

## **Adjustments that small and emerging market economies have to make in today's more challenging economic conditions\***

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The last few months have seen a further deterioration in the economic outlook of several emerging countries. To the fall in commodity prices and the prospects of policy normalization in the US, new worries from China have been added recently, weighting more heavily than before on the short- and medium-term prospects of emerging market economies. Today I would like to offer a perspective on the recent outlook from the point of view of Chile, a small open economy with a large copper mining sector, whose most important client is China. Because the commodity super cycle will play a significant part in this narrative, I believe the Chilean experience captures well some common trends faced by other emerging countries during the last two years. Nevertheless, our specific macroeconomic framework has also played a major role allowing Chile to adjust, relatively successfully, to changing economic conditions, so I would like to pause and reflect on such framework. In what follows, I will highlight four pillars of our macroeconomic framework which have been material, and will continue to help the Chilean economy in making this transition a soft-landing experience. These pillars include i) the structural government budget rule, where expenditures are consistent with a long-run price of copper and economic growth, ii) an independent Central Bank with a credible inflation target, iii) a fully flexible exchange rate regime, and (iv) a sound and well regulated financial system.

Chile's economy benefited enormously from the copper price boom in the decade spanning from 2003 to 2012. Investment in the mining sector increased from around 3% of GDP in the first half of the 2000s to a peak of 8% of GDP throughout 2013. One notable consequence of fast growth and high copper prices was the accumulation of fiscal resources due to Chile's structural budget rule. This rule –the first main pillar of our macroeconomic framework-- dictates that the government should save when growth and/or copper prices are above long-run trends. Hence, the GFC that erupted in 2008 caught Chile with an important pool of savings, allowing for strong fiscal expansion despite low growth. This fiscal expansion, together with a strong monetary stimulus and a

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rather quick recovery of commodity prices, helped the Chilean economy to a fast rebound, with economic growth averaging 5.3% between 2010 and 2013.

The scenario for Chile started to change more noticeably around the taper-talk episode in early 2013. By then, copper prices were already well below their 2011 peaks, and the message that the Fed was about to embark in a process of monetary normalization marked a sharp turn of capital flows out of emerging markets, and Chile was no exception. In the last two years, copper prices have declined substantially and mining investment has been greatly reduced, with negative spillovers on non-mining investment and activity in general. In addition, both business and consumer confidence have deteriorated substantially. However, our analysis suggests that the decline in confidence has been larger than what could be attributed to the worsening of the domestic and external economic conditions, a fact that further deteriorated investment.

This lower rate of economic growth (about 2% average in 2014-15, according to our latest projections) required a countercyclical macroeconomic policy, according to our policy framework. On the one hand, fiscal expenditure has expanded more than revenues, and is expected to maintain this trend throughout 2016, consistently with the structural budget rule. On the other hand, the Central Bank lowered the policy rate by 200 basis points between 2014 and 2015, leaving Chile with one of the lowest (if not the lowest) real rate among emerging economies.

While it is hard to put a reliable point estimate on the effect, it is likely that the significant cut in interest rates has played an important role in smoothing the negative impact of external developments on domestic activity. For instance, it is clear from monthly surveys that we conduct at the Central Bank that, while firms are more pessimistic about the current and future economic outlook, they do not experience tighter funding conditions, and few mention lending constraints as a relevant force behind the slower pace of investment expenditure. This relevant monetary policy stimulus was possible to implement despite the inflationary effects of the sharp exchange rate depreciation due to the second pillar of our macro framework: an independent Central Bank with a credible inflation target of 3%. Indeed, all throughout this adjustment period, inflation expectations have remained well anchored in the medium term (2 years, which is the horizon set for achieving the target), despite the fact that the Bank was lowering interest rates while headline inflation was picking up due to nominal exchange rate pass-through into prices.

On this last point—the impact of the exchange rate on domestic prices—I would like to expand a bit more. The third pillar of our macroeconomic framework, exchange rate flexibility, is in our view crucial for a small open economy that is also very well integrated to global goods and financial markets, like Chile. Such a system allows the economy to rapidly and effectively accommodate external shocks such as large changes in the terms of trade by adjusting the real exchange rate, and it gives flexibility to monetary policy to help

smooth the domestic business cycle, since this framework makes domestic monetary policy independent from monetary policy in advanced economies.

Interestingly, this relative price change has helped in fostering the adjustment of the current account of the balance of payments. Indeed, while in 2013 the current account deficit reached 4% of GDP and was projected to increase even further, for this year we expect a current account deficit below 1% of GDP.

Of course, allowing the exchange rate to freely float can be a nuisance once in a while, as the inflationary pressures from sharp depreciations (such as the one Chile has experienced since 2013) could be very significant. This phenomenon is particularly important for countries where exchange rate pass-through is high. This is a question we explored recently in a paper with Elias Albagli and Alberto Naudon that was the base of my discussion in the 2015 meeting in Jackson Hole. There, we presented evidence that the degree of exchange rate pass-through into domestic inflation is significantly higher in emerging markets than in advanced economies. In the case of LATAM, this compounds with the fact that the end of the commodity super-cycle has affected ToT negatively for the region, leading to large NER depreciations. Consequently, in Chile and other LATAM countries, such as Brazil, Colombia, and Peru, inflation has increased fast and markedly. This contrasts with the recent experience of other commodity-exporting, advanced countries, in which the degree of pass-through to domestic inflation has been much lower.

NER-driven inflationary pressures are harder to deal with than demand-driven inflationary pressures, because only the former imply a relevant output – inflation tradeoff for monetary policy, since the inflationary impact of depreciation is supposed to be transitory. Consequently, a central bank should be more reluctant to tighten policy when the origin of inflation is a depreciation of the local currency that comes together with a downturn associated to negative external events. However, this does not mean that the monetary authority, especially one that has chosen to use an inflation targeting regime, could remain indifferent if inflation rises above target for a long period of time. This has been a crucial piece of the discussion and analysis at the Central Bank of Chile in the last year, a period over which we have been constantly increasing our inflation projections due to the higher-than-anticipated level of NER depreciation.

One critical element in this discussion is how well-anchored inflation expectations are. This obviously depends on the behavior that the Central Bank has had in the past and how this shows our strong commitment to the inflation target. In the case of Chile, we are proud of a tradition of good behavior in this area, but we are also aware that, while a powerful asset in the conduct of monetary policy, credibility cannot simply be taken “as given”. In fact, a large body of literature on monetary economics clearly stresses the advantages for a monetary authority that operates under the benefit of credibility, but it is relatively silent about how such credibility is forged and maintained through time. The worry is that, faced with persistently high inflation, economic agents might begin doubting

the capacity of the authority to meet its set target within a given time interval. If this happens, direct inflation pressures stemming from NER pass-through can prove to be much more persistent through the so-called second-round effects, as new contracts and wages begin incorporating higher inflation expectations. This worry is even higher in countries where, as is the case in Chile, indexation to past inflation is prevalent in many contracts, including mortgages, salaries, house rents and long term loans.

In this context, it is prudent to be on the conservative side, transmitting with words and actions, and as clearly as possible, that the Central Bank will not allow medium-term inflation expectations to become de-anchored, and to take the necessary measures before this undesirable scenario unfolds. In the last few Monetary Policy meetings and in our last inflation report, we have confronted this issue openly by suggesting a faster than previously anticipated hike in rates in the baseline scenario. Obviously, the risk that inflation expectations might become decoupled from the target at the two year horizon weighs strongly on this decision.

A further issue that complicates the decision-making process for central banks in general, and that has also been the case for Chile in this last episode, is assessing the role of the output gap in reining-in inflation. The output gap, defined as the difference between current and potential output, is a complicated concept to deal with for several reasons. First and foremost, there is significant ambiguity, even among professional economists, about what exactly it is supposed to capture. To give an example, many observers in Chile contend that because medium-term (or structural) growth should be in the order of 3.5%, a 2% growth rate implies a rather large output gap. However, the level of growth that is consistent with price stability is not necessarily identical to the medium-term, or structural, rate of growth, as the former has to take into account the effects of temporary supply shocks. In the case of Chile, the last two years have been marked by an important process of resource reallocation from the mining sector into other areas of economic activity. It is therefore natural to think that, at least in the near term, the level of potential output growth that is consistent with stable prices might well be below the medium-term level of economic growth. It is also relevant to note that because Chile grew above potential for several years during the commodity boom period, the output gap was clearly positive before the current slowdown began. So, in spite of the recent relatively poor performance of the economy, our assessment is that today the output gap is only moderately negative, and then, if our growth projections are correct, it will not be a significant driver, as it was in previous episodes, in the process of reducing inflation to the target. This view is also consistent with statistics from the labor market. Although recently unemployment has increased slightly, it is still well below historical patterns, while real wages continue to expand, albeit more modestly than during the 2010-13 period.

In addition, as is the case with any unobservable variable, the output gap is very hard to estimate in a precise manner. But not just that; there is also significant disagreement in empirical macroeconomic studies about the importance of the output gap as a driver of

domestic inflation. In fact, several recent studies and speeches by prominent central bankers tend to downplay the role of activity in the determination of inflation.<sup>†</sup> This could be due to a number of factors, including: i) a better anchoring of inflation expectations, which tends to tone down the response of inflation to temporary output gaps, ii) a more prominent role for global output gaps, which tends to reduce the importance of domestic economic slack in Phillips curves, and iii) downward wage rigidity, which may shift the lead-lag relation between unemployment and wage inflation.<sup>‡</sup> In short, while our models suggest that the economy might be running below full capacity, there is little reason to believe that this will play an important role bringing inflation down any time soon.

In summary, Chile faces many of the current challenges that have made life difficult for policymakers in the emerging world. The end of the commodity super cycle and the reversal of capital flows have led to important nominal exchange rate depreciations. As opposed to other emerging market economies, in Chile the adjustment of the current account took place rapidly, which gives us an advantage in the sense that we do not need to make any further adjustment in this matter. In other words, from a macroeconomic point of view, the economy is quite healthy.

However, the depreciation, while part of the necessary relative price adjustment in a situation with lower commodity prices and capital inflows, creates relevant inflationary pressures due to the large degree of pass-through into internal prices that characterize emerging market economies. This high inflation and slower pace of economic growth present a difficult tradeoff for central banks. In the case of Chile, the fact that inflation expectations have remained well anchored has allowed the Bank to provide a significant stimulus despite higher observed inflation in the last 2 years. However, we all know that reputation, while difficult and lengthy to build, can be ruined in a short period of time. This principle conveys a relevant message which we take very seriously at the Bank, and explains partly why we have hardened our communication over the last few months and anticipated a moderate reduction of the large monetary stimulus now in place.

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<sup>†</sup> See Yellen (2014) for the case of the US, and Weale (2014) for the case of the UK.

<sup>‡</sup> See Moccero et al. (2011), IMF (2013), and BIS (2014) for a discussion on the role of inflation expectations; Borio and Filardo (2007), Milani (2010), Bullard (2012), and BIS (2014) for the role of the global output gap; Krugman (2013) and Yellen (2014) for the role of downward wage rigidities.

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