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Rebuilding Macro Buffers in the Southern Cone Amid a Revamped Global Financial Landscape

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Rebuilding Macro Buffers in the Southern Cone Amid a Revamped Global Financial Landscape

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- *A revamped global financial landscape is in the making as the U.S. Federal Reserve unwinds monetary stimuli and geopolitical rifts unfold, prompting market deleveraging and correction of financial excesses while reshaping investment decisions and portfolio allocations. Global financial shocks under such a landscape can produce unexpected, multi-faceted, and disruptive implications for emerging market economies.*

- *Using the VIX index as a proxy for global financial stress, we argue that Southern Cone macro conditions can undergo significant pressure under adverse global financial shocks. A shock of one standard deviation in the VIX index increases the region's sovereign spreads between 30 and 49 bps on a 3-month horizon. These effects could be more than 6 times stronger under acute shocks such as the ones observed during the 2008-09 Global Financial Crisis or at the beginning of the pandemic. Even a less grave financial shock scenario could generate relevant macro stress across the region and interact with other domestic vulnerabilities to amplify impact. Macro stress in the region would be further amplified if global financial shocks are combined with a global recession/slowdown negatively affecting commodity prices.*

- *The region needs to start rebuilding macro buffers now to cope with the emerging global financial environment, while simultaneously correcting macro imbalances and enhancing policy frameworks. Macro buffer rebuilding plans are country-specific, but necessary, and should be considered as an integral part of broader strategies that support medium-term sustained growth and the materialization of the region's productive potential.*

- *International organizations, including multilateral development banks, can play several key roles in supporting the rebuilding of macro buffers. They range from directly offering contingent and/or precautionary programs, to alleviating fiscal pressures by helping to mobilize private sector investment, promote efficient public policies, and foster cooperation across countries.*

1. Uncharted world

Global financial markets are at a crossroads, subject to heightened short-term uncertainty as well as structural shifts, both of which pose consequential risks to the macroeconomic and development outlook of emerging economies.

Reining in inflation has become a global policy priority prompting Central Banks around the world to aggressively tighten monetary conditions. The unwinding of ultra-loose monetary conditions by the U.S Federal Reserve is a particularly consequential and unprecedented process. It has complex ramifications for the policymaking of other major Central Banks, exchange rate markets, credit risk (both sovereigns and companies), pricing across asset classes and financial instruments, capital requirements for financial institutions, investor risk appetite, and other dimensions of the global financial system. There is a concern that the unwinding of global liquidity could lead to disorderly market adjustments as deleveraging and correction of financial excesses take place.

In addition, longstanding geopolitical rifts have been amplified and exposed following the crisis in Ukraine. The invasion has engulfed the discussion about several aspects of the international financial system such as future status of global reserve currencies, evolution of cross-border payment systems, and financial/investment impact on strategic sectors such as food and energy. Capital flow patterns are bound to be reshaped, and data already hints at an incipient portfolio reallocation and reassessment of investment decisions amid speculation that the world could be reconfigured around new economic blocks.

Against this background, a revamped global financial landscape that impacts both cost and availability of financing for sovereigns and companies is in the making. While there remains profound uncertainty as to how such a landscape will evolve, governments will be called to react and adapt. Lacking or inadequate macroeconomic buffers to cope with shocks may be quite disruptive to this process.

2. Strong as feared: Quantifying the impact of global stress on Southern Cone countries

There are different approaches to quantifying the potential impact of global financial stress on macro conditions of a particular country. We chose a simple but direct and transparent one to shed light on the magnitudes involved for four Southern Cone economies (Brazil, Chile, Paraguay, and Uruguay) and compare them with other countries.
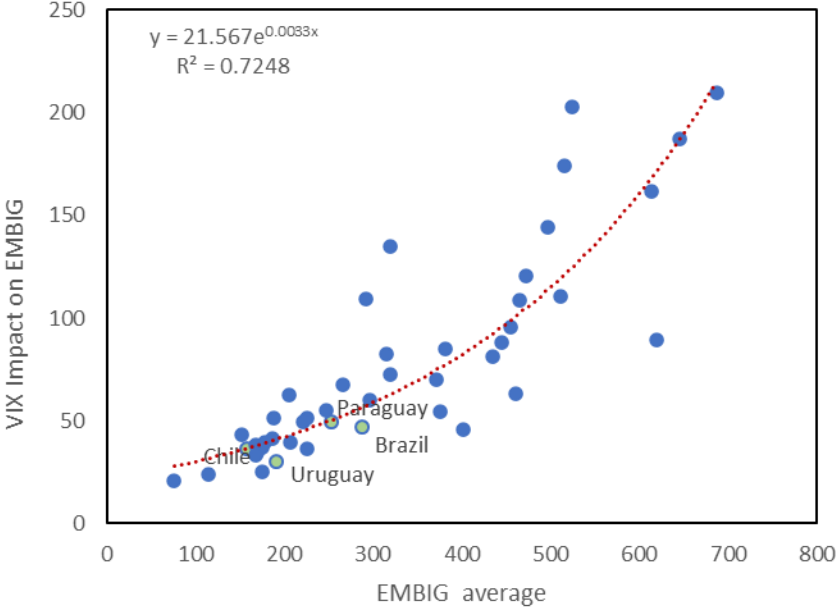
As a proxy measure for global uncertainty, we use the VIX Index which captures the expected volatility of the US stock market over the next 30 days using option prices. The VIX is known as the "fear index" and widely used by analysts and researchers to gauge investors' risk appetite and demand for protection against market swings in the short run.

Using data from 2013Q1 to 2022Q2, we estimate the impact of fluctuations in the VIX index over the Southern Cone sovereign spreads (with respect to US government debt securities) using the EMBIG index (see Appendix). The EMBIG spreads provide one measure of country risk, so our econometric exercise allows us to quantify the impact of global uncertainty shocks on country-specific macroeconomic pressures embedded in sovereign financing costs.

The results suggest that the impact may be sizeable for the southern cone region. A shock of one standard deviation in the VIX index (which corresponds to 7 VIX points) translates into sovereign spread increases ranging from 30 to 49 bps over a 3-month horizon as depicted in colored named circles along the Y-axis of Figure 1. The results also show that the sensitivity of sovereign spreads to global financial shocks grows non-linearly with the level of the country risk. In other words, countries that have a higher risk level to start with (higher levels of EMBIG spreads as depicted along the X-axis of Figure 1) experience stronger absolute impact on country risk when hit by a global financial shock.

This relationship between sensitivity and level is particularly relevant for the four Southern Cone countries since they find themselves in the range of EMBIG in which non-linearities are not strongly kicking in. However, should Southern Cone countries be hit by a sequence of negative global financial shocks that cumulatively increase the country risk base level, sovereign spreads would display an increasingly deteriorating relationship.

Figure 1: Accumulated 3-month impact on sovereign spreads
Basis points

The plot shows a scatter of data points with the fitted curve:
$$y = 21.567e^{0.0033x}$$
$$R^2 = 0.7248$$

The Y-axis is labeled "VIX Impact on EMBIG" and the X-axis is labeled "EMBIG average". Named points include Paraguay, Brazil, Chile, and Uruguay.

Source: Own elaboration based on Bloomberg. Average over the sample.

The VIX has been hovering under 30 points in recent years, but during stress episodes it has reached much higher levels. For instance, during the 2008-09 Global Financial Crisis or at the beginning of the pandemic in early 2020, the VIX breached the 70-point mark. Starting from a base VIX level of 25,

reaching a VIX spike level of 70 would represent approximately a 6.5 standard deviation shock to the original base level. In this case, our estimates would suggest that sovereign spreads in the region could increase between 195 and 334 basis points. Even under less extreme shock scenarios, increases in the VIX level to the 40-point range (which were observed on several instances over the past year) would represent shocks of 2 to 3 standard deviations and produce meaningful impact on sovereign spreads of the region as well.

The estimates presented are subject to uncertainty and cannot be taken mechanically. Many factors are not incorporated in our exercise, including the mitigating role of policy responses during the materialization of a crisis event. However, the estimates provide a somber ballpark of the potential disruption stemming from global uncertainty. More importantly, uncertainty about the estimates cuts both ways. Our econometric exercise does not feature explicit transmission channels for feedback and indirect effects. Those channels could be more worrisome at present than in the past, meaning that not controlling for them explicitly leads to an underestimation of the final total impact on sovereign spreads triggered by a current global financial shock. In fact, global financial shocks could interact with domestic economic, social, and political vulnerabilities that have been growing in the region, amplifying the consequences of global uncertainty. The Southern Cone, as other emerging market economies, have been facing domestic issues that could act as amplifiers.

Moreover, the increase in global interest rates acts as another source of financial shock increasing borrowing costs in emerging economies.

In addition, at the current juncture of strong inflationary pressures, it could be harder for monetary authorities to reverse course and resort to extraordinary monetary expansion with a view to stabilize financial market disruptions. As a result, the backstop role played by Central Banks is significantly more limited and countries would need to adjust without the benefit of supportive financial conditions. For Southern Cone economies, all else equal, this would translate into weaker capital inflows and less favorable financing conditions.

Macro stress in the region would be further amplified if global financial shocks are combined with a global recession or slowdown, negatively affecting commodity prices. High commodity prices which tend to benefit Southern Cone countries should not be taken for granted, particularly if global developments lead to recession across major economies and/or if excesses embedded in "financialization of commodities" prove to be large as global liquidity decreases. Considering the Southern Cone economies' reliance on foreign capital and commodity export revenues, global financial shocks in a context of growing domestic vulnerabilities can amount to a perfect macro storm in the region.

3. Domestic policies can (and should) make a difference

The region would benefit from starting to rebuild macro buffers now to weather the risky global financial environment ahead. Rebuilding macro buffers should not be given less priority than other public policies, and eventual short-term trade-offs among them should be transparently communicated and discussed.

Restoring macro buffers in the Southern Cone is particularly valuable now as most countries in the region still display manageable levels of country risk. It would be beneficial to avoid country risk levels falling into the more punitive zone in which sensitivities increase non-linearly as identified by our exercise. Under such a negative scenario, sensitivity to a sequence of global shocks could trigger significant macro stress. This would be disruptive of any public policy, reducing government effectiveness across the board.

What exactly constitutes policy-relevant macro buffers? In general, to stave off risk perception, countries could benefit from more transparent fiscal frameworks ensuring fiscal consolidation, active debt management, and enough liquidity buffers (where reserves and contingent loans are good alternatives). But plans to rebuild macro buffers should be tailored to each country and, most importantly, be considered as an integral part of broader strategies to support medium-term sustained inclusive growth as well as the materialization of the region's productive potential.

Governments in the region need to evaluate the specific channels that a global financial shock would travel in their own economies and identify the challenges along the way. Existing regional heterogeneity calls for granular analysis in this context. Some countries, for instance, rely more heavily on external financing because domestic capital markets are not well developed. In this case, shocks to global uncertainty, on top of an environment with rising global interest rates and reducing liquidity markets, would pose immediate cost and market access challenges.

Some countries do benefit from more deeply developed domestic capital markets, but they would not be immune to global financial shocks either. A spike in global risk could lead investors to chase safe-haven currencies and cause exchange rates to depreciate, followed by domestic interest rate hikes at home to fight off inflation and capital outflows. In time, financing of public debt through domestic capital markets would face less favorable conditions.

In this scenario, there is relevant scope for international organizations, including multilateral development banks (MDBs), to contribute towards global resilience against spikes of global financial stress. Countries in the Southern Cone need to mobilize resources for investment and support recovery after the pandemic while addressing the increased social demands, rising inequality, and poverty. MDBs can participate in strengthening contingent credit lines and, along with other institutions, mitigate fiscal risks through higher public sector efficiency, hedge against commodity prices or climate shocks, foster private sector investment, and promote greater cooperation across countries despite the emerging challenges.

Appendix: Descriptive statistics and VAR estimation

Using daily data from 2013Q1 to 2022Q2, we used a Vector Autoregressive (VAR) model to estimate the impact of shocks to the VIX index over sovereign spreads proxied by the EMBIG index for 41 economies and 4 regional aggregates, including four of the five Southern Cone countries (Brazil, Chile, Paraguay, Uruguay) as shown in Table A.1.

Table A.1. Sample of countries & regions analyzed

LAC	Asia	Europe	Africa
Latam	Asia	Europe	Africa
Bolivia	China	Croacia	Angola
Brazil	India	Hungary	Cote d'ivore
Chile	Indonesia	Kazaqhstan	Egypt
Colombia	Malaysia	Latvia	Gabon
Costa Rica	Mid East	Romania	Ghana
El Salvador	Mongolia	Serbia	Iraq
Guatemala	Pakistan	Turkey	Morocco
Jamaica	Philippines		Namibia
Mexico	Vietnam		Nigeria
Panama			Senegal
Paraguay			South Africa
Peru			
Rep. Dom			
Uruguay			

The VAR model is estimated separately using a common specification on a weekly basis for each of the countries and regions. Given the vector

$$X_{i,t} = [VIX_t, EMBIG_{i,t}]$$

the model is defined as follows:

$$X_{i,t} = \sum_{z=1}^{7} \beta_i X_{i,t-z} + \varepsilon_{i,t}$$

where $\varepsilon_{i,t}$ is a vector of errors $\sim iidN\ (0, \sigma_\varepsilon^2)$. The order p = 7 was chosen according to the Bayesian Information Criterion (BIC) and Akaike Information Criterion (AIC). As a Cholesky decomposition was used, the ordering of the VAR model is of special relevance, where the most exogenous variable (VIX) was placed first and the most endogenous one ($EMBIG_{i,t}$) was placed last. The descriptive statistics of the VIX and the EMBIG index for the Southern Cone countries in the sample are shown in Table A.2.

Table A.2. Descriptive statistics of variables included in the VAR model

	N	Mean	Std. dev.	Min	Max
VIX	2,436	17.5	7.3	9.1	82.7
Embig Brazil	2,436	288.0	73.2	162.0	598.0
Embig Chile	2,436	159.3	38.3	105.0	388.0
Embig Paraguay	2,436	254.2	47.4	167.0	513.0
Embig Uruguay	2,436	191.7	46.4	114.0	407.0

Source: Authors' elaboration based on Bloomberg data.