

**EXPORT DYNAMISM AND GROWTH IN CHILE  
SINCE THE 1980s**

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## EXPORT DYNAMISM AND GROWTH IN CHILE SINCE THE 1980s\*

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The development of the export sector arises as an outstanding feature of the Chilean economic reforms. The early trade liberalization carried-out in the 1970s, the high rates of growth of exports, and the recovery of GDP recorded by the Chilean economy after the crisis of 1975, would seem to indicate a successful trade reform. However, that assertion is misleading. The import-led nature of the reform of the 1970s (the first trade reform), exchange rate appreciation after the mid-1970s, and the wrong intensity and sequencing of economic changes built up a discouraging environment for exports by the early 1980s. The consequences became evident then, despite the positive effects at the beginning of the process (see chap. 3).<sup>1</sup> Actually, by 1981 most exports were decreasing in quantum and value.

A second export take off emerged after the debt crisis of 1982, as a result of new conditions, such as a sharply depreciated real exchange rate in the 1980s and somewhat active public policies, including a rather pragmatic second trade “reform” that reintroduced some protection to importables and incentives to non-traditional exports. Then, in the 1990s, a third episode of export dynamism was encouraged by a more comprehensive policy that combined both the principles of an open economy and processes of selective integration with some strategic trade areas, particularly in Latin America, all in a new environment of prudential active macroeconomic policies, high domestic investment and overall growing productivity until 1998.

Several interesting studies have been published recently on the performance of Chilean exports (see, for instance, Agosin, 1999; Meller, 1996; Meller and Sáez, 1995). Here we will focus on the differences between the three episodes (particularly the second and third); in analyzing the interrelationship with overall GDP growth, and in the challenges ahead.

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<sup>1</sup> All references to chapters correspond to Ffrench-Davis (2001).

## 1. Trade policy in the 1980s: a departure from orthodoxy

In response to the deep recession of 1982, Chile had to adjust its policies to face the severe external constraint and stimulate domestic recovery. As a consequence, there were some significant changes from the orthodox model implemented in the 1970s to a rather pragmatic economic approach. This included some significant setbacks, from an orthodox perspective, with respect to the first reforms (see chap. 6; and Moguillansky, 1999). In this new context, the generation of a trade surplus as a means of serving the foreign debt was given top priority. The strategy implied both the reduction of imports and the promotion of exports, which was done through three actions: an increase in the uniform import tariff, the use of a battery of instruments to encourage exports such as an innovative drawback for non-traditional items, and an active exchange-rate policy to ensure external competitiveness and enhance the *production* of foreign currency by the Chilean economy.

### a) *Export promotion and the second trade reform*

Chile's trade liberalization scheme is the oldest and longest continuously applied program in Latin America. In 1973, before the introduction of reforms, trade was subject to a great deal of government interventionism<sup>2</sup>. In late 1973 a trade policy reform was launched which covered the elimination of all non-tariff trade barriers, a sharp process of tariff reduction, and the establishment of a single exchange-rate. Although it was not one of the program's initial goals, by June 1979 a uniform tariff of 10% had been established (see chap. 3).

During the first trade liberalization program, sharp tariff reductions and the dismantling of quantitative controls appear to have had a great impact on export growth (Agosin, 1999). The point of departure was one in which the large majority of domestic prices of current (consumer and intermediate) importables were not tied to international prices; consequently, there was enormous room for the reduction of costs by substituting imported inputs for domestic ones, and broad opportunities for improving productivity. Additionally, in late 1973 there was a significant underutilization of installed export capacity, due to the huge distortions then prevailing in the

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<sup>2</sup> Notice that this was the situation in 1973. However, in the second half of the 1960s, there was a comprehensive reform in process that included the gradual rationalization of the import regime, the enhancement of mechanisms of export promotion, and a consistent implementation of a crawling peg policy (Ffrench-Davis, 1973).

Chilean economy; that is the more significant reason for the spectacular increase and diversification of exports during 1974. The fact remains, however, that, because of the recessionary situation in which most part of the reform was implemented, its abruptness, and the trends exhibited by the exchange-rate and interest rates, the dynamism from the strong export performance was transmitted too weakly to the rest of the economy; indeed, fixed investment was far below its historical levels and the economy exhibited a sharp de-industrialization (see chap. 2).

Rapid trade liberalization, in combination with exchange rate appreciation after the mid-1970s and early 1980s, provoked a great external imbalance, which multiplied the effects of the sharp negative shocks associated with the debt crisis. Thus, the domestic and balance-of-payments crises that hit Chile in 1982, as a result of a combination of errors in economic management and negative external shocks (see chap. 6), caused aggregate demand to fall by 30% and GDP to shrink by over 14% between 1981 and 1983. In an effort to cope with the crisis, a number of discrete devaluations were applied since mid-1982, and later a crawling peg was reintroduced. At the same time, the uniform tariff was raised in stages up to 35% in September 1984 (with annual averages of 24% in 1984 and 26% in 1985). As the severe shortage of foreign exchange began to ease, the tariff was gradually lowered again, first to 30% in March 1985, then to 20% in June, to 15% in 1988 and to 11% by mid-1991.

Following the 1982 crisis, trade policy became more flexible in several respects. The government began to make somewhat active use of anti-dumping measures to protect the economy from unfair trade practices. To this end, the total tariff (the uniform rate plus compensatory surcharges) was raised up to a maximum of 35% –the level to which Chile had committed itself under the terms of GATT in 1979– on imports that Chile could prove were being dumped. In addition, price bands, supposedly consistent with international price medium-term trends, were set for three main agricultural products (wheat, sugar and oilseeds); given the then depressed international prices, this had significant encouraging effects on agriculture and also constituted a departure from the uniform tariff. With regard to exports, the drawback was extended to a simplified system for minor exports; under this system, many non traditional exports became eligible for a refund of up to 10% of their foreign currency proceeds so long as total sales of the corresponding item did not exceed a given annual maximum (see Macario, 2000). In 1996, according to the Central Bank, 16% of exports benefited from this incentive and

the average refund was 8.7% of the value of these exports. Box 1 summarizes the main mechanisms to promote exports.

(Box 1)

One of the outstanding initiatives of export promotion was developed by the Chile Foundation, a semi-public institution. The Foundation's first projects were directed mainly at providing technical assistance to a number of projects. Few of these early projects got beyond the pilot stage. In view of this problem, the Foundation decided it needed to gain more experience by launching business projects of its own. The idea was to determine which activities might benefit from new technologies, and then to acquire and adapt these technologies. Once a technology was assimilated, the Foundation would take charge of commercial production and marketing through a subsidiary. When the subsidiary became profitable, it would be sold, thereby completing the technology-transfer process.

Salmon farming is one example of a very successful initiative. In 1981, the Foundation decided to carry out a pilot project using a cage-based technique of freshwater salmon farming. Commercial production began in the period 1986-87, and output doubled in the following period. The project began to turn a profit in 1988, and the technology-transfer cycle was completed that same year when the Foundation sold the project to a Japanese fish and shellfish company. This project gave a definite boost to overall salmon output in Chile, which became one of the top Chilean exports and the main non-traditional one in the 1990s (ECLAC, 1998).

In summary, Chile carried out a “second trade reform”, with a mix of restrictions, liberalization, and intervention, after 1983. While it is true that the basic characteristics of the country's trade policy –in terms of the dismissal of non-tariff barriers and the adoption of a uniform tariff– had not changed since 1979, it must be taken into account that the tariff had once again become relatively high by 1984 and was accompanied by anti-dumping measures and the price bands mentioned above. In fact, the tariff level averaged 20% in 1984-89, which was double the average rate for 1979-82. The greatest difference, however, was that during the first liberalization drive the exchange-rate had appreciated steadily in the second half of the 1970s, and in the early 1980s. During the 1980s, on the other hand, the reduction of the tariff from its maximum level of 35% in 1984 to 15% by 1988 was accompanied by a sharp real depreciation, under the pressure of the debt crisis (see table 1). This sent out powerful positive signals to exporters, while at the same time encouraging the production of import-competing goods.

Unlike the first liberalization effort, the increase in exports was also coupled with a strong upturn in the output of import substitutes, especially between 1984 and the late 1980s.

(Table 1)

If we are to draw any conclusions from the trade reform processes experienced by Chile, one of them must certainly be that the second reform program yielded better results than the first (chap. 3; and ECLAC, 1998, chap. V; Ffrench-Davis, Leiva and Madrid, 1993).

*b) The evolution of exchange-rate policy*

Exchange-rate policy has experienced substantial change over time. Beginning in 1976, the nominal rate began to be used to fight inflation (see chap. 4). This was because inflation stubbornly refused to slow down in reaction to the deep economic recession, which also caused a surplus on current account in 1976. The real revaluation that usually results from using the exchange rate as an anchor was intensified in 1979, when the rate was fixed in current pesos, at a nominal parity of 39 pesos that was maintained until the crisis of 1982; a significant real appreciation took place during these triennium. After a period of experimentation with successive policy changes, a crawling-peg exchange rate was again adopted in 1983 onward. Basically, the Central Bank fixed a benchmark price for the dollar on the official market (called the "agreed" exchange rate), with a floating band that was progressively enlarged from time to time. The "official" rate was devalued daily, in line with the differential between domestic inflation and an estimate of external inflation. On a number of occasions, discrete real devaluations were added, helping to achieve the spectacular real depreciation following the 1982 crisis (130% between 1982 and 1988).

Because various foreign exchange controls remained in force (except for a few weeks in 1982), there also operated in parallel an illegal (but openly tolerated) foreign currency market. This was legalized as the "informal" foreign exchange market only in April 1990, under the provisions of the Central Bank Autonomy Act issued in the last days of the Pinochet government.

In 1988, revaluations together with tax and tariff reductions managed to reconcile a reduction in inflation with a sharp recovery in aggregate demand and economic activity. The recovery was completed in 1989, with economic activity then climbing up to the production frontier (see chap. 1 and figure 1). The tax and tariff reductions and exchange-rate appreciation in 1988, were directly associated with the additional income generated by a sudden jump in the copper price in 1987-89; the improvement in the terms of trade in 1988 with respect to 1986 was equivalent to

6% of GDP (measured at 1986 constant prices). A sizable increase in imports and in the current-account deficit in 1989 (if the current account is recalculated using the "normalized" price of the Copper Stabilization Fund), together with new inflationary pressures, led the Central Bank to reverse earlier reductions in interest rates.

(Figure 1)

By mid-1989, the dollar floating band was widened further to  $\pm 5\%$ . The Central Bank's action was accompanied by a shift in the foreign currency market expectations, which led the market to move quickly to the ceiling of the band (the depreciated corner). Thus, with no great trauma, a significant depreciation was achieved without modifying the "official" rate. For about a year, which included the return to a democratic regime, presidential elections (in December 1989), and the inauguration of President Aylwin (in March 1990), the observed exchange rate remained at the ceiling of the band. This occurred despite the fact that the adjustment process was tightened in January 1990 to control the jump in inflation (which had reached an annualized rate of 31% in the five preceding months). The downward adjustment in economic activity was based on a sharp rise in interest rates, which was led by a Central Bank ten-year paper, offered at the high real annual rate of 9.7%.

## 2. Trade policies since 1990

The economic team that took office in 1990 maintained the basic principles of the past trade policy, except for the introduction of reciprocated trade agreements with several partners, mostly in Latin America. The economy remained open to trade, and there was continuity in terms of maintaining a uniform import tariff rate for the rest of the world; the rate of 11% was held from 1991 up to 1999, when a gradual reduction of 5 points for 1999-2003 was initiated. The macroeconomic policies, however, were substantially modified, in a significant *reform of the reforms* (see chaps. 1 and 10). The most outstanding outcome was that the vigorous growth of exports was achieved *pari passu* with a vigorous growth of GDP.

### a) *Toward a "reciprocated" trade policy*

Undoubtedly, the most important feature of the Chilean trade policy of the 1990s was the search for arrangements to expand access to export markets. The new political conditions

allowed a clear turning point in the Chilean approach, moving from an across-the-board unilateral openness towards a strategy that also included preferential free trade agreements (FTA) subject to reciprocity.

Since the Chilean economy already showed an advanced trade liberalization, the benefits from further unilateral openness were estimated small in a world where trade areas and economic blocks were increasingly important (French-Davis, 2000, chap. 8). Advancing in economic integration in Latin American was seen as a form of *open regionalism*.

As a result of the active policy, economic complementarity agreements were signed with countries of the Andean Community, that is, Bolivia (1993), Venezuela (1993), Colombia (1994), Ecuador (1995) and Peru (1998), and with the Central American Common Market (1999). In the case of MERCOSUR (Mercado Común del Sur) –the main Latin American market, including Argentina, Brazil, Paraguay and Uruguay– an agreement was signed in 1996 and a Free trade area was scheduled for 2004.

A deep integration was reached with Mexico (1991 and 1999) and Canada (1997) through free trade agreements which are quite comprehensive. For instance, the agreement with Canada included a special clause to allow the use of capital controls by Chile.

The Chilean policy also has included the intensification of linkages with another regions. As a result, a cooperation agreement was signed with the European Union (1999) and negotiations are being developed with the United States and with Asian-Pacific countries.

At the national level, Chilean trade policies in the 1990s had to face a quite different context with respect to the 1980s. GATT rounds and the subsequent rules of the World Trade Organization restricted the use of subsidies to exports in developing countries. Therefore, the use of both simplified tax rebates and the deferred payments of customs duties on imports of capital goods –instruments of great effectiveness and efficiency in the 1980s and early 1990s– were limited and scheduled to end by January 2003.

Thus, during the 1990s authorities focused their efforts to promote exports in instruments aimed to correct more directly some market failures. The main programs, managed by the Chilean export promoting institution, PROCHILE, provide information to exporters and support in activities fostering Chilean products in new markets. These policies were effective in terms of easing market access to participant firms (Álvarez and Crespi, 2000) but were far away from the strength of the somewhat heterodox export strategy of the 1980s.

b) *The exchange rate policy and the new capital surge*

During most part of the 1990s, the exchange rate system of a crawling-band was maintained, but with much intensified activism. In line with the experience of other Latin American and emerging countries, Chilean authorities had to deal with a sharp surge of private capital flows that heavily influenced their exchange rate policy in the opposite direction of the depreciating pressures of the 1980s. Chile's real exchange rate tended to appreciate as a result of large capital inflows during the first half of the 1990s, mostly FDI (see figure 2, and chap. 10). However, the appreciation of the exchange rate was more moderate in Chile than in other countries; additionally, since Chile was coming out of the severe debt crisis of the 1980s, had some space to appreciate in a movement toward equilibria.

In broad terms, as witnessed by the moderate deficit on the current account (2.5% of GDP in 1990-95), appreciation was actually equilibrating (consistent with the net increases in productivity and the improvement in the terms of the external debt). Significant modifications were introduced to the exchange rate policy to resist the appreciating trend; among them, the official exchange rate became pegged to a basket of currencies, rather than just the US dollar, in order to deter speculative capital inflows predominantly in dollars, and the Central Bank actively intervened in the foreign exchange market, including intramarginal intervention (within the band). Furthermore, taxes and reserve requirements were applied to foreign credits and deposits to soften the external capital supply in face of capital surges and to reduce the share of short-term capital inflows. One explicit goal was protecting the export model by avoiding an excessive real exchange rate appreciation and instability (Ffrench-Davis, Agosin and Uthoff, 1995; Zahler, 1998).

(Figure 2)

However, prudential macroeconomic policies lost their strength in the second part of the decade, when a larger capital surge toward Chile was not followed by a timely and adequate reaction of the Central Bank. Therefore, the overabundance of capital inflows led to a real appreciation of 16% between 1995 and October 1997 (see chap. 10).

The Asian crisis meant a new capital flight and the subsequent depreciating pressures. The Central Bank resisted them by narrowing the band and rising interest rates up to September 1999, when the exchange rate was allowed to float freely. This change of regime eased the

correction of the then too appreciated real exchange rate, but it did imply a higher volatility subsequently<sup>3</sup>.

### 3. Export performance

#### a) *Export dynamism*

Since the 1970s, it is possible to distinguish two growth cycles of exports in Chile that represent a clear take off from previous historical performance. The first one extended from 1974 to the late 1970s. In the eight-year period 1974-81, the average annual growth of the volume of exports was 8.7%, but for non-copper exports it reached 16%.<sup>4</sup> There was stagnation in total and manufacturing exports in the early 1980s because of the significant appreciation of the real exchange rate and the slowdown of the world economy. In fact, in 1981 the total quantum of exports fell 3.3%, led by a 7% drop in non-copper exports (see Sáez, 1991).

The second cycle of high export growth rates began after 1982 when the real exchange rate was sharply devalued. Total export quantum grew 10% per year in 1982-89. As shown in table 2, in the second part of the decade, the volume of copper exports expanded slowly which was compensated by a spectacular growth of non-cooper exports: non-copper traditional export quantum grew 9% a year in 1986-89, but the most dynamic group was non-traditional exports with an annual quantum growth of 22% in that period.

(Table 2)

Exports quantum continued to grow strongly in the 1990s, averaging 9.1% a year in 1990-2000. This expansion was mainly explained by nontraditional exports, with an annual increase that averaged 12.7% in the decade, while copper and non-copper traditional exports grew 9.5% and 5%, respectively. The value of primary commodity exports remained largely unchanged in the first part of the 1990s, reflecting the copper price drop. In 1994-95 the prices of these major exports recovered, which contributed to the large increase in exports that occurred in that biennium. This boom was interrupted by the Asian crisis that hit the Latin American economies in 1998-99. It implied a sharp negative terms of trade shock, which reduced strongly

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<sup>3</sup> Caballero and Corbo (1989) show empirically that real exchange rate volatility has strong negative effects on export performance.

<sup>4</sup> It is interesting to stress that the increase in exports was notably strong in 1974, depicting the acute underutilization of export capacity in the previous year. The quantum of exports jumped 38% in 1974, and rose 7% annually in 1975-80.

the export value, especially in traditional items. The value of non-traditional exports, on the other hand, exhibited a greater strength during the crisis, contributing to the economic recovery in 2000. The vigorous growth recorded by this group of exports, from their take-off in 1984, explains why this set of products has equaled the share of copper in total export value in the late 1990s (figure 3).

(Figure 3)

Although the Chilean export model looks healthy, there is a concerning point that deserve attention. Despite the exceptional growth of the quantum of non-traditional exports since the 1980s, their dynamism has experienced a gradual deceleration: annual growth was 21.7% in 1986-89, 16.3% in 1990-94 and 9.7% in 1995-2000 (table 2). That implies that their quantum has tended to converge to the average rate of total exports. Given the slow growth of traditional non-copper exports in 1995-2000, copper exports have counterweighted them with an annual quantum growth of 13.4%. However, as documented by Moguillansky (1999) and Sachs, Larraín and Warner (1999), those impressive growth rates appear as not sustainable due both to investment constraints and to the fact that markets have become *limited* for Chile. Actually, Chile has turned into a “large” exporter in several items.

The real exchange rate appreciation during the second half of the 1990s and its consequences in the export sector competitiveness appears as the main cause of the declining trend in non-traditional growth (Díaz and Ramos, 1998). Econometric estimates by Moguillansky and Titelman (1993) of the price elasticity of the Chilean export supply with respect to the real exchange rate across industries, supports this hypothesis. The estimates indicate that variations in the real exchange rate have differentiated effects, depending on the type of good exported, and that a persistent real depreciation (appreciation) tends to have a positive (negative) impact on the volume and the diversification toward intensity in value-added. Thus, a depreciated and stable real exchange rate is likely to crowd-in investment in exportables and the diversification of exports.

The trade pattern of the 1990s has been strongly affected by FDI because of its dual role in the sense that affects both export capacity and the exchange rate. In fact, FDI has significantly contributed to the Chilean export development. A conservative estimate indicates that in 1990-2000 approximately 30% of the funds invested into exportables were channeled through FDI,

which went mostly to copper production.<sup>5</sup> This enormous contribution of FDI to export capacity, however, lost dynamism in the second half of the decade. In 1990-95 FDI in export sectors represented 75% of total inflows, while in 1996-2000 that share fell to 35%.

The falling participation of FDI in exportables was compensated with a sharp increase in total FDI. These larger inflows, in turn, were responsible for part of the peso overvaluation in 1996-97. This process not only had negative macroeconomic consequences, like those analyzed in chapter 10, but also productive effects because of the resulting *Dutch disease* for most exporting sectors, specially the non-traditional ones which are more elastic to the level and stability of the real exchange rate. Furthermore, the imbalance was intensified since most FDI was not directed to create export capacity but channeled to non-tradable sectors.<sup>6</sup> These facts are consistent with the boom of copper exports and the slower growth of non-copper exports. They highlight the importance of a comprehensive set of policies to ensure a sound export development.

b) *The composition of exports*

Chilean exports have become increasingly diversified but remain strongly resource-intensive. The share of copper exports decreased from 70% in 1970 to about 45% in the early 1980s and remained around that level until the 1990s, when their share fell under 40%.<sup>7</sup> The fall in their share is partly explained by the declining price of copper during the first half of the 1990s. The number of products, on the other hand, has grown from 200 in 1970, to 2,800 in 1990 and to around 3,900 in 1996 and then stabilized at that level.

Non-copper traditional exports –composed by fresh fruit and natural resource-based manufacturing, such as fishmeal, wood pulp and paper– grew vigorously in the 1970s, jumping from 24% in 1970 of total exports of goods to 40% in 1979. In the early 1980s their real value declined as a result of the anti-export bias of the exchange rate appreciation (see chap. 3), and their share in total exports dropped to about one third in the 1980s. From 1987 on, their real

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<sup>5</sup> However, the value-added in this copper output is notably lower than that of CODELCO, because privately-produced copper is less elaborated and effective taxes on profits are lower.

<sup>6</sup> Moreover, a high share of FDI during the late 1990s included merges and acquisitions of existing assets which do not generate new productive capacity directly.

<sup>7</sup> It should be borne in mind that there were significant reductions in copper production costs in most of the main world copper producers during the 1980s. For this reason, the expected “normal price” for copper for the following years tended to be much lower than in the previous decades. See Bande and Ffrench-Davis (1989) and Vial (1988).

value resumed growth, but at a slower pace than the rest of goods, and with important swings. As a consequence, their share decreased below 30% in the late 1990s.

Non-traditional exports –which include manufacturing exports other than those based on natural resources and new resource-based products– initially expanded during the first trade reform. Their share increased from less than 10% in 1970 to around 20% in the second half of the decade, but in the early 1980s, lost dynamism and even dived in 1981. As mentioned, from the mid-1980s on, again this group exhibited a strong and sustainable growth and, consequently, their share climbed to 35% in the second half of the nineties, matching the value of copper exports during 1998-99.

The first column of table 3 shows that, despite diversifying in the last years, Chile's exports continue to rely heavily on natural resources, notwithstanding a tendency to export more manufactured goods. In fact, non-traditional exports also include a high share of goods intensive in natural resources (line b). The classification of table 3 indicates that the percentage of natural resource-based exports was over 85% in 1998. This feature is not surprising because Chile has a rich endowment of natural resources combined with geographical factors that condition high static comparative advantages. Moreover, in the last decades, also dynamic competitive advantages have been developed through clusters around forestry products, wine, salmon and fresh fruit. These successful experiences, according to some analysts, could give support to a “Nordic” strategy of development for Chile, based on the manufacturing of natural resources (Díaz and Ramos, 1998).

(Table 3)

However, there are other arguments in favor of further diversification toward more manufactured goods, services and less purely natural resource-intensive products. Achievements in this area are important because, first, the fact that a large share of Chile's exports are still in their primary forms means that the economy remains subject to the large and erratic fluctuations that characterize commodity prices. Second, the long-term dynamism of these products is limited, which can become a negative factor in future economic growth for the whole economy (Sachs, Larraín and Warner, 1999). Third, the production of more manufactured products involves positive externalities for the rest of the economy, through learning by doing processes and gains by acquiring dynamic competitive advantages (see chap. 1; and ECLAC, 1998, chaps. III and IV).

c) *The diversification of export markets*

Exports have become more diversified not only in terms of products, but also in terms of markets of destination. A first indicator, the number of markets, rose from 31 in 1970 to 120 in 1987 and to 174 in 1999.

Traditionally, the European Union (EU) was the most important destination for Chilean exports. In 1970, for instance, 61% of total exports went to Europe, while the rest was principally distributed between the United States (14%), Japan and Latin America (12% each) (see table 3, line d).

After the first trade liberalization, the geographical distribution experienced some changes, mainly due to the growing importance of Latin and North American markets at the expense of the participation of the EU. The debt crisis, and its strong impact on Latin America, however, implied a setback in that trend, with a return in its share to 12% in 1983. The US concentrated 28% of exports while the EU had lost nearly half of its weight (to one third) and Asian countries other than Japan had emerged as relevant partners.

When the military rule expired in 1989, both Latin America and European markets had held their shares. The US participation had fallen to 18% while Asian markets became to concentrate 27% of Chilean exports.

In the 1990s the US markets stabilized their share while the EU lost importance but remained as a larger destination. Asian markets expanded their weight becoming the main destination in 1997, with 35% of Chilean exports. Exports to Latin American countries, on the other hand, also expanded rapidly in response to trade agreements covering most markets in the region and to their trade liberalization, renewed economic activity, and appreciation of their real exchange rate relative to other regions. Therefore, the regional markets reached a share of 24% in 1998.

The growing share of the Asian markets was reversed in 1998 as a result of the Asian crisis. The collapse of that market contributed to the strong export contraction in 1998-99, and consequently its share diminished 7 points. The EU, on the other hand, recovered the position of main export market with a share of 28%.

The basket composition of Chilean exports vary hugely according to their geographical destination. Table 3 shows that unprocessed and processed natural resources represent a much

higher percentage of exports directed to industrialized countries than to the Latin American markets. A notorious and more contrasting difference between these markets appears in manufactured products. In 1998 these goods represented 56% of total exports to Latin America, much more than the 21% of 1989, compared with 17% to the EU, 14% to the US and 2% to Asia. The great importance of Latin American markets in the marketing of manufactured products can be crucial for the future Chilean exports upgrading; this destination, as reported above, has been highly dynamic, doubling its share between 1989 and 1998.

At the intraregional level, MERCOSUR is the main trade partner of Chile. The participation of this market in total Chilean exports (relative to Latin American markets) diminished during the nineties; however, it gained share as destination for Chilean non natural resources-based manufactured products, from around 40% in the 1980s to nearly 50% in the 1990s, which highlights its strategic importance for diversifying exports. Among the rest of Latin American markets, Mexico is the most dynamic, with a growing share both in total exports and manufactures.

Thus, Latin American countries are playing an increasingly important role in the diversification of Chile's exports towards manufactured products. This diversification has been closely associated with the trade liberalization of the region, including regional trade arrangements.

The question remains, however, as to the sustainability of Chile's manufacturing export growth. On the one hand, much of the demand for these products continues to depend on the Latin American region's economic growth performance, macroeconomic sustainability, and exchange rates favoring intraregional trade. On the other, it depends on the strengthening of productive capacity in output intensive in value-added and innovation.

#### **4. Exports and growth**

Exports have been frequently called the engine of the Chilean economic growth. The growing share of exports in GDP has been a channel of transmission of externalities resulting from exposition to foreign markets. The direct incidence, evidently, is not easy to measure quantitatively. In here we will concentrate in another relation that has been extremely significant in Chile, that is the influence of domestic policies –principally the changing macroeconomic

environment— on the association of exports with GDP. In fact, the correlation between export growth and actual GDP growth has been high after the debt crisis, in the second half of the 1980s and the 1990s (Meller, 1996). During these periods, the export sector was one of the most dynamic of the economy, while, first, Chilean GDP recovered in the 1980s, and then in the 1990s entered the highest continued growth period in its history. Actually, the volume of exports grew notably faster than GDP (table 4). Most econometric studies on this issue find a significant positive effect of exports (and specially non-copper exports) on GDP growth (Agosin, 1999; Coeymans, 1999; Meller, 1996).

However, to be the engine of growth, a sector's expansion must be linked to the creation of new productive capacity in the rest of the economy, a feature present only in the 1990s. Actually, the external debt crisis and the subsequent automatic adjustment carried out, meant a generalized fall in domestic output in 1982-83 (recall a drop of 14% of GDP), where demand-reducing policies caused a high underutilization of productive capacity; naturally, given a sizable devaluation, underutilization was totally concentrated in non-exportables.

The export-promoting measures of the 1980s, summarized above, functioned as supply-switching policies, reallocating available resources, against the background of a very low overall investment rate (and, as a consequence, low creation of new capacity). Depressed domestic demand and the increased export profitability, as a result of the exchange rate depreciation, provided the conditions that encouraged investment and output in exportables. Consequently, it was not exactly a case of export-led growth, but rather of an export drive led by the binding external constraint and a recessionary domestic adjustment. Evidently, strong export expansion, that averaged 8% per annum in 1982-89 (and 28% of GDP), was a factor contributing to the recovery of economic activity; however, it could not compensate for the near stagnation in non-export GDP, that grew only 1.0%, as compared to the 1.6% growth of population, and thus exports were unable to transmit its dynamism to total GDP, which expanded modestly 2.6% per annum (see table 4).

(Table 4)

In the 1990s, the story was different. The capital formation ratio rose to unprecedented levels, and this process was intense not only in the export sector. Non-tradables exhibited notably

higher rates of expansion: for instance, infrastructure works and telecommunications showed an annual growth of 18.3% and 32.4%, respectively, in 1990-97 (Moguillansky, 1999).<sup>8</sup>

In parallel, export dynamism remained high despite the real exchange rate appreciation recorded during part of the decade (see figure 10.2). Three factors contributed to this outcome. First, world trade was more dynamic during the 1990s. In 1980-89 the volume of world trade expanded by 3.7% annually, while in 1990-99 the rate was 6.2%. Second, Chile gained access to new markets under preferential conditions thanks to several trade agreements. Third, the record investment ratio of the period allowed a great increase in productivity and external competitiveness. Furthermore, it must be kept in mind, on the one hand, that a major part of the appreciation of the first half of the 1990s was an equilibrating movement following the currency drought of the 1980s and, on the other, that during those years there was a deliberated policy to protect the export development through a prudential management of the capital account (see chap. 10; Ffrench-Davis, Agosin, and Uthoff, 1995; Zahler, 1998).

Therefore, in the 1990s global effective GDP growth was led by both the tradable and non-tradable sectors. Actually, exports and non-exports grew 9.3% and 5.1% a year, respectively, in 1990-2000 (see table 4).<sup>9</sup> This, accompanied by an environment of full utilization of productive capacity, macroeconomic stability and prudence, account for the high growth rate of the Chilean economy during most of the decade.

In the second half of the 1990s, however, real exchange rates appreciated excessively, led by an excessive capital inflow (see chap. 10), provoking a distortion in resource allocation and the trade balance. Therefore, there was some over-investment in non-tradables (particularly in construction and commerce) with a weakening of the output of tradables (particularly manufactures).

## **5. Concluding remarks**

In all, during the three last decades Chile witnessed a period of exceptional export growth. This outstanding performance was associated, during the last two decades, with rather

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<sup>8</sup> These figures must be compared with an annual growth in infrastructure of 2.6% in 1982-89.

<sup>9</sup> These averages include the record, full employment, 1991-97 years, and the downward adjustment years, 1990 and 1998-2000. Given that 2000 was a year with a recessive gap, annual growth of potential non-X GDP was 6.3% in 1990-2000, above the 5.1% of effective non-X GDP.

active heterodox policies aimed to sustaining a competitive real exchange rate and generating export capacity rather than solely with the orthodox economic reforms of the 1970s.

Four reciprocally reinforcing groups of factors appear to be more significant for explaining the behaviour of exports. First, a depreciated real exchange rate has proven to be a determinant variable of the overall performance of exports. Second, the diversification toward goods and services with value-added is crucial for enhancing the quality of exports, in the sense of benefiting from (i) more dynamic demand and better international prices and (ii) stronger linkages of exports with the domestic economy; the stability of the real exchange rate, incentives like the simplified drawback for non-traditional exports, and intraregional integration are significant variables at hand. Third, for upgrading the quality of exports there is a need for an intensive national effort to *complete* domestic markets for technology, labor-training and long-term segment of the capital market; all these are crucial ingredients for achieving systemic competitiveness. Fourth, the export drive needs to be accompanied by a domestic macroeconomic environment suited for economic growth, sustainable and with *right* macroprices, adequate for productive development, in order to contribute to an export-led growth; this was the determinant factor for explaining the positive association between export dynamism and sustainable growth of overall GDP during most of the 1990s.

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Box 1

**TAX INCENTIVES TO EXPORTS BY THE LATE 1980s**

Exemption from the value added tax on exports and the refund of taxes paid on inputs incorporated into exports. This mechanism is designed to avoid double taxation on final products (Decree Law of 1974).

Simplified tax rebates or drawback on minor export items (non-traditional products) in the form of refunds of 10 or 5% of the fob value of exports (Act of 1985).

Waiver of duties and value-added tax (VAT) on inputs imported for use in production of goods for exports on premises designated for that purpose (Fiscal Decree of 1986).

Deferred payment of customs duty on imports of capital goods. This provision is of general applicability and is not confined to exporters (Act of 1987).

Rebate of customs duties paid on imported inputs incorporated into export products (Act of 1988).

Source: Ffrench-Davis, Leiva and Madrid (1993) and Macario (2000).

Table 1  
**AVERAGE TARIFF AND THE REAL EXCHANGE RATE, 1973-2000**  
(annual averages)

Year	Average Tariff <sup>a</sup> (%)	Real Exchange Rate <sup>b</sup> (1986=100)
1973	94.0 <sup>c</sup>	65.1 <sup>c</sup>
1974-79	35.3	73.2
1980-82	10.1	57.6
1983-85	22.7	79.1
1986-89	17.6	106.6
1990-95	12.0	99.5
1996-98	11.0	80.3
1999-2000	9.5	84.1

Sources: Ffrench-Davis, Leiva, and Madrid (1993) and Central Bank of Chile.

<sup>a</sup> Simple average, excluding exemptions and preferential arrangements negotiated with LACs and Canada. <sup>b</sup> The nominal exchange-rate was deflated by the Chilean Consumer Price Index (CPI; duly corrected in 1973-78) and inflated by an external price index. This index was constructed on the basis of the index of wholesale prices, weighted by the share in Chilean trade of Argentina, Brazil, Canada, France, Germany, Italy, Japan, Peru, Korea, Spain, the United Kingdom and the USA, from 1986 on; it was obtained from the Central Bank of Chile. For the years up to 1985, the information was taken from Ffrench-Davis, Leiva, and Madrid (1992) and includes only France, Germany, Japan, the UK and the USA. <sup>c</sup> As of December 1973.

Table 2  
EXPORT QUANTUM GROWTH, 1961-2000

	1961-70	1971-73	1974-85	1986-89	1990-94	1995-2000
<b>Copper</b>	3.9	-2.3	5.0	3.3	5.1	13.4
<b>Non-copper</b>	7.8	-8.5	15.8	13.1	11.4	6.8
Traditional				9.0	7.1	3.3
Non-traditional				21.7	16.3	9.7
<b>Total exports</b>	4.9	-4.5	9.3	8.8	8.7	9.4

Source: Sáez (1991) for 1960-85 and Central Bank of Chile for 1985-2000. According to *fob* exports of goods.

Table 3  
GEOGRAPHIC DISTRIBUTION OF CHILEAN EXPORTS, ACCORDING TO  
TECHNOLOGICAL CONTENT, 1970-98

year	product	Composition (% of total)	Geographic distribution (%)					
			Latin America	European Union	United States	Japan	Asia	Other
1970	a. Non-processed natural resources	12.9	10.6	33.0	14.9	39.8	0.1	1.6
	b. Processed natural resources	84.5	10.3	67.1	14.2	7.8	0.4	0.2
	c. Manufactures	2.2	62.6	2.2	10.1	13.0	1.0	11.1
	<b>d.Total</b>	<b>100.0</b>	<b>11.5</b>	<b>61.1</b>	<b>14.1</b>	<b>12.1</b>	<b>0.4</b>	<b>0.8</b>
1983	a. Non-processed natural resources	27.2	9.2	25.0	26.7	25.7	8.4	5.0
	b. Processed natural resources	66.8	11.3	43.1	27.8	3.1	7.7	7.0
	c. Manufactures	6.0	33.2	17.1	35.7	2.3	4.1	7.6
	<b>d.Total</b>	<b>100.0</b>	<b>12.0</b>	<b>36.6</b>	<b>28.0</b>	<b>9.2</b>	<b>7.7</b>	<b>6.5</b>
1989	a. Non-processed natural resources	26.3	13.2	27.4	20.9	19.3	15.4	3.8
	b. Processed natural resources	66.3	10.8	43.6	14.2	12.7	13.5	5.2
	c. Manufactures	7.5	21.2	20.2	36.8	3.6	3.5	14.7
	<b>d.Total</b>	<b>100.0</b>	<b>12.2</b>	<b>37.6</b>	<b>17.7</b>	<b>13.7</b>	<b>13.2</b>	<b>5.6</b>
1998	a. Non-processed natural resources	30.5	17.2	19.1	21.8	27.4	11.4	3.1
	b. Processed natural resources	55.5	19.4	36.0	13.1	10.0	18.7	2.8
	c. Manufactures	14.0	55.7	17.3	14.2	0.6	1.1	11.1
	<b>d.Total</b>	<b>100.0</b>	<b>23.8</b>	<b>28.2</b>	<b>15.9</b>	<b>14.0</b>	<b>14.0</b>	<b>4.1</b>

Source: Based on BADECEL (Base de datos del comercio exterior de América Latina y el Caribe) figures in current U.S. dollars, classified according to ECLAC (1992).

Table 4  
**EXPORTS AND ECONOMIC GROWTH, 1960-2000**

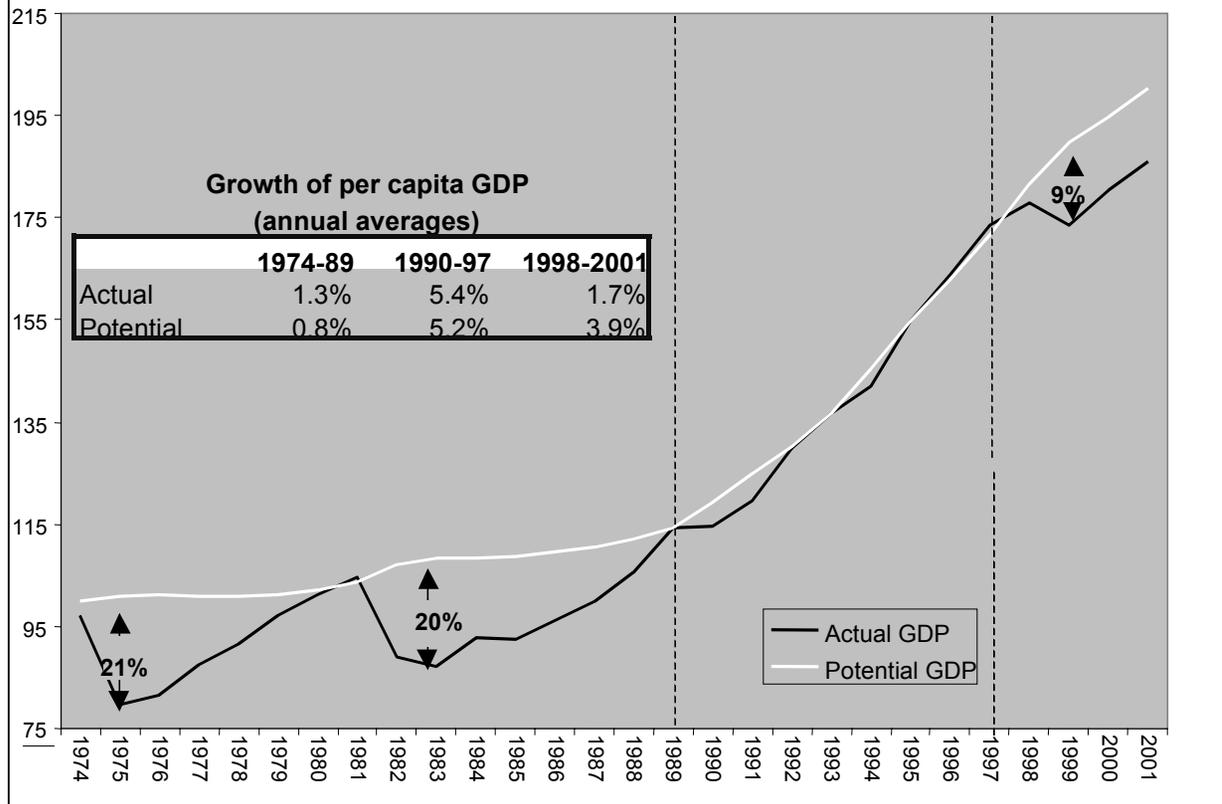
	GDP Growth	Export Growth <sup>a</sup>	Non-Export GDP Growth <sup>b</sup>	Exports/GDP (constant prices)	Exports/GDP (current prices)
1960-70	4.2	3.6	4.3	11.9	14.0
1971-73	0.5	- 4.1	0.9	9.9	11.8
1974-81	3.3	13.6	1.4	20.7	21.8
1982-89	2.6	7.8	1.0	28.3	28.3
1990-94	7.3	10.0	6.3	34.6	31.0
1995-2000	5.5	8.7	4.0	39.3	29.1

Source: Based on official figures from National Accounts of the Central Bank of Chile at constant prices of 1986 and rates of change; exports include goods and non-financial services.

<sup>a</sup> Different sources and methodologies explain differences with figures from table 2.

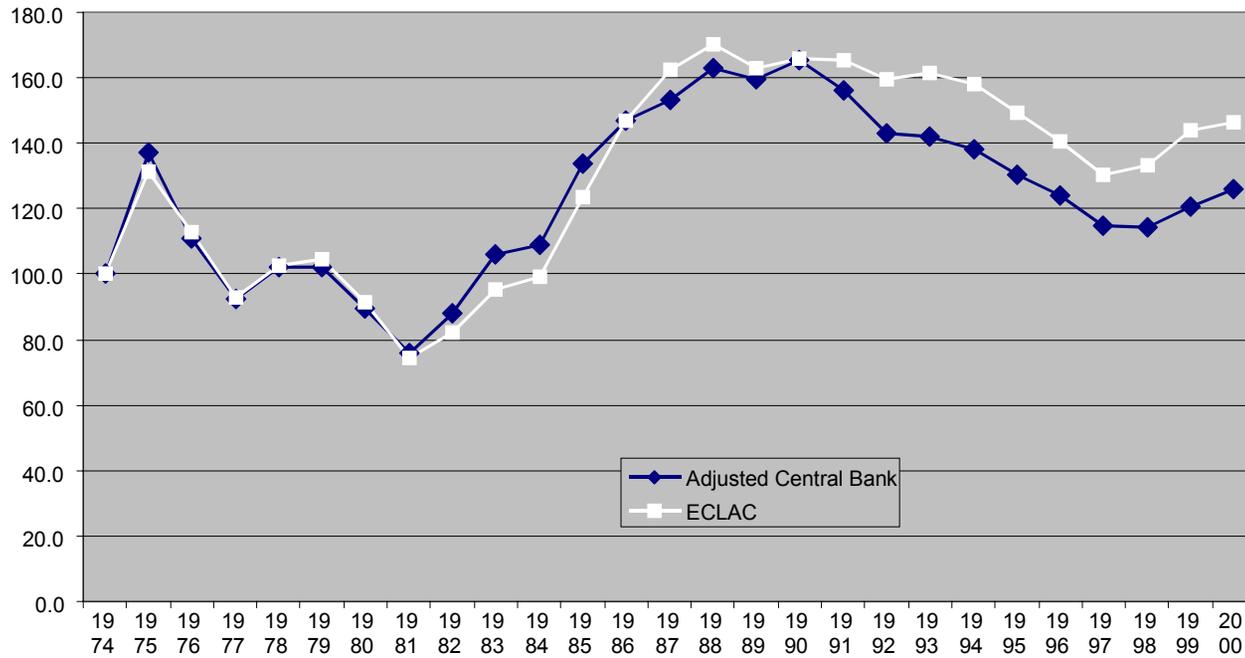
<sup>b</sup> Non-export GDP is equal to GDP minus the domestic content or value-added in exports. Imported inputs in exports were assumed to be equal to the share of non-consumer imports in GDP.

**Figure 1**  
**Actual and Potential per capita GDP, 1974-2001**  
 (potential per capita GDP of 1974=100)



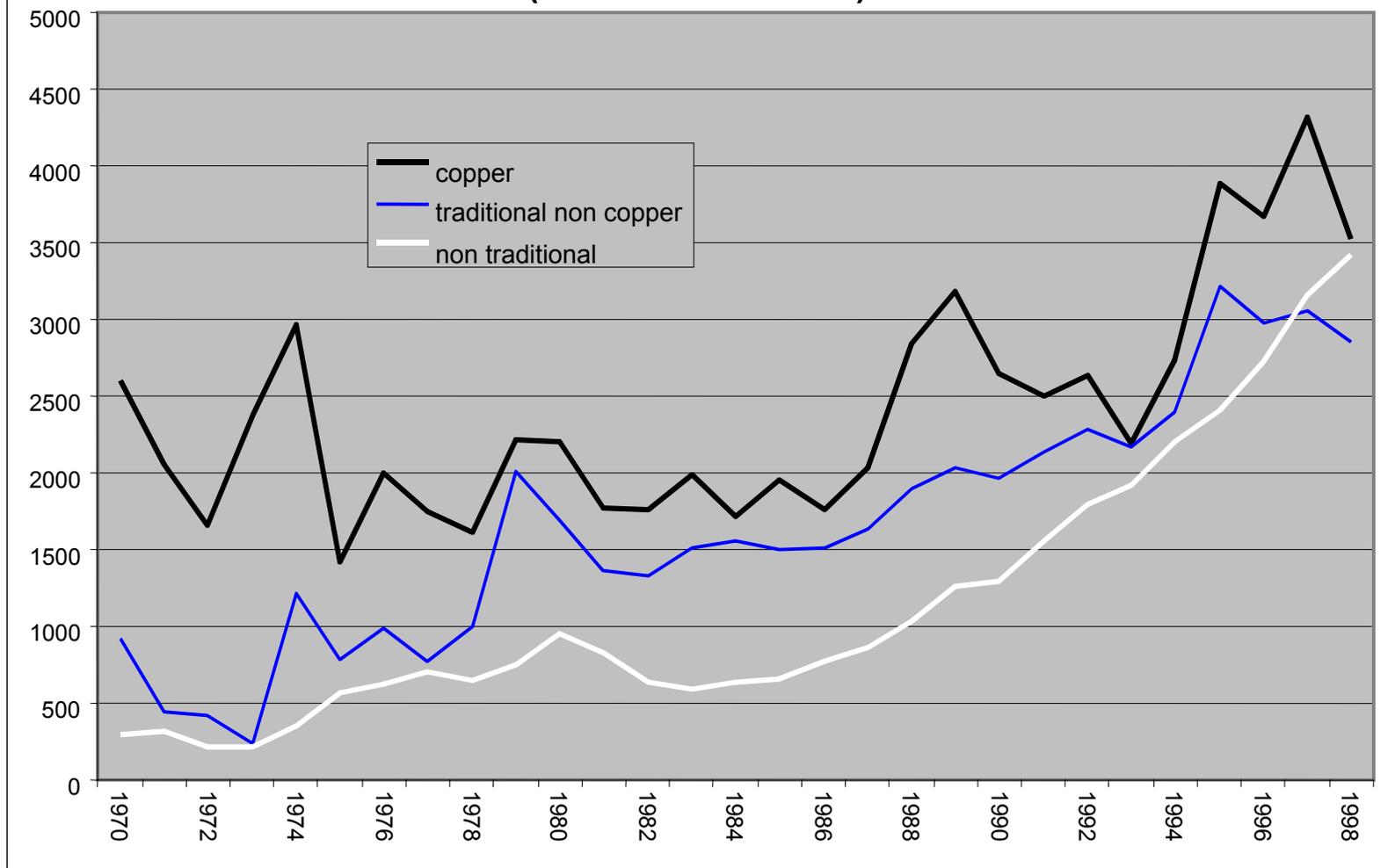
Source: Based on Ffrench-Davis (2001).

**Figure 2**  
**Real Exchange Rate, 1974-2000**  
**(1974=100)**



Source: ECLAC, Central Bank of Chile, and French-Davis(1999b). The main difference between ECLAC and Adjusted Central Bank methodologies is that the former uses CPI to measure external inflation, while the latter uses wholesale prices. The first one is more consistent with available estimates of real exchange rates for Latin America.

**Figure 3**  
**Value of Exports of Goods, 1970-98**  
**(1986 US\$ millions)**



Source: Based on BADECCEL figures. Current values were deflated with the index of external prices.