# Chile: Foreign Shocks and Policy Responses

# José De Gregorio

In 2009, the world is facing the worst recession in more than six decades. Market projections anticipate that GDP will fall in 80% of the economies of the world, unemployment has risen in several countries, and analysts share the belief that recovery will be slow.

Chile has been no exception. Market projections anticipate that GDP will fall by 1.5% this year, and the seasonally adjusted unemployment rate rose from 7.3% in September 2008 to 10.8% in July 2009. Domestic demand has dropped sharply and year-on-year inflation, which was close to 10% in October 2008, is expected to drop into negative figures from August 2009 until the end of 2009.

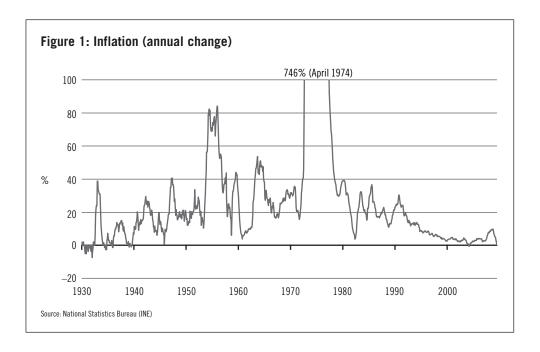
In spite of this outlook, the Chilean economy stands on solid ground, and recent figures show that the recovery has started. Its financial system has endured the global financial crisis with no setbacks, no systemically relevant corporations have experienced major stress, and economic policies have enabled an unprecedented macroeconomic stimulus, which has mitigated the impact of the global confidence crisis and set the stage for a healthy recovery.

Below, I will discuss the fundamentals of the Chilean economy and how economic policies have responded to the strong foreign shocks of the past few years. These range from the severe inflation outburst over part of 2007 and 2008, to the current risk of an extended period of low inflation and the consequences of the world's financial crisis.

**José De Gregorio** has been Governor of the Central Bank of Chile since December 2007. He was formerly Vice-Governor from December 2003, and member of the Bank's Board from June 2001.

#### Chile's macroeconomic fundamentals

For decades, the Chilean economy tried unsuccessfully to defeat inflation. The eradication of inflation, a phenomenon based mainly on fiscal imbalances and spread through high indexation levels, was a major part of the challenges undertaken by every new administration at the time of designing its economic policies. However, the lack of a tax system capable of providing sustained financing of government spending, dependence of fiscal income on commodity prices, and ambitious public policies, eventually implied that any improvement achieved in this field was undone (Figure 1).<sup>1</sup>



In the late 1970s, efforts towards the monetary control of inflation were discarded, and a fixed exchange rate system was adopted, aiming at anchoring expectations and bringing about quick disinflation. However, excessive private domestic spending, abundance of global liquidity and access to cheap foreign credit, combined with financial liberalisation in the context of weak banking supervision, led to extreme foreign indebtedness and a severe over-

<sup>&</sup>lt;sup>1</sup> For the stabilisation efforts since 1970, see Corbo and Fischer (1994), and for the experience since 1990, see Valdés (2007).

appreciation of the currency. After the sudden and large rise of global interest rates, the domestic financial system crashed. GDP dropped by 16% between 1982 and 1983, the unemployment rate soared to almost 20%, and the currency suffered a depreciation of around 120% in a year and a half. Therefore, from the Chilean standpoint, the harsh impact of the recent international crisis on some emerging economies with high degrees of financial fragility and foreign exchange rigidities comes as no surprise.

After the stabilisation efforts following the 1982-83 crisis, the Chilean economy began implementing new directions for macroeconomic management to foster stability and growth, which aimed at building a strong financial regulatory framework, intensifying integration to foreign trade, which had started in the 1970s, and keeping and institutionalising the independence of monetary policies from fiscal needs. In the second half of the 1980s, a new Banking Law was enacted. This banned a series of practices that had promoted the prior disruption, and gradually improved the supervisory system. The fiscal accounts were strengthened. A taxation system that could enable the financing of government programmes without resorting to currency issuance was taking its final shape. The Basic Constitutional Act of the Central Bank was enacted, establishing the Bank's autonomy and entrusting it with inflation control and financial stability functions.<sup>2</sup> In the 1990s, a series of reforms continued to be implemented, which gradually opened the Chilean economy fully to trade and capital flows, and modernised the domestic financial system and the capital markets.

The macroeconomic framework of the Chilean economy leans on four pillars. First, a fiscal policy that is accountable and predictable thanks to a structural balance rule.<sup>3</sup> It should be highlighted that fiscal consolidation in Chile started halfway through the 1980s, expanded in the 1990s, and grew stronger in the 2000s, thanks to the structural fiscal rule. This rule ties the growth of fiscal spending to trend output and the expected tenyear average future price of copper, among other variables, in such a way that the ex-ante structural fiscal balance is on target. At its inception, the structural fiscal surplus target was set at 1% of GDP, and was later lowered

 $<sup>^2</sup>$  Bianchi (2008) narrates the details of the discussion, approval and establishment of the autonomous Central Bank

<sup>&</sup>lt;sup>3</sup> Marcel et al. (2001) explain the rationale and basic functioning of this rule.

to 0.5% of GDP, due to the vast savings arising from the high price of copper. At present, this target has been temporarily lowered to 0% in order to generate greater fiscal expansion. This has allowed smoothing down the recurrent cyclical fluctuations of fiscal spending recorded in the past as a result of changes in the price of copper, which implied a strong procyclical bias from fiscal policy and led output to be highly sensitive to changes in this price. This way of conducting fiscal policy was criticised domestically during the recent years of booming commodity prices, but it is now widely recognised that the accumulation of a significant amount of resources has been a crucial factor in bolstering the resilience of the Chilean economy and in providing a much needed countercyclical fiscal boost.

As for the second pillar, monetary policy management is based on an inflation-targeting regime, conducted by an autonomous central bank and supported by a floating exchange rate system. The first stage of this scheme was implemented in 1990, with annual targets for inflation. Its application in a high-productivity growth environment with declining indexation (De Gregorio 2004) succeeded in reducing annual inflation, from rates around 30% in 1990, to 3% in 2000 (Figure 2). During this period, the exchange rate was managed by applying an exchange rate band, which was adjusted several times.<sup>4</sup> In 2000, the Central Bank established a fully fledged inflation targeting scheme, based on a 3% annual inflation target, with a two-year horizon and a ±1 percentage point tolerance range.<sup>5</sup> It was also decided to float the exchange rate, but including the possibility of intervening in the foreign exchange market under exceptional circumstances, which has happened three times this decade.

Monetary policy is managed by setting the monetary policy rate (MPR), which is the target for the overnight interbank interest rate. The application of this monetary policy scheme has proven highly successful. Between January 2000 and December 2006, CPI annual inflation ranged from 2% to 4% during 66% of the time, and it averaged 2.9%. From 2007 onwards, this scheme has been subjected to great stress, due to a significant increase and a subsequent sharp drop in inflation, an issue that will be discussed below.

<sup>&</sup>lt;sup>4</sup> For more detailed information on foreign exchange policy, refer to De Gregorio and Tokman (2007).

<sup>&</sup>lt;sup>5</sup> Central Bank of Chile (2007) explains in detail the inflation targeting scheme. In terms of communication, the Central Bank produces three inflation reports a year, which will be, starting in December, increased to four. These reports contain projections of inflation and activity, and use an endogenous interest rate path coherent with reaching the target in a two-year horizon. The interest rate path is communicated in a comparison with the one implicit in the market forward curve.

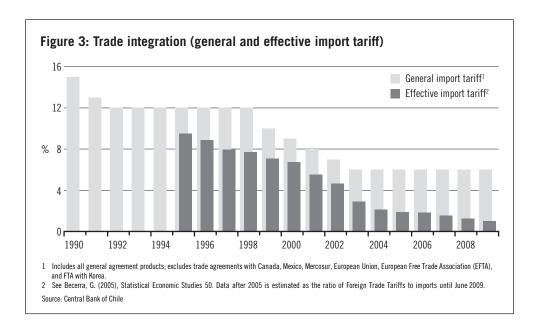


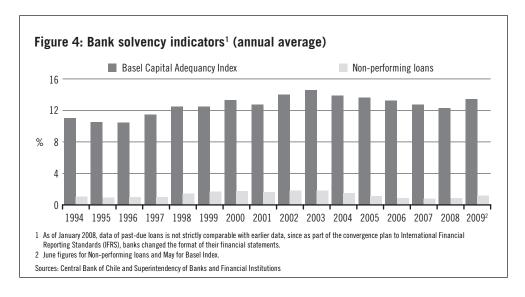
Notwithstanding this, the combination of a structural fiscal surplus target, an inflation-targeting scheme and a floating exchange rate, has reduced volatility of economic output in the current decade.<sup>6</sup>

The third pillar is a policy that favours increasing commercial and financial openness of the economy (Figure 3). Although copper still accounts for a relevant portion of Chilean exports, an important number of new markets for a diversified basket of products have been opened thanks to both the unilateral efforts at trade liberalisation and the significant number of bilateral trade agreements with the major economic countries and zones.

Finally, the fourth pillar is a solid financial system, with globally integrated, well-capitalised and adequately regulated banks (Figure 4). The regulation of the domestic banking system, established initially in the Banking Act of the mid-1980s and perfected during the 1990s, prevented some of the most notorious credit excesses that were apparent in the recent financial crisis. The management of credit risk, in particular, is tightly regulated, and most of the credit risk remains on the balance sheets of banks. Securitisation is mostly done with instruments similar to covered bonds. Market and liquidity risk management and regulation have been established by the Central Bank and the Superintendence of

<sup>&</sup>lt;sup>6</sup> Betancour *et al.* (2006) analyse the economic cycle moderation. In any case, there is no quantification of the differential impact of policy changes that took place in the 2000s on inflation and GDP volatility.





Banks and Financial Institutions, with specific guidelines for the magnitude and types of derivative exposures, particularly in foreign exchange instruments, that banks are allowed to hold. This has gone a long way in preventing the type of balance sheet havoc that large depreciations can

wreak on unhedged foreign exchange positions in emerging markets' banking institutions.

This combination of factors has favored, over the last twenty-five years, a sustained expansion of the economy. Chile's annual GDP growth has averaged 5.6% from 1985 to 2008. Chile currently has an accumulated increase of 160% in per-capita GDP for this period, and shows the highest per-capita income among Latin American economies.

All changes in world economic conditions, with a relevant effect either on volume or terms of trade, have an impact on the Chilean economy. Some of them, particularly the effect of copper price on the procyclicality of fiscal outlays, are neutralised by the current design of macroeconomic policies. Other impacts, such as the inflationary effect of abrupt but temporary changes in the price of oil and its by-products, may be adequately managed, since monetary policy follows a medium-term inflationary target. Furthermore, the floating exchange rate regime contributes to prevent the creation of speculative bubbles in the foreign exchange market, by properly reflecting risk in financial markets and avoiding foreign exchange policies that provide implicit insurance or foster sharp capital flow fluctuations. Thus, the exchange rate can act as a shock absorber, reducing the impact of changing foreign conditions on domestic activity.

In the last few years, we have witnessed very unusual external shocks, which have forced very unusual policy responses. First, an increase in commodity prices, due to both supply and demand factors, which resulted in a several-fold increase in the value of imported and exported goods in Chile. Then, a very sudden and deep plunge of world demand, which relieved prior inflationary pressures, but also caused an overall confidence crisis, the effects of which we are still enduring. I will now discuss the effects of these shocks in Chile, and the policy responses they have brought about.

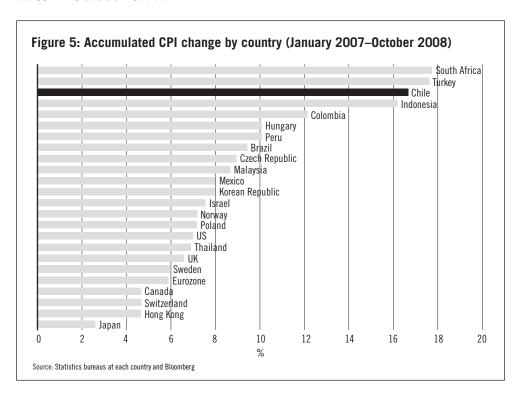
#### The increase in commodity prices and the rise of inflation

In 2007, Chile, like many other economies in the world, suffered a significant inflationary process, which worsened during 2008. From 2004 through 2007, the world economy grew at a 4.9% average annual rate. This growth rate was significantly higher than the average that had prevailed in the 1990s and it undoubtedly caused a narrowing of global output gaps, which eventually resulted in global inflationary pressures. Naturally, the most

visible part of these pressures showed up on the range of commodities with flexible prices, such as raw materials. Oil prices, which were around US\$10 per barrel in 1999, skyrocketed to almost US\$150 per barrel in mid-2008. Copper, which cost almost US\$0.6 per pound in 1999, rose above US\$4 per pound on some occasions in 2008. Food prices also recorded a pronounced upward drift, particularly since late 2006.

Inflation rose globally. However, the onset of the sub-prime mortgage crisis in the United States forced some countries, particularly the developed ones, to focus their attention on the stability of their financial systems, while other economies, particularly emerging markets, were struggling with inflationary pressures. This generated divergence in the course of their monetary policies.

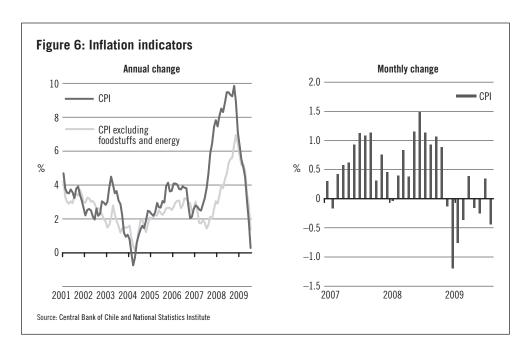
In Chile, perhaps the most remarkable component of the inflationary process of 2007–2008 was how strongly the increase in international food prices was transmitted domestically. From January 2007 to October 2008, the Chilean economy recorded one of the highest inflation rates in emerging economies (Figure 5). Inflation rose from 2.6% in December 2006 to 9.9% in October 2008.



What accounts for this significant rise in inflation? It may partially be due to Chile's high degree of commercial openness. There are practically no barriers to imports, no widespread protection of agriculture, nor any large-scale distortions in the market pricing mechanism, so changes in external prices are quickly reflected in the domestic market. In fact, at least during most of 2007, growing inflation was mostly caused by increasing food prices, rather than by a widespread inflationary process (Figure 6).

Another factor underlying inflation pressures, and a deceleration of growth, was the higher costs of energy. Not only did thermoelectric power plants have to operate with more costly inputs, but also unfavourable hydrological conditions and the shortage of natural gas implied that these more efficient sources of generation had to be replaced by diesel. These elements caused a significant increase in cost pressures in manufacturing and other sectors, compressing margins and thus limiting the scope for firms to absorb higher inflation. The pass-through from higher external prices to the local market was therefore swift and large. The cost shock caused by higher energy prices may also account for some of the productivity slowdown recorded from 2006 onwards.

Finally, we cannot rule out that the greater propagation of price increases recorded throughout 2008 could be a consequence of a resur-



gence of indexation. The Chilean economy is marked by a high degree of indexation that traces back to its inflationary background, which lasted several decades. A fast increase in inflation could have perfectly well refloated a series of practices that had been long forgotten when changes in the CPI became stable and predictable. However, the large decline in inflation after the world economic collapse towards late 2008 suggests that indexation did not become so pervasive again, and its effects were limited.

Before turning to the role of monetary policy during this process, it is important to recall that monetary policy conduct in Chile is based on a flexible exchange rate regime, in which the target is on medium-term inflation. This allows the balancing of inflation and output fluctuations in monetary policy decisions. Accordingly, monetary policy decisions are based on a proper assessment of the potential impact on medium-term inflation of external supply shocks.

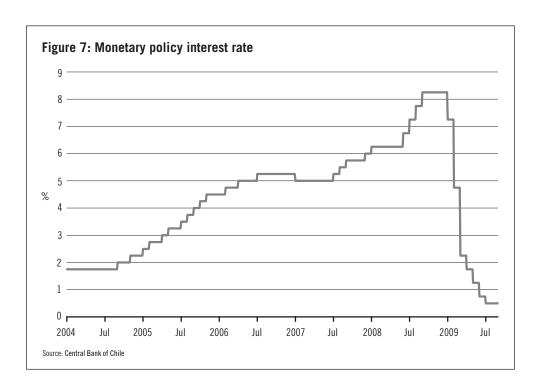
The 2007–2008 food price shock was partially considered to be a one-off change in global relative demand and supply, such as the increased use of biofuels, that should have no severe medium-term inflationary implications. On the other hand, during 2007 and most of 2008, the world economy – and Chile, of course – struggled between a major inflationary event and the risks to growth and financial stability coming from the problems that were building up in developed financial markets. Notwithstanding this, an unprecedented increase took place in commodity prices, and most market projections anticipated that world growth would moderate in 2009 and 2010. The problem of global imbalances was still a latent risk, with no signs of any effective solution. This is the reason why the balance of risks on the inflationary outlook, although tilted in the short run towards higher inflation, had a quite considerable medium-term component that could result in lower inflation, as it actually happened.

Chile's monetary policy responded to the assessment outlined above. By early 2007, the best estimates suggested that domestic output was undergoing a cyclical softening phase, with reduced inflationary pressures. During the first half of 2007, even when inflation was already rising in some economies and early signs of increases could be seen in food prices, monetary policy did not make any significant changes; moreover, in early 2007, the MPR was reduced and the option of reducing it again was discussed. By mid-2007, the inflationary outlook changed and monetary policy followed suit. The MPR was raised by 100 basis points in the

second half of 2007, in order to mitigate undesirable second-round effects of the supply shock (Figure 7).

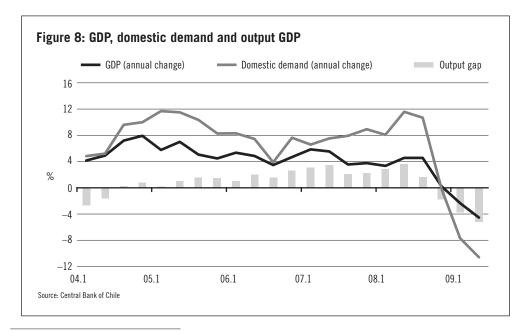
By early 2008, the inflationary situation was still a complex one, but risks had decreased, and inflation was expected to reach its target thanks to the monetary policy actions already implemented, lower world growth and the strengthening of the peso. Trend inflation tempered and monetary policy remained unchanged. By March, Bear Stearns had already gone bankrupt and the risk of a higher-stress episode on the world financial markets had increased greatly. Likewise, due to the risks of a potential sudden stop if the financial crisis should worsen, and in the context of a further severe appreciation of the Chilean peso, the Central Bank decided to start accumulating reserves through sterilised intervention in April. This process was cancelled in September after the worsening of the international financial crisis and the tensions in the local foreign exchange market.

Halfway through the second quarter of 2008, the inflation situation radically changed; the inflationary trend resumed, unexpectedly, with monthly inflation reaching more than 1%. The risks of inflation remaining above the target beyond the policy horizon also grew strongly. Consistently, mon-



etary policy also had a strong reaction. The MPR was increased by 200 basis points in just four months. By September 2008, before the collapse of Lehman Brothers, the Central Bank estimated that it would be necessary to further increase the MPR, even above market expectations.

Finally, annual inflation reached its 9.9% peak in October. It is still too early to determine with a great degree of certainty the strong and sudden propagation of foreign shocks on domestic inflation. Inflation propagated to most prices, so core inflation also increased sharply. The output gap increased slightly during the third quarter,<sup>7</sup> although domestic demand was growing strongly (Figure 8). Perhaps the sharp increase in oil prices – which came close to 150 dollars per barrel – caused a generalised rise in domestic prices. In the presence of strong demand, a large cost shock may have induced an unusual fraction of price-setters to adjust prices, despite the fact that the output gap did not change significantly. As we have learned from recent models of monetary policy, expectations about the future output gap and costs play a crucial role in determining the dynamics of inflation, way beyond what current data suggest.<sup>8</sup> Nevertheless, the inflationary outlook changed drastically during the last quarter of 2008.



<sup>&</sup>lt;sup>7</sup> An increase refers to a rise above potential output.

<sup>&</sup>lt;sup>8</sup> For a recent review see Galí and Gertler (2007).

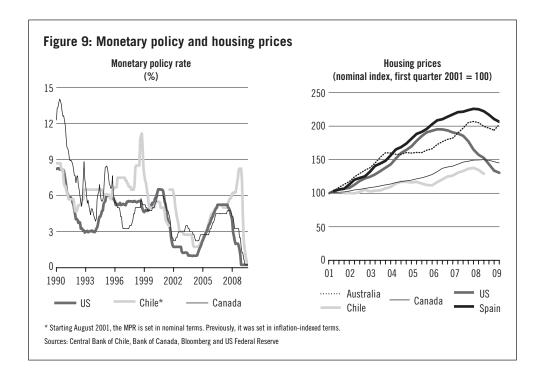
### The global crisis and the sharp decline of inflation

Before reviewing what has been the monetary policy response in the past few months, it is worth starting by taking a look at the behaviour of the Chilean financial system at this juncture. Some of the explanations that have been offered for the financial meltdown in developed markets blame lax monetary policy, especially that implemented by the Federal Reserve after the technological bubble burst. Low risk-free rates and the search for yields are thought to have encouraged unreasonable risk-taking, a situation that was obviously compounded by poor regulation. This, as some have argued (see, for example, Taylor 2008), would have created the housing price bubble and spurred the financial innovation that led to the crisis. However, it is far from evident that lax monetary policy must always trigger an asset price bubble. Chile also had an expansionary monetary policy earlier this decade. The level of the MPR also dropped rapidly between the years 2000 and 2004. Still, the Chilean economy had neither a housing price bubble nor a troubled – much less a collapsed – financial system such as that of the US. Several other economies, with lax monetary policies and growing real-estate prices were spared the financial system crisis (Figure 9). Indeed, aggressive monetary expansion may be a necessary condition for causing asset price bubbles and financial fragility, but certainly not sufficient.

Much time and effort will be devoted to deciphering the true causes of the global crisis. However, a priori, the culprit seems not to be the role played by monetary policy, but rather weak financial regulation. Monetary policy, in any case, can certainly cause a bubble, although not necessarily through the level of the interest rate, but through the strategy it adopts to deal with the bubbles. The strategy of passively watching as asset prices increase, and reacting to the subsequent bursting – the strategy the Federal Reserve has used since 1987 (Blinder & Reis 2006) – brought serious problems of moral hazard that favoured the creation of asset price bubbles. A monetary policy that provided insurance to speculation during episodes of limited financial turmoil proved incapable of averting a systemic financial crisis like the recent one when it hit.

Chile suffered a severe and costly banking crisis in the early 1980s, but it brought important lessons. Among other things, it taught us the need

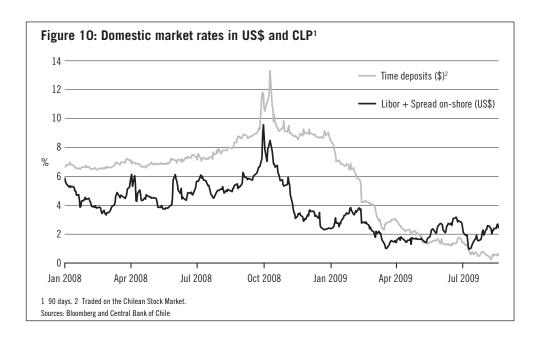
<sup>&</sup>lt;sup>9</sup> De Gregorio (2009) discusses several factors that have been behind this fact.



for strict prudential regulation and supervision. Clearly defined safety nets and roles for each authority in the design of the regulatory framework and in supervisory functions have been crucial, because the distribution of responsibilities and the scope of regulation leave little room for ambiguity. The Chilean financial system did not bear the consequences of the turbulence that affected the global financial market. Credit lines were not cut off, although global and domestic credit conditions suffered significant stress.

Interest rates in both peso and dollar markets posted substantial increases in the most stressful times from mid-September to mid-October 2008 (Figure 10). The Central Bank acted quickly, providing peso and dollar liquidity facilities to the financial system to ensure resource availability should foreign loans become scarce. These facilities, which will be in place throughout 2009, have not been used extensively by financial institutions, reflecting their sustained access to external markets.

Beyond the stressful episodes in local money markets, the world financial crisis and its aftermaths in the real sector have triggered a significant drop in domestic demand and economic activity. Lending standards have certainly tightened, but the Chilean economy is far from suffering the problems that other countries are facing.



So what explains the magnitude of the effects of the external crisis? The most likely explanation for the severity and synchronicity of the drop in output – not only in Chile, but elsewhere too – was a global confidence crisis that swept around the world. This was particularly important in Chile, where domestic demand was growing strongly. Suddenly, the events in developed financial markets prompted a deep and widespread revision of the investment and spending plans of businesses and households, bringing expenditure to a halt. The spending trend in durables and capital goods throughout the world, together with world trade flows, speak for themselves. The various consumer and entrepreneurial confidence indicators point in the same direction. The confidence crisis did not distinguish the strengths or weaknesses of the economies.

Chile was affected by the decline in world trade, although the effects on export volumes have been much milder than in industrialised countries. The most direct impact of the world recession has been borne by the economies driven by exports of manufactured products – particularly machinery and equipment – to developed countries. Some countries, such as Germany and Japan, have witnessed a severe effect on their output, although they initially were in a much better position than was the US. In contrast, Chile has not been too badly affected thanks to a characteristic that has always been pointed out as a hindrance to its development: the low value added, or the

low human capital content, of its exports. Chilean exports are closer to being commodities, which face relatively strong demands. There will always be a price at which to export. Markets have not been shut. Thus, the impact has been mostly on the prices of our exports, since quantity limitations are smaller. Although lower prices push producers down their supply curves, with the ensuing implications for employment, output and investment, this is very different from what happens, for example, to producers of intermediate goods, specifically for the automotive industry. Their demand falls dramatically and all the production they have already started piles up unsold. This leads to a subsequent production standstill. It explains the intensity with which the crisis is hitting the more industrialised economies of Asia. It could also explain why the rebound, provided by the resumption of world growth, may also be sharp.

Since the beginning, the crisis has been unusually synchronised – the capacity of responding, in the context of strong fundamentals, is what should make the difference in the recovery phase. First- and second-quarter 2009 data, as well as what can be inferred from private-sector projections, show a larger diversity. Most economies continued to post declines in activity but, in several cases – including Chile – at decreasing rates. The greatest difference will be seen in the sustainability of the recovery of each economy. That is where cases like ours stand out, because with the backdrop of a healthy domestic financial system, growth should pick up relatively quickly towards trend, while the impact of countercyclical monetary policies, unencumbered by a fragile credit transmission as in some developed economies, should be stronger. In addition, the strength of the fiscal position of Chile does not pose a threat in terms of the solvency of the government after large fiscal expansions such as those being discussed in the developed world.

Monetary policy has reacted to a change that was large in magnitude and swift in implementation. October 2008 was the month where year-on-year inflation peaked. November brought some relief, largely determined by the drop in fuel prices on world markets. By then, no break in the inflationary trend was foreseen. Nonetheless, given the risks to the outlook, the Central Bank not only did not raise the MPR – which was the most likely path of monetary policy, as discussed in September's Monetary Policy Report presented to Congress – but also communicated that the most likely course of action would be an easing of policy.

In January 2009, with a clearer assessment of the reduced inflationary pressures, the MPR was reduced by 100 basis points. Later, with the evidence of alleviated inflationary pressures and drastic increases in downward risks to growth and inflation, the Central Bank decided to cut the MPR by 250 basis points at its meetings of both February and March. The monetary easing process continued and completed 775 basis points in seven monthly meetings, bringing the MPR to 0.50%, the minimum level deemed adequate for a normal functioning of money markets. In addition, the Central Bank adopted some non-conventional monetary policy measures, extending the overnight liquidity facility for banks at the MPR to 180-day term and cutting the issuance of one- and two-year Central Bank bonds. It has been also announced that the MPR will be held constant at this minimum level for a prolonged period of time, and that it will use with flexibility all the monetary policy tools at hand, which goes way beyond setting the MPR every month.

The sharp decline in inflation has provided ample room to ease monetary policy to unprecedented levels. Monetary policy has had to act promptly in the context of very diverging inflationary prospects: from very high inflation to a sharp and quick fall. Chile was one of the countries where inflation increased the most, but also where it has fallen most sharply. Still, work is needed to fully understand inflation dynamics.<sup>10</sup>

Fiscal policy has also contributed a significant macroeconomic boost. Copper incomes that were saved in the boom years have allowed a major spending, transfers and tax-cutting effort. In January this year, the government announced a stimulus package equivalent to almost 3 percentage points of GDP, which has been complemented by subsequent announcements over the course of 2009.

## The road to recovery: policy challenges

Private-sector projections consider that Chile's GDP will drop this year and will grow strongly in 2010. The larger effects of the global scenario on output hit in the last quarter of 2008, when GDP dropped 8.0% in terms

<sup>&</sup>lt;sup>10</sup> For example, the output gap fell between 8 to 10 percentage points, which could explain, without lags, a decline of about 3 to 4 percentage points in inflation, by applying the textbook Phillips curve or more complex estimations (Brayton & Tinsley 1996) for the US, which are not very different from those of Chile. The actual decline in inflation in Chile has been about 10 percentage points.

of annualised quarter-on-quarter variation. Output gaps widened significantly from late 2008 through the first half of 2009, exceeding forecasts made as recently as the second quarter of this year. The Central Bank has adopted a very expansionary monetary policy stance, including non-conventional policy measures.

Uncertainty seems to have eased around the world. The catastrophic scenarios that some analysts portrayed as likely at the height of the crisis are very unlikely. However, risks persist. In some economies, financial systems are recovering gradually and credit inflows are resuming slowly. Central banks are even intervening directly in credit markets in an effort to re-establish their normal operations.

In other economies, like ours, financial markets never ceased to operate, but credit conditions became tight. Monetary policy has provided great help in easing these conditions and its actions have resulted in significant reductions in market interest rates. However, credit-risk premiums are still high and households' and firms' access to credit has been hindered, aside from increased costs, by tighter approval standards. Furthermore, demand for credit has been distressed by the natural deleveraging process that comes with shocks of this kind.

Risks associated with prospects for output, spending and especially inflation are, like seldom before, very diverging. However, the main risk is that the recovery becomes excessively slow. Thus, financial conditions would not be as expansionary as needed despite the monetary stimulus, and the economic recovery would take longer than foreseen. All this would help materialise the risk of inflation staying undesirably low or even of having to face deflation.

History provides many episodes where high inflation has had to be fought. On the contrary, undesirably low inflation episodes are normally few and far between, so the responses of policy instruments are less familiar. Actually, the variety of forms that non-conventional monetary policy measures have taken reflects the fact that we are walking in uncharted territories. Therefore, special care must be taken to evaluate when the current monetary stimulus will begin to be removed or will need a boost, and what variables will have to be monitored. In this situation, communication and transparency of monetary policy decisions are essential, especially because of the role they play in forming private expectations.

Recent developments in the world economy certainly suggest that the fall in economic activity has stopped. Some signs of recovery are appearing in various indicators. However, the task is far from being completed. Monetary policy, in Chile and around the world, must be attentive to the resolution of the crisis. In the future, there will be time to analyse what caused the current crisis and which are the most effective policy measures to tackle it. For the time being, the main task of monetary policymakers is to keep a close focus on risks, in order to continue to promote an environment of stability conducive for economic development. The main risk today, learned from the Great Depression, is an early withdrawal of the macroeconomic stimulus – but waiting too long is not cost-free.

We can see that our macroeconomic framework has worked properly in these times of turbulence. The sheer magnitude of the countercyclical measures adopted is a proof that the impact of the global financial crisis and world recession on the Chilean economy would have been much worse if we hadn't the ability to switch gears and provide this needed stimulus on the fiscal and monetary policy fronts.

Looking over the medium term, the macroeconomic framework has served us well too. The reasons for the transition from very high growth rates of productivity between the mid-1980s and 1997, to a slower pace of expansion in the past decade have been open to much debate. Part of this has been attributed to one-off phenomena, such as the opening up of the economy and a significant reduction of political uncertainty (see De Gregorio 2007). Currently, by maintaining an environment of financial stability, the most disruptive economic and social consequences of the global financial crisis have been averted, and thus uncertainties about the future development of the Chilean economy should have been reduced further. The ability to undertake strong countercyclical efforts has validated the prudent managements of external and fiscal surpluses in the past. Our financial system remains sound; therefore, the intermediation of savings towards profitable investment opportunities has not been disrupted, providing scope for the resumption of growth.

#### **Acknowledgements**

I am very grateful to Pablo García and Enrique Orellana for valuable comments and discussions.

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