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Volume Title: Foreign Trade Regimes and Economic Development: Chile

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Volume Publisher: NBER

Volume ISBN: 0-87014-508-8

Volume URL: http://www.nber.org/books/behr76-1

Publication Date: 1976

Chapter Title: Exchange Control Institutions and Patterns in the Nominal Exchange Rates

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Chapter URL: http://www.nber.org/chapters/c4026

Chapter pages in book: (p. 57 - 82)

Part II

Evolution of the Structure of Exchange Control Regimes in Recent Decades

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Chapter 3

Exchange Control Institutions and Patterns in the Nominal Exchange Rates

In this part, I consider the evolution of foreign-sector regimes in the period since the Great Depression. Since more information is available for recent years (at least through 1970), and recent policies more directly constrain future choices, I emphasize the later years of the period. The discussion has two major foci: (i) presentation of the policies utilized during the phases of this period; and (ii) analysis of the effects of such policies on price- and cost-related variables—PLD-NERs, PLD-EERs, PLD-EER(PI)s, ITRs, EPRs, and DRCs.

SUMMARY AND CONCLUSIONS

In section 3.1 of this chapter, I delineate the institutional responsibility for exchange regulation since 1931, thus providing a framework for the subsequent consideration of foreign-sector policies. It should be noted that the loci of decision-making power have varied substantially over time, with the Central Bank often having little power. Exchange-rate policy, therefore, generally has not been the sole component of the Central Bank's discretionary monetary policy.[1] To the contrary, the Central Bank has at times had a very limited influence over exchange-rate policy.

In section 3.2 I examine the patterns of the major NERs and PLD-NERs for the 1931–72 period, the former because they are a major component of EERs—although clearly not the only one, as will be discussed in Chapter 4—

the latter because of the considerable inflation which Chile has experienced for years (see line 2.1 in Table A.1):

i. Repeatedly, NERs have been devalued and then held constant at the new level. Even if the initial devaluation in a cycle was to an equilibrium level, however, the internal inflation caused the associated PLD-NERs to decline quickly. Therefore, a disequilibrium situation soon developed, usually leading to a loss in reserves, an increase in restrictiveness, and an eventual de facto devaluation (thus beginning another cycle).

ii. De facto devaluations often have been implemented by switching items from one NER to another instead of actually changing the NERs.

iii. The sliding-peg NER policy of 1965–70 resulted in a relatively stable PLD-NER, but its level was probably below the long-run equilibrium level.

iv. The secular trend in the over-all mean PLD-NER has been downward at an exponential average of over 5 per cent per year for over three decades. Even during the sliding-peg period, the weighted average of all legal PLD-NERs fell a total of 8 per cent (in contrast to the intended increase of 2 per cent per year). The steady and substanial decline has vastly outpaced the long-run expansion of Chile's receipts of foreign exchange through exports and capital inflows. Therefore, the NER has been more and more overvalued in a long-run sense, although export booms and capital inflows sometimes masked this disequilibrium in the short run.

v. Some phase-coincident patterns have been evident. Each liberalization started with an increase in the over-all PLD-NER (23 per cent in 1956, but only about 4 per cent in 1959 and 1965). Each switch to a more restrictive phase started with a decrease in the over-all PLD-NER. The black-market PLD-NER increased and the over-all average of legal PLD-NERs decreased near the end of each phase, with one exception: the black-market PLD-NER decreased until the very end of the Phase IV period in 1959–61 because convertibility at a fixed NER was maintained to the end of that phase.

vi. The dispersion among legal NERs sometimes was quite considerable. For example, the ratio of the gold NER to the official NER was 9.8 in 1953. Such variances generally were reduced on average during liberalization attempts but not eliminated, except in 1959–61.

vii. The legal NER used for invisibles (i.e., the broker rate) generally was increased substantially relative to the NERs for merchandise at times of exchange shortages and extensive exchange control.

viii. The ratio of the black-market NER to the weighted average of all legal NERs ranged from about 1.0 in 1959–61 to 10.0 in 1972. Generally, the black-market PLD-NER moved inversely to the over-all average of legal PLD-NERs. This negative correlation reflects the greater severity of exchange control and, therefore, stronger demand in the black market when the legal PLD-NERs were high compared to times when they were low.

3.1 INSTITUTIONAL RESPONSIBILITY FOR EXCHANGE CONTROL

Decree Law 4973 of July 30, 1931 supplemented by Law 5107 of April 19, 1932 instituted exchange control and established the Exchange Control Commission (Comisión de Cambios Internacionales).[2] The effect of the five main provisions of the enacting legislation was to shift considerable control over foreign-exchange operations from the Central Bank to the new commission and to limit substantially the scope of private operations: (i) the Central Bank alone could buy and sell foreign exchange; (ii) the Central Bank fixed the official rate used by large-scale mining enterprises; (iii) the commission determined other rates; (iv) the commission allocated foreign exchange, with preference to be given to raw materials, prime necessities, and drugs; (v) the commission had control over exports. Nitrate, iron, iodine, and copper exporters were required to purchase domestic currency to cover "legal costs of production." All other exporters were required to obtain export permits and to return all foreign-exchange earnings to Chile.

Over the next decade the control system became quite complicated, with a multitude of rates, specified uses, and independent agencies involved. An example is given by the summary in Table 3.1 of the sources and uses of foreign exchange in February 1942. This complex system was perceived to have caused many inefficiencies. Moreover, it reputedly was administered in an arbitrary manner, with frequent unanticipated and unpublicized changes. The Emergency Power Act (Law 7200 of July 21, 1942) was intended to simplify the system somewhat. The Consejo Nacional de Comercio Exterior (CONDECOR; National Council of Foreign Commerce) was created to replace the Exchange Control Commission, the Export Control Service (Servicio de Control de Exportaciones), the Import License Commission (Comisíon de Licencia de Importaciones), and the National Supply Agency (Junta Nacional de Abastecimientos). In addition, the power to fix all exchange rates was returned to the Central Bank.

Law 8403 of December 29, 1945 (by which Chile ratified the Bretton Woods Agreement) introduced further procedural reforms. One of these was that an annual foreign-exchange budget (*presupuesto de devisas*) was to be drawn up each September for the following calendar year to aid in the distribution of foreign exchange.

Law 9839 of November 1950 further altered the exchange control system by (i) redefining the membership of CONDECOR in an attempt to make it more technical and less subject to specific private interests; (ii) replacing the annual foreign-exchange budget by a more flexible system in which expected future exchange-rate movements were incorporated (*calculo estimado del*

TABLE 3.1
Sources and Uses of Foreign Exchange in Chile in February 1942

Source	Sold to	Use
1. Exchange of dollars for escudos to pay domestic cost of production in large-scale mining at 0.01937 escudos per dollar	Caja de Amortización (government debt-funding agency)	To provide exchange at 0.031 escudos per dollar
2. Small- and medium-scale copper mining (Caja de Crédito Minero)	Central Bank	To provide exchange at 0.031 escudos per dollar
3. Nitrates and iodine (CONVENSA)		
a. Amounts agreed upon with government at 0.01937 escudos per dollar	Caja de Amortización	To provide exchange at 0.031 and 0.025 escudos per dollar
b. Cost of production from compensation "A" account exchange	Compensation Office	To provide exchange for compensation countries
c. Remainder at 0.025 escudos per dollar	Caja de Amortización	To provide exchange at 0.025 escudos per dollar
4. Gold sales at 0.031 escudos per dollar	Central Bank	To provide exchange at 0.031 escudos per dollar
5. Other commodity exports		
a. Quotas from 1.0–20.0 per cent of value at 0.01937 escudos per dollar	Central Bank	Government foreign expenses
b. Specified important agricultural exports at 0.031 escudos per dollar	Commercial banks	To provide exchange at 0.031 escudos per dollar
c. Other exports at 0.025 escudos per dollar	Commercial banks	To provide exchange at 0.025 escudos per dollar

(Continued)

TABLE 3.1 (*concluded*)

Source	Sold to	Use
6. Private funds		
a. Legally sold funds at free-fund rate	Caja de Amortización	To provide funds at free-fund rate
b. Illegal or black-market funds	Black-market dealers	To provide funds at black-market rate
7. Tax revenues, payable in foreign exchange		
a. 18 per cent tax on profits of large-scale copper mining	Government	Service of foreign debt or sold at 0.031 escudos per dollar
b. 15 per cent tax on profits of large-scale copper mining (earmarked for CORFO) and 1.25 cents per pound of increased price paid by Metal Reserve Corporation	Government	Use of CORFO or sold at 0.025 or 0.031 escudos per dollar
c. 25 per cent of profits of Nitrate and Iodine Marketing Corporation, part of duties on imports of petroleum, and on copper and nitrate production	Government	Foreign debt service
8. Export-Import Bank $12 million credit to CORFO	Government	Use of CORFO or sold at 0.025 or 0.031 escudos per dollar

SOURCE: *Ellsworth* [1945:60–62].

movimiento de devisas); and (iii) giving commercial banks and other entities the right to undertake foreign-exchange operations with the prior authorization of CONDECOR.

The switch to a Phase III regime as part of the Klein-Saks-Ibañez stabilization program was accompanied by further changes in the institutional responsibility for overseeing exchange operations. Law 12084 of August 19, 1956, replaced CONDECOR by the Foreign Exchange Commission (Comisíon de Cambios Internacionales; COCAIN) and gave the Central Bank much more control over the exchange market. The obligation to approve an annual budget of expected exchange needs was eliminated. Commercial banks were authorized to operate in the bank spot market, but could sell foreign exchange only in amounts indicated on prior-deposit certificates (see subsection 4.1.4, below). Various exchange dealers, tourist agencies, and hotels were authorized to operate in the free brokers' market.

The liberalization to a Phase IV regime as part of the Alessandri stabilization program resulted in additional changes in institutional responsibilities. After January 27, 1959, commercial banks were allowed to deal in all classes of foreign exchange and monetary instruments in the brokers' market. Decree Law 250 of April 6, 1960, moreover, incorporated the Foreign Exchange Commission into the Central Bank. The Central Bank thus had more control over exchange operations than it had had since 1931.

The reversal to a Phase II regime in 1962 diminished somewhat the role of the Central Bank vis-à-vis the rest of the government but not relative to the private sector. Exchange control remained under the supervision of the foreign trade department of the bank, but the Treasury began to receive foreign loans without Central Bank intermediation. Only commercial banks were allowed to operate in the bank spot market (until December 17, 1963, when commercial banks were restricted to the bank future market). Commercial banks and authorized dealers (until the latter were excluded on May 3, 1963) were allowed to operate in the brokers' market.

For the return to Phase III associated with the Frei stabilization attempt, which began in 1965, the institutional arrangements remained basically the same. The foreign trade department and the department of international transactions of the Central Bank continued to be in charge of the exchange control system. Some functions of the former department were delegated to local commissions in important cities. Control over all imports of the copper industry was entrusted to the Copper Corporation (CODELCO). Imports for the public sector were supervised by the Interministerial Import Committee for the Public Sector (which included Central Bank representatives). Beginning July 31, 1965, hotels were permitted to accept foreign exchange in payment of travelers' normal hotel charges, and certain hotels in remote areas were permitted to accept foreign exchange for other purposes as well. Beginning December 7, 1967, all transactions in foreign securities were made subject to Central Bank authorization. Such modifications in institutional responsibilities, however, were relatively minor.

The initial institutional arrangements for exchange control under the Allende government were the same as in the previous phase, with operations centralized in the Central Bank, but with supervision of certain foreign-exchange transactions the responsibility of other government agencies. Subsequent modifications were made, however, when the regime reverted to a Phase II type as part of the over-all attempt to increase government control. Central Bank Circular 1510 of April 28, 1971, excluded all but state-owned banks from operations in the brokers' market. Under Superintendent of Banks Circular 31 of September 6, 1971, all banks were required to inform the Central Bank regularly about the magnitude of credit lines abroad. Under Central Bank Executive Committee Circular 1015 of December 22, 1971, banks authorized to deal in foreign exchange lost the right to maintain positions in foreign exchange or in gold (although on August 4, 1972, this right was reinstated subject to quotas).

3.2 MAJOR TRENDS IN NOMINAL EXCHANGE RATES (NERs) AND PRICE-LEVEL-DEFLATED NERs (PLD-NERs)

Exchange-rate policy is a principal component of any foreign-sector regime. For most of the years since 1931, Chile has had an explicit multiple-exchange-rate system. The main average annual NERs for 1931–72 are shown in Table A.7. Because of the substantial inflation (cf. line 2.1 in Table A.1), however, PLD-NERs are of much more interest than the NERs.[3] Table 3.2 contains the major average annual PLD-NERs for the same period. In the following column-by-column discussion, primary emphasis is given to the bank spot rate and the brokers' rate because these have been the most important ones during the past two decades.

3.2.1 Official PLD-NER.

The official NER (called the special rate after 1942) was set by the Central Bank for the following uses: (i) government imports; (ii) the legal cost of production and local costs of investment (until 1947) for large-scale mining; and (iii) the conversion of proceeds of almost all other exports at a varying quota (1–20 per cent) after September 1932.[4] The official NER was reduced substantially in the 1932–34 period, then increased to the level at which it remained fixed for the next two decades (column 1 in Table A.7). The *Nuevo Trato* of 1955 ended the use of this rate for large-scale copper mining (see subsection 4.2.1). Law 12018 of April 23, 1956, eliminated the last use of this rate, which was for part of the proceeds from nitrate exports.

A constant NER for two decades—given the substantial domestic price increases—implies a tremendous decline in the official PLD-NER (column 1 in Table 3.2). The PLD-NER for 1956 was only 2 per cent of that for 1939.

TABLE 3.2

Major Average Annual Price-Level-Deflated Nominal Exchange Rates of Chile, 1931–72

(1965 escudos per U.S. dollar)

Phase and Year	Official (special after 1942) (1)	Export Draft (2)	Gold (3)	Wine (4)	Free Funds (parity after Dec. 1946)[a] (5)	Black or Free Market[b] (6)
I-II						
1931	6.301					10.679[d]
1932	7.050	16.959				12.544[d]
1933	4.450	11.067				11.341
1934	3.232	8.404				8.381
1935	6.480	8.133				8.381
1936	5.901	7.932	10.658[d]			8.526
1937	7.318	9.664	12.845[d]		10.578	9.822
1938	7.677	9.889	13.480[d]		11.205	10.702
1939	7.900	10.188			12.614	13.051
1940	7.174	9.251			11.451	12.156
1941	5.869	7.575			9.393	9.558
1942	4.966	6.410			7.948	8.110
1943	4.210	5.434			6.739	6.991
1944	3.654	4.716			5.849	5.949
1945	3.521	4.545			5.636	5.827
1946	2.980	3.846			4.769	5.297
1947	2.333	3.012			3.734	5.681
1948	1.956	2.525			3.131	6.136
1949	1.641	2.118	10.470		2.627	6.361
1950	1.403		9.901		2.246	6.637
1951	1.159		8.048	6.582	1.856	5.377
1952	0.944		8.027	6.491	1.512	5.951
1953	0.750		7.341	6.582	4.263	7.286
1954	0.446			5.641	2.534	7.718
1955	0.256			4.625	1.456	7.483
III						
1956	0.162				0.920	4.401
1957					0.717	5.218
1958					0.568	5.684
IV						
1959					0.404	3.891
1960						3.548
1961						3.295

Bank Market		Special		Central		National
Spot (7)	Future (8)	Commercial (9)	Provisional (10)	Bank (11)	Brokers' (12)	Accounts[c] (13)
						6.301
						7.025
						10.674
						10.727
						8.046
						7.308
						9.445
						9.909
						10.196
						9.259
						9.090
						7.692
						6.521
						5.660
						5.454
						4.615
						3.855
4.343						3.636
3.644						3.220
3.115					6.513	3.695
5.389[d]		3.623	4.347		5.118	3.413
5.522		2.994	3.592		6.042	3.219
4.272		2.439	2.926		6.744	2.945
2.830		1.937	2.325		6.682	2.396
2.716					7.152	2.397
3.790				4.175	4.468	2.937
4.050				4.044	4.527	4.070
4.098				4.072	5.167	3.695
3.847				3.840	3.877	3.855
3.528				3.521	3.528	3.521
3.271				3.264	3.271	3.264

TABLE 3.2 (*concluded*)

Phase and Year	Official (special after 1942) (1)	Export Draft (2)	Gold (3)	Wine (4)	Free Funds (parity after Dec. 1946)[a] (5)	Black or Free Market[b] (6)
II						
1962						4.812
1963						5.776
1964						6.091
III						
1965						5.350
1966						4.637
1967						3.934
1968						4.398
1969						4.896
1970						5.780
II						
1971						10.989
1972						17.049
Mean	3.836	7.315	10.096	5.984	4.921	7.279

SOURCE: The sources for the NERs and EERs are given in Table A.7. The deflator for 1931–39 is the wholesale price index; for 1940–71 it is the GDP deflator from the CORFO and ODEPLAN national accounts; and for 1972, a weighted average of the consumer and wholesale price indices (with weights of 0.667 for the former and 0.333 for the latter).

a. After June 1959 calculations of the IMF for Chilean reserves and balance of payments have been based on the bank rate.

Bank Market Spot (7)	Bank Market Future (8)	Special Commercial (9)	Provisional (10)	Central Bank (11)	Brokers' (12)	National Accounts[c] (13)
3.140				3.140	4.815	3.171
3.539	4.629			3.537	5.684	3.532
3.041	3.515			3.043	4.108	3.100
3.128	3.310			3.131	3.739	3.237
3.082	3.117			3.082	3.623	3.117
3.045	3.045			3.045	3.448	3.075
3.142	3.142			3.142	3.619	3.175
3.083	3.083			3.083	3.486	3.106
2.954	2.954			2.954	3.453	2.989
2.482[e]	2.482			2.482	4.095[f]	2.706
1.527[e]					2.748[f]	1.698[g]
3.764	3.236	2.749	3.298	3.347	4.605	5.024

b. End of June for 1948–72.
c. Weighted average of legal exchange rates.
d. End of year.
e. See note f in Table A.7.
f. See note g in Table A.7.
g. Weighted average of the bank market and brokers' market rates described in notes f and g of Table A.7.

Over the years, the decline in this rate manifested itself, ceteris paribus, in increasing incentives for government imports, decreasing incentives to use local factors in large-scale mining, and decreasing incentives to export generally.

3.2.2 Export Draft PLD-NER.

The export draft NER was first quoted in August 1931. It was initially a free rate at which exporters other than those in large-scale mining could sell directly to importers or use their proceeds to do their own importing. Banks were sometimes intermediaries in these transactions. In 1935, however, because of the scarcity of exchange, the Exchange Control Commission required that beginning in September 1936 all transactions be handled by the banks at a fixed rate.

The export draft NER followed approximately the same pattern as the official NER, but generally at about a 30 per cent higher level (column 2 in Table A.7). A decline in 1933–35 was followed by an increase in 1936 because the NER was fixed at a high level in that year owing to an exchange shortage in late 1935 and early 1936. Then the export draft NER was reduced in 1937 to the level at which it remained about constant for the next twelve years.

Although the export draft PLD-NER (column 2 in Table 3.2) rose in the late 1930s, it was 10 to 24 per cent lower than the new free funds PLD-NER (column 5 of the table). Pressures therefore increased for use of the former for imports and the latter for exports. The Exchange Control Commission responded in 1939 first by allowing only imports of goods designated as "essential" at the export draft NER and then by continually reducing the number of goods so designated. After 1939 the commission also yielded to pressure from exporters to reclassify their nonquota returns (i.e., those which were not required to be converted at the official rate) from the export draft NER to the free funds NER. The export draft NER subsequently was used less and less and not at all after 1949, by which time the export draft PLD-NER had declined to about a fifth of the 1939 level.

3.2.3 Gold PLD-NER.

The gold NER was established after the exchange shortage of late 1935 and early 1936 to cover luxury imports and travel abroad. The source of exchange was sales from the government-run gold office. Since this office purchased gold at the equivalent of 0.02711 escudos per dollar, and the gold NER was at first 0.0300 escudos per dollar and subsequently (after October 30, 1936) 0.0350 escudos per dollar, the government acquired revenue directly from these transactions. The gold rate was legally abolished in December 1936, but sales continued de facto at 0.030 and 0.035 escudos per dollar. In August 1937 these rates were lowered, respectively, to 0.029 and 0.034. At the beginning of 1938 the special NER for gold exports was discontinued and the export draft NER was applied to gold exports.

Almost eleven years later, in response to pressure from gold-mine owners, Law 9270 of December 1948 was passed, authorizing CONDECOR to allow the importation of any articles paid for by foreign exchange received from the sale of domestically produced gold (subject to a semiannual quota set by presidential decree). Thus, the gold rate was reinstated. In 1954 it became inoperative as a result of the government's decision not to announce the semiannual quota.

Throughout its existence the gold NER exceeded all other NERs including the black-market rate. In the 1949–53 period, for example, the gold NER averaged 2.6 times the weighted average of all legal rates (i.e., the national accounts rate) and 1.3 times the black-market rate (cf. columns 3, 6, and 13 in Tables 3.2 and A.7). The differential between the gold and black-market rates reflected the high cost of smuggling the type of goods, e.g., consumer durables, for which the former was used.

3.2.4 Wine PLD-NER.

The wine NER was established in 1951 by CONDECOR for a list of nonessential items which, if import licenses were granted, could be imported with foreign exchange received from wine exports. Initially this rate was kept at 0.020 escudos per dollar above the flexible bank spot NER. For the last quarter of 1952 and part of 1953, use of the wine NER was suspended, and wine export proceeds were converted at the lower free funds NER because CONDECOR and the Central Bank decided that foreign exchange could not be spared for nonessential goods. In February 1953 the wine NER was set at 0.060 escudos per dollar above the fixed free funds NER. In May 1954 it was adjusted to 0.150 escudos per dollar above the free funds dollar rate and at 0.120 escudos per dollar above the conversion rate for all other currencies. In October 1955 it was replaced by the special-area NER under which listed nonessentials could be imported, using the export proceeds of wine and a few other products, at almost double the old wine rate (again, subject to the granting of import permits).

The wine NER averaged about 16 per cent below the gold rate for overlapping years, but about 109 per cent above the weighted average of all legal rates. The added return for wine exports, as in the case of gold exports, was quite substantial because these activities were accorded preferential exchange-rate treatment.

3.2.5 Free Funds PLD-NER.

The free funds NER (*disponibilidades propias*) was established in 1937 to serve the same basic functions as the gold rate. However, over the years, this NER covered more and more imports as the Exchange Control Commission declared increasing numbers of goods to be luxuries due to the shortages of exchange at the export draft NER. The excess demand for exchange at the latter rate was intensified in 1940, when all minerals produced by domestically owned companies were reclassified from the export draft to the free funds NER, and in 1941, when certain agricultural exports (e.g., fruits and wines), manufactured goods, and specified returns on services were similarly reclassified. By the end of 1941 most imports, except for those traditionally deemed essential (e.g., drugs, sugar, newsprint), were transacted at the free funds NER.

In 1946, in response to an IMF inquiry, the parity free funds NER was given as 0.031 escudos per dollar. In that same year this rate was established for use of the 1–20 per cent quotas on the conversion of proceeds from small- and medium-scale mining mentioned above in the discussion of the official NER.

Because of serious balance-of-payments problems in 1948, approximately the same exports which had been reclassified to the free funds rate in 1940 and 1941 plus machinery and equipment, some invisibles, and "necessary" imports (i.e., neither luxuries nor goods of primary importance) were reclassified to the new higher bank spot NER. At the same time essential imports and less favored exports (e.g., wool and fish products) were raised to the free funds rate from the export draft rate.

The free funds NER was maintained at 0.031 escudos per dollar and subsequently was used less and less, although at the end of 1951 it was still utilized for the liquidation of some insurance, minimum quotas on the proceeds of certain agricultureal exports (35 per cent for bran, hides, skins, wax, and wool and 20 per cent for lentils, frozen meat, and chick peas); and for imports of certain government items, necessities (drugs, antibiotics, sugar, newsprint, tallow, wheat, and flour), and some invisible items. On October 5, 1953, the IMF sanctioned an increase from 0.031 to 0.110 escudos per dollar for the parity rate, which thereafter remained fixed at this level. But after several years the PLD-NER had declined so much (see below), that the parity was no longer utilized. After 1959 quotations were no longer given for the free funds NER.

The free funds PLD-NER declined monotonically from 1939 through 1952, with a value in 1952 of less than 12 per cent of the 1939 value (column 5 in Table 3.2). The parity change in 1953 increased this PLD-NER by a factor of 2.8 in comparison to the previous year—but only to about a third of the 1939 level. By 1959 the PLD-NER had declined to 9 per cent of the 1953 value and to 3 per cent of the 1939 value.

3.2.6 Black- or Free-Market PLD-NER.

The black- or free-market NER varied substantially over the years. Operations in this market were not legally recognized before November 1950, when CONDECOR was authorized to use it for capital transferred to Chile in the form of foreign exchange for uses other than in large-scale mining, or after 1961. Nevertheless, this NER has played important roles as an index of the tightness of exchange control in the other foreign-exchange markets and as an index of economic and political expectations.[5]

The black market developed immediately after the initiation of exchange control, in mid-1931. It originally was the only source of foreign exchange for many invisible imports as well as for imports of unauthorized goods, and was utilized quite extensively in the early and mid-1930s. The subsequent establishment of the gold and free funds NERs provided alternative legal markets for many foreign-exchange operations; so demand shifted downward in the black market.

When exchange control was tightened after World War II, black-market activity expanded again—especially during the near-hyperinflation in 1954 and 1955. In the first decade after the war, the black-market PLD-NER tended to increase regularly except during the boom years in the copper market, touched off by the Korean War (column 6 in Table 3.2). In the period of political and economic chaos of 1954–55, substantial capital flight occurred through this market. As a result, the ratio of the black-market NER to the national accounts NER reached 3.17—the highest level recorded before 1971 (also see Chart 1.1).

During the post-1955 phases, four characteristics of the evolution of the black-market PLD-NER stand out: (i) During the 1959–61 Phase IV period exchange control decreased so much that the black-market rate did not differ significantly from the legal rates. (ii) At the start of each of the three stabilization programs this PLD-NER fell considerably below its level of the preceding year: 31 per cent in 1956, 32 per cent in 1959, and 12 per cent in 1965 (but to 35 per cent below the 1964 level by 1967). These drops partially reflected declines in exchange control in the legal markets. (iii) In each of the three presidential election years—1958, 1964, and 1970—the black-market PLD-NER increased somewhat because of related political uncertainties. (iv) After the 1970 election of Allende, the black-market PLD-NER soared to historical highs because of fears and uncertainty about the attempt to transform the economy to socialism.[6] The 1972 black-market PLD-NER was 2.2 times the previous post-World War II peak of 1954. The ratio of the black-market NER to the national accounts NER in 1972 averaged over 10.0 compared to a mean of 1.45 for the entire 1931–72 period.

3.2.7 Bank Spot PLD-NER.

In February 1948, in response to a balance-of-payments crisis, the bank spot NER was set by Decree 255 of the Ministry of Economics at 0.043 escudos per dollar. Those categories of exports and imports mentioned above in the discussion of the free funds NER were immediately transferred to this rate, and large-scale mining companies were allowed to use this rate for converting new investment funds. In January 1950 a provisional NER of 0.060 escudos per dollar largely replaced the bank spot rate. Subsequently, in 1951, the bank spot NER was increased to 0.0900 and, in turn, replaced the special-commercial and provisional rates.

In 1953, in probably the single most important attempt to rationalize the exchange-rate system in the 1931–55 phase, decrees 741 and 742 made the bank spot NER applicable to almost all merchandise imports and to a substantial portion of merchandise exports. This NER covered approximately 36 per cent of the inflows and 40 per cent of the outflows in the foreign-exchange budget in the first half of 1953 and approximately 90 per cent of the outflows in the second half of the year. Substantial excess demand soon developed for exchange at this rate, however, partly because the price of dollars it implied relative to the price of the currencies covered in bilateral agreements was quite low. Moreover, the bank spot PLD-NER declined rapidly (column 7 in Table 3.2). Therefore, the relatively unified exchange-rate system quickly evaporated as new restrictions were introduced and items were moved to other NERs.

After 1955 the bank spot NER again was the dominant rate for goods transactions. In the 1956–58 Phase III period, it was used for almost all imports and related invisibles, government invisibles, education-related invisibles (up to certain limits), and capital transfers (subject to the decree of November 10, 1953, discussed below). Exceptions included large-scale mining trade and imports of certain necessities (e.g., sugar, tea, Paraguayan tea, kerosene) worth up to $30 million, which were given a rate of 0.300 escudos per dollar prior to July 1957. Because of frequent devaluations during this phase, including a series of incremental changes in the first half of 1957, the bank spot PLD-NER increased to its highest level since 1953. The 1957 and 1958 levels, moreover, have not been attained again since that time.

On January 27, 1959, the Alessandri government introduced a Phase IV regime, instituting a unified NER of 1.051 escudos per dollar and in effect devaluating the currency. The Instituto de Economía [1963:203] and Leftwich

[1966:407] suggest that, given the trade regime in operation at the time, this rate was close to equilibrium. From that date until the end of this phase, the Central Bank maintained fixed NERs (Table A.7) as a symbol of stability. However, because of continual internal inflation (albeit at a greatly reduced rate), the PLD-NERs declined steadily (by over 20 per cent between 1958 and 1961 for the bank spot PLD-NER).

After a foreign-exchange crisis at the end of 1961, a Phase II regime with multiple exchange rates was reintroduced. The bank spot NER initially was kept constant as a symbol of price stability despite obvious, ever-increasing disequilibrium. Finally, it was supposedly (but not actually) freed after a 33 per cent devaluation, on October 15, 1962, an act which was encouraged by the IMF. Because of the continuing foreign-exchange shortage and the Central Bank's continued prevention of adjustments in the bank spot market, shortages existed at that rate. Therefore the Central Bank increasingly switched transactions to the bank future NER (see below). The bank spot NER also was raised, but not enough to arrest the decline in the bank spot PLD-NER more than temporarily.

In 1965 the new Frei government initiated a Phase III regime. As one component of that regime, in April 1965 the Central Bank adopted a sliding-peg or programmed exchange-rate policy in which small devaluations—about 1 per cent at a time—were announced every 15 or 30 days with the intent of increasing the PLD-NER by about 2.0 per cent per year. That the bank spot NER was adjusted with great frequency in itself was not such a novelty. Monthly adjustments were made in that rate between April 1952 and January 1953, between April 1956 and January 1959, and between October 1962 and the initiation of this new policy. The novelties of such a policy in the Chilean experience lay in the explicit intent slowly to increase the PLD-NER and in the official claim that such a policy was advantageous.

A number of a priori advantages have been claimed for the Chilean sliding-peg exchange-rate policy of this period: [7] (i) Exporters would not be subjected to wide variations in their returns because of unanticipated exchange-rate policies or because of substantial fluctuations in the PLD-NER. Instead they could plan ahead confidently with the guarantee of a slightly increasing PLD-NER. (ii) Import-substitution activities would not be subjected to fluctuating protection with relatively high EPRs after a large devalution, then decreasing EPRs as competitive imports became ever cheaper due to declining PLD-NERs.[8] Such a pattern had occurred repeatedly in the Chilean experience because of the combination of fixed NERs and internal inflation. Operators of import-substitution enterprises therefore could plan ahead with much greater certainty. (iii) Speculators acting with knowledge of frequent small devaluations would have a less destabilizing effect on the market than if there were infrequent, but large (and profitable, if correctly anticipated) devaluations.

(iv) Desired inventory holdings would be lowered owing to the relative unlikelihood that severe restrictions would be placed on future imports, given the improved balance of payments resulting from the sliding-peg policy. (Actual inventories, however, might increase despite a decline in desired inventories if actual inventories had previously been below desired inventories because of exchange restrictions.) (v) Average capacity utilization would be increased because of the constant availability of required imported inputs. (vi) Direct inflationary pressures would not be increased, except possibly in the short run, by the series of frequent small devaluations in place of infrequent large devaluations; and the psychological impact of devaluation on inflationary expectations might be less under the former than under the latter policy.

In Part III, I evaluate some of these claims. At this point it is pertinent to note, however, that in the six-year experience with the sliding-peg exchange rate the bank spot PLD-NER generally declined (except in 1968)—despite officially announced intentions of achieving the contrary (column 7 in Table 3.2).

In July 1970 the sliding-peg policy was discontinued because of the traditional claims raised by the opposition in the presidential election campaign—that it was inflationary and that it favored rich foreign and national exporters. After the election Minister of Finance Américo Zorrilla [1970:1488] of the new Allende government announced, on November 27, 1970, that the escudo would no longer be periodically depreciated and, also, that exchange control would be intensified.[9] The government adopted a fixed bank spot NER as a symbol of stability[10] and proposed to serve as a buffer between external and internal markets in order to protect the domestic economy from any external disequilibriums or fluctuations.[11] For the first year of the new administration the bank market NER was in fact kept constant (see Table A.7), although during this period changes were made in access to that market.[12] As a result the bank spot PLD-NER dropped 16 per cent in 1971 to the lowest level recorded since the establishment of the rate in 1948.

The fixed NER symbol was abandoned in December 1971 with a nominal devaluation of approximately 30 per cent. Exchange control was intensified and the bank spot rate was replaced by four rates for four detailed lists: (A) primarily agricultural and petroleum imports, at 12.21 escudos per dollar; (B) the basic rate for exports, for principal merchandise imports of necessities, pharmaceuticals, fertilizers, and agricultural inputs, and for invisible imports and exports related to credits from international organizations and services from international news agencies and postal and parcel post agencies, at 15.80 escudos per dollar; (C) imports of machinery and parts, imports of nonessential primary materials, and imports of manufactured products, indemnification and premiums for insurance on ships and planes, and inflows and outflows of financial capital under articles 15 and 16 of Decree 1272 and

Decree Law 259, at 19.00 escudos per dollar; and (D) luxuries and other nonnecessities, at 25.00 escudos per dollar. This new structure was intended to favor imports of mass-consumption goods and intermediate inputs.

Because of the accelerating inflation, a further devaluation was implemented, on August 7, 1972, equivalent to a 58 per cent nominal change in the basic rate. At the same time, several additional lists were established, making a total of seven altogether, with rates for the seven ranging from 20 to 80 escudos per dollar. Moreover, the executive committee of the Central Bank announced that it would establish higher rates for foreign currencies deriving from nontraditional exports, the promotion of which would be in the national interest. Despite these two major devaluations in less than eight months, however, the basic bank market PLD-NER in 1972 fell 38 per cent below the 1971 level to an all-time low. On August 3, 1973, still further changes were made: the new rates ranged from 25 to 890 escudos per dollar. Nevertheless, owing to the raging internal inflation, the PLD-NER continued to fall on the average in 1973.[13]

3.2.8 Bank Future PLD-NER.

The bank future NER was introduced in 1963. Because shortages existed at the bank spot NER the Central Bank authorized commercial banks to sell exchange at a bank future NER for necessities (i.e., items with a prior-deposit requirement not greater than 10 per cent) and to buy exchange at this rate from the proceeds of exports other than from large-scale mining with delivery to be effected in less than 90 days. Starting on November 8, 1963, the Central Bank began quoting the bank future NER at a 20.3 per cent differential from the spot NER. Effective December 18, 1963, commercial banks were no longer permitted to buy exchange at the bank spot NER. The effect of this change, together with a series of changes in 1964 that increased the upper limit of prior-deposit categories for import items that qualified for the bank future rate, was to shift almost all merchandise exports other than those from large-scale mining and all nongovernment merchandise import operations to the bank future NER. Importers preferred this rate even though it was higher than the bank spot NER because of the increasing uncertainty and delays they experienced in trying to do business at the latter rate. Thus an effective devaluation occurred, with large-scale mining once again faced with a discriminatory exchange rate since it was legally bound to effect all exchange operations with the Central Bank at the bank spot NER.

In the early part of the Phase III regime of the Frei government even greater access to the bank future NER was granted by a series of ten announcements in 1965 and January 1966. On January 10, 1967, the bank spot and future NERs were unified as part of the attempt to simplify the exchange-control system. Separate but identical quotations were given for each rate until the December 1971 exchange-rate realignment.

During 1963–66, the four years in which the bank future NER was distinct from the bank spot NER, the percentage difference declined steadily; it was 31 per cent in 1963, 16 per cent in 1964, 6 per cent in 1965, and 1 per cent in 1966. Over the same period of time the bank future PLD-NER dropped by a third (column 8 in Table 3.2).

3.2.9 Special-Commerical PLD-NER.

The special-commercial NER of 0.050 escudos per dollar was introduced in August 1950 to favor the importation of certain petroleum products, agricultural machinery, raw cotton, and india rubber. By the end of 1951 it covered approximately 98 per cent of the export proceeds from nitrates and iodine, as well as imports of crude oil, gasoline, tea, Paraguayun tea, paraffin, antibiotics, kerosene, rubber, jute, cellulose, ships, etc., and certain invisible items. In 1953, it was replaced by the bank spot rate, and has not been in use since. The special-commercial PLD-NER fell 47 per cent in the four years during which it was quoted (column 9 in Table 3.2).

3.2.10 Provisional PLD-NER.

The provisional NER of 0.060 escudos per dollar, which is discussed above in the section on the bank spot rate, was instituted in January 1950 and not utilized after 1953 except for the conversion of new investment funds for large-scale mining. The provisional PLD-NER also fell 47 per cent in the four years during which it was utilized (column 10 in Table 3.2).

3.2.11 Central Bank PLD-NER.

The Central Bank NER was first quoted in 1956 at a level 10 per cent above the bank spot NER. In subsequent years, however, the differential was much smaller. After 1961 the two rates were identical except in 1965.

3.2.12 Brokers' PLD-NER.

The brokers' NER was established in November 1950 for a number of invisible transactions and for the transfer of capital in the form of foreign exchange, except for that related to large-scale mining.[14] This was the only legal NER that was allowed to fluctuate more or less without quantitative restrictions for any significant period of time. It was relatively free in 1950–55; at the start of the Phase III period, in 1956; and during the first part of the Phase II period, in 1962 and 1963. When it was free and during the 1959–61

Phase IV years it was virtually identical to the black-market NER (cf. columns 6 and 12 in Table A.7). When the brokers' NER was fixed, the black-market NER rose to levels as much as 6.2 times as high (in 1972).

Except during the period 1959–61, when exchange rates were unified, the brokers' NER always has been above the weighted average of all legal NERs. By the middle of each of the two Phase III periods (1956–58 and 1965–70) such discrepancies had declined to 11 or 12 per cent. In both cases, however, they increased thereafter. During the three Phase II periods (1950–56, 1962–64, and 1971 on), such discrepancies were much higher—almost 200 per cent in 1955 and about 60 per cent in 1963 and in 1972. These patterns reflect the practice of using NERs more to limit invisible imports than to limit merchandise imports at times of exchange shortages.

The secular trend of the brokers' PLD-NER was downward during 1950–72. However, this pattern is distinct in two respects from that of the over-all legal PLD-NER (see the discussion of the national accounts rate, below): (i) The relative decline has been somewhat greater because the brokers' NER was a free rate at the beginning and was fixed at an overvalued level at the end of this period, while the other legal rates were fixed at overvalued levels at both the beginning and the end. (ii) The brokers' PLD-NER has increased much more frequently because at times this NER was free and at other times the brokers' NER was devalued both more and earlier than NERs applicable to merchandise transactions.[15]

As was the case for the bank spot NER, in late 1971 the brokers' NER was split into several rates: the basic rate remained at 28.00 escudos per dollar, but operations in some invisibles were allowed at the B-list rate of 15.80 escudos per dollar or at the C-list rate of 19.00 escudos per dollar.[16] Furthermore, on August 2, 1972, the brokers' NER was devalued and subdivided into the following three rates:

Area I. 36.00 escudos per dollar: for re-export of capital investments under Article 14 of Decree 1272, expenditures for study abroad, and noncommercial medicines;

Area II. 46.00 escudos per dollar: for broker market operations not designated as Area I or Area III;

Area III. 85.00 escudos per dollar: for travel and transportation, pensions and family help to nonstudent nonresidents, obligatory payments in foreign currency abroad by residents in Chile, and extraordinary remittances.

3.2.13 National Accounts PLD-NER.

The national accounts NER is a statistical entity only. It is calculated by the national accounts office as a weighted average of all of the legal NERs. As such, it is a useful composite index of over-all exchange-rate movements. Examination of the national accounts PLD-NER (column 13 of Table 3.2) suggests two important features: (i) The weighted average of all PLD-NERs did not change as sharply as did many of the individual PLD-NERs. This characteristic reflects the frequent shifting of items to higher exchange-rate categories in lieu of formal devaluation—all in an environment of considerable inflation. (ii) From 1940 on, the secular movement in the national accounts PLD-NER was downward at a mean exponential rate of 5.4 per cent per year (also see Chart 1.1). During the 32 years from 1940 to 1972, the annual PLD-NER increased only seven times. In only three of those years—1950, 1957, and 1963—was the increase as large as 5 per cent. The value for 1972 was less than one-sixth of the value for 1940. The strong downward secular trend in the weighted average of legal PLD-NERs implies that even if the exchange-rate system had been near equilibrium in the early 1940s, it was unlikely to have remained there long.[17] The resulting disequilibrium system could not be supported for any significant period of time except through the use of quantitative restrictions.[18]

3.2.14 Other Rates.

A large number of additional NERs also were in use at various times. Bilateral and compensation agreements (see subsection 4.1.6) implied the existence of distinct NERs. From March 30, 1954, until the start of a Phase III regime in 1956 imports of certain specified products (e.g., liquor, tobacco, truck chassis, tires) were permitted, subject to authorization, using the export proceeds of small- and medium-scale mining with different fixed exchange-rate differentials for *each* individual import and export item. At the time of the August 1972 alignment, as is noted above, the Central Bank announced it would establish special NERs on an individual basis for certain nontraditional exports.

In general these special NERs did not substantially affect the over-all average NER. But they did add considerably to the complexity of the system, increase distortions, and have substantial income distribution implications for those directly affected.

NOTES

1. Johnson [1971], McKinnon [1971, 1972], and Mundell [1971], among others, have recently argued that exchange-rate policy is best considered as simply one facet of monetary management.

2. With the July decree, Chile abandoned the gold standard, thus acting two months before the pound was devalued, in September 1931, rather than, as Hirschman [1963:179] has claimed, in March 1932, six months after the devaluation.

3. Of even more interest are the PLD-EERs which incorporate the effects not only of exchange rates per se, but also of all the other policy tools to be discussed in chapters 4 and 5. In section 5.1, I explore the evolution of PLD-EERs and PLD-EER(PI)s in the years since the Great Depression.

4. The existence of varying quotas on exports other than from large-scale mining and of varying legal costs of production rates on large-scale mining in effect implied a different de facto NER for each export good.

5. The latter role is emphasized in Instituto de Economía [1956:28]. The determinants of the black-market PLD-NER are investigated in Table A.7, note b.

6. The election was on September 4, 1970. Between the end of August and the end of September 1970 the black-market NER increased from 22.8 to 35.0 escudos per dollar, although it subsequently declined somewhat to a year-end level of 28.0 escudos per dollar. Picks' [1971:124] also reports considerable postelection black-market activity in Chilean escudos in Buenos Aires (almost $13 million's worth in one week with the cross rate up to 50.0 escudos per dollar at one time) and in Bogotá and Quito.

7. Ffrench-Davis and Carrasco [1969:901–904] include many of the following points in their *Central Bank Bulletin* explanation of the government rationale for the policy.

8. EPRs will not necessarily decline as the PLD-NERs decrease even under ceteris paribus assumptions because the price of inputs might decrease more than the price of products. However Ffrench-Davis and Carrasco [1969:901–904] claim that in the Chilean experience the EPRs for the import-substitution industries in fact did decrease in such circumstances. If quantitative restrictions are effective, moreover, PLD-EER(PI)s may not decline even if PLD-NERs drop substantially.

9. According to de Onis [1971b:9]: "When President Salvador Allende Gossens ran for office last year, one of his promises was that Chile would 'terminate agreements with the International Monetary Fund and put an end to the scandalous devaluations of the escudo.'"

10. The adoption of a fixed NER as a symbol of stability had a certain ironical aspect to it in that Allesandri, the runner-up in the close presidential election of September 1970, had himself adopted such a symbol twelve years earlier after he had narrowly defeated Allende in the presidential election of late 1958.

11. For example, the government proposed to protect exporters from any disequilibrium due to domestic price increases and a fixed NER by an expanded drawback program (see subsection 4.2.2, below).

12. Substantial changes were also made in the use of import prior deposits (see subsection 4.1.4., below).

13. After the coup that ousted the Allende government, yet another devaluation was made, on October 1, 1973.

14. Starting in November 1953, however, the NER for each new foreign investment project was negotiated individually.

15. In 1962, for example, the brokers' NER was devalued by 35.1 per cent in January and a total of 110.2 per cent for the year. The bank spot NER, in contrast, was held constant until the 33 per cent devaluation of October 15. In July 1971, the brokers' NER was devalued by 95 per cent, but the bank spot NER was unchanged until the 30 per cent devaluation in December.

16. Circulars 1672 and 1677 of April 13 and 20, 1972, also established an exchange rate of 42 escudos per dollar for UNCTAD personnel for the duration of UNCTAD III.

17. Two assumptions underly this statement: (i) imports and exports were somewhat price responsive; (ii) exports or other sources of foreign exchange did not expand

sufficiently rapidly to allow such a great decline in the equilibrium NER. See Chapters 6–8 for consideration of both of these assumptions.

18. For indicators of the degree of disequilibrium in recent decades see line 1.1.1 in Table A.1 and the estimate in Bacha and Taylor [1973] that the NER was overvalued by 25 to 80 per cent in the 1960s.