I would like to thank the organizers for the opportunity to discuss the evolving relationship between Global Financial Cycles and monetary policy at the national level. This is a topic especially important to emerging market economies (EMEs) like mine, for which economic and financial openness went hand in hand with strengthening its macroeconomic policy framework over the last 30 years.

Such external openness leads analysts to frequently rank my country very high in terms of exposure to international trade and financial shocks, only to see such shocks having a milder impact on the economy when they happen. While we believe that such gap is to a large extent due to our appropriate monetary and fiscal policies and the institutions supporting them, we are aware that this does not mean full insulation from global developments, including, of course, Global Financial Cycles.

Structural differences between advanced economies (AEs) and EMEs may be relevant to the nature and impact of Global Financial Cycles

EMEs tend to depend more on foreign financing, due to lower domestic saving capacity. At the same time, EMEs usually have shallower domestic capital markets. These two factors make EMEs particularly vulnerable to changes in international capital flows. Weaker institutional and regulatory frameworks have added up to make these economies historically associated with increased cyclical vulnerabilities. The procyclicality of bank credit and debt-driven fiscal expansions, together with more rigid exchange rate regimes, contributed in the past to amplify external shocks, making exposure to changes in external financial conditions a relevant driver of overall economic activity.

Because of these vulnerabilities, EMEs are often considered a risky-asset class. As such, investment flows pour into them when global conditions improve and risk-on is the mood in the market—be it through international banking linkages or direct portfolio flows. Domestic asset prices surge more vigorously in response to these flows due to limited financial market depth, strengthening the market value of firms’ collateral and further contributing to the buildup of vulnerabilities.

Two factors have been especially critical in the past. First, the so called “original sin”, whereby EMEs—especially governments—fund themselves in foreign currency, creating foreign exchange (FX) mismatches in balance sheets of the government, banks, or corporations. Second, procyclical fiscal and monetary policies that amplify external shocks. In such cases, even a mild external shock can push economies to the brink of recession.

* I thank the comments and suggestions in preparing this note to Elías Albagli, Miguel Fuentes, and Carlos Medel.
In short, domestic weaknesses interact with global financial attitudes in a dangerous mix that has historically proven to be highly destabilizing for EMEs, compared to AEs.

Still, this characterization is based on very crude generalizations; in reality, EMEs spread over a broad range of possibilities for each dimension and different combinations of them. The question is then to what extent does such variety of cases make a difference for the spillover from changes in global financial conditions and what role does the exchange rate (ER) play in it.

**How important are global financial and business cycles to EMEs compared to local ones?**

To address this issue from an EME’s perspective, a first question refers to the relative importance of externally-induced shocks as compared to purely domestic ones. Even if the Global Financial Cycle were a very powerful force, as long as countries can still get into troubles of their own, macro policy, including the ER regime, may make an important difference.

A review of the last 40 years of economic history reveals many episodes during which cyclical turning points originated in domestic, rather than foreign, shocks. In Latin America in particular, many of the major shocks of the 1980s, 1990s, and early 2000s originated locally, usually from misconceived policies, private sector exuberance, or inadequate regulations. The fact that these shocks showed up as large current account deficits surely reflects the degree of dependence of governments and business on external funding, but that does not exempt local conditions from being the main source of the imbalances.

In particular, a classical Latin American and Caribbean countries (LAC) crisis would show up as an unsustainable disequilibrium between public, private, or foreign savings and investment partially contained by some form of FX control, which turns into a major economic and financial crisis once the currency devaluates. Abundant foreign capital may help prolong the situation for a while, but only to make the inevitable turnaround more damaging.

It is important to underscore the role of domestic ER policies. During the upswing, central banks in EMEs often try to curb the resulting appreciation, either through outright currency fixation or heavy FX market intervention. As a number of recent papers have found, these policies tend to reinforce capital flows.¹ When the tide turns, however, these rigid ER regimes are often accompanied by large devaluations, which contribute substantially to insolvency problems in both real and financial domestic sectors.

Global financial conditions may thus influence the timing or even the intensity of a domestically-induced crisis, but they cannot suppress it altogether. Moreover, such favorable financial conditions usually hit back with a vengeance once local weaknesses reveal themselves. From here we can conclude that appropriate macro policies are necessary to prevent locally-induced cycles, even when powerful global financial forces are at play.

**The transmission of Global Financial Cycles to EMEs and the role of ER regimes**

Again, due to their risky nature, EMEs are often perceived as a risky-asset class. As such, capital flows into/out of these economies tend to follow risk-on/risk-off patterns of the Global Financial Cycle, in turn strongly linked to the Global Business Cycle.

The ER regime plays an important role in the transmission of financial spillovers. When capital flows into EMEs—for instance, as a result of a perceived softening of international monetary policy (MP) conditions—, the resulting appreciation of domestic currencies is the first line of response that discourages further flows (as a contemporaneous appreciation increases the expected depreciation in the medium term). But, if the FX adjustment is neutralized by FX interventions by the domestic monetary authority, it will further encourage inflows by reducing ER risk for foreign investors. As a result, FX stabilization enhances the spillovers from foreign conditions on broader metrics of domestic financing conditions, including credit expansion and stock market prices, as well as local bond markets.

Figure 1: ER and long-term yields in reaction to US MP shocks (CHL vs MEX) (†)

![Graphs showing ER and long-term yields in reaction to US MP shocks](image)

(†) A rise in FX indicates a depreciation of the domestic currency against the dollar. The sample corresponds to the post Nov-08 average. Source: Central Bank of Chile.

Recent research conducted at the Central Bank of Chile highlights this point. Figure 1 shows the impact of US MP shocks (changes in US short-term rates around Federal Reserve meetings) on ER and long-term bond prices in Chile (with clean floating) and Mexico, which has actively intervened in recent years. The figure illustrates this pattern, showing a significant response of the Chilean
peso but a non-significant movement in long-term bond prices. The opposite results hold for Mexico.²

Similarly, the response at country-group level also indicates differences when an US MP shock hits other countries' MP rate decomposed into expected MP rate and term premium (see Table 1). Whereas in AEs the adjustment mechanism is mainly through expected MP rate, the transmission in EMEs is via the term premium. ER comes out as more reactive in AEs rather than EMEs, presumably because central banks in EMEs are less prone to conduct sterilized FX interventions, aiming to—partially—stabilize interest rates and the ER simultaneously.

<table>
<thead>
<tr>
<th>Table 1: US MP spillovers (†)</th>
<th>Advanced economies</th>
<th>Emerging economies</th>
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<tbody>
<tr>
<td></td>
<td>2003-2016</td>
<td>Post Nov.08</td>
</tr>
<tr>
<td>10-Year interest rate</td>
<td>0.335***</td>
<td>0.429***</td>
</tr>
<tr>
<td>Expected interest rate</td>
<td>0.331***</td>
<td>0.234***</td>
</tr>
<tr>
<td>Term premium</td>
<td>0.005</td>
<td>0.196***</td>
</tr>
<tr>
<td>FX depreciation</td>
<td>7.50***</td>
<td>10.920***</td>
</tr>
</tbody>
</table>

(†) The country sample includes 12 EMEs and 12 AEs. The panel regressions use daily data from Jan-03 to Dec-16. The units represent effects in basis points (bp), for a US MP shock of 1 bp. (***) p<1%, (**) p<5%, (*) p<10%. Source: Central Bank of Chile.

Of course, a flexible ER also facilitates the reallocation of economic activity between the tradable and non-tradable sectors by speeding up the adjustment of relative prices. This makes the connection between financial flows and economic activity operate through changes in the composition of demand and output, rather than “internal devaluations” which became especially fruitful for several Eurozone and EME countries in the past decade.

The role of commodity prices

Some EMEs, in particular those with large commodity sectors, may at certain episodes display a decoupling of capital flows from global financing conditions. This seems to have been the case in the aftermath of the Global Financial Crisis, in which the general risk-off attitude contrasted with the relative strength of commodity exporters due to China’s contribution to global growth. Indeed, the quick recovery in energy, food, and metal commodities beginning in 2010 led to a surge in growth and capital inflows to commodity-exporting EMEs that starkly contrasted with the depressed macroeconomic conditions that characterized the slow recovery of AEs.

It is tempting to link the decoupling of economic and financial conditions of the 2010-13 episode as a sign that EMEs were beginning to overcome some of their past institutional weaknesses and policy mistakes. But the events triggered by the taper tantrum episode recommend taking this interpretation with a grain of salt. Indeed, such events mark a clear reversal in the outlook of EMEs and the direction of external financing to these economies, once again following closely the downward trend of global commodity prices.

Commodity cycles may be linked to global business and financial cycles at critical junctures, but commodity long cycles are more related to technological progress, changes in the composition of demand, and global trade patterns (see Figure 2).

Figure 2: Commodity super cycles and global conditions (†)

(†) Business and commodity prices based on HP filter. Source: Central Bank of Chile based on IMF and FRED databases.

The experience of Chile since 2000

Chile has been traditionally exposed to global cycles, speeded-up growth in the mid-1980s, once a major financial crisis led to a major upgrade in financial regulations. This bonanza period was halted by the Asian Crisis in mid-1997. The Central Bank tried to sustain the Chilean currency, by then under crawling bands, in the middle of a substantial external shock. This led the Central Bank to raise the interest rate to 14%, by then a real interest rate. Thus, the financial system faced overnight rates of nearly 100%. The Chilean economy enters into a recession in late 1998.

Floating ER was added to forward-looking inflation targeting, and then complemented by a Structural Balance-based fiscal policy in the early 2000s. Since then, the Chilean economy has been able to cushion external shocks pretty successfully, with wide fluctuations in the ER. FX interventions have not been ruled out but done only four times in 18 years.

During the Global Financial Crisis, financial institutions faced liquidity constraints, especially from local subsidiaries of international banks, which were resolved by extraordinary liquidity injections by the Central Bank and a major fiscal impulse.

The end of the commodity bonanza translated into currency devaluation, but the economy only slowed down rather than entering a recession and growth is now recovering very rapidly.

Above all, macro policy has been successful in cushioning external shocks, so now they have a milder impact compared to past episodes.

In perspective, Chilean MP today is among the most expansionary of a group of comparable countries (Figure 3). This persistent expansionary monetary impulse is also observed in consumer,
commercial, and mortgage interest rates, which are all at or very near their all-time lows. Moreover, different qualitative measures produced by the Central Bank of Chile coincide in their favorable evaluation of the cost of credit, considering its low interest rate.

In addition, in recent years it has maintained a remarkable degree of independence from the US MP, especially after the Great Financial Crisis (see Figure 4).

Some key factors supporting the roles of ER as a shock absorber of financial and commodity price shocks

A flexible ER regime is not a form of snake oil to alleviate any sort of global ailment. ER volatility can, of course, generate major wealth shifts, and even solvency problems to agents with large balance sheet mismatches—including government. They can induce major losses in competitiveness, which may harm overall activity if winners fail to capture benefits as fast as
losers realize costs. Constituencies around fixed prices—including the ER—are very concentrated and powerful. Hence, a flexible ER needs to be appropriately articulated with other components on the macro policy framework.

First of all, it is important to minimize financial exposure to ER risk. This involves curtailing currency mismatches in government, business, and bank balance sheets through regulation (macroprudential?) and the use of market hedging mechanisms, like FX derivatives.

Second, a deep and stable domestic long-term capital market is essential for containing the impact of external financial shocks on the flow of credit. Some countries resolve this through a high propensity to save of the population; others may need to force savings through pension and insurance schemes. A large pool of domestic savings may need to be partly invested abroad to secure appropriate returns. In such case, a natural hedge may develop between institutional investors and other players which may facilitate the development of ER derivatives.

Market products for ER hedging may also help mitigate the effect of ER fluctuation on tradables. This may be a cheaper source of insurance than the imperfect ER insurance provided by fixed-rate or managed regimes.

A flexible ER regime also requires overcoming the fear of floating of monetary authorities. This is especially important given the pass-through of ER into domestic inflation. In particular, this requires a strong discipline in applying inflation targeting in a forward-looking mode, so as to filter short-term ER-induced fluctuations. Even with forward-looking inflation targeting, the central bank may need not only tolerate significant deviations of current inflation from the medium-term target but also to exercise a lot of judgment in assessing when deviations in expected inflation originated in the ER justify a change in the policy stance.

Tolerance to ER-induced deviations in inflation is easier the higher the credibility of monetary policy. If medium-term inflation expectations remain anchored at the policy target level, the central bank can count on economic agents to help convergence afterwards. Building a record of credibility and reputation has been a product of a coordinated, persistent, and long-term commitment by the Central Bank of Chile to the best practices on transparency and independence.

A responsible and countercyclical fiscal stance is an absolute requirement for consistency of the overall macroeconomic framework. Besides from softening cyclical fluctuations, fiscal credibility is an important ingredient of MP credibility, as it alleviates potential concerns of fiscal dominance behind MP decisions.

Finally, all of the above may need to rely on substantial financial buffers, like moderate levels of indebtedness by all major economic agents; safe financial assets (sovereign wealth funds); well capitalized banks, and so on.

So, building a reliable floating ER regime able to cushion the domestic economy from financial and commodity shocks takes much more than courage and a statutory decision. It should be supported by a sophisticated financial and institutional architecture. This is not easy to capture in attribute-based scoring systems.
But, when this architecture is put in place and preserved over time, the floating ER regime may be just the expression of a broader arrangement of institutions and policies. Perhaps it is such arrangement, rather than the ER policy itself, the factor that may really protect EMEs from major global shocks, but this is not material to the end result: substantial smoothing of external volatility over the local economy.

Finally, a greater convergence to the international standards on banking capital requirements defined by Basel III, especially for global banks, is among the macroprudential policies currently promoted to reduce the impacts of greater external volatility.

Thank you.

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