Discussion of the History of Chile

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Chile provides one of the most interesting experiences with monetary policy, fiscal policy, and inflation in Latin America. During the last six decades, the country has experienced almost every inflation-related phenomenon: persistent inflation throughout the 1960s and early 1970s, extremely high inflation in 1973 through 1975, and low and contained inflation starting in the early 1990s. The country went through periods of clear “fiscal dominance,” as well as periods in which public finances were under control. The adoption of an explicit countercyclical “fiscal rule” in the early 2000s was a pioneering move around the world. In addition, Chile was an early adopter of central bank independence in 1990, the year the country returned to democratic rule.

The chapter by Caputo and Saravia is a welcome contribution to the literature on monetary and fiscal policies and inflation in Chile. It provides a useful description of different phases, presents the most relevant data, and offers reasonable interpretations of both the economic and political forces behind monetary and fiscal policies, exchange rate behavior, wage pressures, and inflation.

In this commentary, I would like to deal with two issues: first I would like to reference two very important classic studies of inflation in Chile, which are not mentioned by the authors. These works, by Albert Hirschman (1963) and Arnold Harberger (1963), are fundamental for putting Chile’s macroeconomic history in perspective. I will then delve into a specific subperiod within the years analyzed by Caputo and Saravia: 1978–82. These were early years during the Augusto Pinochet dictatorship, when an attempt was made to use a strict exchange rate anchor to bring down an extremely stubborn inflation, which had its roots in the fiscal dominance episode that exploded during the Salvador Allende administration. The policy, however, did not work out as anticipated by its promoters, and it ended up in a major and very costly currency and banking crisis. In analyzing this episode, I relate the fixed-rate strategy to Milton Friedman’s view on monetary regimes and stabilization.

Earlier Literature

In 1963 Albert Hirschman published, as chapter 3 of his *Journeys toward Progress*, a detailed analysis of inflation in Chile from the late nineteenth century through 1962.

The study is appropriately and simply titled "Inflation in Chile."[1] In the first table in this chapter, Hirschman presents data on accumulated and average inflation decade by decade between 1880 and 1960. These data clearly show the ratcheting up of inflation in Chile's history until the mid-twentieth century.

In this study, Hirschman elegantly analyzes the forces behind inflation in Chile, including disputes between gold and silver supporters, the role of paper money, and the increasing degree of fiscal dominance starting in 1940. He also goes through recurrent currency crises and the political economy of stabilization attempts. The chapter contains a fascinating analysis on the role of foreign advisers in developing countries in general and in Chile in particular. This discussion is carried out in light of the KleinSaks mission of 1955–56 and its failed attempt to bring inflation under control. The connection between the inflationary process and political developments is clearly captured by the title of the last section of his chapter: "Inflation, Revolution and Civil War."

Also in 1963, Arnold C. Harberger published his monumental article "The Dynamics of Inflation in Chile."[2] This chapter opens as follows: "[Chile's] history of inflation is long, and for practical purposes continuous. Its rate of inflation has varied greatly over time, permitting the testing of theories in which not only the level of prices but also the rate of change plays a role" (Harberger 1963, 219).

Harberger's study is a careful empirical investigation based on both quarterly and annual data and on a number of different price indexes. One of the notable aspects of this work is that it explicitly analyzes what Harberger calls "two extreme hypotheses. . . . one denying any true explanatory power to wage changes, and the other denying any true explanatory power to money supply changes" (Harberger 1963, 244).

Harberger's results suggest that neither of the two extreme hypotheses is supported fully by the data. His findings indicate that during the period under analysis (1939–58), both monetary changes and monetary conditions played a role in fueling and perpetuating inflation. After analyzing his regressions, Harberger writes, "These results suggest that one of the major roles of the wage variable was indeed as a 'transmitter' of inflation from one period to the next, responding to the monetary expansion of the past, and inducing monetary expansion in the subsequent" (Harberger 1963, 244).

Table 1. Inflation in Chile, 1880–1960

	Accumulated (%)	**Annual average (%)**
1880–90	57	5
1890–1900	58	5
1900–1910	109	8
1910–20	74	6
1920–30	30	3
1930–40	94	7
1940–50	412	18
1950–60	2,089	36

Given Chile's long history with inflation, it is not surprising that a number of Chilean doctoral students wrote their dissertations on inflation and stabilization. Out of the many works on the subject, two deserve particular attention. In his 1971 thesis at MIT, Vittorio Corbo constructed a small econometric model that, in the spirit of Harberger, combined monetary and wage rate pressures. A revised version of the dissertation was eventually published by North-Holland. In his 1973 thesis at Harvard, Tomás Reichmann emphasized (correctly) the role of expectations in inflationary dynamics in Chile.

Milton Friedman and Chile's Exchange Rate Anchor, 1978–82

In early 1978, with inflation at 57 percent per annum, Chile adopted an exchange-rate-based stabilization policy. The central bank preannounced the daily rate of the devaluation of the peso relative to the U.S. dollar for one year. The initial rate of devaluation was deliberately set below the ongoing rate of inflation. The economic authorities believed that this mechanism would generate a rapid convergence of domestic inflation to international inflation. This exchange rate scheme, known as the *tablita*, was supported by tight monetary and fiscal policies. This policy is discussed by Caputo and Saravia in the fourth section of their chapter. Surprisingly, however, the episode, including the ensuing currency crisis of 1982, is not given enough emphasis.

Eighteen months later, in June 1979, when inflation still stood at 35 percent per year, the government decided to put an end to the preannounced rate of the devaluation and to fix the exchange rate at 39 pesos per dollar. The authorities expected that this move would help rapidly reduce inflation to the one-digit range. At first the announcement was made that this fixed rate would last until February 1980. A few weeks before that date, however, the decision was made to maintain the fixed exchange rate (relative to the dollar) "forever." As Milton Friedman would point out later, fixing the peso to the dollar generated a serious problem, since around that time the U.S. dollar began to strengthen significantly in the international currency markets. While the nominal exchange rate with respect to the dollar stayed constant between the third quarter of 1979 and the second quarter of 1982, the multilateral, trade-weighted, nominal exchange rate with respect to a basket of currencies appreciated during that period by more than 30 percent.

Larry Sjaastad, a University of Chicago professor and a frequent visitor to Chile, was one of the intellectual fathers of the exchange rate anchor policy. Based on the then-popular "monetary approach to the balance of payments," he believed that purchasing power parity held in the short run and fixed exchange rates would provide almost instantaneous discipline and allow for rapid and low-cost stabilization. He explained the exchange-rate-based program as follows: "The rationale . . . was that once economic agents understood, or inferred, that the equilibrium between the prices of tradables and nontraded (home) good is neither random nor arbitrary, a change in the price of tradable goods will cause a revision of expectations concerning the equilibrium price of home goods. Under such circumstances, excess supply would not be required to drive down inflation; the change can occur spontaneously, as it were" (Sjaastad 1983, 12). Every month between June 1979 and June 1982, Chile's domestic inflation exceeded international inflation. This contributed further to real (as opposed to nominal) exchange rate appreciation. As a result, an increasingly large current account deficit developed; it was almost 6 percent of GDP in 1980, climbed to 8 percent in 1981, and reached the staggering figure of close to 10 percent of GDP in 1982. These deficits were largely financed with short-term, dollar-denominated bank loans and other forms of speculative capital. In mid-1982, the authorities could not hold the line any longer, and the peso was devalued. Many firms and families that had borrowed heavily in foreign exchange could not service their debts and went bankrupt. GDP declined by almost 15 percent, and unemployment exceeded 25 percent.

Why did Chile choose to have an exchange rate anchor in 1978? Did the authorities realize, at the time, that a growing and dangerous imbalance was developing? Did they foresee the massive and costly crisis? Why didn't the authorities think of an exit strategy from the fixed exchange rate?

These questions are of interest for at least two reasons. First, as is well known, during the early dictatorship, a group of economists known as the "Chicago boys" was very influential in Chile, with many of them holding cabinet-level positions. Second, and also well known, Milton Friedman, the economist most closely associated with Chicago, had for a long time advocated for (since at least the early 1950s) flexible exchange rates and was generally very critical of attempts to fix the currency value, especially if these efforts lacked credibility.

Milton Friedman visited Chile twice during Pinochet's dictatorship: the first time in April 1975 and the second in mid-November 1981.[3] During his early trip, Friedman met for about an hour with Pinochet. At the meeting—also attended by Arnold Harberger and some Chicago boys—Friedman told the general what he thought about Chile's economic situation and recommended implementing a drastic sterilization program based on a fiscal shock and monetary tightness. This visit was highly publicized and came to haunt Friedman a few months later when he was awarded the Nobel Prize in Economics. A number of renowned scholars and previous Nobel laureates in the sciences wrote letters to major media outlets decrying the award. They argued that Friedman was complicit in Chile's deep violations of human rights. During his second visit, in mid-November 1981, Friedman attended the regional meetings of the Mont Pèlerin Society. During this trip, he did not meet, officially, with any government authorities.

Figure 1 presents monthly data on the peso–U.S. dollar exchange rate between January 1975 and December 1982. The dates of Friedman's two visits (April 1975 and November 1981) are denoted by two vertical lines. Four phases of exchange policy in Chile during these years may be detected in the figure. The first phase goes from January 1975 to February 1978. During this period, Chile followed, for the most part, a passive, backward-looking, crawling-peg regime.[4] The nominal exchange rate was devalued frequently (daily) by the lagged (previous month) differential between Chilean and U.S. inflation. During the second phase, from February 1978 to June 1979, the *tablita*, or preannounced crawling peg, was in place. As may be seen, the slope of the peso-dollar curve becomes flatter, reflecting the deliberate slowing down of the rate of devaluation,

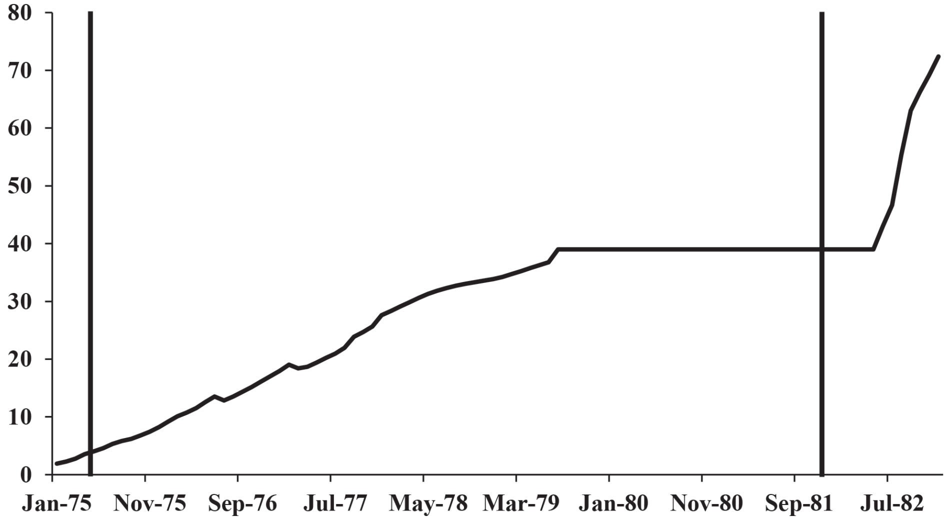

Figure 1. Peso-dollar exchange rate: January 1975–December 1982

below the ongoing rate of inflation. The third phase, from June 1979 to June 1982, is the fixed peso-dollar rate, and the fourth phase, after June 1982, is the devaluation crisis and the adjustable and managed peg.

During Friedman's first visit, the exchange rate was not at the center of policy discussions. It was taken as a given that with a three-digit rate of inflation, Chile could not have a completely fixed exchange rate. At the same time, it was thought that Chile (or any other developing country for that matter) didn't have the institutional capacity to adopt a truly market-determined, flexible rate. The crawling peg was considered, by most analysts, to be the natural answer to the exchange rate question.

In Friedman's main lecture in Chile in 1975, the term "exchange rate" did not come up even once. He talked about monetary policy, the fiscal deficit, the inflation tax, the merits of a "social market" economy, shock adjustment, and the experiences of Germany and Japan after World War II. But during his speech, he didn't say one word about currencies or exchange rates.[5]

The exchange rate issue was brought up briefly during the question-and-answer period. In his reply to a question on the connection between the degree of openness of the economy and monopoly power, Friedman intimated that, in his view, the authorities took into account market forces when determining the (sliding) value of foreign currency. He said, "If the exchange rate corresponds to a *market rate*—as is the *current policy* of the government—what would be the results [of a policy that opened trade fully]?"[6] He answered by saying that in those circumstances, an increase in the demand for foreign currency would lead to a depreciation of the peso.

The exchange rate was again raised in a question regarding the generalized indexation system that existed in Chile at the time.[7] A participant asked whether periodic and frequent adjustments of prices, wages, and the exchange rate could contribute to inflation by creating a "vicious circle." In his answer, Friedman dismissed the circularity argument and insisted that the source of Chile's very rapid inflation was the printing of money to finance a fiscal deficit that amounted to 10 percent of GDP. He then defended indexation as a form of facilitating the signing of contracts in an environment of rapidly rising prices.

A third (and last) exchange-rate-related question focused on the effects of the "minidevaluations" on costs and companies' profits. The participant also asked about the effects of very high interest rates on companies' ability to survive. Friedman began his answer by saying that there is a difference between nominal and real interest rates. He added that high nominal interest rates are a reflection of inflation and not a cause. He then said,

> The same is true about mini devaluations: they don't result in higher real costs. They are simply a response to price increases. . . . If prices in Chile increase by 10% each month, then it is necessary to devalue by 10% in order to maintain a stable *real* value of foreign currency. . . . And you already know the story: if you try to maintain a low price for foreign exchange [overvaluation of the peso], there would simply be a need to ration it. What happens then? Everyone would want to buy it [foreign exchange]. How would you decide who is allowed to buy [dollars]?[8]

To summarize, then, during Friedman's 1975 visit to Chile, he defended the sliding parity regime and explained that if inflation was high, fixing the rate would necessarily result in disequilibrium and rationing. He also praised, implicitly, the fact that the government was trying to maintain the official exchange rate close to its market value.

When Friedman arrived in Chile for his second visit, in November 1981, the fixed exchange rate experiment was entering its third year. There were clear strains and difficulties; the real exchange rate had appreciated significantly, as expected. However, and in contrast with Friedman's predictions six years earlier, there had been no need to ration foreign exchange. The very large and growing current account deficit was financed with ample monies coming from abroad. Most capital inflows took the form of syndicated bank loans.

Once he arrived in Santiago, Friedman was reluctant to talk about Chile. He told reporters that he "did not know enough about the Chilean economic situation" (*La Tercera*, November 18, 1981). One day later, at a press conference, he said, "I would like you to understand why I am in Chile. I am here to attend the Regional Meeting of the Mont Pèlerin Society, of which I have been [a] founding member for 34 years. I am not here to give advice, neither to analyze Chile's policies. I believe this country has been notably successful during the last years without my advice and I believe it will continue to be successful" (*Ercilla*, November 25, 1981, 21). Reporters, however, did not give up and continued to ask about Chile. Friedman finally agreed to answer a few questions. When asked about the fixed exchange rate, he replied that by fixing the value of the dollar, the government was imposing a constraint on money creation. That is, he answered the question in an indirect way: instead of tackling it directly, he pointed out that a truly fixed rate—by which he meant an irrevocably fixed one—acted as a constraint on the central bank in a way similar to the gold standard. The small group of supporters of flexible exchange rates was disappointed by his answers (*El Mercurio*, November 19, 1981).

Friedman's paper for the Mont Pèlerin Society Meeting was titled "Monetary System for a Free Society." But during his presentation, he did not talk about the paper. Instead, he divided his remarks into three parts: (1) the exchange rate issue in Chile; (2) the difficult economic situation in the United States, including the country's monetary policy; and (3) free markets and democracy, with an emphasis on Chile.

On Friday, November 20, 1981, the newspaper *La Segunda* partially reproduced Friedman's presentation.[9] With respect to the fixed exchange rate policy, Friedman expanded on what he had said during the press interview. He explained that there were two different types of pegged rates. One was the type of unilateral (soft) peg that the Bretton Woods system had instituted. These discretionary pegs had escape clauses and could easily be altered. They were usually unstable and in many countries had led to major financial crises. The second type of peg was hard. Under this system, a country irrevocably fixed the value of its currency to that of an important trade partner with a stable monetary policy and low inflation. Friedman explained, as he had already done in the press conference, that this second type of (hard) peg was similar to the gold standard or to what Panama had done by adopting the dollar as its currency. He went on to state that Chile had followed an "intermediate solution" through its fixed exchange rate relative to the U.S. dollar. By using the term "intermediate solution," he was implicitly being (somewhat) critical of the government policy. However, he didn't openly question the wisdom or sustainability of the policy.

In the years to come, Friedman would come back several times to the issue of the fixed exchange rate in Chile. For example, in a 1993 article, he compared Chile and Israel and explained that while in Chile the policy had led to a severe crisis, in Israel it had been successful. He also came back to this issue in 2001, during a debate with Robert Mundell, one of the staunchest supporters of fixed exchange rates (Friedman and Mundell 2001). Friedman said that Chile's 1979 "hard peg" policy was "disastrous" as a consequence of the strengthening of the U.S. dollar in 1980–81.

In his November 1981 remarks at the Mont Pèlerin meetings, Friedman also noted that if the currency is pegged, it matters with respect to which nation it is fixed. The reason is that, if the peg is durable, irrevocable, and credible, the monetary policy of the reference country would be imported. He recalled that when Australia decided to adopt a fixed exchange rate regime, he recommended a peg with respect to the Japanese yen.[10] This he did for two reasons: first, because Japan was Australia's most important trade partner, and second, because Japan's monetary policy had been, during the previous eight years, more stable and prudent than that of the United States. Given that the United States was Chile's main trading partner, pegging the peso to the dollar would, in principle, make some sense. However, Chile would have to accept what it implied in terms of monetary policy.

Toward the end of his presentation, Friedman stressed the fact that Chile had to "choose between the two alternatives: truly fixed or temporally fixed." He added that fixing with the option of abandoning the parity was a bad idea. If a fixed rate was chosen, it would have to be a firm fixed peg, one that would provide “credibility in the eyes of the world.” Chile, he said, “has lived three or four years of extraordinary economic success, but could lose credibility” (*La Segunda*, November 20, 1981).

The discussion presented above indicates that during his 1981 visit to Santiago, Friedman was not openly critical of the fixed exchange rate policy in Chile. He didn’t endorse it, but he didn’t criticize it either. He covered himself by making a distinction between hard and soft pegs and by saying that if Chile decided to opt for fixity, it had to make sure that it was a credible, hard peg. In many ways, this ambiguity and evasiveness is surprising and is not consistent with Friedman’s usual bluntness and directness. At this point, one can only speculate about his motives. A possible explanation is that after meeting privately with the authorities—with Minister of Finance Sergio de Castro and Central Bank President Sergio de la Cuadra, both of them Chicago boys—he realized that they would not alter their exchange rate policy. Thus under those circumstances, it would make little sense for him to openly criticize the exchange rate anchor. In fact, planting doubts about the sustainability and desirability of the fixed rate could have triggered major speculative moves and even a major currency crisis.

Seven months after Friedman’s second visit, and in spite of his reluctance to openly criticize the policy, Chile could not defend herself from a massive speculative attack. On June 1982, the peso was devalued. The crisis that followed was one of the deepest ever faced by a Latin American nation.

Notes

1 An even earlier deep analysis of inflation in Chile was performed by Princeton’s Frank Fetter and published in 1931. Fetter’s work was initially undertaken as a PhD dissertation at Princeton, under the guidance of Edwin Kemmerer, the famous “Money Doctor” who helped found many of Latin America’s central banks.

2 This paper was published in a volume titled *Measurement in Economics* (Stanford University Press), edited by Carl Christ. The contributors to this book include a number of luminaries of the economics profession, such as Milton Friedman, Jacob Mincer, Marc Nerlove, and Don Patinkin, as well as Harberger and Christ.

3 What follows is based on some research I have undertaken with Leonidas Montes, from the Centro de Estudios Públicos.

4 On two occasions, there were sharp, one-time, nominal appreciations of the peso. The purpose of these surprise adjustments was to break inertial expectations. However, after these occasions of abrupt strengthening of the peso, the crawling peg was resumed.

5 Milton Friedman, “Milton Friedman en Chile,” Fundación de Estudios BHC, Santiago, May 1975.

6 Friedman, “Milton Friedman en Chile,” 49. The transcript of the conference is in Spanish. This is question no. 9 (emphasis added).

7 Friedman, “Milton Friedman en Chile,” 54 (question no. 12).

8 Friedman, “Milton Friedman en Chile,” 57 (question no. 56; emphasis in the original).

9 Friedman himself shared his presentation with *La Segunda* and authorized its full publication.

10 Australia, since 1931, had its exchange rate pegged to the British pound; then in 1973 it changed the pegging to the U.S. dollar but in 1976 began using a crawling peg until free rate flotation was established in 1983. Friedman visited Australia in 1975, right after Chile, and then returned in 1981 (two private visits followed in 1994 and 2005).

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