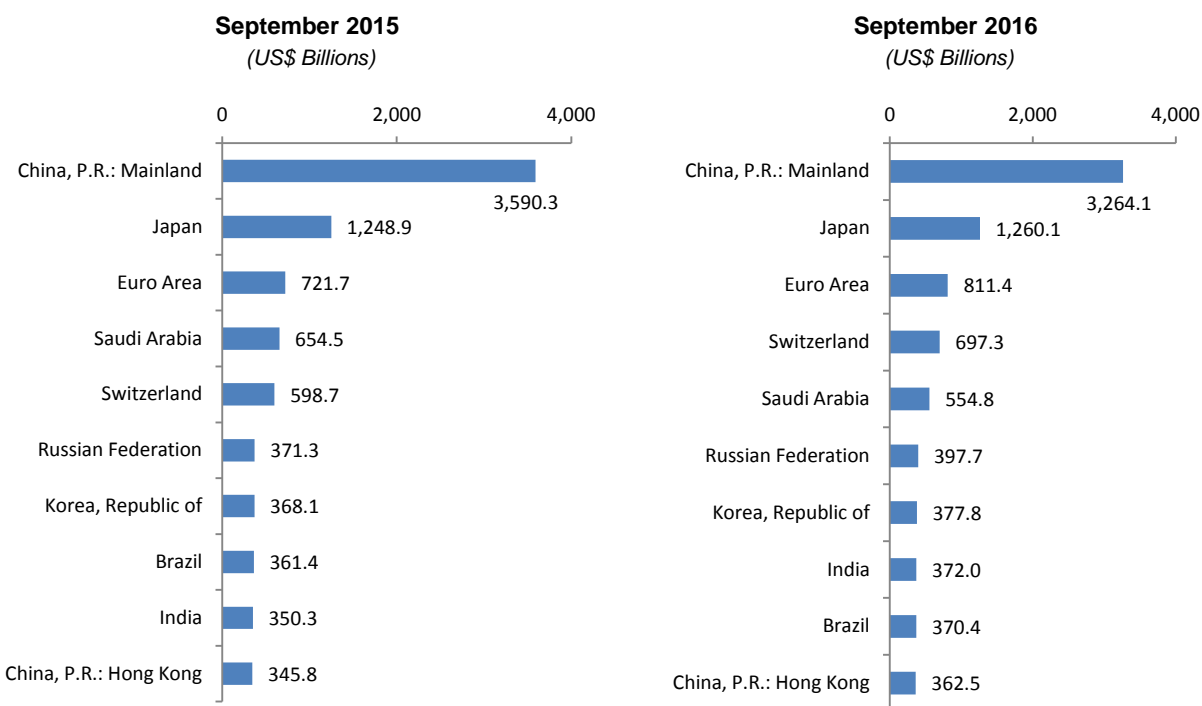
¹ However, these changes are based on the allocated reserves data, thus cannot be generalized to all foreign exchange reserves (including unallocated reserves), particularly considering that China is currently reporting only on a partial basis.

C. The top 10 Holders of Reserves in the World

The top ten holders of reserves in the world have not changed between September 2015 and September 2016, although there were changes with respect to ranking within this list. For example, Switzerland has surpassed Saudi Arabia for fourth place; meanwhile Brazil was overtaken by India for eighth place (figure 5).

Almost all countries in the list have shown an increase in their reserves. Only two countries/areas (Mainland China and Saudi Arabia) reduced their reserves in this period. The top holder, Mainland China, has lost more than US\$ 326 billion (9%) of its reserves, in the period. The greatest accumulation of reserves belongs to Switzerland, with an increase of almost US\$ 100 billion (16.5%) in the period. The only country in this list from Latin American continues to be Brazil.

Figure 5
Top 10 holders of foreign exchange reserves in the world



Note: Reserves not including gold.

Source: ECLAC on the basis of data from the International Monetary Fund (IMF).

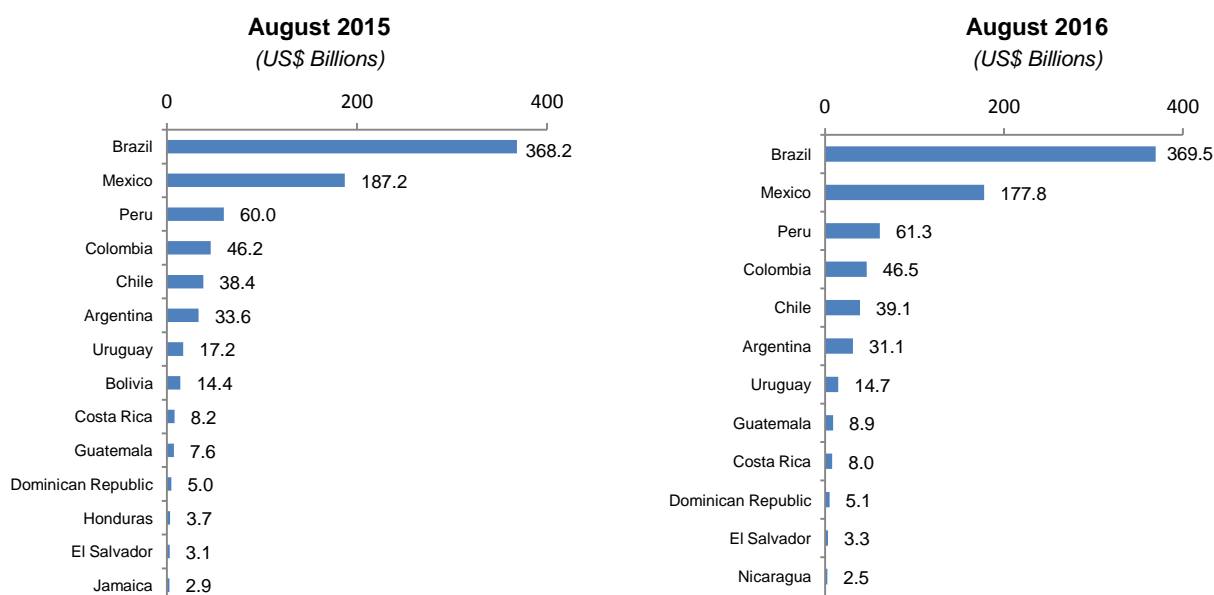
II. Latin America and the Caribbean

The recent evolution of the Latin America and the Caribbean region's foreign exchange reserves is examined below, on the basis of data from the International Monetary Fund and country central banks.

A. Reserves Accumulation in Latin America and the Caribbean

In Latin America and the Caribbean, Brazil continues to be the biggest holder of reserves (US\$ 369.5 billion) as of August 2016 (figure 6).

Figure 6
LAC foreign exchange reserves by country



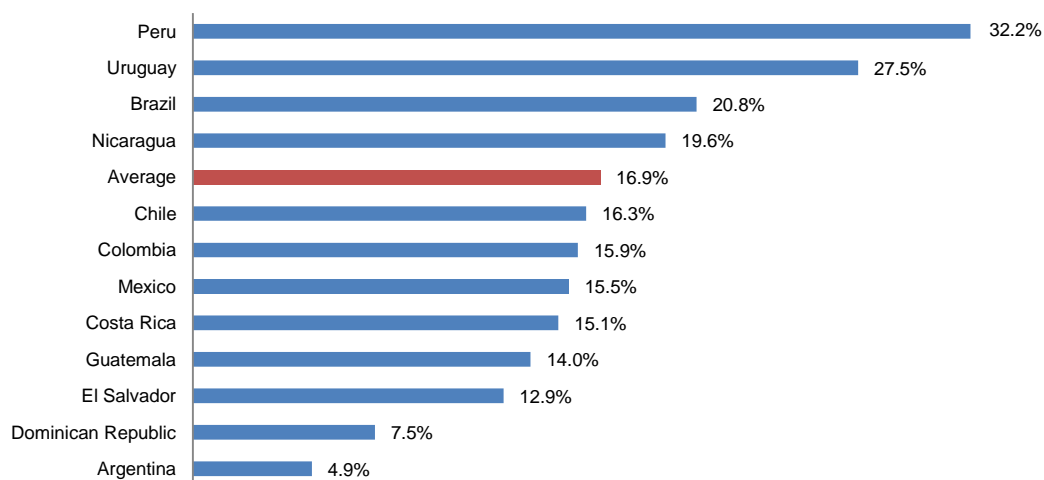
Note: Reserves not including gold. With the exception of Bolivia, Honduras and Jamaica, the information for all other countries is from August 2016, the latest information available.

Source: ECLAC on the basis of data from the International Monetary Fund (IMF).

B. Reserves as a Share of GDP in Latin America and the Caribbean

As of August 2016, the average reserves-to-GDP ratio in Latin America and the Caribbean was 16.9%. While Argentina and Mexico are below the regional average (and Argentina is at the bottom of region's reserves-to-GDP ratio), Brazil is above the regional average. Peru has the highest reserves-to-GDP ratio (32.2%), followed by Uruguay (27.5%), Brazil (20.8%) and Nicaragua (19.6%).

Figure 7
LAC countries' reserves-to-GDP ratio: August 2016
(Percentage)



Note: Reserves not including gold. GDP estimation for 2015 is from the IMF. No data for August 2016 was available for Bolivia, Honduras and Jamaica at the closing date of this report.

Source: ECLAC on the basis of data from the International Monetary Fund (IMF) and CEPALSTAT.

C. Reserves and Nominal Exchange Rates in Latin America and the Caribbean

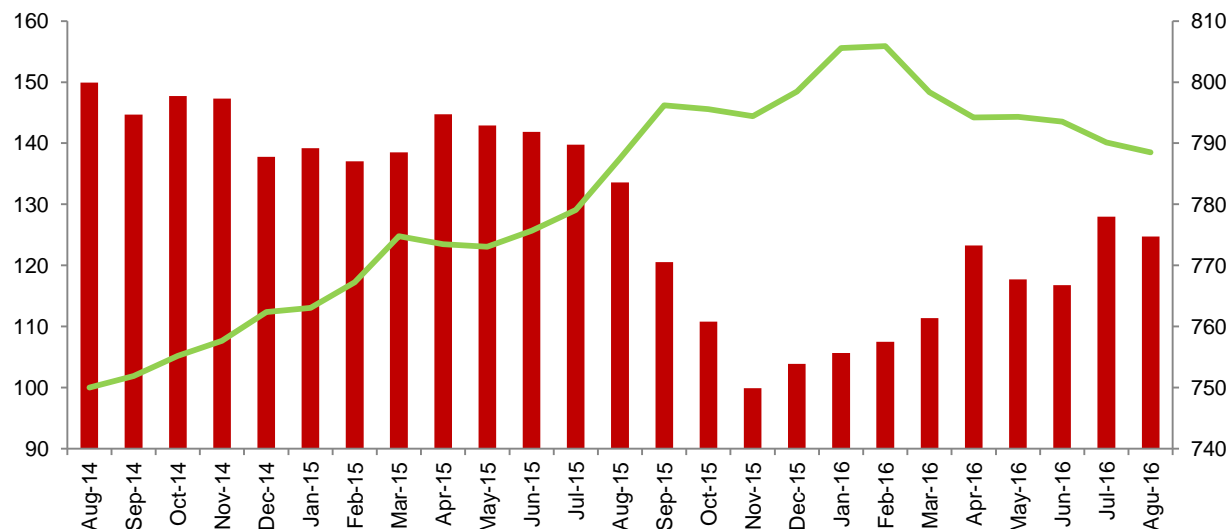
In the past two years, there have been two noticeable trends in the accumulation of foreign exchanges reserves and the behavior of nominal exchange rates in Latin America and the Caribbean. Starting in 2014 up until the end of 2015, there was a downward trend on the accumulation of reserves (which was particularly strong in 2015), and a simultaneous depreciation of the regional nominal exchange rate.² The trend was the result of the sharp decline in commodity prices, particularly oil prices, of deep concerns about a slowdown in China's economy and the possibility of further devaluation of its currency, as well as concerns about signs that the U.S. growth could be slowing while interest rates were set to increase.

In 2016, Latin America and the Caribbean's stockpile of foreign exchange reserves started to rise again after an 18-month slide amid capital outflows and, in some cases, widening current account deficits as commodity prices fell precipitously. The rise in reserves was accompanied by a slight appreciation of the regional nominal exchange rate (figure 8).

Commodity prices partially recovered this year and investors from the U.S. and other developed markets turned to the region's bond markets in a hunt for yield, given the low and often negative yields available in their domestic markets. The primary factor behind the rise in reserves was the resumption of portfolio flows to the region. Brazil was a big beneficiary of both capital inflows and a rebound in their terms of trade, as oil and other commodity prices increased compared to the start of the year.

² This regional nominal exchange rate was calculated as a weighted average of countries exchange rates where the weights correspond to countries' shares in regional reserves.

Figure 8
Evolution of total reserves and nominal exchange rates in Latin America and the Caribbean
(Left axis: exchange rate index, August 2014 = 100; Right axis: reserves in US\$ Billions)



Note: Reserves not including gold. Countries with no available data at the closing of this report were estimated assuming no reserve variation from the closest actual period.

Source: ECLAC on the basis of data from the International Monetary Fund (IMF) and CEPALSTAT.

D. Stress Testing

Based on the latest figures available for a selected group of Latin American countries, two widely used rules of thumb were tested. These are: 1) how many quarters (years) of imports of goods could be covered by the actual stock of reserves; and 2) for how many quarters (years) could the actual stock of reserves finance the current account deficit.

In Brazil, Colombia, Peru and Uruguay, the current level of reserves could cover more than a year worth of imports. In Mexico, Argentina and Chile, they could cover between two and three quarters.

The current account deficit could be, in all cases, well covered with the current stock of reserves. Chile, Peru, and Uruguay have the strongest position (table 1).

Table 1
Stress tests

Countries	Reserves			Imports of Goods			Current Account		
	Amount (in MM of USD)	As a percentage of Current GDP *	Date	Annual Expenditures (in MM of USD)**	Quarters potentially covered by reserves	Years potentially covered by reserves	Annual Balance (in MM of USD)**	Quarters potentially covered by reserves	Years potentially covered by reserves
Argentina	37,616	6.4%	Nov 3rd	52,266	3	0.7	-13,386	11	2.8
Brazil	376,212	21.2%	Nov 11 th	139,397	11	2.7	-18,109	83	20.8
Chile	25,426	10.6%	Oct 31 th	52,072	2	0.5	-244	417	104.2
Colombia	46,623	15.9%	Sep 30 th	41,468	4	1.1	-12,568	15	3.7
México	175,268	15.3%	Nov 4 th	372,162	2	0.5	-30,898	23	5.7
Perú	62,272	32.4%	Nov 4 th	33,530	7	1.9	-8,180	30	7.6
Uruguay	13,487	25.1%	Nov 4 th	7,808	7	1.7	-104	519	129.7

* IMF data; 2015 GDP.

** Annualized data of 1st and 2nd quarters of 2016 for all countries but 1st, 2nd, and 3rd quarters of 2016 for Brazil.

Note: Reserves not including gold.

Source: ECLAC on the basis of data from IMF, CEPALSTAT and Central Banks of listed countries.



Economic Commission for Latin America and the Caribbean (ECLAC)
Comisión Económica para América Latina y el Caribe (CEPAL)
www.eclac.org