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UNLEASHING EXCESS FX RESERVES TO BOOST GROWTH IN LATIN AMERICA

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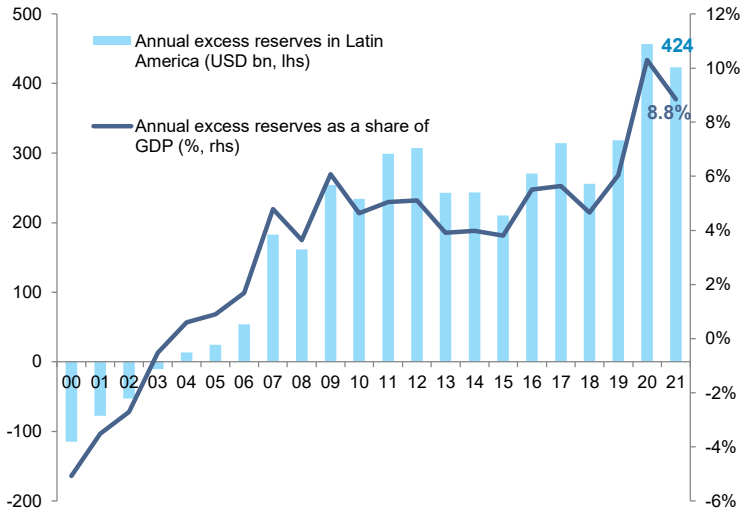
In 2021, Latin American countries could be holding "excess" FX reserves of around 8.8% of GDP, with an opportunity cost to economic activity as high as 0.7% of GDP. We define excess FX reserves as covering more than 100% of a country's external financing needs. In the past, reserves were used as a hedge against volatility and speculative attacks, and have been Latin America's way of shielding itself from the drawbacks of financial liberalization. As a result, the region as a whole has become less vulnerable to the types of financial crises it lived through from the 1970s to the 1990s (with the exception of Venezuela, Argentina and Ecuador). However, FX reserves could amount to around USD424bn i.e. 8.8% of Latin American GDP in 2021 (after 10% of GDP in 2020 and an average of 4% since 2004). Central banks holding such reserves in low-yielding US treasuries is not optimal: We estimate that the opportunity cost for not using these reserves for more productive investments has averaged 0.4% of GDP every year in the last 15 years, and could go to USD34bn or 0.7% of GDP in 2021.

Figure 1: Baseline scenario - "Excess" FX reserves in Latin America (USDbn and % of GDP)



Sources: National Statistics, IHS Data Insight, Allianz Research

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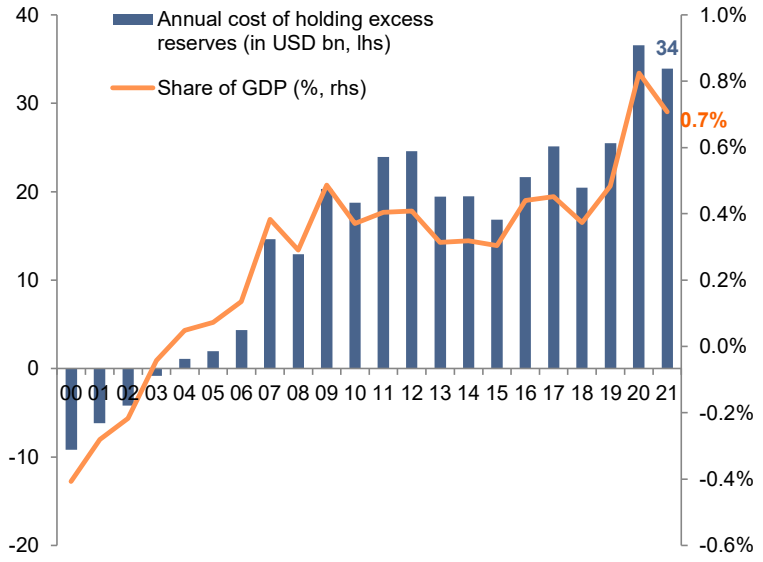
Figure 2: Baseline scenario - Annual cost of "Excess" FX reserves in Latin America (USDbn and % of GDP)

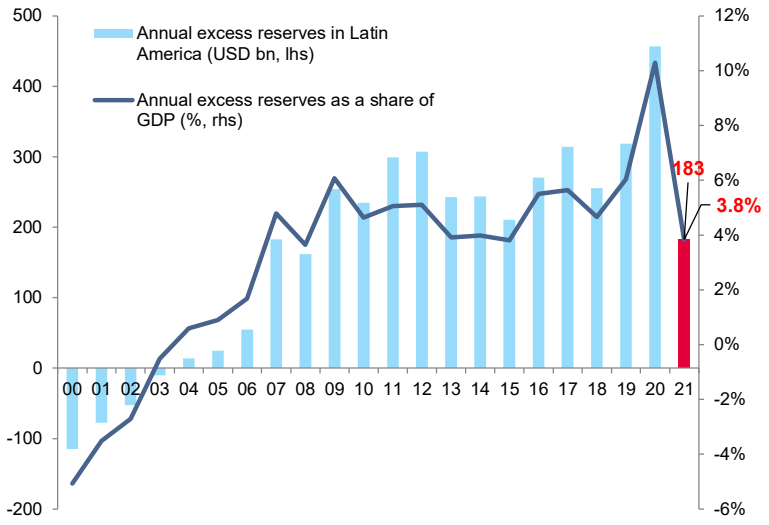


Sources: National Statistics, IHS Data Insight, Allianz Research

While most Latin American countries are now less at risk of a financial crisis, we simulate the impact of a sudden stop on "excess" reserves. In a worst-case scenario, a huge shock on financing needs would still leave excess reserves of USD183bn or 3.8% of GDP this year (vs. USD423bn in our baseline scenario). In Figure 3, we replicate the largest increase of financing needs as a percentage of GDP ever recorded in the past 20 years for each country. The opportunity cost of holding reserves in low-yielding securities in a shock scenario would amount to 0.3% (see figure 4).

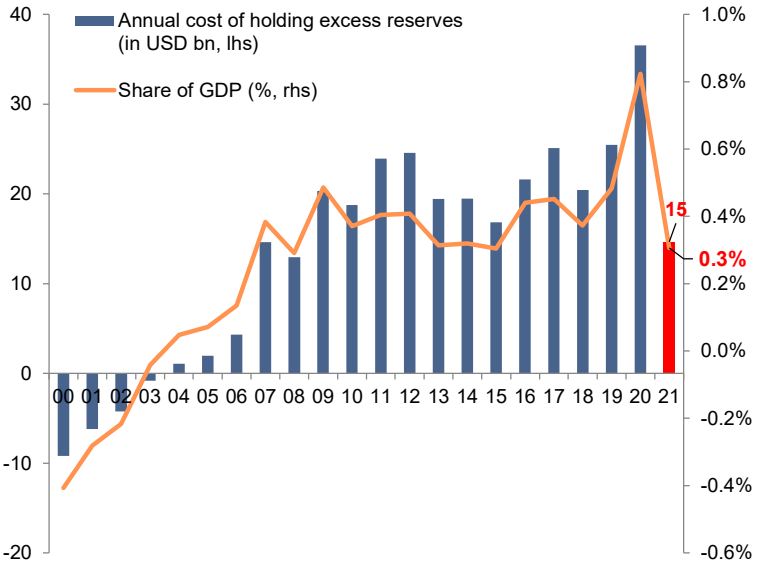
The bulk of the excess reserves lies in Brazil, Mexico and Peru (see figure 7), even in the worst-case scenario, while Colombia and Guatemala also have a sizable cushion. However, in case of a shock or sudden stop, FX reserves in Chile, Bolivia and Argentina would not cover all financing needs, while Uruguay would be borderline in that case.

Figure 3: Adverse/shock scenario: "Excess" FX reserves in Latin America (USDbn and % of GDP)



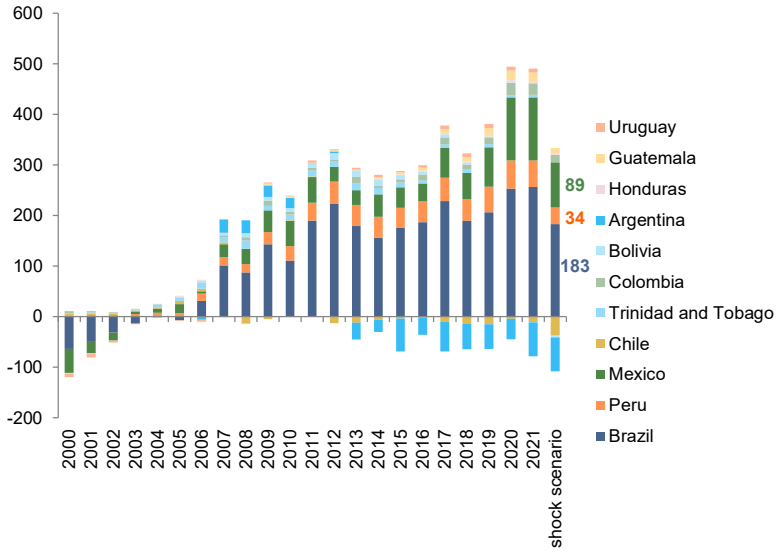
Sources: National Statistics, IHS Data Insight, Allianz Research

Figure 4: Shock scenario - Annual cost of "excess" FX reserves in Latin America (USDbn and % of GDP)



Sources: National Statistics, IHS Data Insight, Allianz Research

Figure 5: Adverse/shock scenario: "Excess" FX reserves in Latin America, by country (sample of 11 countries out of 35, USDbn)



Sources: National Statistics, IHS Data Insight, Allianz Research

Redirecting excess reserves to long-term productive investments would help Latin America bridge its infrastructure gap, boost productivity and thus enhance the business environment, creating more opportunities for companies. Mexico, Brazil and Peru in particular have potential for development funds. With fewer vulnerabilities than ever, better-established macroeconomic frameworks and a pressing need to restart the economy and rebuild social and hard infrastructure after Covid-19, it now could be the right time for Latin American countries to redirect some of their excess reserves to risker projects. Using Sovereign Wealth Funds for "stabilization" (meant to insulate the budget and protect against volatility in commodity prices) and "development" (to help fund projects or industrial policies that increase economic output)[1] would make sense (see Figure 6). This would entail a more aggressive investment strategy in the long-term (higher yielding portfolio) and a mobilization of resources to fund infrastructure investment or other structural policies.

1 "Sovereign wealth funds in East-Asia", 09/14: World Bank Document

Figure 6: Stabilization and development funds, examples and strategies

Types of SWF // Investment vehicle options	Role & Investment Strategy	Country examples or best practices	Latin American experiences with SWFs	Advantages	Challenges
Stabilization funds	> Funded through the proceeds generated by commodities' exports and aim at stabilizing the fiscal impact of volatile commodity prices. By transforming non-renewable resources' revenues into more stable income, these SWFs help governments to smooth out their revenue streams. > Stabilization funds may also serve as savings funds. In this case, they set aside funds for the future needs of the economy and invest them into a more diversified portfolio of assets whose goal is to provide income for future generations. > **Investment strategy**: Conservative risk-return profiles; short-investment horizons. Savings funds: riskier investment strategies, longer investment horizons	> **Chile's** Fund for Economic and Social Stabilization invests the fiscal surpluses resulting from the application of Chile's structural balance rule. It was created to finance fiscal deficits following periods of weak growth/low copper prices. It may be used to pay down public debt and helps to reduce cyclical variations in fiscal spending > **Russia**'s Reserve Fund > **Norway**'s Government Pension Fund > **United Arab Emirates** : Abu Dhabi Investment Authority	An oil stabilization fund named the Budgetary Income Stabilization Fund was founded in **Mexico** in 2000. Its goal is to lower the impact of low oil prices on public finances by investing in assets that have low/negative correlation with oil price returns. In **Peru**, a Fiscal Stabilization Fund (FEF) is endowed with any surplus generated by the Treasury. It deposits money with the country's central bank. The central bank adopts similar management criteria as with international reserves and the government can use a part of the FEF resources in the event of a macroeconomic shock	Stabilization funds insulate the government budget and the economy against commodity price swings by diversifying from commodity-dependency through investments in assets that have negative/low correlation with the commodity in question. During periods of low commodities' prices, a stabilization SWF can finance public deficits, or extraordinary public debt amortization	As stabilization SWFs are mainly funded by revenues from oil and gas, minerals, and other commodities, their level of funding depends to a great extent on the price of these commodities
Development funds	> Aim at funding socioeconomic projects or pomoting industrial policies. > The ultimate goal is to raise the domestic economy's output growth potential > **Investment strategy**: Long-term investment horizon = high risk-return strategy. May invest in relatively illiquid asset classes/investment vehicles (private equity, real estate, venture capital)	> **Singapore** : Temasek Holdings serve as the Government of Singapore's investment holding company and was originally set up to run strategic investments on behalf of the government. Its investment strategy consists in acquiring large equity stakes in domestic and foreign businesses. It also invests in private equity, real estate, and venture capital, both domestically and abroad. As of 2019, Temasek has more than 1/4 of its portfolio invested in Singapore. > **Saudi Arabia**'s PIF (Public Investment Fund) aimed at co-financing the Vision 2030 program (long-term development plan) > **Malaysia**'s Khazanah Nasional	**Brazil**'s sovereign fund was established in 2008 to support domestic corporates in their export activities and to promote investment in the country. Yet, the fund was dissolved in 2018 to repay foreign debt and to tackle the government's budget deficit	By investing domestically and in strategic assets, a development SWF can (1) improve an economy's potential output growth and (2) stimulate the aggregate demand and act as a counter-cyclical tool during a large economic shock	When SWFs mandate is to invest heavily in their home country, they may generate inflationary tensions. Consequently, development funds can have an impact on the conduct of monetary policy and on the levels of interest rates, and the effective exchange rate in the domestic economy. Another disadvantage of development SWFs is the degree of risk-taking / liquidity of their assets which may be an issue in case the government that funded the SWF would need financial support from the SWF during a recession/financial crisis

Sources: various, Allianz Research

While larger Latin American countries seem to have adopted the savings fund (Panama) or the stabilization fund model to some extent (Mexico, Peru, Chile), the Peterson Institute of International Economics only ranked Chile's fund in the top 10 global funds in 2019. The PIIE examines the performance of funds on average over 33 indicator elements across four categories: structure, governance, transparency and accountability and behavior. Mexico's oil stabilization fund ranks 35th out of 64 funds analyzed, while Peru's stabilization fund ranks 52nd out of 64.

In addition, so called "development funds" remain scarce. Brazilian's sovereign wealth fund was dissolved in 2018 to help rebalance fiscal deficits. Today, the Brazilian central bank invests most of its reserves in more liquid and risk-free assets such as US Treasury bonds, with a large opportunity cost. As for Mexico's *Fondo de petroleo,* it was ranked 51st out of 64 by the PIIE (due to shortcomings on the disclosure of governance, investment policies, risk management and mandates) and its investments only focus on hydrocarbons.

Sovereign wealth funds exclude foreign exchange reserves held my monetary authorities only for traditional Balance of Payments or monetary policy purposes. Hence, theoretically, countries with reserves exceeding Balance of Payments needs can transfer them to SWFs for long-term investment purposes. In the case of many Latin American countries, FX reserves accumulation is based on foreign exchange market interventions by central banks within the context of current account surpluses and/or capital inflows[2] but also in the case of accumulation of profits of state-owned companies in the 2000s. In the case of reserves that originate from current account surpluses or capital inflows, they become

2 Beyond liquidity: new uses of developing Asia's foreign exchange reserves", Asian Development Bank Working Paper Series, 07/07

part of the central bank's stock of foreign exchange reserves, and they do not constitute "free fiscal assets" at the disposal of a government as they have counterpart liabilities. As a result, if the government wishes to "spend" such reserves, it must borrow to cover its new liabilities. Thus, if a government wants to set-up a sovereign wealth fund, and use its CB excess foreign exchange reserves as equity, it has to operate in a specific way. For instance, the China Investment Corporation (CIC) had to issue yuan-denominated bonds to buy up reserves from the PBOC for overseas investment purposes. This means that Latin American countries will have to rely on market financing to issue. Similarly, in an objective to use its foreign exchange reserves for domestic infrastructure investment, the Reserve Bank of India and the Ministry of Finance worked on a proposal which aimed at establishing two wholly owned subsidiaries of the India Infrastructure Finance Corporation (IIFC). The two new subsidiaries would have borrowed funds from the RBI and lent to Indian companies implementing infrastructure projects domestically.

But setting up a fund is not enough, as the PIIE ranking shows: a commitment to transparency, disclosure of risk management, investment policies and governance is essential to the success of a fund, its investments and perception by the markets. Latin American countries would have to embark on this project gradually and in full transparency to avoid spooking markets and maintain confidence in their improved fundamentals.

Appendix 1: Computing excess reserves

Many techniques are documented in the literature to assess the adequate level of reserves and hence derive the excess amounts[3]. The main ones are the following:

- *Reserves covering three months of import cover*, a traditional measure of "current-account financing": the simplest and most straightforward measure. It can be useful for low-income countries without significant access to capital markets and vulnerable to current account shocks, such as a fall in the price of a country's main export or a drop in tourism receipts due to natural disaster.
- *Reserves covering 5-20% of money supply (M2):* reserve balances held against a portion of the monetary base can increase confidence in the value of local currency
- *Reserves covering 100% of short-term debt*, derived from the Greenspan-Guidotti rule, calling for developing countries to amass reserves equal to all external debt coming due within the next year.
- *Reserves covering gross external financing needs:* We choose: reserves fully covering annual gross external financing needs of a country

Therefore, assessing the level of reserves in excess of the adequate measure means subtracting the estimate of adequate amount to total reserves:

$$\begin{aligned} &Annual\ excess\ reserves \\ &= Total\ foreign\ reserves \\ &- annual\ gross\ external\ financing\ needs \end{aligned}$$

The second step is hence to estimate the annual gross external financing needs of the country studied. Gross external financing needs are calculated by adding the external debt due in a given year to the current account financing needs.

3 http://rag8.web.rice.edu/TreasuryOccasionalPaperNo6.pdf

$$Gross\ external\ financing\ needs = External\ debt\ due + current\ account\ financing$$

If the current account is in surplus, current account financing is negative: this means you subtract the current account surplus from the external debt due. If the current account is in deficit, the current account financing is positive: this means you add the current account deficit to the external debt due.

Finally, computing external debt due:

$$External\ debt\ due = short\ term\ external\ debt\ outstanding\ at\ end\ of\ past\ year\ (t) + total\ scheduled\ external\ debt\ principal\ repayments\ in\ forecast\ year\ (t+1).$$

How can we calculate the cost of holding so many reserves?

Methodology: the opportunity cost of excess reserves: the opportunity cost of excess reserves is the spread between the yield on reserves held in the central bank (typically low-yielding US treasury bills) and the yield such reserves could earn with riskier investment, such as infrastructure investment.

*Excess reserves * (spread between yields on infrastructure projects/risky equity investments and yield on T-bills)*[4]

=

opportunity cost of holding excess reserves

Another way to look at costs is to focus on the interest cost (the spread between the interest rate on external debt and the T-bill rate). However, this spread is likely lower than the opportunity cost spread; we thus choose to focus on the former to calculate a "maximum cost".

Appendix 2: Reserves and external vulnerability in Latin America

Reserves are a hedge against volatility, speculative attacks and have been Latin America's way of shielding itself against the drawbacks of financial liberalization. Therefore, the region as a whole has become less vulnerable to the types of financial crisis it lived through from the 1970s to the 1990s, if we exclude the weakest links (Venezuela, Argentina, and Ecuador). For the countries that have accumulated reserves, this strategy has proven effective in avoiding full-blown crises, and economic literature also links higher reserves with higher investor certainty and potentially higher FDI flows.

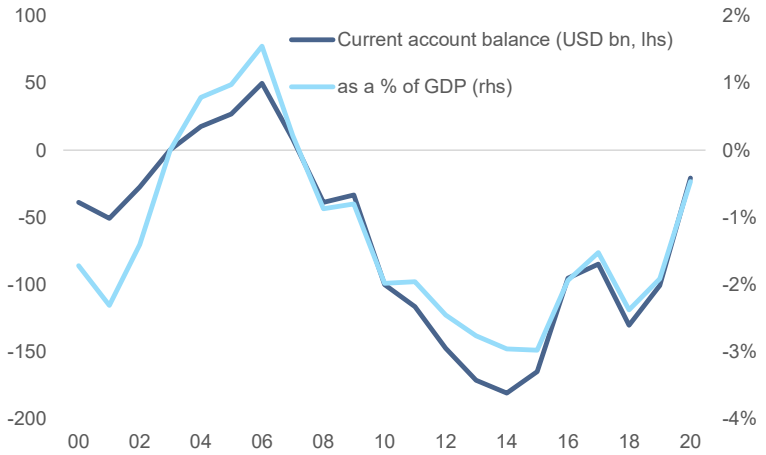
In fact, Latin American countries have considerably reduced their external vulnerabilities in the past twenty years as central banks have accumulated massive foreign exchange (FX) reserves since the commodity super cycle, current account imbalances have subsided since 2014 and most countries have abandoned fixed exchange rates – the main culprits of previous emerging markets crises.

Adding current account deficits and surpluses of 35 countries, we obtain a regional aggregate balance. **After five years in surplus (2003-2007), helped by the commodity price boom, the current account switched to a deficit that widened until reaching a peak of -3% of GDP in 2014 and**

4 We could also follow Summers' approach and assume a 6% real return instead of estimating the spread. It would be a return net of earnings on risk-free reserve assets in domestic terms – on domestic infrastructure investment, paying down short-term external debt or portfolio diversification (Summers, Lawrence H., 2006, "Reflections on Global Account Imbalances and Emerging Markets Reserve Accumulation")

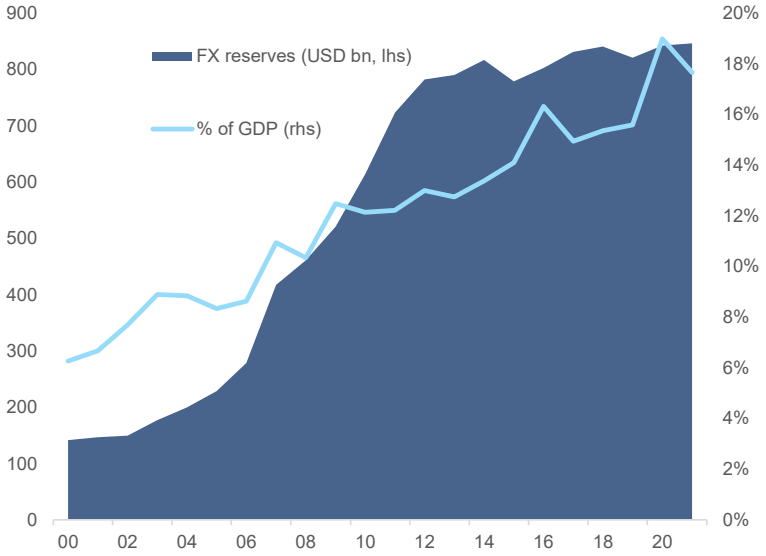
2015 (around -USD180bn). It then steadily narrowed and reached -1.9% in 2019 and was as low as -0.5% in 2020 (-USD20bn) as imports plummeted. Deficits have matched higher external borrowing: Since 2000, the value of external debt has increased 2.5 fold (to more than USD2trn) while regional GDP doubled: thus, external debt accounted for 39% of GDP at the end of 2019 vs. 35% at the end 2000 (and a low of 22% in 2008). With the narrowing of current account deficits, the pace of external debt accumulation has slowed from an average of +10.5% between 2007 and 2014 to +2.6% per year between 2014 and 2020. **Lastly, holdings of FX reserves (traditional external buffers) have increased six fold between 2000 and 2020, reaching USD842bn in 2020 or 19% of GDP** (Figure 8).

Figure 7: Current account balance, sum of 35 Latin American countries (USDbn and % of aggregate GDP)



Sources: National Statistics, IHS Data Insight, Allianz Research

Figure 8: Foreign exchange reserves, excluding gold (USDbn and % of GDP)



Sources: National Statistics, IHS Data Insight, Allianz Research

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