The Development of Financial Markets in Chile

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THE DEVELOPMENT OF FINANCIAL MARKETS IN CHILE

Jeffrey A. Laborsky

Introduction

Financial markets in developing economies are among the most volatile and risky in the investment universe. The resilience of financial markets and the willpower of central bankers have recently been tested by the global financial crisis. Investors seeking security after the market turmoil in Russia and Southeast Asia abandoned investments there for the safety of United States Treasury securities or other Western countries' sovereign debt. The confusion and panic that took place after the start of the Asian financial crisis in October 1997 eventually spilled over to many other world markets. Soon thereafter, investors sold the sovereign debt of Latin American countries, and equity markets in the region followed suit. Financial markets in Chile were among the hardest hit.

The success of the Chilean economy was tested by the global financial crisis. Prior to the crisis, real gross domestic product (GDP) in Chile had grown at a rate of nearly 8 percent, inflation continued to decline and unemployment remained at historic lows. ("World Development...", p. 1) Since the crisis, the situation for Chile has changed. Real GDP growth has begun to slow, and inflation and unemployment are slowly rising. Most observers conclude, however, that Chile will not revert to the hyper-inflationary environment of the mid-1970s and will continue to grow. Not surprisingly, the country's financial markets have become the topic of many case studies. This is due to a rather maverick style of regulation. For example, Chile became the first country in the world to introduce a private pension component to its social security system in 1981. On the other hand, Chile has also enacted regulations commonly referred to as capital controls that serve to inhibit the inflow of capital into the country. This paper aims to shed light on what has been commonly referred to as the "Chilean Economic Miracle," with specific emphasis on the development of financial markets in Chile. (Martínez and Díaz, p. 3)

In what follows, I first review Chile's economic history. I then examine the reasons for the growth of investment and financial markets
in Chile. I also consider the scope of financial markets today including a review of recent and historical market performance. Lastly, I discuss the issue of capital control policies in Chile. After analyzing the current situation in Chile, I conclude with some thoughts on Chile's prospects for long term stability and continued economic growth in light of the serious uncertainty for emerging markets in today's international financial environment.

Chile's Economic History

Chile's political system and its free market orientation have made it among the most dynamic markets in Latin America. With a population of over 14 million people, an excellent reserve of natural resources and agriculture, a burgeoning service sector, and a skilled labor pool, Chile has experienced high levels of economic growth. Real GDP in Chile rose an average of nearly 7 percent over the past ten years, and the country has experienced high levels of savings and investment with low inflation and unemployment. (“IADB Database...,” p. 5) These factors have all supported the growth of Chilean financial markets and will be discussed in the sections that follow.

Economic Growth and Development

A period of relative political stability and economic prosperity following the demise of Pinochet's military dictatorship is evidenced in the strong rate of growth in GDP and a subsequent reduction in inflation. As depicted in Table 1, real GDP has risen at an average annual rate of 8 percent from 1987 to 1997. Most impressive is 1995, when real GDP grew at 8.5 percent while inflation continued to fall. (“World Development...,” p. 1)

As shown in Table 2, the annual inflation rate as measured by the Chilean Consumer Price Index (CPI) has fallen from 31.2 percent in 1980 to 6.0 percent in 1997. (“World Development...,” p. 2, “Canadian Embassy...,” p. 1) In fact, the Chilean inflation rate has declined steadily over the past twenty years. The good news for Chileans is that wage growth has been accelerating faster than inflation rates, suggesting higher real productivity growth. (“U.S. State Department...,” p. 3) Higher wages have increased the living standards as the percentage of Chileans below the poverty line ($4,000 per year for a family of four) fell to 28 percent in 1994 from 45 percent of the population in 1987. (“World Development...,” p. 2)

Table 1
Real GDP Growth Rates

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<tbody>
<tr>
<td>Real GDP Growth</td>
<td>3.7%</td>
<td>8.0%</td>
<td>4.2%</td>
<td>8.5%</td>
<td>7.4%</td>
<td>7.1%</td>
<td>4.5%</td>
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Table 2
Selected Macroeconomic Data

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<tbody>
<tr>
<td>Unemployment</td>
<td>10.8%</td>
<td>11.8%</td>
<td>10.4%</td>
<td>19.1%</td>
<td>8.8%</td>
<td>5.3%</td>
<td>4.4%</td>
<td>4.7%</td>
<td>6.5%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Investment (%) of GDP</td>
<td>17.4%</td>
<td>13.3%</td>
<td>16.6%</td>
<td>12.0%</td>
<td>18.9%</td>
<td>26.0%</td>
<td>26.8%</td>
<td>27.4%</td>
<td>26.6%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Inflation Rate (CPI)</td>
<td>375.9%</td>
<td>63.4%</td>
<td>31.2%</td>
<td>23.1%</td>
<td>17.4%</td>
<td>21.4%</td>
<td>12.7%</td>
<td>8.2%</td>
<td>6.6%</td>
<td>6.0%</td>
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Chile's gross domestic investment as a percentage of GDP was over 30 percent in 1995, as shown in Table 2. According to the Inter-American Development Bank, Chile's gross domestic investment rate has exceeded 22 percent of GDP for the past ten years. ("IADB Database," p. 5) As the Chilean economy felt the impact of the global financial crisis, the country's leaders continued to demonstrate prudent fiscal policy. In fact, Chile has maintained a government budget surplus for over ten years. ("IADB Database," p. 6) Chile also has had a very high rate of internal savings. In 1997, this rate topped 24 percent of GDP. ("Country Commercial Guide..." p. 4) Chile had the highest Moody's and Standard and Poor's credit ratings in Latin America. ("Country Commercial Guide..." p. 5) Chilean reserves in May of 1998 exceeded $17 billion or almost one year of import coverage (imports of goods in 1997 totaled $17.6 billion). ("Country Commercial Guide...", p. 7) The high investment and savings climate coupled with a prudent fiscal policy is a good buffer for Chilean individuals and businesses during economic crises.

Exports and Resources

Chile enjoys an abundance of natural resources, partly due to its vast coastal geography. These resources include copper, timber, fish, nitrates, precious metals, and molybdenum. Chile's major exports include copper, fishmeal, fruits, wood products, and paper products, while its major imports include petroleum, chemical products, capital goods, vehicles, electronic equipment, consumer durable goods, and machinery. ("U.S. State Department....," p. 2) Chile's economy is highly dependent on international trade, with exports accounting for over 20 percent of GDP since the mid-1970s. ("World Development..." p. 1) In 1995, Chile had exports of over $16 billion. (Martínez and Díaz, p. 46) The country's major trading partners include the EU (26 percent of 1996 exports), Japan (18 percent of 1996 exports), the U.S. (14 percent of 1996 exports), Brazil (6 percent of 1996 exports), and South Korea (5 percent of 1996 exports). ("U.S. State Department...." p. 2) Major suppliers of goods and services to Chile include the United States (25 percent of 1996 imports), the EU (25 percent of 1996 imports), Argentina (9 percent of 1996 imports), Brazil (8 percent of 1996 imports), and Japan (7 percent of 1996 imports).

The Importance of Copper

Of its export mix, copper is the most important for Chile. The country's state-owned copper company, CODELCO, is the world's single largest copper producing company. ("U.S. State Department....," p. 4) Private sector investment in the copper industry has greatly increased the production capacity of the industry; and on a combined basis, the private sector now produces more copper tonnage than CODELCO. Chile's reliance on copper exports is striking. In 1986, copper exports were approximately 58 percent of total exports. In 1997, total copper exports were still high at 42 percent of total exports. ("All Good Things Must Slow Down," p. 35)

The precipitous decline in the price of copper is a clear danger to Chile's export trade. In 1989, the price of copper peaked at $1.50 per pound; but as of 1999 the price has now fallen to a low of $0.60 per pound. (Torres, "Chilean Firms Suffer Pain of a Japanese Recession," p. A14) Consider the fact that a one cent decline in the price of copper costs Chile $65 million a year in export revenue. ("All Good Things Must Slow Down," p. 35) These declines have resulted in a collapse in Chile's current account balance. Chile does have a "shock absorber," however, in the form of a copper price stabilization fund which basically stockpiles monies collected in periods of high copper prices to offset periods of lower prices. This fund stood at $1.85 billion at the beginning of 1998. (p. 36) Another danger to Chile is the economic recession in Japan. Japan is Chile's second largest trading partner after the United States. In fact, forty-eight percent of Chile's copper exports in 1997 were to Japan.

Foreign Investment in Chile

Foreign investment in Chile increased by 27 percent in 1997. ("Country Commercial Guide....," p. 4) The flow of capital for investment from the United States to Chile for 1997
totaled $913 million. Spain invested the most in 1997, sending the equivalent of $1.5 billion, and Canada invested $679 million. Investors from the United States have invested the most in Chile in the period of 1979 to 1997, with $9.5 billion of aggregate investments. Canada has invested $3.9 billion over the same period, making that country the second-largest foreign investor. Other important foreign investors in Chile include the United Kingdom, South Africa, Australia, Japan, and Holland. ("Country Commercial Guide....", p. 59) The most common foreign direct investment occurs in the following industries: agriculture and livestock, construction, energy, fishing, forestry, transportation, communications, and mining.

The Growth of Investment and the Development of Financial Markets in Chile

Chile has become a major target for investment in the Southern Cone and Latin America in general. As domestic and foreign investing has increased in the country, financial markets have grown. The primary reasons for growth in domestic and foreign direct investment (FDI) are as follows: 1) opportunities to buy formerly state-run enterprises; 2) a burgeoning service sector; and 3) a private pension fund system with restrictions prohibiting foreign investment.

Privatizations

As a result of an import substitution and industrialization (ISI) program in Chile advanced by economists such as Raúl Prebisch after World War II, many enterprises were seized or purchased by the state. Under ISI, the state would try to build up its manufacturing industry by taking the following steps. It would target a given industry and either create a business from scratch or encourage private entrepreneurs with promises for market exclusivity if they were to invest. The state would then raise tariffs on the goods that it produced or that its private partners produced under the special agreements. In some cases, foreign investment in such industries as copper and telecommunications were expropriated. (Martínez and Díaz, p. 55)

These highly protectionist policies failed to meet the objectives of Prebisch as an "alternative path to the free market." (Martínez and Díaz, p. 55) Instead, corruption and inefficiency plagued ISI policies in Chile. Privatization of the banking sector, telecommunications, electric and gas utilities, and mining concerns (with the notable exception of CODELCO) have aimed to bring market efficiency back to these areas. Most of the privatization in Chile occurred during the military regime between 1973 and 1990 as University of Chicago trained economists called "technocrats" had significant influence in the affairs of the economy. (Martínez and Díaz, p. 54) From 1975 to 1982, CORFO, the state agency in charge of public enterprise, auctioned its share of 135 companies. (Martínez and Díaz, p. 54) After the debt crisis of 1982, the state intervened in the banking sector by nationalizing most of the major banks, and a reversal of the privatization process occurred. However, these banks were privatized again in 1985 after the Central Bank assumed a majority of their debt.

Javier Martínez and Alvaro Díaz describe the privatization in stages in Chile: The Great Transformation. (pp. 53-55) According to the authors, between 1985 and 1989 foreign investment in privatization activity was allowed and new forms of privatization emerged, such as the conversion of debt from previous years to equity in debt-for-equity swaps. In addition, they note that the direct sale of shares to individuals was allowed. It was during this stage that many large public utilities were privatized. According to former Finance Minister Carlos Cáceres, the privatization of state-operated businesses allowed for a "return to the natural order of society." He believes that a privatization must serve to strengthen property rights and create economic growth. He also contends that the economic system needs a capital market that provides adequate alternatives for financing. As an important component of sound global economic policy, Cáceres believes that privatization must occur in social service sectors such as health care and education. Studies are already being conducted on the privatization of Chilean water and sewage treatment facilities. (Cáceres, June 2, 1998)

One privatization involved the Chilean
national electric power company called EMEL. Pennsylvania Power & Light (PPL) of Allentown, Pennsylvania, owns a minority stake of 25 percent in the privatized entity. According to Don Covaleski, a PPL business manager and utility industry expert in Santiago, since PPL brought knowledge resources to EMEL, the company has increased its efficiency and ultimately its ability to compete in a deregulated market. Prior to the privatization, Covaleski reports that inefficiencies at the power generating facilities were glaring. (Covaleski, May 31, 1998)

Vladimir Radovic, the Chilean Representative to the Inter-American Development Bank, believes that the privatization process has produced positive economic results in Chile. (June 4, 1998) The privatization process has created a "broad ownership scheme" in Chile that provides significant economic benefits. (Fine, p. 1) Both sophisticated and unsophisticated investors alike have taken part in Chilean privatization of state-owned enterprises. Unsophisticated investors who would not otherwise participate in the auction of a state-owned company do indeed passively participate with their pension program, which uses its funds to invest in these ventures. (Fine, p. 11) By broadening the ownership scheme of shares in formerly state-run companies to include foreign investors, officials acted to add new equity issues to the domestic equity markets. In doing this, the government increased the capacity of the Chilean equity financial market by adding liquidity to the system. (Fine, p. 13). Today, Chile's primary equity market based at the Santiago Stock Exchange (Bolsa de Comercio) and the Bolsa Electronica are among the major exchanges in Latin America.

The Service Sector

International investment in such areas as natural resource procurement and productive industrial enterprise has supported the growth of the service sector in Chile. A stable and productive service sector promotes and facilitates international investment and financial markets in Chile. According to Vladimir Radovic, Chilean leaders are trying to position Santiago to be the primary center for financial investment, accounting, and consulting in South America. (June 2, 1998) Over 58 percent of the labor force was gainfully employed in the service sector in 1995. ("IADB Database...", p. 4) A sound service sector allows the foreign investor to tap local resources for such concerns as technology consulting, short term financing solutions, and legal counsel, to name a few. Without such a sophisticated and competitive service sector, investors may be discouraged from investing.

Pension Fund Investment

Another source of the remarkable investment levels supporting the development of financial markets in Chile has been the pension fund system. Chile's pension fund system is lauded as an example for other countries desiring free market participation in retirement accounts. As the issue comes under serious debate and scrutiny in the United States, the success of Chile's system has been used to garner support for those who believe the U.S. social security system should have a private equity component. Chile was the first country in the world to privatize its pension program. The old pay-as-you-go system is being phased out, and a new defined-contribution system has taken its place.

The new pension fund system in Chile was born in 1981 from the work of the financial ministers during the Pinochet regime, a majority of whom were trained as economists at the University of Chicago. The concept of "popular capitalism" was very important to these leaders, and their privatization efforts aimed to increase the people's participation in equity markets. (Lieberman) Each employee is required by law to save 10 percent or more of his income (automatically deducted from his paycheck) and invest these monies in a private management company known as an AFP (pension administration funds). (Martínez and Díaz, p. 63) According to Martínez and Díaz, "The creation of the AFPs had the important effect of permitting the formation, practically overnight, of a new business class that did not need large amounts of its own capital in order to establish itself." (p. 63) These entrepreneurs that had previously not had adequate access to equity financing welcomed the influx of capital to the market. Remarkably to many observers, workers
welcomed the private pension system. Generous incentives were provided by the government, including a 10 percent wage increase for state employees who made the switch. Regulations enacted in 1992 have served to increase the realm of investment possibilities for AFP fund managers, and new disclosure rules have helped investors make more informed decisions regarding fees, commissions, and investment vehicles used by their funds. Investors can switch funds once enrolled in the new system, but they are strictly forbidden from reentering the public pension system. The Chilean military is among a small list of groups that have chosen to remain in the public system. According to economist Ira Lieberman, Senior Manager in the World Bank’s Private Sector Development Department, “Pension funds can provide a great pool of medium-to-long-term savings for investment in local and international capital markets, and local pension funds provide a cushion against market volatility.” However, he cautions that Chilean pension funds may be vulnerable since investors are not sophisticated, the level of portfolio diversification in the funds is low, and a sharp reversal in market performance may cause significant funding problems. (March 20, 1998) The Economist has issued a similar warning: “The savings of today’s pensioners were boosted by the high investment returns of the system’s early years... But, over the past three years, the stock market has mostly gone downhill, lowering returns to an average of 1.8 percent, well below the system’s 4 percent benchmark.” (“The Pensions’ Not-Quite Miracle,” p. 33)

The goal of the private pension system is to provide benefits equal to about 70 percent of working income. Problems in the system have arisen for low earners, people informally employed, and low earning entrepreneurs. There are a number of funds available for Chileans, but low income earning citizens generally cannot devote precious resources to these programs. At present, Chile’s pension fund system has over twenty AFPs competing on fees, commissions and rates of return. (Fine, p. 2) Their assets have grown from $292 million, or .82 percent of GDP in 1981, to $27 billion, or 38 percent of GDP in 1996. Over that period, the cumulative average rate of return was 12.2 percent for all of the funds. (Lieberman) The skeptics cannot refute these remarkable results and agree that this system has undoubtedly advanced the Chilean financial markets. To World Bank Economist Carol Gabyzon, emerging market private pension funds assist in saving, redistribution and insurance. (Fine, p. 1) AFPs participated in the massive privatization program of the 1980s, investing in upwards of 25 percent of the total equity offered on the Santiago Stock Exchange.

Flaws in the system do exist, but the private pension system’s effect on Chile’s financial market has been pronounced. I would suggest that one of the most dangerous elements of the system is the lack of international diversification. When return correlation is low, portfolio theory has proven that adding international investments to a well diversified domestic portfolio has both reduced risk and increased returns. (Eun and Resnick, p. 275) Even though the international investment restrictions have been increased to 10 percent of an AFP’s fund base from 0 percent, total foreign investment was only 1 percent or only $138 million at the end of 1996. (Fine, pp. 17-22)

**Financial Markets Today**

The main stock markets in Chile are the Bolsa de Comercio in Santiago (“Santiago Stock Exchange”) and the Bolsa Electronica (similar to the Nasdaq market in the U.S. equity market, as all transactions are handled through an electronic network). There are several financial indices that provide measures of the overall value and performance of equities. These indices include the General Stock Price Index (IGPA), the Selective Stock Price Index (IPSA), and the Inter-10 Index. The IGPA consists of the vast majority of shares listed on the Exchange. This is a broad, market-capitalization weighted index, similar to that of the S&P 500 in the U.S. The components of the index are reviewed by Santiago Stock Exchange officials every quarter and revised if companies fail to meet the standards set by the Exchange. The IPSA Index is composed of the largest 40 shares with a major presence on the floor of the Exchange denoted by both volume and market...
capitalization. Like the Dow Jones Industrial Average in the U.S., the IPSA is a price-weighted index and is reviewed on a quarterly basis. The Inter-10 Index is comprised of ten large American Depository Receipts (ADRs)\(^1\) which trade in the U.S. equity markets. The ten components of the Inter-10 Index are also listed in the IPSA. ("Market Summary," pp. 1-6) In addition, the Morgan Stanley Capital International and Dow Jones Global indices also track the performance of the markets in Chile.

The Santiago Stock Exchange is unique in the region in that it offers its members and clients a very extensive array of products and trading alternatives. The exchange itself was founded in 1893 as a private corporation. Today, there are fifty-three investment firms with operations on the floor of the Santiago Stock Exchange. On the Exchange, the following financial products are traded: equities; fixed income products including short-term coupon products and long-term bonds; derivatives such as futures and options; monetary items such as gold; and investment fund units. Trading takes place by open outcry on the floor, through a brokerage-linked computer system known as Telepregon, and through an electronic auction system that collects bids and rewards fixed income products to the highest bidder. ("Market Summary," pp. 1-6)

**Market Performance**

In 1997, the change in the value of the major indices of Chile was mixed. The IGPA fell 7.78 percent, while the IPSA rose 6.47 percent and the Inter-10 rose 15.22 percent. ("Reseña Anual 1997," p. 23) The combined market capitalization of all stocks in the IGPA on March 1, 1998, totaled $70.6 billion. ("World Bank...," p. 4) Reflecting the global financial crisis, the IGPA's total market capitalization was only $46.7 billion by September 1998. ("Emerging Stock Markets Review," p. 8) Analyzing the IGPA index returns from 1967 to 1997, I found that the average annual return over this period for IGPA was 31.06 percent. The standard deviation of returns is often used to compare the risk of well-diversified portfolios with a higher standard deviation signifying higher risk. The IGPA index had a standard deviation of 77.34; this is certainly high considering that the U.S. benchmark S&P 500 Index's standard deviation for this period was about 12 percent. I found that the compounded annual return in Chile over the years 1967 through 1997 was 10.63 percent. All else equal, investors would have preferred the higher returns and the lower risk profile of the S&P 500. (The S&P 500 returned 11 percent compounded annually over this period.) This, however, says little about the positive impacts of diversification to a foreign investor who might invest in Chile's market because he or she may benefit from a low correlation of returns.

**Capital Controls**

As a result of financial crises, some countries have chosen to erect barriers to the financial system to try to slow or stop the fall in the value of the local currency should such a fall occur. Government actions that are designed to control investment inflows and outflows are collectively known as capital control policies. Capital control policies tax, limit, or otherwise restrict the mobility of foreign money. They have been called "financial speed limits." (Torres, "Chile's Massad Discusses Capital Control," p. A17) Advocates of these types of policies often point to Chile because it had investment flow policies firmly in place prior to the recent global financial crisis. The costs and benefits of these policies have come under intense scrutiny since the crisis. Chile's capital control policies, according to some, are preventive measures rather than a quick cure. (Büchi) Others believe that capital control policies in Chile have only served to inhibit liquidity, increase the domestic cost of capital, and repel foreign investment.

Many perspectives have emerged from the intense debate. My analysis suggests that capital controls are generally a burdensome and short-term solution to financial market downturns. Those in charge of a nation's financial landscape are better encouraged to assure that

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\(^1\)American Depository Receipts (ADRs) are certificates of ownership issued by a U.S. bank representing a multiple of foreign shares that are deposited in a U.S. bank. ADRs can be traded on the organized exchanges in the U.S. or in the over-the-counter market.
transparent accounting standards are adopted and fiscal spending discipline is practiced. Chile is a unique case. The circumstances surrounding the first use of capital control policies must be fully explored before concluding that the specific policies employed in Chile were inappropriate. Many of the rules and regulations in place today stem from the Chilean Debt Crisis of 1982.

Origins of Capital Controls and the Debt Crisis of 1982

The International Debt Crisis of the early 1980s is commonly referred to as the Third World Debt Crisis. Less-developed countries (LDCs) around the world like Chile owed international banks over $1.2 trillion in 1983. (Eun and Resnick, p. 156) Many scholars trace the roots of the crisis to the policies of the Organization of Petroleum Exporting Countries (OPEC). As OPEC raised oil prices throughout the 1970s, it generated an enormous capital base with which it reinvested in banks and in Eurodollar deposits. By 1976, these deposits exceeded $100 billion. (Eun and Resnick, p. 156) Banks, including large U.S. money centers like Citicorp, BankAmerica, Chase Manhattan, and J.P. Morgan, could not find investment vehicles that could ensure the payment of interest on these deposits. LDCs became a viable investment alternative. Each of the American banks listed above had issued debt of over $1 billion to LDC governments and businesses in Latin America. To both parties' detriment, LDCs like Chile used much of this financing for unproductive business ventures, termed "paper companies," and also used it to pay for increased prices of oil imports. (Martínez and Díaz, p. 58)

The International Debt Crisis began when Mexico notified foreign banks that it would not be able to pay its $68 billion in loans. In Chile, the crisis began when industrial conglomerate CRAV could not meet its short-term obligations in 1981. Shortly thereafter, the Superintendent of Banking announced that Chilean banks owed $2.5 billion, an amount which exceeded their combined capital base by two hundred percent. (Martínez and Díaz, p. 58) In 1982, twenty percent of the Chilean banks were in arrears on foreign debt. The Central Bank stepped in to buy this overdue debt using national reserves, but a fifty percent fall in the exchange rate of the peso versus the dollar made their efforts futile. As a result, GDP fell by 14 percent in 1982. ("OED Precis," p. 2) In 1983 three banks with debt levels in excess of three times their assets were liquidated, and later another five with similar debt ratios were taken over. By 1985, the state controlled ninety-eight percent of all deposits at the Central Bank and controlled fourteen of twenty-six banks and eight of the seventeen non-bank financial institutions in Chile. (Martínez and Díaz, p. 58)

In addition to the Chilean government intervention, the World Bank designed a plan to help Chile recover and rebuild its banking and financial sectors. In 1985 the World Bank began making structural adjustment loans (SALs) with the goals of "helping the government cope with a deepening recession, addressing a persistent market failure in medium- and long-term financing and providing support for structural adjustment in the financial sector." ("OED Precis," p. 2) The Financial Markets Loan (FML) provided by the World Bank lent $100 million to help the Chilean government develop and implement medium-term financing schemes and to bolster financial markets. The FML also provided funds to the leasing sector. ("OED Precis," p. 2) The program was successful. According to the World Bank, the success of these reforms and operations was due to the sound macroeconomic, financial, and industrial policy framework and full government commitment to the objectives of the FML program.

The Aftermath of the Crisis

The Chilean government responded to the Chilean Debt Crisis by reversing its hands-off approach of liberalizing the financial sector. With the exception of the private pension AFPS, the Chilean government was actually more
involved in the banking and financial sector than it had been prior to the 1973 military coup. (Martínez and Díaz, p. 60) Among the interventions previously described, Chile erected capital control policies and in 1982 passed Decree Law 600 (DL 600), a minimum stay requirement for all foreign investment. This meant that international investors could only repatriate their principal investment after ten years. (Torres, “Chile’s Massad Discusses Capital Control,” p. A17) Under this scheme, however, investors could receive earnings distributions immediately. This requirement was subsequently reduced to three years in 1991 and one year in 1993 (where it remains today). In addition, Chile enacted the encaje, or reserve requirement, in 1991 and required that the investor make a one-year noninterest-bearing deposit with the Central Bank in the amount of 30 percent of the investment total. This essentially taxed the foreign investor on the capital inflow by retaining capital without paying interest. According to former Central Bank Chairman Carlos Massad, “The purpose here wasn’t to regulate the exit of foreign capital but the entrance.” (p. A17) The encaje was reduced to 10 percent in June of 1998. Since then, the Foreign Investment Committee has eliminated the encaje altogether. When the tax was eliminated officials explained, “Our tax on capital inflows is like an umbrella: you use it when it rains and close it when the rain stops.” (Valdés, p. A15) This is a dangerous analogy because investors cannot be certain if and when these taxing policies will be reintroduced.

**Perspectives on Capital Control Policies**

Most Chileans whom I met while visiting Chile defend the capital control policies of the Chilean government. They believe capital control policies aid in long-run economic development and in the development of stable financial markets. This may be due to the bias of Chileans for state involvement or the fear of a 1982-like crisis reoccurring. (Martínez and Díaz, p. 56) Many of the social leaders that our group met believe that the policies have served to insulate Chile against deeper financial crises. Scholars such as M.I.T.’s Paul Krugman have also come out in favor of a strict adherence to capital control policies. As Krugman explains: I would summarize the current state of the debate as being one in which a growing number of reasonable people now agree that the demands the financial markets place on countries in crisis are impossible to meet, but still believe that imposing currency or capital controls is unthinkable. They are therefore looking for some palatable middle ground. Unfortunately, that middle ground does not exist. (Krugman, p. 6)

Krugman believes that capital controls and a “dual-exchange rate system” are the best alternatives for emerging market countries. He suggests that countries go beyond the Chilean model, arguing that “Chilean-type capital inflow controls may do little good, even if they succeed in limiting the amount of short-term foreign-currency-denominated debt.”

Finance Vice Minister Claudio García believes that Chilean-style measures have kept the “hot money of hedge funds and international portfolio managers” out of Chile’s financial system. (June 1, 1998) Former head of the Central Bank Carlos Massad agrees: Capital controls aren’t a cure. They are a prevention. And they can’t be used to hide external or domestic disequilibriums... In general terms, to establish restrictions on the exit of capital is a delicate issue. You can scare foreign investors. It took Chile seven or eight years to strongly reduce the overall amount of short-term debt. These regulations have served us well. But if we didn’t have the economic fundamentals correct, these measures wouldn’t have hidden our deficiencies. (Torres, “Chile’s Massad Discusses Capital Control,” p. A17)

Massad and other leaders in Chile believe that prudent regulations governing the banking and financial sectors are essential to preventing the 1982-style debt crisis from recurring. By restricting investors with a minimum stay period for investments, Chile aims to keep short-term debt and portfolio investment out of the country. Short-term debt has indeed remained quite low, averaging only 10.4 percent of GDP since 1988. (“IADB Database...,” p. 8)

While keeping “hot money” out of the
The country seems to be a noble goal, the policies put in place in Chile did not substantially shelter it from the market downturn following the recent global financial crisis. (Torres, “Chile's Massad Discusses Capital Control,” p. A17) Instead, these policies have deterred foreign investors, altered the market mechanism, and hurt small and mid-sized businesses. These policies have failed time and again in other countries, including the United States, and may have been very costly for Chile in the long term.

Nothing can be more troublesome to an international investor than the prospect of losing the value of his or her investment abroad. Investor confidence is highest in a country where sound and predictable financial market regulation is the principal goal of regulators. Unfortunately, this is not the case in Chile, where the minimum holding period for investors is one year. The repeal of the encaje in the summer of 1998 should have been a good sign for investors that Chile was moving toward open and unhindered financial markets. However, using the encaje in periods of crisis and putting it on the shelf when things get better suggests that it will be used again at the discretion of regulators. This immediately led to uncertainty in the investment community.

Officials at the International Monetary Fund (IMF) agree that investors are turned away by the prospect that emerging market regulators will enact capital controls:

> The adoption of selective capital controls can be an effective means of limiting short-term speculative pressure and may be justified when the attack is not warranted by underlying fundamentals, but they soon interfere with normal trade and finance...In addition, the expectation that a country is likely to use capital controls during a crisis, thereby restricting the ability of investors to adjust their portfolio positions, could influence the cost and availability of external funds during normal periods. (Eun and Resnick, p. 527)

The Interest Rate Parity Relationship

The primary arguments of those against capital control policies in general are that they increase the cost of capital for business financing purposes and reduce liquidity by severely cutting market arbitrage opportunities. Consider the interest rate parity (IRP) relationship argument. (Eun and Resnick, p. 527) The IRP condition is an arbitrage equilibrium holding that the interest rate differential between two countries should be equal to the forward exchange premium or discount. Violation of the IRP gives rise to profitable arbitrage opportunities. (Eun and Resnick, p. 527) IRP compares interest rates in a given country to that of another by linking them to spot and forward currency rates. If IRP is in disequilibrium, the domestic cost of capital increases. This will have a negative impact on the international competitiveness of local businesses. For example, if local residents are restricted from seeking equity or debt capital from sources abroad, the market has lost a competitive player. In Chile's case, domestic banks and financial institutions are protected from foreign competitors. All else being equal, the absence of competition results in increased prices and thus interest rates (the price of borrowing money) are sure to increase.

In Chile's case, taxing inflows on the foreign entity's capital increased the cost of lending in debt agreements and reduced the present

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The Economist agrees that, while surges of volatile foreign capital have been discouraged by essentially taxing inflows in the short run, capital controls eventually hurt the prospect for long-term investment as well. ("All Good Things Must Slow Down," p. 35) Some Chilean leaders agree that capital control policies have held back the economy. Former Minister of Finance Sr. Carlos Cáceres believes that FDI restrictions in any form inhibit the economic progress of Chile. In his view, all short-term investment restrictions should be lifted. (Cáceres) During my visit, I also learned of investment projects considered by Pennsylvania Power & Light and Chilean power company EMEL that were canceled due to the foreign capital inflow restrictions. (Covaleski) In another example, one infrastructure project coordinated by the Inter-American Development Bank was canceled when a group of foreign investors were turned away by the controls. (Radovic)
value of equity for FDI projects. Higher lending costs in debt agreements translate into higher interest rates for small and medium-sized local businesses that might not have the ability to tap the international debt or equity markets. Lower potential returns to equity and FDI investors might have dissuaded investors from sending capital into Chile. It follows that Chile is essentially allowing domestic sources of credit to have the competitive advantage as foreign lenders, with higher costs due to the withholding tax (encaje), will not be able to compete with domestic institutions.

The loss of competition in these markets translates into an increase in the cost of capital for Chilean businesses. Deviations from IRP often occur in countries where capital controls are firmly in place. According to Eun and Resnick, "These control measures imposed by governments can effectively impair the arbitrage process, and, as a result, deviations from IRP may persist." (p. 112) Such was the case for Japan in the late 1970s when its government decided to stem international inflows by implementing capital control policies. The results of a study conducted from 1978 to 1981 comparing Japan's spot currency to the theoretical value implied by IRP show that there was remarkable IRP disparity in 1978 through 1980, a period in which strict capital control policies were in place. These deviations converged to zero in 1981 when Japan liberalized foreign exchange transactions, thus reversing the capital control policies. In the years of 1978 to 1980, Japanese businesses experienced a burdensome increase in their cost of capital. (Eun and Resnick, p. 112)

**Long-Run Costs of Capital Controls**

Some economists suggest that capital controls have made Chile an undesirable center for investment without providing any tangible long run benefits. Studies conducted by Salvador Valdés of Catholic University of Chile show that capital control policies have failed to meet their goal of affecting the real-exchange-rate behavior. (Edwards, A19) Professor Valdés makes the following argument:

The Chilean tax on short-term foreign loans was not imposed as a way to improve the composition of foreign borrowing but instead as a monetary policy tool. Moreover, it has not protected Chile from financial volatility, and as with any tax it has created distortions which have cost the country in a number of important ways. (Valdés, p. A15)

Professor Valdés goes on to explain that while large Chilean corporations were able to tap the international bond market, ADRs, and direct commercial credit, "small and middle-sized exporters and importers could not issue long-term debt abroad." (p. A15) In a related econometric study published with Professor Marcelo Soto at Catholic University of Chile, Valdés proved that the encaje failed to delay the real appreciation of the Chilean peso after large inflows resulted from lightly taxed debt and equity raised offshore by large firms. In addition, the pair showed that the foreign tax on inflows failed to reduce the amount of short-term debt and did not increase Chile's monetary autonomy, as the Central Bank had desired. The final argument made by Professor Valdés is that Santiago might have lost the opportunity to become an international financial center. Though it is hard to definitively prove, the "migration to New York of stockbroking Chilean equities and for the abortion of a promising cross-border bank loan business" was probably the result of the capital control tax and restrictions. (p. A15)

Speaking on the effectiveness of capital controls in Chile, UCLA Professor Sebastian Edwards believes that "Chile's remarkable resilience is instead the result of a prudent macroeconomic policy and a modern and efficient bank-regulatory framework." (p. A19) Although the goal of maintaining high interest rates through capital controls in Chile has clearly occurred, some economists even question whether there has been connection between this policy and the decline of inflation. (p. A19)

Capital control policies have failed in the past to provide countries with stable financial systems. Even in the United States these policies were a failure. The Interest Equalization Tax (IET) of 1963 taxed U.S. purchases of foreign securities in order to stem the outflow of dollars. The IET was designed to increase the cost of foreign borrowing in the U.S. bond mar-
In 1965 the U.S. Federal Reserve ushered in a policy regulating the amount of dollars U.S. banks could lend to U.S. multinational companies engaged in foreign direct investments. This policy was known as the Foreign Credit Restraint Program (FCRP). (Eun and Resnick, p. 38) Instead of achieving the intended goal, legislators quickly learned that the market found a way around this legislation. The vehicle was the Eurodollar market. Eurodollars are deposits of U.S. dollars in banks located outside the United States. International importers or exporters who needed dollars to settle payments began to take dollar denominated loans from banks outside of the U.S. (commonly referred to as “Eurobanks”). (Eun and Resnick, p. 146) Likewise, importers or exporters with extra dollars deposited these monies in Eurobanks. As a result of these policies, the U.S. lost a majority of the international money market business. Ever since this regulation was repealed in the 1970s, the Eurodollar and Eurobond market has kept a substantial portion of the international money market and bond business. The IET and FCRP failed to stem the outflow of dollars and actually took business away from U.S. financial institutions, proving yet again that capital control policies hurt local industry in the long run.

Today, the U.S. State Department agrees that capital control policies are detrimental to international trade and competitiveness. The position of the U.S. was clearly explained to the Martindale Center by Jim Roberts, Head of the State Department’s Chile Desk. According to Roberts, Chile must open its economy by liberalizing the antiquated capital control policies in order to benefit fully from the fruits of the global economy. (March 20, 1998) His comments on the subject of capital controls are echoed by other U.S. officials, including Chairman of the Federal Reserve Alan Greenspan, who made the following statement about capital controls:

The resort to capital controls to deal with financial market disturbances of the sort a number of emerging economies have experienced would be a step backwards from the trend toward financial market liberalization, and in the end would not be effective. The maintenance of finan-

cial stability in an environment of global capital markets, therefore, calls for greater attention by governments to the soundness of public policy. (Greenspan, p. 13)

The capital control polices enacted by the Chilean regulators in the Central Bank have failed to achieve their goals. These policies have proven to be costly to Chilean businesses, especially small and medium-sized enterprises. While foreign direct investment in Chile remains strong, one must wonder what might have been without capital controls.

**Prospects for the Future**

The success of the Chilean economy has served to support financial markets. As the country continues to improve its export mix, expand trade, and attract investment, it has maintained fiscal spending prudence. The growth of investment and the development of financial markets in Chile are also due to the large-scale privatization effort, a well-educated service sector, and a groundbreaking private pension social security system which invests over 90 percent of its assets domestically. Although financial markets in Chile have been very volatile of late, Chilean leaders have crafted a strong banking sector that coped well with the global financial crisis; indeed, it performed better than most of its Latin American counterparts. Unfortunately, Chilean businesses and individuals have borne the brunt of a high cost of capital due to the control restrictions currently in place. The temptation to erect capital controls is high during a crisis.

Most Latin Americans, according to a Wall Street Journal poll, perceive foreign investment as a factor stimulating economic growth. (Schumacher, p. A13) A common belief among all participants in the capital control debate is that a country must have sound regulation of the banking and financial sectors in place. The regulation of the financial sector that took place in Chile during the 1980s has made it a pillar of strength in Latin America. Its reserves of over $16.9 billion also place Chile in a good position to stave off the effects of future economic crises. (“Country Commercial Guide…,” p. 8) However, its reliance on copper exports, a fragmented military community, poor physi-
chal infrastructure, and the lack of a venture capital community to invest in science and technology are some of the challenges currently facing the nation. (Radovic, June 2, 1998) Firm leadership is needed to set the minds of international investors at ease. Certainly, capital control policies should be discontinued and taken out of the tool box of the Central Bank of Chile. Only then will Chile be able to unleash the full power of the Chilean Economic Miracle.

REFERENCES


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