

13/05/13(8,573w)

## **THE CHILEAN ECONOMY SINCE THE GLOBAL CRISIS\***

Ricardo Ffrench-Davis

Despite evident economic and social progress since the 1990s, with the return to democracy, Chile is far from being a developed economy and its trajectory in recent decades has shown considerable volatility. For example, in 1973 Chile reached 27% of GDP per capita of the G-7 countries; in 1989, at the end of the Pinochet dictatorship, it had fallen, with significant declines notably during the deep crisis of 1982-83, to scarcely 23%. Later, due to progressive reforms, principally in the 1990s, it had risen to 43% at present; particularly relevant is the fact that average GDP growth climbed to 7.1% in 1990-98 and bended to 3.7% in 1999-08 as well as to 4.1% in 2009-2012.

Actually, the economy has exhibited low inflation and fiscal responsibility, but highly fluctuating aggregate demand, external imbalances and real exchange rate indicate that real macroeconomics, with the exception of the early 1990s (1990-95), has been failing. With respect to income distribution, it had principally improved in the 1990s following a profound deterioration associated with the dictatorship's extreme neo-liberal reforms in 1973-89; although, in the 2000s it was again subject to considerable swings associated with sharp changes in economic growth and its composition. In all, it still remains a highly unequal economy.

As a result of contagion from the international global financial crisis, Chilean economic activity experienced a sharp external shock in 2009, giving way to a recessive adjustment. A broad spectrum of public policies was applied to counter the emergency, including a substantial increase in public expenditure, with pro-employment and investment measures, and monetary transfers to those with least resources. The global crisis found Chile well prepared with a regulated and capitalized banking system, a Treasury that was a net creditor with the rest of the world and (prior to the crisis) a significant current account surplus. Additionally, Chile benefited from a sharp recovery of the terms of trade after the deep but short-termed downfall in 2008 and

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\* Prepared for Seminar in Honor of Roberto Frenkel, October 11-12, 2012, Universidad de Buenos Aires. I appreciate the comments of Martin Rapetti, the research support of Diego Vivanco and the translations of Anthony Tillet. To be published in M. Damill, M. Rapetti and G. Rozenwurcel (eds.), *Macroeconomics and Development: Roberto Frenkel and the Economics of Latin America*, Columbia University Press, Nueva York.

early 2009. By the last quarter of 2009, with the combined effects of the positive terms of trade shock and the domestic counter-cyclical drive, the economy was in sustained recovery.

Resolving one challenge implied by the recovery, following a recession such as in 2009, is relatively easy. In March 2010, when a new political alliance came to power, Chile had sufficient available capacity to allow GDP to grow, for various quarters, far faster than the productive capacity that were been created. But, meanwhile, the recessive gap (RG) between actual and potential GDP is being exhausted during the recovery process (which implies moving toward one macroeconomic balance: use of potential GDP). But there is also need action in two other fronts. One is to progress in correcting the workings of the economy, so that middle and low income people become increasingly incorporated into the productive economy (implying structural reforms)<sup>1</sup>; the other one is that macroeconomic imbalances are eliminated or their build-up is avoided (implying real macroeconomic reforms, including exchange rate sustainability). The first continues to be missing and the second is failing, as shown in this paper.

Section 1 provides a brief review of the evolution of the Chilean economy during the sixteen years of the dictatorship (1973-89), and the four democratic governments (1990-2010). Section 2 examines the contagion effects of the 2008-09 crisis, while section 3 looks at economic policy responses and the effects of counter-cyclical policies up to the end of the Bachelet Presidency in March 2010. Section 4 discusses policies and outcomes up to 2012. Section 5 provides some final remarks.

### ***1. A brief account of development since 1973***

Chile is often mentioned as a paradigmatic case of successful economic reforms, under authorities of very different persuasions. There is an erroneous perception that there is only ‘one’ Chilean model that accounts for a supposedly sustained economic success since 1973. In fact, starting with the deep neo-liberal economic reforms imposed by the Pinochet dictatorship, there have been various sub periods, with quite different policy approaches,

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<sup>1</sup> Reducing productivity gaps in the domestic economy –between large firms and Small and medium sized firms (SMEs), and between well trained and low trained workers-- is taken as essential for economic development and social inclusion (Bourguignon & Walton, 2007; Ffrench-Davis, 2010b, chap. VII).

changing international economic environments, and **very different economic and social outcomes in the Chilean economy**. It is mistaken to talk about one model or only one sustained outcome.<sup>2</sup>

The first wave of reforms (1973-81), launched after the 1973 military coup, was marked by the implementation of an extreme neo-liberal model. Drastic trade and financial liberalization were implemented without prudential regulations. Up to 1981, there was progress in containing inflation and eliminating a large public deficit but at the cost of a huge external imbalance with the accumulation of a large private foreign debt; in contrast, there prevailed a significantly low productive investment ratio. These disequilibria in the real economy, combined with the external shocks suffered by the region, led to a collapse in 1982, with a fall of 14% in GDP, unemployment rising to 30% and a substantial increase in poverty and inequality.

The second phase (1982-89), was a shift by the dictatorship itself, toward more pragmatic policies demanded by the need to overcome the deep crisis of 1982. It involved a series of public interventions, which had been sharply criticized in the first phase, among which were increasing tariffs on imports, a 'selective' subsidy to exports, establishing strict regulations for financial markets and the rescue of bankrupt private banks. Public subsidies provided to them and debtors climbed to an amount equivalent to **35%** of GDP (Sanhueza, 1999). A crawling peg policy, under the pressure of sharp foreign currency scarcity, provided a 130% real devaluation between the extreme appreciation recorded before the crisis that exploded in 1982 and a depreciated peak in 1988.

During the recovery, between 1986 and 1989, GDP grew robustly, but if one takes into account the recession of 1982, then annual average growth was a mediocre 2.9%, while income distribution suffered an additional deterioration. Over-and-above, GDP per capita took seven years (to 1988) in returning to the level achieved in 1981.

With the return of democracy, in 1990, a third variation of the economic model began. The focus of the Democratic Coalition (*Concertación*

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<sup>2</sup> This view is examined in detail in Ffrench-Davis (2010b), Quantitative support, a description of reforms and policies, and my interpretation of outcomes can be found there.

*Democrática*), the center-left coalition of Socialists and Christian democrats, was to promote “change with stability, seeking growth with equity”. The crucial reforms to the inherited model included the restoration of labor rights; a tax reform financing an increase of social expenditure; and a deep countercyclical reform to macroeconomic policies.

The macroeconomic reforms covered exchange rate policies, monetary and domestic financial regulations, and the counter-cyclical regulation of the capital account; reforms were conducted under the perspective that the economic equilibrium of the ‘real’ economy was one crucial ingredient for the achievement of growth with equity. This was the context in which Chile, during the 1990s, broadened and sustained its productive capacity, recording an average 7.1% annual GDP growth between 1990 and 1998, with improvements to income distribution, a sizable decline in poverty, and a diversified growth of exports.

A particular feature of this period was the capital account regulation –in a period of a huge supply of financial flows to emerging economies. It was based on a flexible reserve requirement (*encaje*) or tax on financial inflows (see Box 1). The vigorous counter-cyclical regulations contributed to keeping the volume of inflows under control, modifying their composition in favor of long-term capital and channeling it toward productive investment, successfully avoiding undue exchange rate appreciation and an excess of domestic demand. The installation of a comprehensive macroeconomic stability had clear benefits for the real economy, which translated into the above noted growth and improvements in capital formation, employment and income distribution. It is worth pointing out that even though the private sector was carrying a somewhat higher tax burden and was now obliged to respect more progressive labor rights with increasing salaries, the investment ratio increased from 13% of GDP in 1982-89 to 20% in 1990-98. Real macroeconomic stability was a key determinant of this improvement associated to a level of domestic demand consistent with potential GDP and a “stable and competitive” real exchange rate (RER, a crucial macro-price).<sup>3</sup>

### **Box 1**

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<sup>3</sup> Frequently what appears as a “market equilibrium ER” is suddenly replaced by a quite different rate under the pressure of changes in capital flows or terms of trade. A “stable and competitive” rate, in order to be sustainable, must reflect the relative productivity of domestic tradables vis-à-vis that of trade partners; is what in conventional literature is called the Balassa-Samuelson theorem.

In the following years (1999-2008), GDP growth declined to 3.7% annually, exports moderated to 6.1%, with most of the contraction due to other GDP components –that is, non-exported GDP or output for the domestic market-- which fell from an annual 6.5% average growth in 1990-98 to 3.0% (see table 1). A key role was played by a reduced quality of macroeconomic policies during these years, with recurrent output gaps and large swings in the real exchange rate; the standard recipe of low inflation and fiscal balances did not guarantee real macroeconomic balances, since the consistency of effective demand with potential GDP and the sustainability of the RER were missing (see Ffrench-Davis, 2006, chapters II and III; Ocampo, 2011).

#### Table 1

Paradoxically, during the last part of the 1990s, the autonomous Central Bank, reversing the highly successful policies of the first half of the decade, gradually adopted the neo-liberal approach that was in fashion: liberalization of the capital account and of the exchange rate, and a monetary policy that focused on inflation targeting. As a result, domestic demand and the exchange rate began to depend on financial flows, becoming ‘victims’ of the globalization of financial volatility. Low inflation coexisted with highly unstable aggregate demand and real exchange rate (RER). Gradually, policies moved away from a macroeconomics for development and the economy began to cater to short-termist finance at the expense of sustained and more equitable growth.

In contrast, on a positive move toward a counter-cyclical approach, the economic authorities formalized a fiscal policy based on a structural balance rule which isolates the cyclical effects on fiscal revenue of the level of economic activity and of copper prices, and thus defines an expenditure level consistent with structural or trend revenue (see Tapia, 2003; Velasco *et al.* 2011). Evidently, then, instability of the real economy responded to swings in private demand, led by mid-term volatility of capital flows and terms of trade.<sup>4</sup>

Taken together, the performance of the four Coalition governments was much superior to that of the dictatorship; annual per capita GDP growth was 3.6% between 1990 and 2009 (counting a 2% drop in 2009) compared to 1.3% in 1974-89. In addition, social policy had been strengthened and inequality somewhat reduced, although it continued to be shamefully high, principally

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<sup>4</sup> Relevant policy implications are not the short-term random walks of these variables, but the mid-term fluctuations that generate recessive gaps, deter capital formation, and induce misallocation of resources.

because of the regressive features of labor and financial markets, the low tax burden and continued weakness of public education, and the reversals in macroeconomic policies during the second half of the democratic period.

After this progress achieved under democracy, the economic agenda demanded deeper additional reforms to ‘guarantee’ a sustained development with an emphasis on SMEs, vocational training and technological innovation. In turn, it was necessary to renew a macroeconomic path for development, which would grant greater priority to the regulation of speculative capital flows and the evolution of the RER.

## ***2. The impact of the crisis: fourth quarters of 2008 and 2009<sup>5</sup>***

By 2007, before the contagion of the global crisis, Chile was enjoying a notable positive shock from the rising international commodity prices. As a result, it experienced an external surplus (in spite of a huge increase in imports), low public debt, a fiscal surplus, and significant sovereign funds and Central Bank international reserves. At the same time, the peak of international prices for fuel and food resulted in a persistent increase in the domestic price level, far higher than the target set by the Central Bank. The Bank continued its policy bias in favor of the inflation target at the expense of growth; in fact, the economy moved toward the production frontier during 2004-08, but it seems that it never reached there. So, toward the end of 2008, there still prevailed a recessive gap that started to increase with the contagion of the global crisis. Then, when there were already clear signs of recession, with negative monthly inflation rates, the interest rate of monetary policy still was maintained at 7 percentage points above that of the FED.

The first shock of the global crisis contagion was on the stock market, followed by falling exports, highly depressed export prices and capital “flight”. As a result of the trade and financial external shocks, since September 2008 there was a contraction in aggregate demand, followed by a drop in output, employment and capital formation.

### **(a) External balances**

It is revealing that already by late 2007 the quantum of exports was exhibiting a weak performance with drops in non-copper exports, items which are more sensitive to the level and the stability of the exchange rate; it was a

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<sup>5</sup> Sections 2 and 3 make use of material developed in Ffrench-Davis and Heresi (2013).

signal of a destabilizing appreciation.<sup>6</sup> It was only several quarters later, that the price of copper dived, when world trade was also slowing (from a growth rate of 8% in 2007 to 3% in 2008) and rushing to the sharp 12% drop in 2009. By the second half of 2008, the current account was experiencing a deficit of 6% of GDP, as a consequence of the fall in prices and volumes exported, together with high imports, led by an excessively appreciated exchange rate. A freely floating rate responded excessively to fluctuations in the price of exports and concomitant financial inflows (in their typical pro-cyclical behavior; see Ffrench-Davis, 2006, pp. 163-8).

Global financial volatility had contaminated the market for commodities, which were increasingly exposed to speculation in international financial markets. The price of copper (representing about one-half of exports), after reaching a historic peak of US\$4 per lb in early 2008, fell abruptly to US\$1.40 by late that year. Most important, the export quantum merely rose 3.2% in 2008 and fell by 4.5% in 2009, in contrast to an annual increase of 8% between 1990 and 2007.

The strong domestic impact can be seen in import volumes and on the local financial market. Domestic banks increased their liquidity preference, producing a strong rise in lending interest rates and a contraction in the supply of loans. The fall in disposable income, coupled with peso depreciation and an increased uncertainty, depressed output. A recessive gap was opened, which as usual reduced the investment ratio after a short lag. Depreciation and falling aggregate demand led to a 16% drop in the import quantum coupled with a 1% GDP decrease during 2009.

During the most recessive months (November 2008 to August 2009), the government repatriated a considerable amount of money from the sovereign funds to finance a fiscal deficit, resulting from reduced revenue and increased expenditure. This bold counter-cyclical behavior coexisted with spectacular outflows from residents, principally associated with the private pension funds (AFPs), whose outflows climbed to the equivalent of 10% of GDP. These institutional investors, operating with forced savings from workers, had --as they did in 1998-99-- a strong pro-cyclical behavior, which reveals a macroeconomic policy failure: they should have faced instead a counter-

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<sup>6</sup> There were signs of *Dutch disease* (implying reprimarization and concentration of exports) despite a significant part of the high price of copper, leading the appreciation, might be transitory, as discussed below.

cyclical regulation (see Zahler, 2006). In 2009, there were total net capital outflows worth 2% of GDP (see table 2).

**TABLE 2.**

**(b) Economic activity and aggregate demand**

After growing at rates above 8% per annum between 2004 and 2008III, domestic demand collapsed by 8% in the first three quarters of 2009 compared to the same period in 2008; in parallel, responding to the drop in domestic demand, GDP contracted 3% by mid-2009 compared to a 5% growth in the previous period and a similar figure projected for the 2009 rise in potential GDP (see table 3, below).

The impact of the large recessive gap on capital formation was strong, as tends to happen in recessive situations. Gross capital formation had been growing at around 14% annually (in a recovery from the recessive 1999-2003), declining 12% in 2009, especially in machinery and equipment (mainly imported and a source of incorporation of innovation and TFP) which contracted 21%.

The labor market suffered an acute worsening. The official unemployment rate increased from 8.3% in 2008 to 10.7% in 2009, with a regressive impact, while labor participation decreased in a typical pro-cyclical behavior (see Ffrench-Davis, 2012). Poverty, which had followed a sustained downward trend from 45% of population in 1987 to 13.7% in 2006, was halted and worsened to 15.1% in the 2009 National Poverty Survey (CASEN).

The step-back can be explained by two situational factors. First, the increase in the relative cost of the food basket, owing to the jump in international food prices. If the 2006 relative prices of food had prevailed in 2009, poverty would have decreased to 11.5%, instead of worsening to 15.1% and would have been below the 13.7% reached in 2006.<sup>7</sup> Second, the CASEN Survey was applied in November 2009, when the labor market was still

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<sup>7</sup> For the figure of 11.5% see ECLAC (2011, p. 74). The food basket is used to measure the extreme poverty, which is then multiplied by 2 to fix the poverty line. The coefficient 2 is derived from the origin of the Survey, in 1987, when Households in Quintile 3 spent half on food and half in the rest of goods and services. There is a measurement bias in keeping constant the coefficient 2. Given the structure of real expenditures, if food prices increase faster than the CPI, the coefficient should be reduced accordingly and viceversa (see Ffrench-Davis, 2010b, p. 185).



strongly depressed because of the international crisis. In the absence of effective countervailing policies, the natural outcome would have been an increase in poverty and a worsening of income distribution. It is due to the strengthened progressive social policies implemented in 2009 that the negative effects on the most vulnerable population were mitigated.

### ***3. Economic policy responses in 2008-09***

Monetary authorities implemented measures to increase liquidity, in both foreign currency and pesos. Nonetheless, for several months the cost of credit increased substantially. The Bank maintained its Monetary Policy rate (*TPM*) at 8.25% until the end of 2008,<sup>8</sup> partly owing to a fear of a sharp depreciation of the peso during the months of the greatest uncertainty and short-term deterioration in the inflation outlook. By the end of 2008, it was evident that inflation had reached its inflection point in November. Only in January 2009 the Bank began to reduce the *TPM*, which culminated in July 2009 with a rate of 0.25%. In the meantime, owing to a perception of risk by financial institutions, there was a slow transfer of rate reductions to the users of credit, so supporting high bank profits.

Fiscal policy was the principal force that counterbalanced the negative external shock. In fact, policy advanced from a neutral position in the cycle, which required expenditure trends to be maintained during downturns, to one with a decidedly counter-cyclical focus (see Ffrench-Davis, 2010a; Tapia, 2003). In 2009, public expenditure expanded by 17% even though revenue had fallen 10% in 2008 and an additional 20% in 2009, with an actual fiscal deficit of 4.2% of GDP in the latter year (see table 3).

### **TABLE 3**

In fact, the government made an outstanding policy shift. While in 2004-08 it had over-saved the revenue from the positive terms of trade shock, losing the opportunity to rapidly reach the potential GDP early in the process of recovery, in 2009 it made broad use of the large funding that it had accumulated in previous years, implementing strong counter-cyclical, pro-employment and lending policies. As table 3 shows, the structural surplus rule implied that the Treasury had accumulated fiscal surpluses equivalent to 27% of GDP in the previous five years, while the public sector moved from debtor

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<sup>8</sup> The US FED had reduced its rate to 2% in April 2008.

to net creditor. Thus, it had financing of its own for adopting an active fiscal policy.

Among stimulus measures, there was an emphasis on the construction of social housing and a massive road investment. A number of taxes for key sectors, for example on fuel, credit and SMEs, were temporarily reduced. A key mitigation policy was the delivery of two vouchers, worth approximately US\$80 each for non-working members of families within the lowest 40% income bracket. In addition, efforts were renewed to improve and extend the pension system with a reform launched in 2008, before the onset of the crisis. The reform added a *solidarity pillar* to the capitalization pillar; individual capitalization accounts naturally reflected the inequality prevailing in the Chilean labor market, while the reform included a public subsidy compensating part of the regressive bias. Actually, the privatization of the pension system, implemented by the dictatorship in 1981, worked rather satisfactorily for only about one-third of the population; the remaining two-thirds accumulated minor or negligible pension funds or were absent from it (Arenas, 2012). From July 2008, basic solidarity pensions were delivered (a monthly cash benefit provided by the state) to those over 65 years of age, belonging to the poorest two-fifths of population, expanded to 50% in 2009; it also included complements to those pensions that did not exceed about 1.5 times the minimum wage. While this is a structural distributive measure, it also contributed to economic recovery.

With respect to labor markets, a subsidy was provided for the hiring of low income youth. The beneficiaries received a subsidy which was equivalent to 20% of their wage and the employer one of 10%. This measure encouraged the hiring of a highly vulnerable group in times of crisis and who lacked employment experience. In addition, CODELCO, the principal public company, was capitalized with a government contribution of US\$1,000 million to finance its investment projects, and the capital of the *Banco Estado*, the main state bank, was increased by 50%, which allowed delivering additional loans to small and medium firms.

It is clear that without the counter-cyclical and mitigation policies, implemented by the government of President Bachelet during the crisis, the step-back in the struggle against poverty would have been far greater.

As table 1 shows above, in 2009 the decline in GDP was concentrated in the drop of exports, with a smaller multiplier effect on the domestic

economy –the opposite of previous recessions where external shocks had larger negative multiplier effects on domestic absorption and output. This implies a return (at least transitory) to a more effective real macroeconomic policy.

#### ***4. The recovery from late 2009 and non-sustainable imbalances***

##### **a) Using output capacity**

During 2009, the strong external negative shock from the international crisis was progressively being compensated for by the increasingly positive stimulus of the government's counter-cyclical policies, ahead of the rebound of the terms of trade latter in the year. In the last months of the Bachelet administration (11/09-2/10), GDP was recovering at a solid 4%, under the stimulus of the counter-cyclical policies and high export prices. Fiscal policy contributed strongly to the recovery of output, which --given a large recessive gap-- was able to respond to the domestic demand pull.

During 2009, Chile regained an external surplus as a result, first of the strong and fast downward adjustment of the demand for imports since late 2008, then followed by a recovery of copper prices (from US\$1.4 to over US\$3 along the year). Actually, it was a very short negative external shock, followed by a large positive shock in the price of copper that still prevailed by 2012. That external fact makes a quite significant difference for subsequent macroeconomic balances.

The output gap that still remained in 2008 rose by about 6 additional points of GDP during the 2009 recession (given a 1% drop of GDP and an estimated 5% increase in potential GDP).<sup>9</sup> Despite the damage caused by a severe earthquake on February 27, 2010, that destroyed about 2% of capacity (and 3% of the capital stock, see Central Bank, 2010), there still was significant room for increases in actual GDP based on recovery, beyond the generation of new potential capacity. That was the situation, in March 2010, when new authorities took power.

In 2010, as exports began slowly to grow again, it was still production geared to the domestic market which sustained the vigorous recovery. As estimated in table 1, exports contributed only with 0.6% to the 5.8% rise in

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<sup>9</sup> We work with a one year average lag of the effects of investment on potential GDP.

actual GDP, while output for the domestic market, led by a sharp recovery of effective demand, contributed by 5.2%.

The recovery of output and employment by the last four months of the Bachelet regime, was temporarily but significantly interrupted by the severe earthquake (in March 2010, economic activity fell between 4.1% with respect to February).<sup>10</sup> In the five following quarters, domestic demand expanded by two digits, maintaining the recovery of actual GDP reaching a 7% annual rate of growth. In the process, the gap between potential and actual GDP was becoming exhausted. Subsequently, actual growth was more in line with the rise in potential GDP, which authorities estimated to be approaching an annual 5%, but domestic demand remained growing faster than GDP and, consequently, the external balance continued to worsen.

Economic recovery, *pari passu* with the elapsing of the recessive gap, encouraged an increase in capital formation, particularly equipment and machinery imports which had been the most depressed during the contagion of the crisis. The gross investment ratio, which had fallen from a 25% peak in 2008, to a 22% plateau during 2009, in the last four quarters was hovering around 27%. Given its composition, it is estimated to support a 5% potential GDP growth (see Ministry of Finance, 2012).

However, most imports also did increase notably fast. This was a response to the expansion of aggregate demand and a strong (but, I believe, unsustainable) appreciation of the exchange rate, as discussed in the next section.

#### b) An outlier exchange rate: A main macroeconomic disequilibria

Again, as in the early 1990s, macroeconomic policy had fulfilled its duty of using productive capacity; that was a move toward one aspect of real macroeconomic equilibrium. However, in contrast with the 1990s, an external disequilibrium, associated with the exchange rate policy, increasingly reappeared. The weakness of the international demand for non-traditional exports was reinforced by intensive appreciation, which also discouraged the

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<sup>10</sup> Figure seasonally adjusted by the Central Bank, obviously subject to large estimate errors. The drop in 12 months was originally estimated in 2% (in pesos of 2003); the new chained accounts of the Bank give a 0.1% decrease.

output of non-traditional exports as well as their value-added and the output of the domestic producers of importables.<sup>11</sup>

RER appreciation has been recurrent from the beginning of the boom in commodity prices in late 2003, in an economy showing increasing signs of Dutch disease, led by a notably high price of the main Chilean export. As figure 1 shows, climbing imports coexisted with exports volume growing much slowly. In fact, in the eight years in 2005-12, the volume of imports rose 10.5% annually (including the 16% drop in 2009), and that of exports averaged a weak 3.0% (see figure 1). Imports appeared to be declining significantly in 2012, but it took place over an already very high level; additionally, they continued to rise faster than the export volume. In all, Chile experienced a current account deficit of 3.5% of GDP, despite a high US\$3.61 price per pound of fine copper (see IPOM, 3/13); recall, that its average nominal level was US\$ 0.74 in 2001-03 (see table 3).

Figure 1

Between 2004 and 2012 the dynamism of exports volume fell persistently. In spite of the proliferation of tariff and other preferences embedded in the numerous free trade agreements signed by Chile (see DIRECON, 2009), export diversification has been rather stagnant. Stagnation is associated with both the lack of productive development policies in Chile (something that persists since the imposition of the neoliberal policies after the military coup),<sup>12</sup> and also with the step-back in the exchange rate policy (gradually since 1996 and sharply in 1999).

The failures of a freely floating exchange rate policy have been crucial in determining this outcome as well in wasting valuable opportunities for productive development which those trade preferences offer. Presently, the RER is the most significant variable affecting the allocation of resources among tradables and non-tradables,<sup>13</sup> the value-added to gross exports, and the competitiveness of import substitutes. An important part of the misleading appreciation being experienced by the Chilean allocator of resources has been

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<sup>11</sup> A domestic counter part of appreciation and the worsening in the current account is the significant rise in the ratio of changes in the CPI of non-tradables to tradables, as measured by the Central Bank (IPOM, September 2012, table IV.1).

<sup>12</sup> There were several efforts to introduce productive development policies; a most promising one was in the government of President Bachelet, identifying clusters on which to focus policy incentives. See a relevant discussion on the issue of structural heterogeneity and inclusive development in Infante and Sunkel (2009). I, briefly, return to this issue at the end of the paper.

<sup>13</sup> See Frenkel and Rapetti (2010); Ffrench-Davis (2010b, chapter IX); Rodrik (2008).

rooted in a policy that resigns to apply a managed exchange rate flexibility, and leaves it to short-minded agents managing financial flows and terms of trade fluctuations. The usual significant depreciations following significant appreciations imply that several producers of tradables are being victims of a false belief of policy-makers confusing transitory ups-and-downs with a permanent base for a “Dutch disease”. It is quite doubtful that Chile should be adjusting toward a permanent “mineralization” of the economy, but if the real rise in the terms of trade is permanent, then adjustment should be gradual and assisted by economic policy rather than abrupt and under a “laissez faire” approach.

The neo-liberal belief in fashion that the monetary authority has no capacity to influence the exchange rate, as this approach assumes that it would ‘imply working against the market’. The key alternative argument is that there are different market segments, with contradictory effects on the sources of economic growth. Consequently, policy should attempt to operate in favor of that segment which is most relevant for productive development --that is the production of tradables in the case of this policy area--, avoiding the misallocating effects of short-term agents or transitory terms of trade shocks that divert the exchange rate from a sustainable medium term path. Therefore, this sort of intervention decidedly favors (instead of opposing) the market segments most important for economic growth.

Faced with the persistence of positive terms of trade shocks --accompanied by pro-cyclical financial inflows, additionally encouraged by interest rate differentials<sup>14</sup>--, the economy has increasingly accommodated to a real exchange rate only consistent with the high copper price; its level is notably above the historical average, and (I believe) above its long run sustainable level.<sup>15</sup> The external outcome has been the mentioned deficit on the current account, notwithstanding the huge copper price.

Actually, in 2012, the Central Bank carried out an exercise with US\$2.80 as the working assumption for the trend price of copper.<sup>16</sup> Naturally,

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<sup>14</sup> There was a TPM gap of 5 percentage points.

<sup>15</sup> Naturally, trend estimates must take care of structural changes such as in the quality of minerals and cost of energy (which have worsened in average) and innovations (which have improved), with a net effect raising production costs in recent years. Additionally there are increases in general price levels: for instance, the US CPI rose 21.4% in the eight years in 2005-12.

<sup>16</sup> IPOM, June 2012. The September 2011 IPOM used US\$2.60 as trend price in an exercise. Heresi (2011), using a battery of econometric methods and a long run copper price time series, estimated a

a trend price is an average of higher and lower prices; Chile has “benefitted” from a long period of notably high prices, what is usually followed by periods of quite low prices, much below the trend (recall the several years, in 1998-2003, in which the price was hovering around a level scarcely one-fifth of the 2012 average).

In short, the continuation of a free floating exchange rate and an open capital account is the abdication of sustainable macroeconomic balances; that is, with aggregate demand close to the level of the productive frontier and ‘right’ or well aligned sustainable macro-prices. In an environment of massive and volatile capital flows, with highly variable export prices, a totally free floating exchange rate will tend to fluctuate widely, without positioning itself near the trend level consistent with sustainability.

Actually, the exchange rate has shown large mid-term volatility.<sup>17</sup> This volatility discourages (i) the generation of value added for natural resources; (ii) the direct or indirect participation of SMEs as exporters; (iii) the survival of the domestic industry that competes with imports and so the jobs they generate; (iv) productive investment in tradables; (v) taking advantage of the export opportunities offered by trade agreements, and (vi) uses to be a major cause of macroeconomic crises.

In order to renew sustained growth with equity, it is indispensable that Chile recovers its capacity to maintain real macroeconomic equilibrium. As a part of this process, the Central Bank should return to an exchange rate policy of managed flexibility (what Williamson (2003) calls intermediate regimes) and reintroduce a counter-cyclical regulation of the capital account. The RER has been a clear outlier, as shown by the persistent gap between the rise of the quantum of imports and of exports, already by several years (see again figure 1).

#### c) A novel fiscal macroeconomic imbalance

The Chilean fiscal policy, since the mid-1970s, was characterized by a quite “responsible” behavior. It was reflected in the accumulation of a large sovereign fund and its net creditor position by 2008, at the start of the

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trend price around US\$1.80-1.90 in 2010-11. The Mining Council, an organization of large mining producers, estimated in 2013 a trend level of US\$2.70.

<sup>17</sup> The common argument that with a free-free exchange rate disappear the costs of foreign currency crises assumes away the allocative and regressive effects that remain during the cycle.

contagion from the global crisis. As discussed above, according to my interpretation, that policy would have been too conservative in 2004-08, by sterilizing too much of the positive external shock of those years; as Table 3 shows, it kept a structural surplus averaging 1% of GDP in 2004-07, without using the opportunity to move fast toward a balance between effective demand and potential GDP, which even by 2008 had not been reached. Moreover, a counter-cyclical increase in fiscal expenditure could have allowed financing additional investment in human capital and in the productivity of SMEs.

Nonetheless, I also praised above, the policy shift in 2009, which moved from the rather neutral structural approach to a strong counter-cyclical policy, so determinant of the recovery of actual effective demand in that year.

That policy implied an increase in fiscal expenditure as a share of GDP of about 3%.<sup>18</sup> Naturally, as a counter-recession policy, it was financed with withdrawals from the stabilization fund, not by new taxes. Since during 2010 a significant recessive gap continued to prevail, an expansionary fiscal policy was needed; actually, 2010 expenditure was raised much faster than structural revenue (7.2% vis-à-vis 4.2%). But, again in 2011, even though the rate of increase was cut by half, the level of expenditure remained high, partly with expenses related to reconstruction after the 2010 earthquake as well with new permanent social expenditure.<sup>19</sup> In 2012, when there was a consensus that the recessive gap (RG) had been exhausted,<sup>20</sup> there remained a structural fiscal balance (SFB) deficit, notwithstanding the very high estimate of the “copper trend price” for that year (US\$3.02; see table 3). What it implied is that a rising permanent social expenditure was being financed with temporary revenue provided by a transitorily high price of copper.

Over-and-above, the story is more complicated. The SFB is estimated with a *trend* price of copper that is provided by a Copper Price Committee (see table 3, line 4). The figure provided for 2012 (US\$3.02 per pound), as mentioned above, is extremely high. Its high level has been explicitly internalized in the structural fiscal accounts by assuming high long-term

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<sup>18</sup> The actual fiscal balance shifted from a 4% surplus to a 4% deficit, between 2008 and 2009. As reported, fiscal revenue dropped because of the fall in the copper price, the decrease in aggregate demand and a temporary counter-cyclical reduction in some tax rates.

<sup>19</sup> For instance, the elimination of a 7% tax on most pensions and a motherhood subsidy for working mothers.

<sup>20</sup> See, for instance, Central Bank, IPOM of September 2012.



copper prices and thus increasing the level of “structural” expenditure.<sup>21</sup> Year after year the dependency of both fiscal and external balances on a boom copper price has deepened. In 2003, at the beginning of the boom of commodity prices, it implied a move toward equilibrium, departing from an evidently too depressed price. In the present decade, it moved toward the other extreme. Fiscal policy has been adding permanent expenditures without the corresponding new taxes, resting on the sustainability of a notably high copper price.<sup>22</sup>

The fiscal dependency on an unsustainable high price of copper (providing revenue in foreign currency) is directly associated with the destabilizing appreciation of the RER. That is, there are two deepening macroeconomic disequilibria in the present Chilean economy.

## ***5. Concluding remarks***

During most of the 1990s, Chile could manage its economy without being diverted by external shocks, but as that decade advanced it adopted a passive attitude when faced with globalization of financial volatility. Since then, exchange rate and aggregate demand, essential components for real macroeconomic equilibrium, were dominated by the external fluctuations of the terms of trade and financial markets. By early 2013, the economy is working around full employment; good, but, with the domestic demand rising faster than GDP, a rising current account deficit, an excessively appreciated exchange rate and a fiscal structural deficit; in nutshell, an economy dangerously dependent on a notably high price of its main export.

A sustained drive toward convergent development implies an active macroeconomic policy focused on the real economy (that is the producers of GDP). For the economy to well-function from the standpoint of macroeconomics, it requires, (i) to be working close to potential GDP with an aggregate demand consistent with potential GDP, and (ii) a coordinated counter cyclical regulation/management of the capital account, exchange rate,

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<sup>21</sup> The increase was 201% in current dollars between the 2006 and 2012 budgets.

<sup>22</sup> A minor tax reform was made in 2012 that includes a permanent raise of profit taxes that had been established transitorily to finance reconstruction in areas and households damaged by the earthquake, reduced the progressive personal income tax (that is paid by less than one-fifth of richer income earners) and a tax on credit (less than 2% of bank debtors hold over 80% of outstanding loans), and created a tax reimbursement for private education. All three are shocking regressive changes.

and fiscal policy; there is no room for outlier, non-sustainable rates. The fact is that fiscal and external balances have become too dependent on a very high price of copper and inflation too much dependent on an unstable and appreciated exchange rate.

For the exchange rate to fulfill its allocative role efficiently, -in a development strategy– it is fundamental to provide signals of more stability to (real) investors and producers in the medium term; that requires a RER that responds to changes in net productivity (à la Balassa-Samuelson) rather than to financial volatility in international markets.

The correction of macroeconomic policy should be carried out jointly with still-pending deep microeconomic reforms. These include structural reforms on the capital market favoring decision-makers with long rather than short-term horizons and developing channels for funding opportunities to SMEs and new entrepreneurs.<sup>23</sup> The vacuum in R&D policy appeared to experience hopeful progress with the announcement by the government of President Bachelet that the government would launch productive development policies with a selection of ‘clusters’; they would be linked to exports of natural resources seeking to increase their value-added and linkages with the rest of the domestic economy.<sup>24</sup>

In summary, Chile has been slipping toward policies that emphasize *financierism*, moving away from the path that led to sustained and more equitable growth in the 1990s. The global crisis, because of its obvious link with financial volatility, should induce corrections to the international financial architecture (still pending), while emerging economies, like Chile, should redesign their macroeconomic policies, by adopting a comprehensive counter-cyclical approach -including regulation of the capital account- and promote inclusive growth by introducing corrections to the economic development agenda.

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<sup>23</sup> There have been a number of reforms to the capital market. However, the market continues to concentrate on the short term and access for SMEs continues to be restrictive and expensive. A recent discussion on the maximum interest rate that the financial system can charge for *small* loans, revealed that most SMEs with access to the formal market, were subject to annual rates exceeding 40% (about a 37% real interest rate).

<sup>24</sup> In 2007 it was decided that part of the revenue from a royalty, recently levied on mining companies, would be allocated to a selection of clusters (National Council for Innovation, 2007). This step represented a welcome change from prior criteria, which emphasized neutrality in resource allocation. Unfortunately, the new government reversed this decision and returned to ‘neutrality’.

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## **Box 1. Counter-cyclical reserve requirement on financial inflows in the 1990s**

In 1990, recently returned to democratic rule, Chile faced a great supply of external finance (in relation to GDP) than any other Latin American country, owing to its economic recovery, smaller economic size and the smooth political transition. This supply was destabilizing for its macro economy and its export strategy (particularly for the consistency of aggregate demand with potential GDP and of the exchange rate with a sustainable external balance). In response, it established an unremunerated reserve requirement (URR) on financial inflows. The reserve rate, the duration for its retention at the Central Bank and its coverage were adjustable, according to the strength of the supply of external funds. The purpose was to make net flows consistent with the volumes that could be absorbed in productive investment while maintaining macroeconomic equilibrium. The flexibility by which the rate could be managed and its coverage allowed it to possess the virtues of a control mechanism combining the use of relative prices and quantitative restrictions, although adjustment was performed with delays and insufficiency.

During the six year period 1990-95, exchange rate appreciation and the current account deficit (as a share of GDP) were less than the average for the region. The disincentives to destabilizing short-term capital inflows provided the room for counter-cyclical exchange rate and monetary policies. Thus, Chile was able to gain control of the composition of inflows, significantly reducing short and liquid short-term inflows. This, together with interventions to sterilize the monetary and foreign exchange markets, avoided a destabilizing appreciation of the exchange rate, maintaining, in the mid nineties, an aggregate demand consistent with potential GDP and the deficit in the current account within sustainable limits.

There is a further dynamic dimension, which links the present with the future; an economy with a high rate of productive capacity utilization and long term stable flows, tend to exhibit higher productive investment ratios (Aizenman and Sushko, 2011). This contributed in Chile to an increasing rate of productive investment between 1990 and 1995. Thus, it created a functional macroeconomic environment conducive to development. This counter-cyclical policy was increasingly weakened in the period 1996-1998 and rejected in 1999-2001 when it was replaced by the fashionable neo-liberal belief in free exchange rates and open capital accounts.

In synthesis, the evidence overwhelmingly shows that capital controls applied between 1990 and 1995 (i) modified the maturity structure of capital inflows, reducing the speculative component; (ii) it allowed the maintenance of a differential between the domestic and international interest rates, providing room for an active monetary policy which ensured that the economy would ride around the production frontier; (iii) it allowed avoiding a destabilizing exchange rate appreciation (Magud & Reinhart, 2006; Edwards & Rigobon, 2009). Above all, (iv) it contributed to a comprehensive and sustained real macroeconomic equilibrium.

**Sources:** French-Davis (2010b, chap. VIII); Le Fort and Lehmann (2003); Williamson (2003).

Table 1  
**Exports and economic growth, 1974-2012**  
 (annual average rates of growth, %)

	<b>GDP</b>	<b>Exports</b>	<b>Non-exported GDP</b>
1974-89	2.9	10.7	1.6
		(1.8)	(1.1)
1990-98	7.1	9.9	6.5
		(2.0)	(5.1)
1999-2008	3.7	6.1	3.0
		(1.6)	(2.2)
2009	-1.0	-4.5	0.1
		(-1.1)	(0.1)
2010	5.8	2.3	6.9
		(0.6)	(5.2)
2011	5.9	5.2	6.1
		(1.2)	(4.7)
2012	5.6	1.0	6.9
		(0.2)	(5.3)
2009-2012	4.0	0.9	4.9
		(0.2)	(3.8)
1990-2012	5.1	6.6	4.7
		(1.5)	(3.6)

**Sources:** Ffrench-Davis (2010b) and updates based on Central Bank data. From 2009 growth rates of the new chained 2008 series were used. Figures into brackets represent the contribution of exports and the rest of GDP (that is, Non-exports) to the percentage change in GDP.

Table 2  
**Net capital flows by institutional sector, 2003-2012**  
 (% of GDP)

	<b>2003-2007</b>	<b>2008</b>	<b>2009</b>	<b>2010-2011</b>	<b>2012</b>
FDI net inflows	6.2	8.6	7.5	8.1	11.3
Greenfield FDI	4.9	6.3	5.6	n.a.	n.a.
Mergers and acquisitions	1.3	2.4	1.9	n.a.	n.a.
FDI net outflows	-2.1	-5.1	-4.2	-6.2	-7.9
General government	-2.2	-2.6	4.4	-1.0	-0.7
Central Bank	0.0	-3.6	-0.3	-3.5	0.1
Pension funds	-2.5	-1.6	-9.7	-0.2	-2.5
Financial and other	-1.7	7.5	0.3	1.3	3.1
<b>TOTAL NET CAPITAL FLOWS</b>	<b>-2.4</b>	<b>3.2</b>	<b>-2.0</b>	<b>-1.5</b>	<b>3.5</b>

**Sources:** Based on the new series of Balance of Payments figures of the Central Bank (2003-12); UNCTAD for M&A.

**Notes:** Other and Total include Errors and Omissions. Negative figures imply capital outflows.

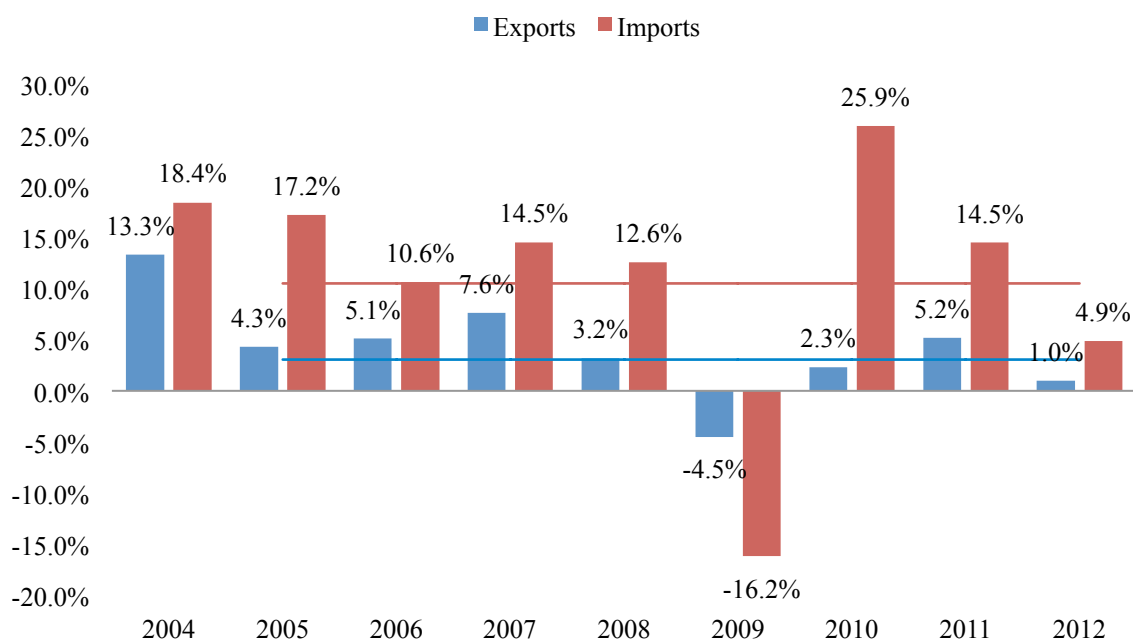
Table 3  
**Fiscal indicators, 2001-2012**  
 (annual averages)

	2001-2003	2004-2007	2008	2009	2010-2011	2012
GDP growth	3.2	5.6	3.3	-1.0	5.8	5.6
Trend GDP growth (%)	4.0	4.9	5.0	4.9	4.6	4.9
Current copper price (US\$/Lb)	0.74	2.31	3.16	2.34	3.71	3.61
Trend copper price (US\$/Lb)	0.90	1.00	1.37	1.99	2.36	3.02
Fiscal income growth (%) constant \$2011	4.1	18.1	-9.5	-20.4	19.9	0,9
Fiscal expenditure growth (%) constant \$2011	3.8	7.2	8.2	16.9	5.2	4.2
Fiscal balance (% of GDP) current	-0.7	5.6	4.1	-4.2	0.4	0.6
Structural fiscal balance (% of GDP) current	1.0	1.0	0.7	-1.2	-1.6	-0.6
Fiscal income (% of GDP) current	21.2	24.6	24.2	19.0	22.1	21.9
Fiscal expenditure (% of GDP) current	21.9	19.0	20.1	23.2	21.7	21.4

**Sources:** French-Davis (2010b) and updates based on Budget Office (DIPRES) figures.

Figure 1

**Evolution of exports and imports of goods and services, 2004-2012**  
(annual real growth rates, %)



**Sources:** Based on Central Bank figures in prices of 2003. From 2009 growth rates of the 2008 chained series were used.

**Notes:** Exports and imports cover volume (quantum) of goods and services. The horizontal lines correspond to the simple average of the growth rates in the period 2005-12; imports and exports show annual averages of 10.5% and 3.0%, respectively.