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Monetary Policy after the Crisis: Some Issues Regarding Targets and Instruments [1]

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Abstract

After the latest international crisis, the worst since the Great Depression, there has been sound debate surrounding the issue of monetary policy. The world is taking a new look at some of the paradigms that the crisis impugned in one way or another. It can be expected that the crisis will have lasting effects on some central banking policies; also that the bigger changes will have to do with the aspects of said policies more closely related with financial stability than with monetary policy itself.

The purpose of this document is to analyze some of the elements of the ongoing debate around monetary and exchange rate policy in light of Chile's experience and discussion on the matter. It begins with a brief summary of recent macroeconomic and monetary policy developments. It then proceeds with a more specific and conceptual analysis of said policy in the aftermath of the crisis. In particular, three issues are examined: (i) the convenience of switching from a regime of inflation targeting to one of price-level targeting; (ii) the exit strategies of unconventional monetary policy after the crisis; (iii) exchange rate policy.

With respect to the first issue, the argument is that the high costs of targeting the price level (which are more intense in periods of high inflation) suggest that, for the time being, a change is not advisable; regarding the second, the paper focuses on the problems central banks encounter when trying to exit from unconventional policies. Fortunately, given its economic circumstances, for Chile the process was fairly easy. Finally, some exchange rate policy options are reviewed, claiming that what happens in the exchange rate market is not irrelevant for monetary policy making.

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[1] A previous version of this document was presented at the conference "Inflation Targeting in Open Economies: Challenges in a Post-Crisis World". Prague, 24 September 2010. I am grateful to Sofía Bauducco, José De Gregorio and Pablo García for their valuable comments; however, all the opinions expressed here are my own.

I. Introduction

In the aftermath of the global crisis, the worst since the Great Depression, there has been sound debate surrounding the issue of monetary policy making. At various circles, for example, central banks have been questioned for not having avoided the incubation of such a shock. Part of the questioning has to do with the alleged delay in implementing a contractionary monetary policy to stop soaring asset prices.[2] Another focus of judgment have been inflation-targeting regimes such as the one in place in Chile for over a decade now, which, so the argument goes, seem to be unfit for periods of financial instability. Some literature has certainly disproved this version showing that inflation targeting is perfectly consistent with the objective of financial stability.[3] Accordingly, the world is taking a new look at a number of paradigms that were put to the test in one way or another because of the crisis. Some of this debate will result in changes in central bank policies. It is likely, however, that the biggest changes will relate to those central bank policies that are more directed at financial stability than to monetary policy itself. Thus, for example, it can reasonably be expected that macroprudential regulation and supervision will evolve in the direction of increased prevention of systemic risks;[4] it is less evident that the inflation-targeting policy will undergo greater changes, at least in the short term.

The purpose of this paper is to analyze some of the elements in the ongoing debate on monetary and exchange rate policy in light of Chile's experience and discussion on the matter. I begin with a brief review of the recent evolution of the economy and monetary policy. Then I proceed with a more specific and conceptual analysis of said policy in the aftermath of the crisis. In particular, three issues are examined: (i) the convenience of switching from an inflation-targeting regime to a price-level-targeting regime; (ii) exit strategies for unconventional monetary policy measures; (iii) exchange rate policy.

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[2] The convenience of using monetary policy to influence asset prices has been the subject of controversy. See, for example, Borio and Lowe (2002); White (2006); Bernanke and Gertler (2001).

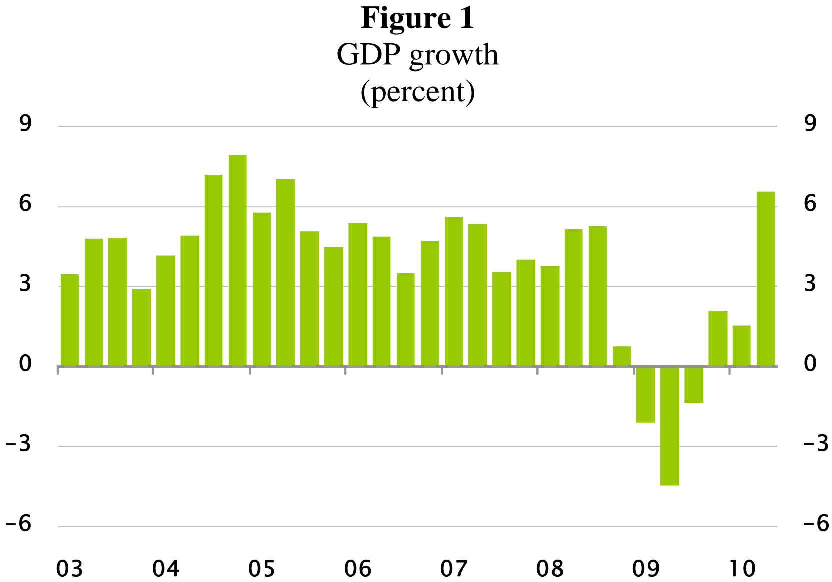
[3] Svensson (2010).

[4] Actually, recent Basel agreements (Basel 3) point in that direction.

II. Recent Macroeconomic Developments in Chile

The international crisis hit the Chilean economy strongly. In 2009 GDP fell 1.5% in which was the first recession in 10 years (Figure 1). Domestic demand decreased 6% while the CPI declined 1.4%, our first negative annual inflation rate since the 1930s. Macroeconomic policy reacted rapidly. On one hand, fiscal policy became very expansionary and the budget went from a surplus of 4.3% of GDP in 2008 to a 4.4% deficit in 2009. Government spending rose 17% during the year 2009 while fiscal revenues dropped considerably, not only because of the economic contraction, but also because of a transitory reduction in some taxes. Like in the rest of the world, there is an ongoing discussion on the effects of fiscal policy, which will not be visited here. However, it is important to note that Chile's fiscal position was quite strong before the crisis (and still is). In fact, during the five years before the crisis (2004-2008) the budget posted an average surplus of 5.4% of GDP. Net government debt is negative, this is the Chilean government has become a net creditor. This means that in Chile nowadays fiscal sustainability is not an issue as it is in many countries. However, there has been discussion on the way out of fiscal expansion. The government has committed to reduce the structural deficit of 3% of GDP of 2009 to 1% of GDP in 2014 (at the completion of the current presidential term).

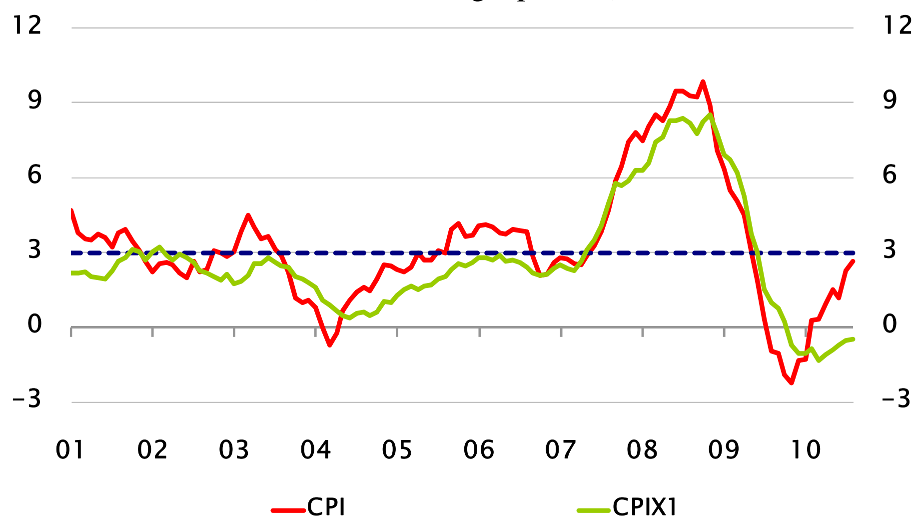
Figure 1
GDP growth
(percent)



Source: Central Bank of Chile.

The Central Bank of Chile (CBC), meanwhile, implemented both conventional and unconventional monetary policies to deal with the crisis. In the two years before the crisis, inflation was above the target (Figure 2), much influenced by increased food prices around the world (Chile is a net importer of grains), but also by a very dynamic aggregate demand. The monetary policy rate (MPR) had been raised steadily, reaching 8.25% by September 2008. During the fourth quarter of 2008, as financial and liquidity tensions were spreading around the world, the CBC adopted a number of financial stabilization measures. Collateral for CBC liquidity operations was expanded to include not only government and CBC instruments, but also bank deposits. A long-term repo program in dollars was implemented, together with longer tenor repo operations at a floating interest rate. In January 2009, when the effects of the global crisis were being felt in the country, the CBC began an aggressive program of interest rate reduction. In July 2009 the MPR hit its all-time low of 0.5%. Since this measure was deemed insufficient, the CBC decided to also apply unconventional policies. The most significant was the so-called FLAP (term liquidity facility in Spanish), which consisted of repo operations at 90 and 180 days for banking institutions. The purpose of this instrument was to reinforce the signal given to the market that short-term interest rates would be kept low for a prolonged period of time (this combined with the explicit announcement, in the monetary policy meetings' minutes and communiqués, that the MPR would be kept low until at least the second quarter of 2010).

Figure 2
Inflation indicators
(annual change, percent)

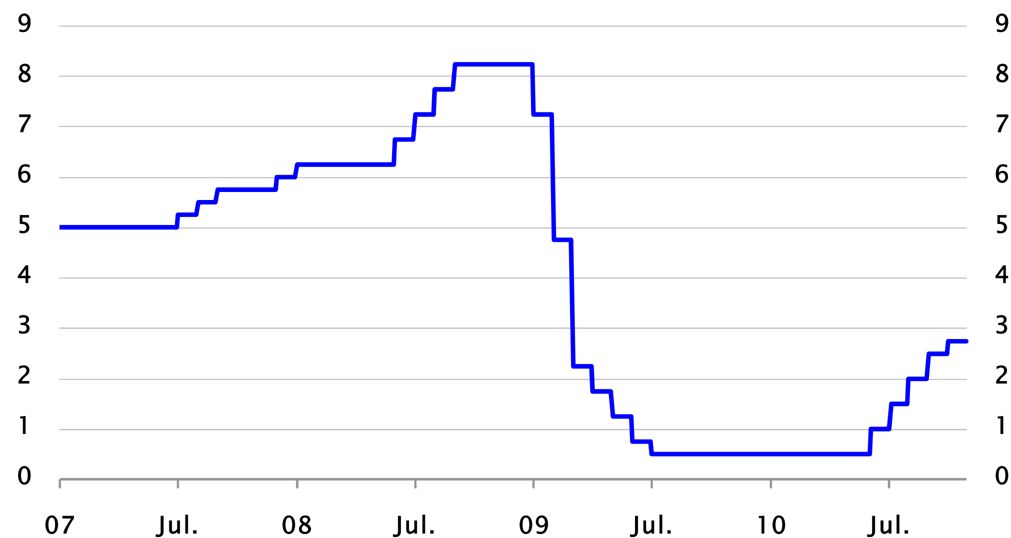


Sources: Central Bank of Chile and National Statistics Institute.

In the second half of 2009, the Chilean economy began showing some signs of recovery. Fourth-quarter growth (y-o-y) was positive, and short term expectations improved substantially. The earthquake and tsunami of 27 February 2010 (the fifth most severe in recorded world history) introduced a pause in the process of economic recovery, and in the first quarter GDP increased by barely 1.5%. However, after the first negative signs, growth resumed its previous dynamism and posted a 6.5% growth rate in the second quarter. These high growth rates are forecast to continue at least until 2011.

The unconventional measures were gradually reduced, and fully withdrawn in June 2010. Conventional policy has followed the same path: in June, for the first time in one year, interest rates were raised 50 basis points to 1% (Figure 3). In the ensuing monetary policy meetings, the MPR has been kept on its upward trend, and by October it was at 2.75%.

Figure 3
Monetary policy interest rate
(percent)



Source: Central Bank of Chile.

III. Monetary and exchange rate policy issues

Next, more conceptual discussion is made on three issues that are very important for central banks in a post-crisis world, namely the monetary policy target, the exit strategy for unconventional policies or policies in the lower bound of nominal interest rates, and exchange rate policy.

The monetary policy target: inflation versus the price level

There has been debate in the profession on whether an inflation target is a reasonable objective in a situation where inflation and inflation expectations are very low or even negative. In such a case, real rates will be positive even with nominal short-term interest rates near zero. One possible solution is to commit to keep the interest rate low for longer than initially estimated, in order to influence interest rate expectations.[5] This would affect

[5] Bernanke and Reinhart (2004).

long-term interest rates and would have an impact on aggregate demand. Such approach is intended to reduce long-term real interest rates via an expected reduction of short-term nominal interest rates. The Central Bank of Chile did this after it had taken the MPR to its lower bound.

On the other hand, in principle, it is also possible to affect real interest rates by way of inflation expectations. One alternative to achieve this in a period of low inflation is with a price-level target.[6] Because the inflation rate is too low or even negative, this target implies that in the future, inflation will be need to be higher to achieve a given price level, and then the central bank should not need to take any corrective action by raising interest rates. This would guarantee real short-term interest rates in low or negative levels for a longer time. One of its advantages is that, theoretically, it is a more automatic mechanism than trying to directly affect expected short-term interest rates. Furthermore, it is a better anchor for the price level than inflation targets.

Although the idea seems conceptually interesting, it is not free of difficulties in either theory or application. Actually, a choice of this nature faces the possibility of time inconsistency. Once inflation is back to normal levels it is very difficult for monetary policy makers to let inflation increase above these levels, even if they have previously committed to. This is particularly true if there is inflation inertia (as can be the case in some developing countries where indexation is significant), because the objective price level loses potentiality as inflation anchor.

The opposite case is still more complex. Suppose, for example, that inflation has been high for a while and the price level is substantially above the target. In such case, targeting at the price level may require a deflation for some time, which can prove very costly. For example, Chile had two years with inflation above the target in 2007-2008. Pointing to a deflation in order to achieve price stability would have been very hard to explain at the time. In a way, this resembles the discussion of the 1920s on the convenience of returning to the gold standard with pre-war parities. The policy caused a deflation that was heavily

[6] Vestin (2006), Ambler (2009).

criticized first and abandoned later.[7] Returning to the Chilean experience, the fact was that in the end, the next year (2009) was a year of negative inflation ex post because of the global financial crisis, but which had nothing to do with an ex professo decision to achieve a given level of prices.

From a theoretical standpoint, this debate has to do with what is in the objective function of the Central Bank. If we assume that the argument of this function is inflation rather than the price level, then using the latter brings a potential problem of time inconsistency.

From a communicational perspective, it is also more difficult to explain a price-level target than an inflation target.[8,9] Summarizing, although the debate is important, the costs of implementing a price-level target probably outweigh the benefits. But inflation targeting is clearly not trouble-free either. For one thing, it does not necessarily provides an anchor for the price level—i.e., a jump in the price level need not be reverted. Also, as seen above, it might be harder to obtain low or negative long-term real interest rates. However, compared with a price-level target, the costs of inflation targeting are less significant.

Unconventional monetary policy: exit strategy

It is interesting to note that during the last time different countries are dealing with different dilemmas regarding their unconventional monetary policy measures. On one hand, developed countries are discussing the convenience of deepening the quantitative easing while their economies continue to show signs of fragility. The key issue is how effective can such deepening be, since doubts exist around their marginal effect through the credit channel if long-term interest rates are quite low already. Importantly, this is not about questioning the quantitative easing *per se*, only the convenience of increasing it further. On

[7] Keynes, in his famous pamphlet written in 1925 ("The Economic Consequences of Mr. Churchill"), strongly criticizes the then British Finance Minister for adopting this policy. Later on, Churchill was to recognize he had made a significant mistake.

[8] However, some literature finds that this need not be the case. Preston (2008), for example, finds that if the central bank does not understand agents' behavior correctly, a price-level target would be a better anchor for expectations.

[9] In Chile, the existence of an indexed unit like the UF may help. Actually, in this case the target to be announced is the value that the UF will have one year ahead.

the other hand, developing economies are in the process of exiting their unconventional policies thanks to their strong economic growth that is gradually closing their output gaps.

It is clear that whenever conventional policies hit some limit, unconventional measures are in order and must be used as appropriate. That this is done either by altering the composition of the Central Bank's balance sheet and/or extending its size will depend on the specific conditions the economy is facing. In an extreme situation like many economies faced during the recent crisis, most likely both types of policies will be needed, and others too.

By nature, these measures should be short lived. However, the exit strategy is not always easy and the unconventional policies remain in place for a long period. In fact, the discussion on the exit strategy is still ongoing. One can think of two types of unconventional policies. First, the more traditional ones—discussed here—are those aimed at deepening the effects of monetary policy when nominal interest rates are near their lower bound (i.e., close to zero). The others, quasi-fiscal policies in a way, are more directly targeted at correcting disturbed credit markets (one example is the purchase of default credits). This second case is more complicated. Chile has a long history on this matter due to the banking crisis of the early 1980s. Luckily, this time around it was not necessary to use this type of measures. In any case, in this situation exit is quite complex and it is no easy task to have a pre-determined strategy. The costs of a late exit include increased moral hazard in the future and a deteriorated central bank balance sheet. The cost of an early exit is a deeper recession.

The exit strategy for unconventional policies with a strict monetary policy objective (inflation) is not easy either, as it can also entail time inconsistency problems. On one hand, in order for them to affect long-term inflation expectations, they must stay for a long period, even after inflation begins to pick up. On the other hand, for the monetary authority it is very difficult to hold on to them when it happens, because it may jeopardize its inflationary target going forward. Chile's strategy was to focus on the MPR as the key element, assuring the market that the rate would be kept low for a specified time span ("at least until the second quarter of next year", read the press note of the third quarter of 2009).

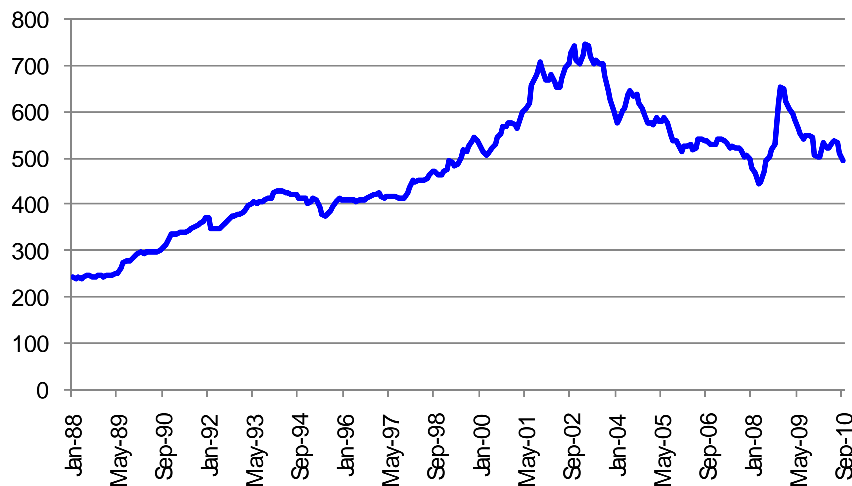
At the same time, quantitative easing was introduced to support said statement. As the deadline to keep interest rates was closing in and the economy was showing clear signs of regained dynamism, unconventional policies were steadily removed and their full withdrawal coincided with the first increase in the MPR.

Although, again, the exit strategy is not always easy, in the recent episode Chile faced no major problems because, as the economy was on a strong path to recovery, there was no doubt that unconventional measures were no longer necessary. It was also clear by mid-2010 that continuing with the over-expansionary conventional monetary policy was unnecessary.

Exchange rate policy

Capital inflows have been increasing in most emerging market economies in the last several months. In some, also the terms of trade have increased because of higher commodity prices (in Chile the most relevant is the copper price). Thus it is no surprise that the currencies of those countries have appreciated significantly this year (Figure 4). Capital inflows and appreciation have also aggravated the fear of asset price bubbles in these economies.

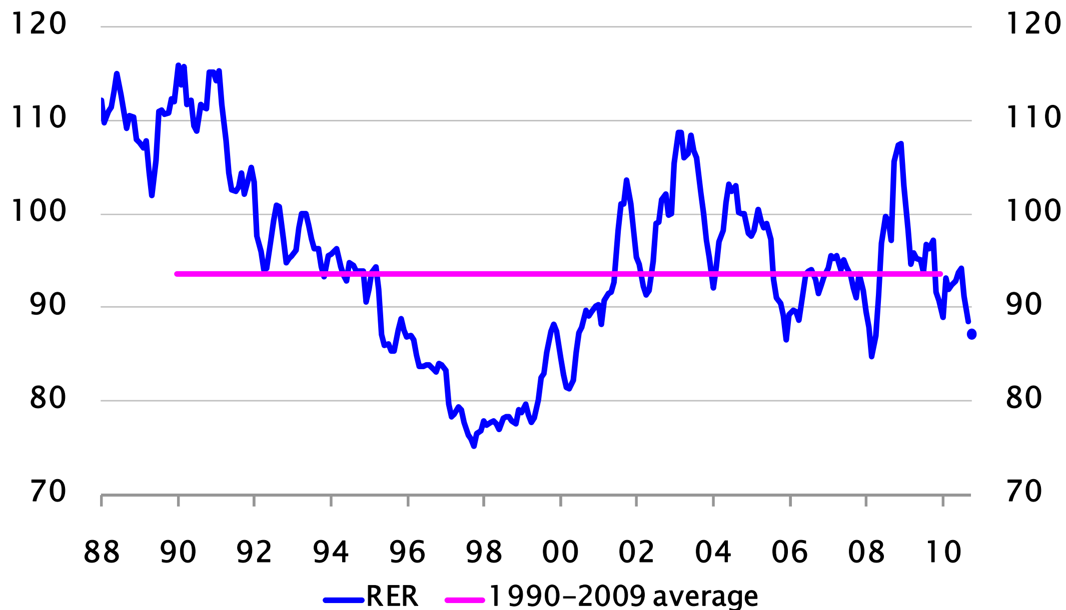
Figure 4
Nominal exchange rate
(CLP/USD)



Source: Central Bank of Chile

Inflation targeting requires a flexible exchange rate regime in order not to pursue more than one objective. It is obvious, however, that especially for (but not limited to) small, open economies the real exchange rate is a very important price. So much so, that it is not uncommon to see growing pressures on the government and the central bank to "do something to stop the local currency from appreciating further." Interventions can prove very costly and often ineffective, so they must be seen as a measure of last resort. Still, it is important to be pragmatic, and if clear evidence comes up that the exchange rate is misaligned with its fundamentals, an intervention must not be ruled out. In fact, should that be the case (which is not easily determined) the intervention will translate into benefits for the central bank. In Chile there have been three such episodes during the past decade. In 2001 y 2002, the CBC sold foreign currency because of upward pressures on the exchange rate generated by the crisis at some neighboring countries. In those episodes, the parity reached a point where it was thought to be misaligned with its fundamentals (Figure 5). In early 2008, when the opposite occurred, the CBC announced a program whereby it would purchase foreign currency over a period of eight months. The program was cut short before completion because then the global crisis led to a depreciation of the peso.

Figure 5
Real exchange rate
(index, 1986=100)



Source: Central Bank of Chile.

Capital controls must not be ruled out either, but their effectiveness is even more controverted. In a globalized economy it is ever more difficult to impose these controls, especially when flows in or out are managed by domestic agents.

There are other, less dramatic measures, that may be considered to deal with a sharp appreciation of the currency. Three of them are described below:

i. First of all, the communication policy on what can and cannot be done must be very clear. Some times there is the idea that the monetary authority has every tool to manipulate the exchange rate at its discretion. It is important to convey that this is not so. There are key forces at play that cannot be modified at the exclusive will of policy makers. For instance, a permanent increase in the terms of trade will inevitably cause a reduction in the equilibrium real exchange rate. Economic agents must be aware of this to avoid a pointless debate.

ii. Secondly, developing the derivatives market is crucial, particularly at emerging economies where this market is immature. Economic agents subjected to the volatility of the exchange rate greatly appreciate being able to reduce uncertainty regarding this variable. Of course, for them the first moment of the distribution is more important, but that does not mean that the second moment is irrelevant.

iii. Finally, there is always the question of what monetary policy can and cannot do. If an economy is on a good stand with respect to the rest of the world, it is likely that the interest rate differential will increase drawing in some capital inflows. The textbook solution for countries facing this scenario with floating parities is that precisely the exchange rate will have to adjust, meaning that it will maintain the arbitrage with a currency appreciation that will cause an expected depreciation for the future. If such is the case, interest rates must increase as much as necessary to keep inflation under control, and the adjustment variable is the exchange rate.

iv. However, one must also consider that a more appreciated currency (if it is not just a very short-lived phenomenon) will reduce price pressures, which in turn will reduce the need for a further monetary contraction or at least provide more room to pace such adjustment over time. In other words, what happens in the foreign exchange market is not irrelevant for monetary policy.

To finish, a related issue. It is interesting to see that monetary policy has been blamed by many for failing to control the asset price boom leading to the crisis. Nonetheless, it must be noted that in emerging economies, asset price booms come with (or in the form of) an appreciation of the domestic currency. If that is the case, a tighter monetary policy, to the extent that it attracts increased capital inflows, could further stimulate asset price inflation. This is one example of why dealing with asset price bubbles solely through monetary policy is not necessarily a good idea.[10]

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[10] De Gregorio (2010).

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