Financial stability, macroprudential regulation and international capital flows Overall vision and main takeaways

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Roadmap

- Challenges for macroprudential policy frameworks
- Pros and cons of ‘optimal’ policies: country characteristics matter
- Experience and lessons from the Chilean case

Challanges for macroprudential
policy frameworks

The IMF IPF can be a useful tool while used, interpreted and communicated with caution

- Many countries do apply capital flow and macroprudential measures. They also intervene in FX markets, even under floating regimes, to lean against depreciation. **So, the model reconciles these empirical facts.**
- Having a common framework, even taking into consideration country characteristics, **improves the ability of surveillance, and financial assistance**. This is positive, particularly in times of crisis.
- With a clear communication, the IPF results could be a useful guide to better operationalize and **select the available tools several countries have**.
- The IPF makes a (strong) case for **integrating monetary and financial policies**, as instruments operate in different margins. They can be complements or substitutes. And targeted to different markets: Domestic (foreign) policies can be used to face foreign (domestic) shocks.

Even though the model is already complex, it could benefit from some insights on the role that **unconventional monetary policy plays** and not only conventional interest rate policy.

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Challenges for IPF or any other framework

Value added? Increased country differentiation and a high level of granularity could result in taylored 'optimal' policies. It could end up being of little guidance to authorities, or even justify any type of idiosyncratic mix of policies.

Complexity may play against interpretation and usefulness. In adding several sectors, frictions, externalities, among other features, the model risks telling "the wrong story". In calibrating the shocks, uncertainty plays a big role –even more now- and there is always the risk of wrong identification (supply vs demand) . Model predictions can vary significantly.

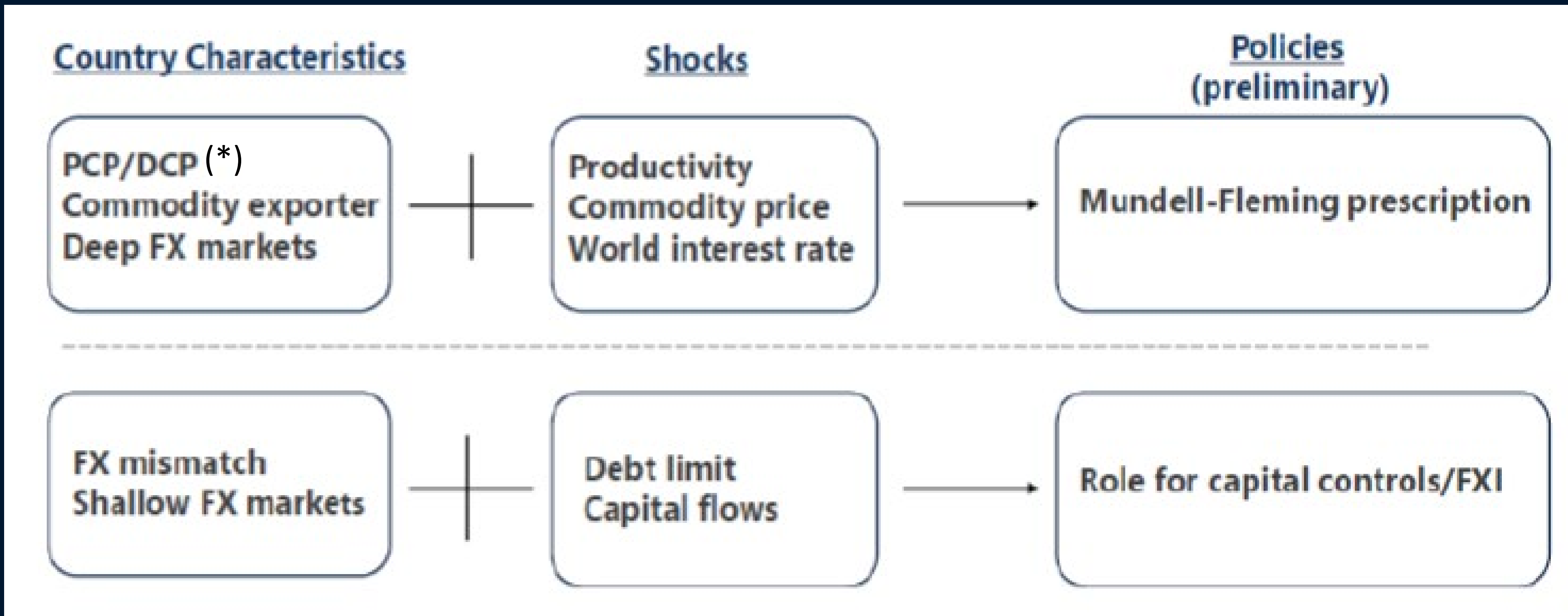
Need for a role of Fiscal Policy. During the COVID-19 crisis fiscal measures have been the first line of defense, complemented by monetary policy.

Misuse. There is a risk of justifying second best policies based on a specific framework, instead of advancing towards improving the underlying reasons that motivated unorthodox policies to begin with.

Endogeneity, or intertemporal trade-offs difficult to consider. Frictions can be endogenous. For instance, it is likely that FX markets will stay shallow if FX interventions are frequent and predictable. Also, CFM may have reputational costs affecting foreign investor´s assessment and external financing in the future. More generally, the policy mix should be time consistent without compromising medium term policies.

Pros and cons of ‘optimal’ policies :
country characteristics matter

Optimal policies depend on country characteristics. Important: when to implement, for how long, impact on future policies and market developments



(*) PCP: Producer currency pricing (exports invoiced in domestic currency); DCP: Dominant currency pricing (exports are invoiced in dollars)

Source: International Monetary Fund

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Optimal policies depend on country characteristics

Example: how FX market characteristics shape policy responses

For countries with deep FX markets FX intervention does not affect the exchange rate, so there is no rationale for using FX intervention to attempt to smooth the exchange rate.

For countries with shallow FX markets however capital mobility is limited, and the uncovered interest parity condition is broken. There is a possibility that the policymaker may be able to affect the exchange rate to stabilize the external balance and any external borrowing constraints, while freeing up the policy rate to stabilize households' borrowing and lending decisions.

For countries with FX mismatch under financial stress, FX intervention can be used to stabilize macro-outcomes after a financial shock. The accumulation of FX assets in normal times can be a partial substitute for the reduction of debt via capital controls.

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Experience and lessons from the Chilean case

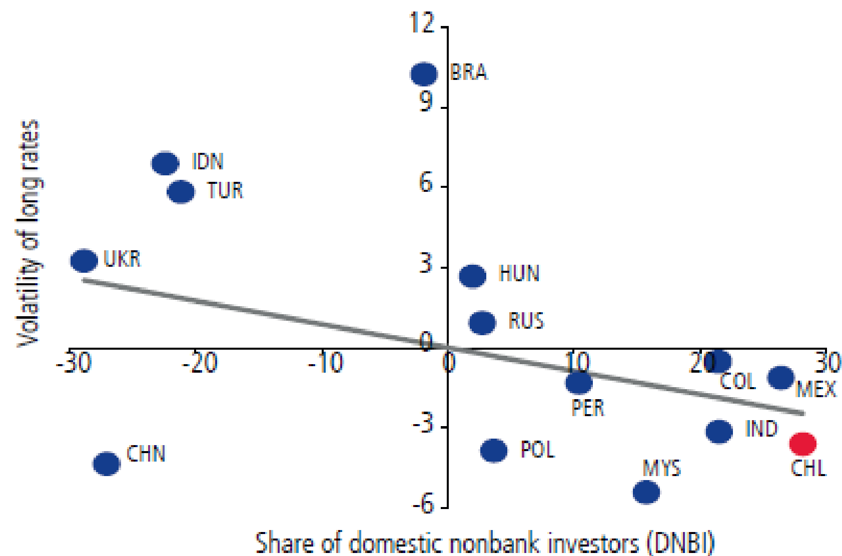
Chile´s experience with unorthodox policies

In Sep.99, the CBC adopted a free-floating exchange regime and removed the FX restrictions used during most of the '90s, such as the unremunerated reserve requirement. A couple of years later, the FX regulations of the CBC were changed, and all FX controls provisions removed.

FX interventions. Along with the liberalization of the exchange rate in the late ´90s, regulatory changes included the authorization of cross-border foreign exchange derivative transactions, and the increase in overseas investment limits for the pension fund managers (PFMs) (Villena and Hynes, 2020). The FX market deepened, and banks and corporates´ balance sheets turned to be well hedged. In the last 15 years, there have been no interventions to defend the currency. After the social crisis of 2019, an intervention program was put in place to tackle extreme volatility of the exchange rate, but not the level. In 2021, a purchase program began to build the international reserve buffer.

Capital control measures. The experience of the 1990s, imposing an unremunerated reserve requirement on portfolio flows that were invested for less that a year in Chile, was replicated in several countries. Nevertheless, our own assessment is that the capital control was not completely successful in curbing inflows, but rather modified the term structure of the financial account, to shorter maturity external liabilities. No situation has been envisioned in which capital controls could be reinstated.

The Chilean experience underscores that frictions and market development can be endogenous



(*) Relates the volatility of long rates and the share of domestic nonbank investors (DNBI) in the sovereign debt market, adjusted by the Frisch-Waugh-Lovell theorem, using specification (5) in Álvarez, Fernandois, and Sagner (2019).

Source: Central Bank of Chile, based on Álvarez, Fernandois, and Sagner (2019).

The financial integration process that Chile underwent was planned starting in the late 1990s, when the domestic capital market had reached a level of development that would support advancing to a new phase of financial integration (FSR, 2020).

Since then, modernization of the financial market has been more evident, with a deep fixed income and derivative markets, large institutional investors, and a relatively high presence of non-resident investors.

The large share of institutional investors correlates with low volatility of long-term rates, in a sample of emerging economies.

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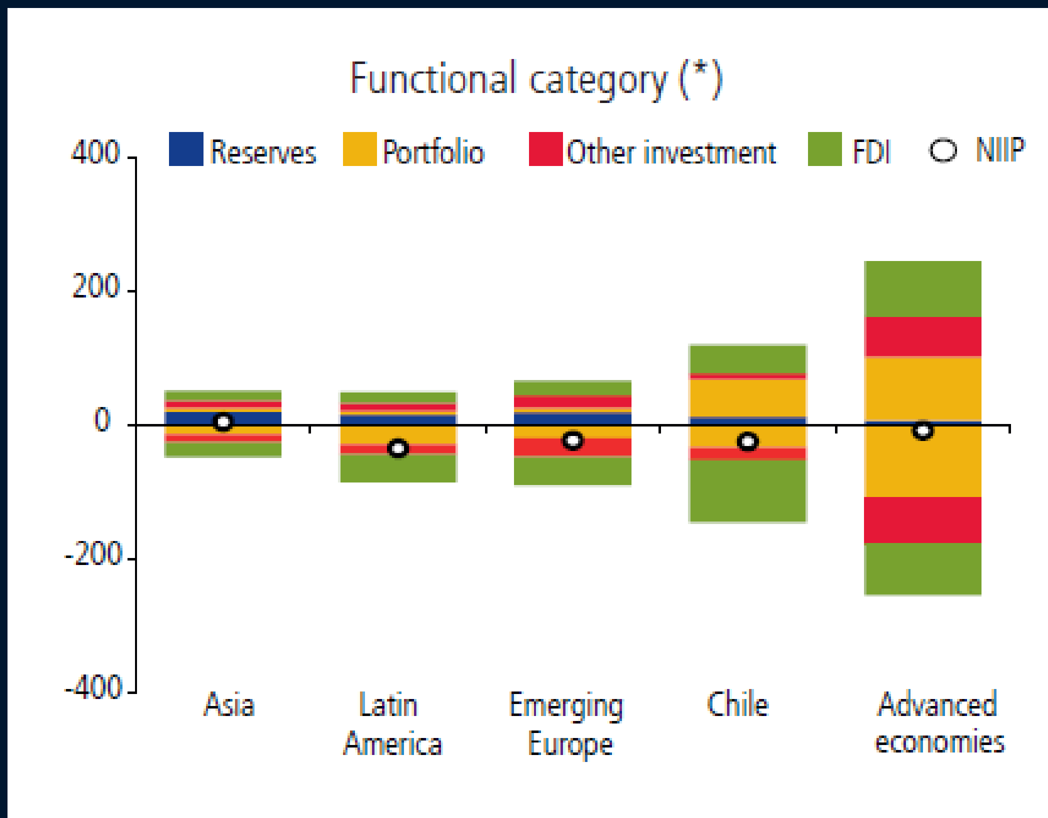
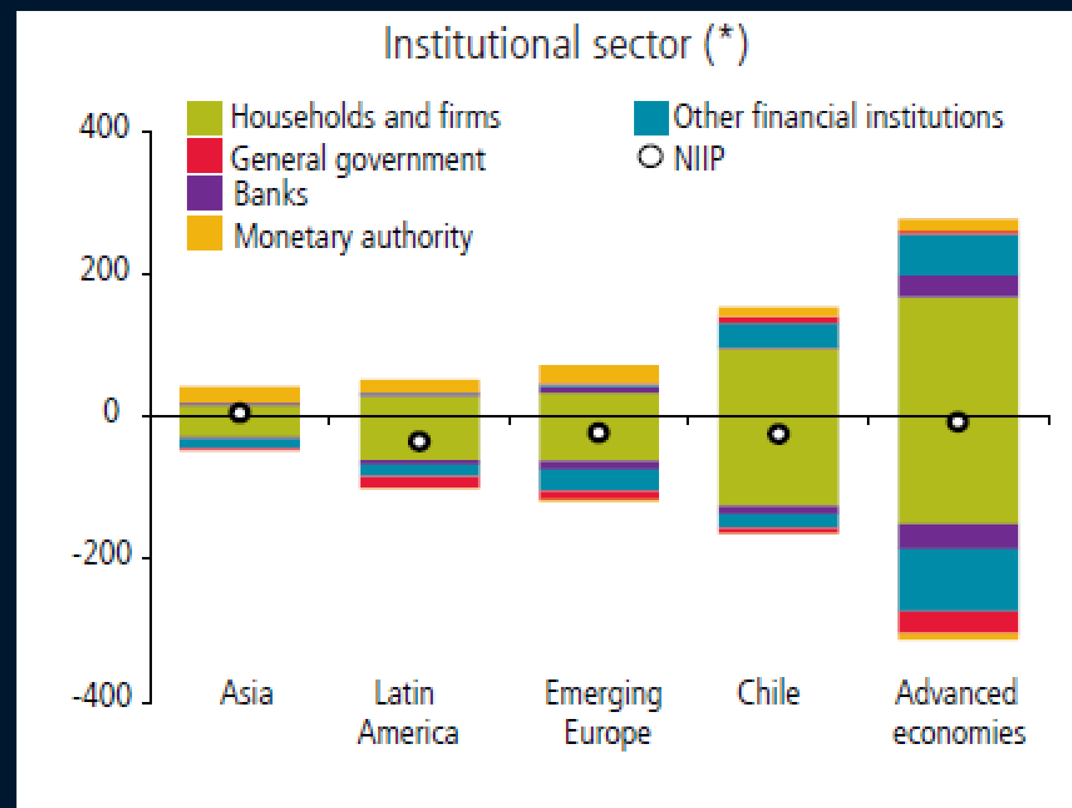
High degree of financial integration: gross external assets and liabilities near 150% of GDP (FDI / private agents)

Chile: Gross External Financial Position

Percent of GDP





(*) Average weighted by GDP at current prices, December 2018

Source: International Monetary Fund and World Bank (FSR, 2020)

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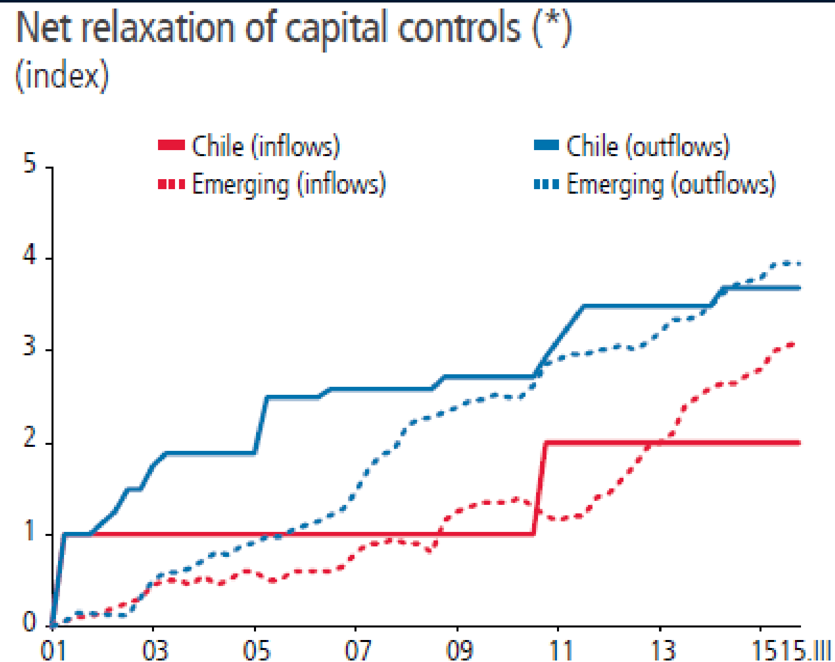
Chile´s liberalization of the financial account has been a continuous and uninterrupted process



(*) Net accumulated number of policies that relax capital inflows and outflows (i.e., policies that loosen minus policies that tighten). Sample of 20 emerging economies: Argentina, Brazil, Bulgaria, China, Colombia, Egypt, Hungary, India, Indonesia, Malaysia, Morocco, Mexico, Peru, Philippines, Poland, Russia, Saudi Arabia, South Africa, Thailand, and Turkey.

Source: Central Bank of Chile, based on Pasricha et al. (2018).

Since the opening of the financial account in the late 90´s Chile has never reversed liberalization measures, not even after the global financial crisis nor the COVID-19 crisis.

How we measure openness matters

Official sources of qualitative information that allow for comparisons between countries and across time are extremely useful, however they might present some drawbacks. For instance, limits on investment abroad by pension funds have always existed but they have been relaxed over time. However, depending on the type of analysis it might probably fail to describe this process.

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Institutional Framework for Macroprudential Policy in Chile

New financial regulation and supervision scheme

Through 2017, the institutional scheme was based on a design of sectoral supervision for the banking industry (SBIF), the securities and insurance markets (SVS), and the pension system (SP), each under the oversight of a different agency.

This institutional structure changed significantly with the creation of the Financial Market Commission (FMC) in December 2017 (Law 21.000), which replaced the SVS and later merged with the SBIF following the latest reform of the GBL, published in 2019.

The FMC has an explicit responsibility for the "development and stability of the financial market."

→ Greater capacity for macroprudential management, with a shared responsibility for Financial Stability between the Central Bank of Chile and the FMC.

The Central Bank of Chile has hard and soft Powers regarding its mandate on financial stability

Tool	Authority	Coordination
Capital structure (i) Broad-based tool	FMC	CBC gives prior assessment to FMC
Countercyclical capital buffer (i) Broad-based tool	CBC	CBC receives prior assessment from FMC
Provisions (LTV, etc.) (ii) Sectoral tool	FMC	
Liquidity risk management (iii) Liquidity tool	CBC	CBC receives prior assessment from FMC
Deposit reserves (iii) Liquidity tool	CBC	
Additional requirements for systemic banks (iv) Structural tool	FMC	CBC gives prior assessment to FMC

Source: Central Bank of Chile, Financial Stability Report, chapter IV, first half 2020.

The CBC and the FMC have complementary attributions (and tools) and work coordinately.

The macroprudential policy results from the convergence of these entities´views.

The main tool of the CBC is the countercyclical capital buffer, incorporated after the General Banking Law Reform of 2019, and whose implementation framework is work in progress.

Regarding additional capital buffers for systemic Banks, it is the FMC that calibrates it, but the CBC must give a favorable opinion.

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Domestic and external shocks have put the financial market strength to test

The Chilean financial market has proven resilient as it has been exposed to domestic and external shocks. More recently, the social protests in late 2019 and the pandemic in 2020 deteriorated some buffers and mitigators, which will have to be strengthened and deepened, (e.g., bank capitalization, fiscal buffers). Notwithstanding the weakening of the net asset position of firms, they were still able to access external financing at favorable terms.

The tools at hand were deployed and the external liquidity buffers of the Central Bank of Chile were reinforced (FCL, NY Fed Repo line). The availability of external insurance allowed for a stronger policy response to provide domestic liquidity and reinforce the credit flow, without the need of intervening in the FX market, nor imposing capital controls.

There are further challenges like adopting Basel III framework, and the reduction in the cost of foreign currency hedging. The volatile behavior of pension fund managers' investment decisions has been an idiosyncratic development that the authorities tackled partly with new legislation, but it continues to be closely monitored as a source of financial market volatility and portfolio reallocation of institutional investors.

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Market infrastructure, credible policy frameworks, and transparent implementation feed into each other to strengthen the resilience to external shocks.

Going forward, the financial integration and development process will require continuous adjustments to address new challenges that arise due to globalization. In this line, the Central Bank of Chile´s current financial modernization agenda includes issues such as the strengthening of financial market infrastructures and the convertibility of the Chilean peso. This has been highlighted in past FSRs.

Important developments include the extension of the Central Bank's RTGS system to include dollar operations, the regulation of a large value clearing house for peso-dollar spot transactions, and the development of a derivatives trade repository.

The future incorporation of the Chilean peso into the CLS system would constitute a further strong signal of financial development, promoting the participation and competitiveness of the local foreign exchange market, and would also facilitate the provision of liquidity in foreign currency under global stress conditions.

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Take aways

Macroprudential frameworks faces important challenges.

- It is useful to learn about the interactions among CFMs, MPMs and interest rate policy, and the likely outcomes. It should not be understood that optimal policies coming from a stylized model –built for small open economies- are intended to be prescriptive. All caveats should be considered.

Pros and cons of ‘optimal’ policies: country characteristics matter

- Any framework should stress very clearly that first-best policies are optimal, and at the same time acknowledge that countries might differ, and unorthodox policies play a role. Indeed, less open capital account might be prudent as domestic financial markets develop; FX interventions could be needed in a highly dollarized economy or when inflation is poorly anchored.

Experience and lessons from the Chilean case

- A certain level of financial development is needed before advancing to financial integration to minimize risks. But then, markets developed fostered by the credibility in the implementation of monetary and financial policies. In this context, the need for unorthodox policies is reduced.

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EXTERNAL FINANCIAL CONDITIONS AND THEIR IMPACT ON LOCAL MARKETS

Chapter IV, FSR S2, 2020

https://www.bcentral.cl/documents/33528/2573332/fsr_2_2020.pdf/6807175b-5576-facb-5b69-d298526e9479?t=1610542210040

MACROPRUDENTIAL POLICY: INTERNATIONAL EXPERIENCE AND DEVELOPMENTS IN CHILE

Chapter IV, FSR S1, 2020

https://www.bcentral.cl/documents/33528/2294181/FSR1_2020.pdf/7973c4dd-de59-718e-d24a-0d3c10bfe6be?t=1593803889533

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The IMF´s Integrated Policy Framework (IPF) is based on a set of models (Conceptual and quantitative)

The conceptual model in a nutshell (*)

- Model of a small open economy that features real and nominal frictions…
- …to characterize the optimal integrated use of monetary policy, capital controls, FX intervention, and macroprudential policy for different shocks and country characteristics.
- Countries are allowed to differ in terms of their currency of trade invoicing, external debt levels, degree of currency mismatches, external and domestic borrowing constraints, and the depth of their FX markets.
- Not just the number but the workings of individual policy instruments matter.
- Instruments interact with each other in complex, sometimes unexpected, ways, making it essential that they are considered jointly.
- There is no strict assignment of domestic policies (policy rate and macroprudential debt taxes) to domestic shocks and domestic frictions, or external policies (capital controls and FX intervention) to external shocks and external frictions.

(*) "A Conceptual Model for the Integrated Policy Framework", IMF WP/20/121

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