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Is Chile a Model for Economic Development?

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IS CHILE A MODEL FOR ECONOMIC DEVELOPMENT?*

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Abstract

The Chilean economy is usually highly praised as a successful one since the imposition of neoliberal reforms, under the dictatorship of general Pinochet in 1973. The fact is that the four decades that have elapsed include sub-periods with quite different policy approaches and notably diverse outcomes. There is neither one unique *model* nor only one outcome. The four decades growth is moderate, averaging 4.2% per year; during the 16 years of dictatorship averaged 2.9% (meager), during one quarter of a century of democracy, 5.1%, a good performance, but a vigorous 7.1% in the first years (1990-98) and a modest 3.9% in the fifteen more recent years. Sometimes has performed closer to become a "model" for development, sometimes the opposite. Focusing in three episodes (1973-81, 1990-98 and 2008-13), we explore the underlying explanatory variables and some lessons for building "a model for development".

INTRODUCTION

The Chilean economy is usually highly praised by IFIs, diverse political authorities and international analysts. It has been generalized the idea that there is "one" successful Chilean *model* since the imposition of neoliberal reforms, under the dictatorship of general Pinochet in 1973. The fact is that the four decades that elapsed since 1973 include several sub-periods, with different policy approaches and external environments, and notably diverse economic and social outcomes. There is neither one unique *model* nor only one outcome. Sometimes has performed closer to become a "model" for development, sometimes the opposite or something in between.

Economic development at least includes the production of goods and services and its distribution among citizens. We will look into how both evolved along the four decades. A role-model case should be consistently achieving success both in economic growth and its distribution.

In section I a summary evaluation is presented of policies and outcomes during the four decades. Section II focuses on three episodes. One corresponds to the first half of the dictatorship, in 1973-81; a second one during the first years of return to democracy, in 1990-98, and a third one on the period since the contagion of the global crisis, 2008-13. Section III concludes.

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I. An overview of four decades

In the five governments under democracy (1990-2013), productive development policies have been mostly absent or weak as they were under the dictatorship, after the Pinochet dictatorship eliminated most of them. On the contrary, macroeconomic and social policies have had significant changes; in particular, macroeconomics has experienced notable contrasts among and within the periods 1973-81, 1982-89, 1990-98, 1999-2007 and 2008-2013.

The first deep reforms were launched in 1973. This stage of the reforms (1973-81) was characterized by the implementation of a neo-liberal model in its purest and ideological form. Trade liberalization and financial liberalization practically free of prudential regulation, and the adoption of "neutral" economic policies --under the view that "always the market knows better"--, were accompanied by massive privatizations. In general, by 1981, success was achieved in reducing inflation and eliminating the fiscal deficit inherited, but at the expense of the external balance, a highly appreciated exchange rate and huge external debt, while recording climbing financial savings but a low investment ratio. The outcome was a banking and foreign exchange crisis with huge economic and social impacts in 1982, including a GDP drop of 14%, high unemployment exceeding 30% of the labor force, and a significant increase in poverty with a worsening income distribution.

The second stage of the dictatorship (1982-89) implied moves toward more pragmatic policies to overcome the effects of the deep crisis. It involved a series of foreign debt renegotiations, several policy interventions aimed to balance the external deficit --such as tariff increases and "selective" export incentives-- and the direct take-over by the government of the collapsed financial system, and then privatizing it again when their balance sheets were in order thanks to heavy public subsidies to banks and debtors costing the Treasury some 35% of annual GDP. At the end of this period, the economy had recovered, while income distribution had worsened even further than in the seventies. During recovery, actual GDP grew vigorously, but after due consideration of the 1982 recession, it emerges that average annual growth was 3% or under in both halves of the Pinochet regime. In the 1960s, growth had averaged 4.x%

By 1990, in the return to democracy, the Chilean economy faced the challenges of achieving a sustained high average GDP growth and of serving the great social debt accumulated in the years of dictatorship. Thus, a third variant of the economic model

began in 1990. The formal slogan of the Concertación Democrática, a center-left coalition of socialists and Christian democrats, was "change with stability" for achieving growth with equity in the socio-economic dimension of the program of the new government.

There were significant reforms of the market model, strengthening the social component and correcting severe pro-cyclical failures of economic policies. It included labor reforms (that restored several labor rights) and a tax reform (that raised public revenue in order to improve social expenditure). In addition, substantive counter-cyclical changes in fiscal, monetary, capital markets, exchange rate and regulatory policies were implemented, aiming for a stable and sustainable *real* macroeconomic environment (beyond inflation and fiscal balance under control, an aggregate demand consistent with potential GDP, and sustainable external balance and exchange rate).

These balances of the real economy were considered by the new authorities as crucial for development (meant as GDP growth with reduced inequality). One outstanding feature of this period was the regulation of the capital account, with a flexible reserve requirement (*encaje*), quite active in these years of large supply of financial flows to the emerging economies. The counter-cyclical active regulation helped control the volume of inflows, to shift its composition to the long term and their allocation in productive investment; it provided space for monetary policy, and avoided undue exchange rate appreciation and instability. The real economy benefited from comprehensive real macroeconomic stability, which is meant to be development-friendly, but there was practically no room for direct productive development policies nor for direct support to SMEs. Two obstacles were the constitution inherited from Pinochet and the strong ideological fashion against selective productive development policies.

As a consequence of reformed macroeconomic policies, most part of the period economic activity was close to potential GDP; that is, with a high rate of use of available capital and labor. That had happened only in 1974, 1981 and 1989 during the dictatorship. It was in this reformed macro-environment in which Chile expanded its productive capacity, in a sustainable manner between 1990 and 1998, with actual and potential GDP growing in parallel at annual rates averaging 7.1%, improving at the same time social indicators (table 1).

Table 1

After the mid-1990s, Chile (actually, the autonomous Central Bank) gradually moved toward the neo-liberal fashion of capital account and exchange rate liberalization; initially, the Treasury was critical of the move, but some years later, in the next administration, also the Treasury joined the fashion. As a consequence, the exchange rate and domestic demand came to be led by financial flows, and fell victim to their volatility. Thus, Chile became vulnerable to the turbulences originated by the Asian crisis in 1998, since it had allowed the exchange rate to appreciate "too much" and external deficit to double with respect to 1990-95. An acute contrast with the situation when Chile was immune to the Mexican financial crisis in 1995.

Vulnerability was aggravated with the full liberalization of the exchange rate (in 1999) and the capital account (in 2001). Then, the economy exhibited a stagnating actual output and a drop in the growth of potential GDP in the quinquenium 1999-2003; unemployment rose as well as the ratio richer/poorer quintiles (back to 16 times). After a partial recovery in 2004-08, led by a sharp improvement in the terms of trade, it suffered the arrival of the contagion of the global crisis in late 2008 and 2009. Export volumes and prices fell and capital inflows were reversed. Thanks to a sharply improved domestic macroeconomic management, with strong counter-cyclical fiscal policy and a progressive bias (pension reform, subsidies to youth employment and to unemployed), and the fortunate help of a rapid recovery of export prices, by late 2009 there was a solid revival of economic activity.

Even after a great earthquake in 2010, recovery continued, pushing actual GDP near its potential output by 2012. The average increase in GDP was 3.9% between its peak in 1998 up to 2013.[1] A figure far greater than the 2.9% of the dictatorship, but quite poorer than the 7.1% of the first nine years of democratic regimes.

The fluctuating growth dynamism implies a variable development gap with the developed economies. Table 2 shows that the gap with the USA and the G-7 countries increased during the dictatorship. The rather good average performance in the two and half decades of democracy, implied that Chile shortened the distance with the developed world and left behind most of Latin America as depicted in table 3. Nevertheless, this

[1] The measurement of economic growth ought to be made between comparable macroeconomic situations. We compare years with a high level of capacity use, that is, with actual GDP close to potential GDP. Significant recoveries of economic activity such as in 2004-08 and 2010-12 came after recessions that cannot be ignored. On the contrary, the vigorous growth from 1990-98 followed an overheating economy in 1989.

performance was not sustained nor continuous. As shown in table 1, only the first short half of the period (1990-98) involved a vigorous GDP per capita growth (tripling the speed of the USA), with a strong *development convergence* with the developed countries (the per capita income gap fell by one percentage point per year), including a significant reduction in income inequality with significant improvements in income distribution (to a ratio richer/poorer quintiles to 13.7). In the long second half (1999-2013), it continued shortening distance, but per capita GDP growth trend halved, and the strong development convergence exhibited in 1990-98 was weakened (to only one half percentage point), as well as previous improvements on income distribution and the intensity of poverty reduction.

Table 2

II. THREE QUITE DIVERSE EXPERIENCES

A. The neo-liberal revolution, 1973-81

The first stage of the economic reforms (1973-81), launched after the military coup of September 11, 1973, represented an extreme case because of the amplitude of the role granted to the market, the intensive privatization of the means of production, sharp liberalization of imports and of the domestic financial markets, and the regressive changes imposed on social organizations. There was a determinant emphasis on "neutrality" of economic policies disregarding the high existing inequality, under the belief that the "market always knows better" and provides equitable outcomes.

Rightly so, the initial concerns of Pinochet's government lay with controlling the acute macroeconomic disequilibria inherited, especially a 700% hyper-inflation recorded in 1973, with the reduction of a huge fiscal deficit taking top priority.

The government benefited in 1973-74 from a very high copper price (by far the main export, by a public firm --CODELCO), what increased public revenue and the availability of foreign currency. Evidently, for independent observers, the price was unsustainably high. Nonetheless, the revenue of copper exports was fully spent by the government *pari passu* with its collection. Economic activity recovered significantly in 1974, making use of installed capacity underutilized during the previous year. However, in late 1974 the price of copper dropped sharply, while the 1973 international oil shock persisted. This strong negative shock prompted the government to introduce a tougher adjustment program in 1975, led by fiscal and monetary contraction and significant exchange rate devaluation.

The acute monetary restrictions had great impact on economic activity: during 1975 industrial output fell 28%, GDP declined 17%, unemployment (including emergency programs) peaked at 20% of the labor force, and real wages suffered a sharp drop. Since productive capacity was not destroyed but heavily underutilized --that is, main real macroeconomic disequilibria--, a significant output gap between actual GDP and potential GDP emerged: about 20% of GDP was underutilized in 1975 (figure 1).

Figure 1

In 1975 the domestic capital market was fully liberalized under weak regulations (the "market knows"), import policy was moving toward free trade, taxes on profits had been drastically reduced as well as public investment and real wages. The fiscal budget had shortly shifted to a surplus.

In the meantime, international capital markets had become highly liquid, looking for newer destinations of their supply, including several Latin American nations. By 1977 Chile started to receive huge capital inflows, mostly bank loans; given that the public budget was in surplus, they reached the private sector. A passive or neutral public policy allowed inflows, which appreciated the exchange rate and increased domestic demand.[2] Naturally, the deepening exchange rate appreciation contributed significantly to the drastic drop of inflation by the early 1980s.

But, in parallel, trade liberalization plus exchange appreciation encouraged imports, which increased growingly faster than exports. This trend continued for nearly five years, time in which the rising imports were over-financed by ever larger foreign loans. Unavoidably, foreign debt of the private sector was accumulating.

In parallel, actual GDP was increasing fast, even though output capacity was rising quite slowly. In fact, the reutilization of the large output gap generated in the recession of 1975 made the difference. Investment in new capacity was low, with the gross investment ratio averaging 16% of GDP in 1974-81; that is, much lower than 20% in the sixties. Foreign loans were overwhelmingly used in imports of consumer goods, with limited imports of equipment and machinery. In the process, debt amortization and interest payments rose fast, and the deficit on current account was climbing, reaching an

[2] In 1979, Chile moved to the then known as "monetary approach to the balance of payments", which consisted in fixing the nominal exchange rate and determining that the money supply would be increased (reduced) only in response to purchases (sales) of dollars by the Central Bank. It is similar to the "currency board" adopted by Argentina in 1991 and that exploded in a dramatic crisis in 2002.

unsustainable 21% of GDP in 1981.[3]

Why the investment ratio averaged merely 16% of GDP? First, the severe abrupt crisis of 1975, and then just a gradual recovery. Second, the failures of the domestic capital market. Third, the nature of capital inflows into Chile and exchange rate appreciation.

First, after the large output gap generated in 1975, only in 1981 actual GDP became again close to potential GDP. Thus, the macroeconomic environment involved high rates of underutilization of productive capacity for several years. This persistent output or recessive gap was a main factor discouraging gross capital formation (Agosin, 1998; Ffrench-Davis, 2006, chapter III). Naturally, when entrepreneurs are not using a significant part of their capacity, profits are lower and have less liquid funds, all evidently discourage expanding their capacity. A usual feature of financial crisis --that abrupt recessions are followed by gradual recoveries--, has clearly a significantly negative incidence on productive investment, thus pressing downward, also significantly, the trend of GDP growth and the quality of employment.

Second, the financial reform (mostly implemented in 1975) gave free way to a highly short-termist market with very high real interest rates charged on domestic loans. In fact, the most common loan held a 30 days term, while the activities of public investment banks were curtailed, and annual real lending interest rates of the banking system averaged 38% (that is, a quite “outlier” macro-price) in 1975-82.

Third, trade liberalization-cum-exchange rate appreciation reduced the cost of imports, principally of consumer goods, with their domestic output being crowded-out of the market. Liberalization attracted investors in the production of exports with a much weaker force than the discouragement of domestic firms competing with imports, with a counter-expected drop in the share of tradables in GDP.[4] Additionally, large shares of bank lending were used by economic groups to purchase public firms being privatized (fewer in creating new activities) as well as by households on imported consumer goods. Finally, financing of productive investment by increased inflows was notably scarce. It is crucial who intermediates capital inflows; those intermediated by foreign direct investors (FDI) were a minority of inflows.

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[3] Pro-cyclical monetary and exchange rate domestic policies were aggravated by a huge jump in interest rates in the USA in late 1979 and a US dollar appreciation in 1981 that raised additionally the cost of the outstanding foreign debt.

[4] Based on the national accounts, the share of “tradables” was estimated to have fallen about 5 percentage points of GDP, instead of increasing as expected with trade liberalization.

By 1981, success had been achieved in eliminating inflation (just like Argentina had done before the explosion of 2002), exhibited a large fiscal surplus (implying that the external deficit was completely from the private sector); actual GDP was still rising. There was euphoria in the government, IFIs and large business firms, and a spread view that Chile was experiencing "an economic miracle".[5] However, vulnerability to changes of mood of financial markets had been created increasingly. As said, foreign borrowing had given rise to a domestic lending boom, in an atmosphere of lax prudential regulation and supervision. Related-party auto lending rose rapidly, often with fictitious guarantees. The banks renewed loans (often on a thirty-day term) and financed interest payments with new loans. Non-performing loans appeared low and the banks' profits high. Many loans were backed by stock and real estate, but the prices of such collateral were inflated as a result of the financial boom and the mistaken belief that the Chilean economy would continue to grow at around 8% a year (the actual trend of potential GDP was closer to 3%).

Underlying these disequilibria, there was a severely mistaken diagnosis, led by the belief in market self-efficiency and spontaneous self-regulating adjustments. The government assumed that, since it had achieved a fiscal surplus and external borrowing was being decided by private agents, and private lenders were financing it, a foreign exchange crisis would never occur. The explicit and strong support of the International Monetary Fund reassured the government in that wrong assumption (Robishek, 1981). It failed to realize that an unsustainable medium-term deficit could be generated in the private sector (Marfán, 2005).

The model conceded a leading role to the financial reform. In fact, the financial system --characterized by an outstanding short-termist bias-- was transformed into the dominant decision-making center in the Chilean economy. The financial reform and the opening to capital inflows constituted a determinant factor in the concentration of wealth and in the crowding-out of productive investment, introduced great external vulnerability, and distorted development, under the unbridled *financierism* to which it gave rise.

By 1981, bank debt per capita nearly doubled that of the Latin America average. The deficit on current account had climbed to 21% of GDP, with domestic savings

[5] Foxley (1983), in his interesting evaluation of the experiment, presents several revealing citations, including one from an editorial of the *Wall Street Journal*: USA should borrow the economic team of Chile (01/18/80), referring to the incoming Reagan presidency.

having collapsed to close to zero. Chile required growing net financial inflows quarter after quarter, what becomes increasingly hard when the debt stock has been rising so much faster than wealth and income. It is difficult to predict when creditors will decide to reverse flows, but it is evident that the probability of reversal increases sharply with increases in the debt stock, size of amortizations and deficit on current account, and consequent need of exchange rate devaluation.

The macro-adjustment took place in 1982, well before the explosion in Mexico of the Latin American debt crisis in August of that year. It is highly relevant that inflows still were quite large during 1982 (about 10% of GDP), but much less than the 24% of net inflows in 1981, to which the economy had got use to. Actually, the economic authority felt obliged to devalue by June. The economy intensified the deep recession already at work, with a 14% GDP drop in 1982, open unemployment was affecting one out of every three workers in 1983, there were countless bankruptcies including most part of the private banks, and a huge increase in poverty and a worsening income distribution took place. In 1982, the Chilean economy –already with null inflation, fiscal surplus, intensive privatizations, and free imports-- experienced the deepest and more regressive adjustment in all Latin America. It was a significant macroeconomic disequilibria.

The combined changes to the production structure, the repression of labor rights, and the financial reforms, plus real macroeconomic instability, caused severe distributive setbacks. The ratio between the household per capita income of the richest and poorest quintiles increased from 13 in the 1960s to 16 in 1976-81, (and to 20 during the 1980s, Ffrench-Davis, 2014, ch. VII) while the Gini index increased by 4 percentage points.

In summary, in 1974-81, before the debt explosion, the neoliberal experiment had produced a society with increased inequality on many fronts, a predominance of *financierism* over *productivism* (that is, at the expense of increases in productivity of labor and capital, and productive entrepreneurship), a highly pro-cyclical macroeconomics, and a meager and regressive average economic growth. The 1982 crisis worsened even further that mediocre outcome, so unfriendly with development. Only by 1988 was Chile able to recover the GDP per capita achieved in 1981.

B. Counter-cyclical regulation of the capital account: 1990-95

After the great debt crisis, Latin America regained access to private capital inflows by

the early 1990s.[6] Chile was one of the first to attract new funds and was among the countries facing the greatest supply of inflows in relation to its economic size.

With the return to democracy in 1990, the Chilean economy faced the challenges of achieving a sustained high average growth and of serving the great social debt accumulated during the dictatorship. There were significant reforms of the market model. It included labor reforms (that restored several labor rights), a tax reform reintroducing taxes on profits eliminated by the dictatorship (that raised public revenue geared to improve social expenditure and the distributive effects of the tax system), and a substantive counter-cyclical reform in macroeconomic policies.

In fact, the shadow of the great recession of 1982, and its negative impact on growth and equity, was quite present in the minds of the new authorities. Consequently, the top priority for implementing macroeconomic policies achieving sustained equilibrium in financial markets and in the real economy, diminishing vulnerability to external shocks, and improving employment. The macroeconomic reforms were implemented in the capital account, exchange rate, monetary and regulation policies, under the view that the equilibrium of the "real" economy was crucial for growth with equity; in parallel, care was taken of fiscal responsibility.

Chilean public policy in the first half of the 1990s represented a significant step toward a counter-cyclical approach to macroeconomic management. In brief, policymakers responded to the massive availability of foreign capital by implementing counter-cyclical policies to moderate short-term and liquid inflows while keeping the door open to long-term flows. The authorities --in a tightly coordinated action by the Ministry of Finance and the Autonomous Central Bank-- made use of a wide range of measures to regulate the surge in the offer of financial inflows in 1990–95. It included, as a crucial piece, an unremunerated reserve requirement (called *encaje*) established to raise the cost of bringing in short-term capital; this is a market-based instrument that affects relative costs. The rate of the *encaje*, its coverage and the term for which it was retained in the Central Bank were from time to time adjusted according to the intensity of the supply of funds from abroad and the evolution of international interest rates (Ffrench-Davis, 2010, chapter VIII). Authorities, up to 1995, systematically monitored avoidances that might be appearing in the effectiveness of the *encaje.*

The authorities also used exchange rate intervention to hold down its real appreciation to a level consistent with the external balance, and monetary sterilization to

[6]. See, for instance, the classical paper by Calvo, Leiderman, and Reinhart (1993).

keep domestic demand at a level consistent with potential GDP. These and other counter-cyclical policies supported a development strategy that encouraged export growth and its diversification, and productive investment and employment.

Three other policies contributed to the success in managing capital inflows. First, a responsible fiscal policy; permanent increases in social spending were financed with permanent new taxes. Consequently, in 1990-97 Chile had a significant non-financial public sector surplus averaging 1.8% of GDP,[7] which was used to reduce the large external liabilities generated during the 1980s crisis. The prudential fiscal approach included observing the regulations of a stabilization fund for public copper revenues, which contributed to stabilize public expenditure and to preventing excessive exchange rate appreciation. Of course, running a fiscal surplus does not guarantee financial stability; recall that the great 1982 crisis occurred despite Chile's having had several years of large fiscal surpluses.

Second, prudential banking regulations had been introduced in 1986 in response to the banking crisis of 1982–83. The democratic authorities effectively resisted pressures to weaken supervision when lobbying sectors argued that the system was mature enough to self-regulate; in fact, prudential supervision was intensified instead of being relaxed. This deterred capital inflows to trigger another domestic credit boom.

Third, authorities continually monitored aggregate demand and its consistency with productive capacity. Consequently, macroeconomic disequilibria were not allowed to accumulate. Some overheating occurred in 1991 and 1993, but the authorities in due time conducted a downward adjustment in aggregate demand. Chile was able to make active monetary policy with a significant interest rate differential with the US rate when needed for domestic equilibria, thanks to the policy space provided by the *encaje.*

The set of policies was highly successful, in the sense that in 1990–95, and especially when the contagion of the tequila crisis spread in 1995, the current account deficit was moderate (2.3% of GDP in 1990-95), its financing was mostly of long-term inflows, international reserves were large, the total short-term external liabilities were held to a fairly low magnitude,[8] aggregate demand had been consistent with potential

[7] The reforms approved by the Parliament (including the tax reform) were always less comprehensive than those originally proposed by the government. A determining fact was the group of senators that had been appointed under the Constitution designed by the dictator Pinochet in 1980, which more than compensated for the majority achieved by candidates of the new democratic government in 1989 and 1993 parliamentarian elections.

[8] In Ffrench-Davis (2010, chapter VIII and 2014, cap. VIII) I make a detailed analysis of empirical literature critical and supportive of the working of the *encaje*.

GDP, and the real exchange rate was kept at a sustainable level as shown by the moderate deficit on current account financed by greenfield FDI. All these are conditions of comprehensive real macroeconomic balances. They would not have been feasible without regulating capital inflows, without managed flexibility of the exchange rate (see Williamson, 2003), and without pursuing an active monetary policy.[9] Strategic features of the policies used were in frontal contrast with the mainstream fashion of full capital account liberalization and fully free or fully peg exchange rate policy.

When the Mexican exchange rate crisis exploded, the Chilean economy proved immune to contagion; actually, macroeconomic vulnerability had been significantly reduced. In 1990-95, GDP growth peaked at 7.8%, with some improvement in income distribution (see table 1, above) and a sharp drop in poverty. The producers of GDP -- labor and capital, the real economy-- benefited from comprehensive real macroeconomic stability.

One main merit of policies in 1990-95 rests in that Chile resisted successfully pressures of the fashion in US academia and in IFIs and the temptation of achieving a faster disinflation with an increased domestic absorption of capital inflows and at the expense of exchange rate appreciation and a larger external deficit. A temptation to which Mexico fell and led its economy to the severe Tequila crisis.

High productive investment was the main factor behind the outstanding sustained GDP growth. As empirical studies show robustly, private investment, given its irreversibility, responds positively to real macroeconomic equilibria, whenever they appear to be sustainable. For real sustainability it must fulfill two key conditions. First, effective demand has to be consistent with the productive capacity being generated, and, second, key macro-prices (particularly the exchange rate) must be consistent with a sustainable external balance (Ffrench-Davis, 2006, chap. III). In the six year period 1990-95, actual and potential GDP rose at similar rates, with the economy working close to the production frontier; that is, with a minor output gap and a sustainable external balance. Crucial ingredients of real macroeconomic balances.

However, macroeconomic policies lost their strength after 1995. Paradoxically, the autonomous Central Bank gradually moved toward the neo-liberal fashion of capital account and exchange rate liberalization. In 1996-98, Chile did bend, partially, toward the powerful international fashion promoting the capital account liberalization, allowing

[9] Good luck also played a role, with a sharp improvement in the terms of trade in 1995, but still remained 20% below the average in the last biennium of the dictatorship.

a real appreciation of the peso and imbalances in the domestic and external accounts. That fashion was generally in command in emerging economies, pressed by the US government, the IMF and World Bank, the OECD and generally in the Anglo-Saxon academic world. The fashion had been reinforced under the belief that the management of the tequila crisis had shown that the world had learnt to control financial crisis; such over-optimism was absorbed also domestically, by business leaders and some public authorities. The weakening of the counter-cyclical approach took the form of principally allowing leakages to the *encaje* and stepping-back in the managed flexibility of the exchange rate.

Therefore, when the Asian crisis contagion reached Chile in 1998, the economy had accumulated rather significant imbalances: the real exchange rate had appreciated 16% between 1995 and 1997, and the current account deficit had jumped to 4.8% of GDP in 1996-97, versus 2.3% in 1990-95, which worsened further with a sharp negative terms of trade shock in 1998. Fiscal responsibility had been kept, with an actual surplus averaging 2.1% of GDP, while a larger private deficit was financed by the rise in their external liabilities, encouraged by a weaker regulation of the capital account and the exchange rate.

In 1996–97 Chile continued to record vigorous growth, with both output and investment staying increasingly high. A determinant factor behind the record investment ratio was the high employment of productive capacity as shown. But, as said, the macroeconomy was becoming vulnerable to changes in the international environment with the appreciation of the exchange rate and rise of external deficit. Fortunately, as said, Chile did step back, in 1996-98, only to a mid-of-the-road position. Did not dismantle regulations but allowed a gradual weakening of their effects (Le Fort and Lehmann, 2003); so, disequilibria was moderate after six years of counter-cyclicality and only a couple of years of soft pro-cyclicality.

So, Chile had advanced toward development with the significant macroeconomic reform in 1990-95, with some steps-back in 1996-97, while only had made minor progress with respect to productive development policies. Later gave up, liberalizing the exchange rate in 1999 and the capital account in 2001. Table 4 compares average performance of GDP and wages in 1990-98 and 1999-2013. There is a large contrast. Capital formation is rather similar and suggests a sharp drop in total factor productivity partly associated to real macroeconomic instability.

C. Contagion, counter-cyclical response and recovery in 2008-13

When the contagion of the global crisis arrived in 2008, economic activity in Chile suffered a sharp recessive adjustment between late 2008 and 2009. There was a contraction of capital flows, trade volume and copper price. In contrast with a mostly neutral approach since the late 1990s, now the government adopted a decided counter-cyclical approach, making use of the sovereign fund, which provided broad space for an active fiscal policy. The fund had been accumulated during the boom in copper prices in accordance with the structural fiscal balance approach adopted in 2001.

Expenditure was increased 17% and some tax rates were reduced transitorily (on fuels, loans, SMEs) in spite of the fact that fiscal income had fallen 10% in 2008 and another 20% in 2009.[10] This implied a transitory actual deficit of 4.4% of GDP in 2009. The Central Bank, although in a delayed decision, reduced sharply the monetary policy interest rate. The strong counter-cyclical fiscal policy was the main force compensating for the negative external shocks. The domestic economy (GDP non-exported) contracted by a negligible amount,[11] exhibiting a significant recovery push already by the last quarter of 2009. Counter-cyclical fiscal policy was effective.

The counter-cyclical behavior of the Treasury had to coexist with huge outflows of funds from residents, principally the private social security firms, which transferred abroad the equivalent of 10% of GDP in 2009.[12] Once again, the liberalization of residents' capital flows hampered macroeconomic management for their pro-cyclicality joined that of the financial flows of non residents. The liberalization of the capital account continued to be costly for development.

By the last quarter of 2009 the economic recovery was well advanced, but was momentarily stopped by the severe earthquake of February 27, 2010 (27F), only a few days before the end of the President Bachelet's government and the beginning of that of President Piñera. In a few weeks the recovery recommenced. The high level of domestic demand, a consequence of the counter-cyclical policy of 2009, was increased by reconstruction costs following the 27F earthquake. Given that installed capacity was significantly underutilized --despite the destruction caused by the earthquake and the

[10] Ffrench-Davis (2014, ch. IX, table IX.2). This chapter discusses policies between the contagion of the Asian crisis and the start of the global crisis.

[11] Ffrench-Davis (2010, ch. VI, table VI.6).

[12] Ffrench-Davis (2014, ch. X, table X.1). This chapter details the policy answer to the contagion in 2008-09, recovery in 2010-12 and building of dependency on a very high price of copper.

subsequent *tsunami*[13]-- the accelerated public expenditure was consistent with a move toward macroeconomic equilibrium (using capacity) as long as a recessionary gap prevailed.

Of course the earthquake disturbed economic activity but the significant unutilized productive resources and the reactivation pushed by fiscal policy continued. Paradoxically destruction on this scale can have macroeconomic effects that are contradictory, under conditions of full employment or with a significant recessionary gap. In 2010 reconstruction spending contributed strongly to the reactivation of domestic demand and so to actual GDP, without inflationary pressures. Of course, the recessive gap was being reduced during the adjustment period, significantly increasing employment and stimulating capital formation. But, there were no structural progresses in the generation of GDP, manufacturing remained depressed, and export diversification stagnated. It was rather the recovery effect, now more fully than in 2007 and closer to the mid-1990s. As a consequence, income distribution improved. But, in all, returning to social achievements already conquered by the mid 1990s.

Actual GDP was increasing strongly until 2012, with an average 5.7% annual rate over the three year period. To avoid the repeated error of confusing sustainable growth with recovery of economic activity, it is necessary to measure performance from peak to peak. If growth is measured from the previous peak of 2007, actual GDP growth averaged 3.9%; this figure is consistent with the fact that actual GDP only rose 4.1% in 2013. The economy had reached full capacity and the 4.1% was reflecting that potential GDP was rising closer to that figure than to 5.7%. To be more accurate, adjustment must be made for the 27F destruction of capacity, by adding about 1.5 percentage points for the loss of potential GDP, so arriving at an annual average for growth in the six year period 2008-13 of close to 4.2%.[14] It is slightly higher than the 3.8% growth of the previous nine year period (1999-2007), but much lower than the 7.1% recorded in 1990-98.

Slow economic growth and social indicators returning to achievements conquered nearly two decades ago do not provide a "model" of development. But, there is more.

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[13] The Central Bank estimated that potential GDP had been reduced some 1.5% by the earchquake and sunami.

[14] As this destruction is not the responsibility of economic policy it corresponds adding a 1.5-2% accumulated increase to the estimate of growth in potential GDP split in six years. An additional adjustment could be made if it is assumed that the contribution of export volume to GDP growth would increase if world trade is normalized.

Undoubtedly, the transition from the recessionary gap to close to full employment and use of potential GDP reflects one essential macroeconomic balance. But macroeconomic equilibria includes other important dimensions not only inflation under control, but also external and comprehensive fiscal balances. Thence, for sustainability also fiscal and external accounts must converge to a sustainable balance when the recessive gap disappears.

Very early in the transition of actual GDP toward potential GDP, there was a significant exchange rate appreciation and new permanent public expenditures without the corresponding permanent fiscal income. As a result, when the recessionary gap disappeared in 2012 and early 2013, two macroeconomic disequilibria had emerged; (i) an outlier overvalued exchange rate and (ii) a public budget supported by a transitory high copper price. Imports and fiscal expenditure were growing, for several years, much faster than the quantum of exports and tax proceeds.

During 2009, the external sector regained a surplus because of a series of jumps in the copper price. Meanwhile, the exchange rate showed its pro-cyclical instability. After having experienced a strong revaluation to $435 pesos to the dollar in March 2009, it suffered a sharp devaluation reaching $650 by late 2008, then after a series of ups-and-downs, it responded to the dominant expectation that Chile was emerging from the crisis. As a consequence, there was an accelerating trend toward appreciation. By late 2009, the exchange rate had appreciated to $500 and by mid-2011 to $460.

These intense fluctuations are in sharp contrast with the view that the exchange rate is a determinant variable for the allocation of resources for exporters and for those competing with imports; evidently, derivatives markets don't solve the obstacle that instability brings for decision-makers of irreversible investment. This instability is quite detrimental to development.

Table 3 shows that imports growth –notably faster than GDP-- had been exceeding that of exports for a full decade; the gap was financed by a high price of copper. Notwithstanding that high price --probably a transitory high one--, the current account was exhibiting a deficit exceeding 3% of GDP in 2012-13. Additionally, a previous trend toward some exports diversification had been stagnating (a sort of *Dutch decease* was at work).

Table 3

The fiscal disequilibria are also depicted in table 3. In this six year period, GDP increased by 26%, while fiscal expenditure rose 53%, without any significant tax

reform. The difference was made by fiscal income coming from copper exports and tax proceeds from the increase in domestic demand (40%), also much faster than GDP, due to the increase in imports and the revenue coming from the value-added tax on consumption (sustained by the higher price of copper[15] and exchange rate appreciation).

In fact, there is a dangerous dependence of public expenditure and private imports on a high copper price.[16] Several permanent increases in public expenditure -- such as continued implementation of the commitments of the social security reform of 2008, increase in postnatal benefits, the reduction or elimination of a 7% tax on some pensions-- have been financed to a minor degree by a tax adjustment that raised the tax rate of profits but reduced rates on the progressive income tax. Financing has come mostly from the transitory tax proceeds generated by copper. In 2012 the treasury spent the equivalent of fiscal revenue from copper corresponding to a US$3.30 price per pound. In 2008, the Treasury had spent less than the equivalent of US$1.30.

Obviously permanent expenditure already at work, and several additional ones required to finance new public goods and productive development demand a substantive tax reform that collects in a progressive way. Public expenditure needed for inclusive development --the quality of public education, health, support for productive development and SMEs-- continues to be precarious or insufficient.

It follows that for an efficient closure of the recessionary gap, in order for it to be sustainable and pro-development, required achieving a comprehensive convergence of macroeconomic balances during the progress toward full employment. Actually, the inflation rate had been notably moderate. In contrast, there have not been sustainable balances between (quantum) export supply and import demand; between permanent public expenditures and structural tax income; between the evolution of aggregate demand and potential GDP.

III. Closing remarks

[15] Tax income from copper depends on both its price and the costs of production. The remainder of this tax revenue depends on GDP or expenditure, which has an elasticity with respect to GDP in the order of 1.17 (Rodríguez *et al.,* 2009). Note that as the Chilean tax system is highly dependent on VAT, tax revenue grows faster than GDP as the external deficit increases as happened in 2010-12.

[16] Based on the significant revenue from copper mining, the opponents of tax reform have claimed that there are "sufficient fiscal resources." They do so without examining the need to revise downwards sustainable revenue, with a "reasonable" trend estimate of copper prices.

One distinctive feature of neo-liberalism is its “globalism”: that is, its neglect of the implications of initial inequality and sectoral imbalances; of the heterogeneity in productive structures, among diverse economic agents, and in access to voice and power of different sectors; of the social and allocative implications of market segmentations, and of the difficulty of transmitting transparently information to all sorts of economic agents so that they can face comparable opportunities.

Ultimately, neo-liberalism also underestimates the frequent presence of destabilizing adjustment processes, lags and overshooting, and the incompleteness of markets and institutions in developing nations. These elements represent severe obstacles that prevent “neutral” and indirect global economic policies from being effective, by themselves alone, in emerging economies that are in the process of deep transformation like Chile was.

As a consequence, excepting the first years of return to democracy in 1990, most part of the time there prevailed an output gap and the exchange rate was highly unstable. The Chilean economy has been out of real macroeconomic equilibria, with significant output gaps, with only in 1991-97, 2007 and 2012-13 operating close to potential GDP. As well, an outlier exchange rate has worsened trade performance.

The specific policies and approaches used in each of the three episodes varied, evolving from the extreme naiveté of the 1970s into the pragmatic approach of the early 1990s. The end of the century saw a turning away from macroeconomic sustainability as authorities gave in to the temptation to move toward financial globalization without properly taking account of the underlying risks.

For both growth and equity it is necessary to reach sustainable real macroeconomic balances. Beyond low inflation and fiscal responsibility, also an exchange rate management functional for productive development, as well as an active management of aggregate demand in levels consistent with productive capacity, are required. The recent performance has been deficient on this matter. For returning to macroeconomic policies for development, the regulation of speculative capital flows merits a top place in the list of actions for inclusive development.

But, real macroeconomics is not enough. The 1990s experience was notably successful in growth with stability; but, productive structures improved too mildly as well as income distribution. It implied progress toward development, but incomplete. For long-term sustainability, the economic agenda requires deep further reforms to “complete” long-term innovative financing for development (with pro-SMEs and pro-

employment biases), labor training and technological innovation, among other.

The strong expressions of domestic discontent present in recent years can be interpreted as a reinforced message that there is an urgent need to design and implement coherent strategies and make major inclusive reforms to productive structures and public social and economic policies. The great challenge is to move towards comprehensive development with an increasingly inclusive and more equitable productive system.

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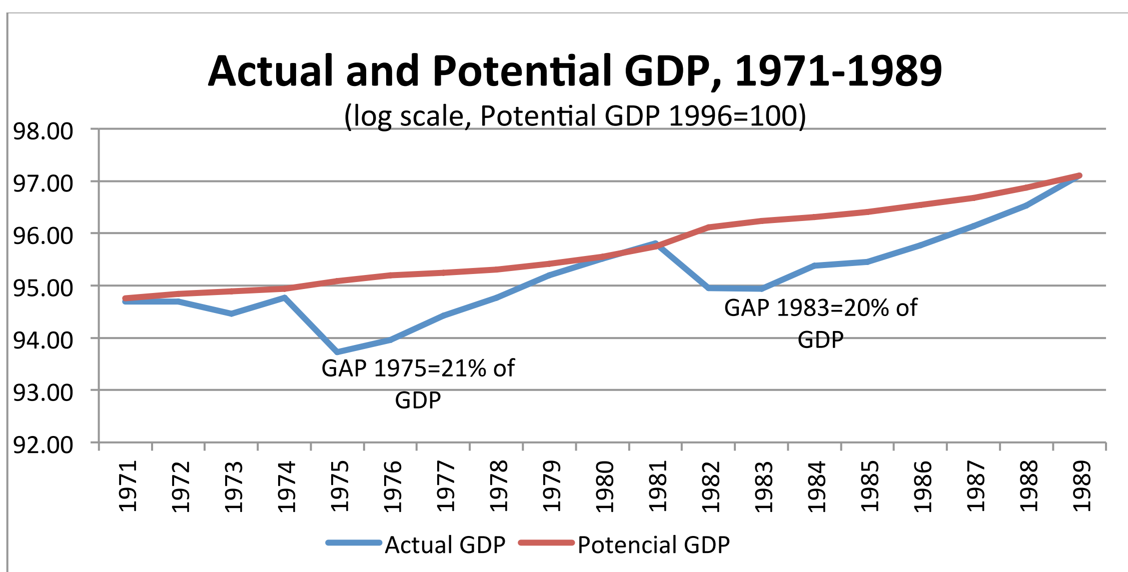
Figure 1



Source: Estimates in Ffrench-Davis (2010, ch. I, annex), based on Central Bank data.

Table 1
GDP, GDP per capita and income distribution, 1974-2013
(annual averages)

	GDP growth (%)	GDP per capita growth (%)	Q5/Q1 ratio	GINI coefficient
	(1)	(2)	(3)	(4)
1974 – 1981	3.0	1.5	15.1	51.9
1982 – 1989	2.9	1.2	20.2	56.7
1990 – 1995	7.9	6.0	13.7*	50.9
1996 – 1998	5.8	4.3	16.0	53.2
1999 – 2007	3.9	2.7	15.4	52.7
2008 – 2013	3.9	2.9	12.3	49.2
1990 – 2013	5.1	3.8	14.7	51.9

Sources: In Ffrench-Davis (2014, cap. XI). Columns 1 and 2 are based on Natio Accounts from the Central Bank, in 2003 constant prices up to 2005; since 2006, rates change from the chained base, reference 2008 series. Columns (3) and (4) are based on University of Chile Employment Survey for Santiago. * Ratio in 1992-95; the ratio wa 15. 3 in 1990-95 and the Gini 52.7.

Table 2

GDPpc (at ppp): Chile as % of USA, G-7 and Latin America, 1973-2013

Year	USA	G-7	Latin America
1973	23%	29%	82%
1989	21%	25%	91%
1997	29%	34%	128%
2013	37%	44%	148%

Source: Levels of GDPpc in 2012 were determined by IMF estimates in ppp dollars for the four categories of countries. For the previous years, were used the rates of change of real GDPpc of the Central Bank for Chile and the World Bank for the other categories up to 2012; IMF and ECLAC for 2013.

Table 3

Macroeconomic disequilibrium indicators, 2008-2013
(indexes 2007=100; and annual change, %)

	2007	2012	2013	Annual average
1. GDP	100.0	121.0	125.9	3.9
2. Quantum of exports	100.0	103.0	107.9	1.3
3. Quantum of imports	100.0	140.9	145.6	6.5
4. Real fiscal expenditure	100.0	146.6	153.1	7.4
5. Real fiscal non copper income	100.0	132.3	136.1	5.3
6. Domestic demand	100.0	135.6	140.2	5.8

Source: Abridged from Ffrench-Davis (2014, table X.5). Based on Central Bank figures for GDP, exports, imports and domestic demand; obtained from the chained base, reference 2008 series. Nominal fiscal figures from the Budget Office, deflated by the annual average CPI, here scaled to 2007=100; rows 4 and 5 correspond to the central government.

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Table 4

GDP, exports, investment and wages, 1990-2013
(average rates of growth,%)

		1990-98	1999-2013
1	GDP	7.1	3.9
2	GDP exported	9.9	4.3
3	Rest of GDP	6.5	3.8
4	Net capital formation (% of GDP)	13.1	12.1*
5	Index of real average wage	3.9	2.1
6	Real minimum wage	5.3	3.2*

Source: Abridged from Ffrench-Davis (2014, table I.7), based on Central Bank and National Institute of Statistics data**.** *Figures for 2013 are provisional. NKF in 2010 was adjusted for an estimated 3% drop in the stock of capital due to the destruction generated by the 27F earthquake, what reduced the average 1999-2013 ratio by 0.5 points.