I. Chile: A Macroeconomic Success Story
In the last decade, Chile has gained a reputation as one of the most stable economies in Latin America. It has implemented a set of fiscal and monetary policies that encourage privatization, focus on exports, encourage high levels of foreign trade and generally promote stabilization. These policies seem to have worked very well for the country, evidenced by steady and sometimes very high growth rates. From 1985-2000, GDP growth averaged 6.6%. Chile is also famous for its privatized pension system, which has been a model for other Latin American countries, and countries around the world. Workers invest their pensions in domestic markets, which has added roughly $36 billion into the economy, a significant source of investment capital for the stock market.\footnote{Bureau of Western Hemisphere Affairs, April 2002 U.S. Department of State Profile: Chile}

Chile experienced a slight recession in 1998-99, due to shocks from the Asian financial crisis of 1997. With increasing unemployment and inflation rates, Chile struggled to maintain its policy of keeping the peso fixed to the US dollar within a band width of 25%.\footnote{Exchange Rate Policy: Lessons from the Chilean Experience, G. Larrain, International Conference on Exchange Rate Regimes in Emerging Economies, 17-18 December1999, Tokyo.} In September of 1999, Chile let its peso float, increasing its leeway in monetary policy decisions. Below is a brief history of the macroeconomic indicators, leading up to and beyond the floatation policy, which played a significant role in shaping Chile’s recent economy.

II. Recent Macroeconomic Performance

_GDP:_ After a steadily increasing GDP throughout the 80’s and 90’s, Chile’s GDP growth took a downward turn by –1.1% in 1999.\footnote{Unless otherwise indicated, all macroeconomic data are from *International Financial Statistics*, International Monetary Fund.} GDP growth has since recovered to show increases in 2000 of 4.4% and less growth in 2001 of 2.8%, due to changes in the world economic climate since September 11th.

_Interest Rate:_ The Chilean interest rate has fluctuated in the past decade, but has swiftly decreased over the last 3 years, likely due to the strong influence the world interest rate has on the small open economy. Falling from 8.73% in 1998 to 7.38% in 1999, the Chilean interest rate rose again slightly in 2000 up to 7.76%, and then plummeted in 2001 to 5.50%. World rates are presently low, given the powerful influence of US rates on the
world rate and the recent US recession. By January of 2002, the Chilean rate was down to 3.37%, compared with a rate of 7.62% in January 2000.

*Exchange Rate:* In 1984, Chile instituted an exchange rate band, whose width was altered 15 times before the policy was finally suspended in 1999 and a floating exchange rate system was implemented.\(^4\) Throughout the late 1990’s, the fixed Chilean peso had slowly and steadily depreciated against the dollar. After the peso floatation in 1999, the exchange rate depreciated by a significant 5%, but stabilized within 6 weeks at a rate of 550 pesos per dollar. In following years, the peso continued to steadily depreciate against the dollar, and it now stands at around 680 pesos per dollar.

*Inflation Rate:* The Central Bank of Chile is committed to maintaining a low inflation rate that falls between a range of 2 to 4%. CPI-based inflation rates indicate that the Bank struggled with this goal in the mid-nineties, but by 1999, things seemed to be under control. However, the GDP deflator inflation rates do not indicate that their goal is being met. This difference may simply reflect the Central Bank’s decision-making in which goods it includes in its CPI basket.

<table>
<thead>
<tr>
<th>Table 1: Inflation Trends</th>
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<tbody>
<tr>
<td>GDP Deflator</td>
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<td>CPI</td>
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*Money Supply:* After increasing at a steady rate from 1995-97, there was an 8.6% decrease in the money supply in 1998. The subsequent year, the money supply surged by 32%. After this significant increase, the Central Bank stabilized M1 once again, as it grew by 5% in each of the next two years.

*Current Account Balance:* After three years of steady and significant decrease, net exports skyrocketed at the end of 1999 due to the depreciation of the peso. The net export increase may also be attributed to a 20% rise in copper production from 1998 to 1999. Copper is Chile’s main export commodity, accounting for 40% of all exports.

<table>
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<tr>
<th>Table 2: Net Exports</th>
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<tr>
<td>471.4</td>
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<tr>
<td>Percent change in Net Exports</td>
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In line with its trade-oriented policies, Chile is currently in negotiations with the U.S. on a free trade agreement. In the last decade, Chile has expanded trade agreements with both Mexico and Canada and has been a strong proponent of the Free Trade Area of the Americas (FTAA) agreement.\(^5\)

\(^4\) Larrain, pg. 14.

\(^5\) *Bureau of Western Hemisphere Affairs,* April 2002 U.S. Department of State Profile: Chile
Impacts of Floating the Chilean Peso

In September of 1999, the Chilean Government decided to float its peso. The most immediate impact of the floatation of the peso was its 5% devaluation, shifting the exchange rate downward. With a newly floating currency, the Central Bank increased the money supply by 34.4%. With the decrease in exchange rate, domestic goods became cheaper, leading to a rise in net exports. This increase in net exports led to a current account balance that neared zero in 2000. Another result of the expanded money supply, as shown on the IS-LM model to the right, was a decline in interest rates– from 8.73% in 1998 to 7.38 in 1999. In addition, the increase in money supply increased other variable

III. Highest Priority Macroeconomic Problems

Vulnerability to World Markets

One of the highest priority macroeconomic problems facing Chile in mid-2002 is its vulnerability to the world economy. For several decades, Chile’s economic strength has depended upon the interest of foreign investors and a strong focus on exports. The country highly benefited from the expansionary wave of the 1990’s in the US economy, as 18% of its exports travel to the US. Since 9-11, the US economy includes higher degrees of uncertainty, and Chile is particularly vulnerable as a small open economy with a floating currency that relies heavily on exports. Due to its heavy reliance on its copper exports, its current account balance is particularly sensitive to that market. Small changes in copper’s value can have large impacts on Chile’s GDP. The extensive border that Chile shares with Argentina compounds this vulnerability, considering the recent economic and political crisis in its sister country. Foreign investors may balk at Argentina’s proximity, as well as its close association with Chile through its involvement with the Mercosur consortium.

High unemployment

During the downturn in 1998-99, Chile’s unemployment rose from a stable 6% to nearly 10%. By the end of 2001, Chile’s unemployment rate was still 9.8%. In comparison to other Latin American and/or developing countries, this is not an alarmingly high rate. On the other hand, this rate is much higher than the unemployment rate during 1997-98 (which ranged between 5.75% and 6.5%). High unemployment remains a problem in Chile, and policies should attempt to lower the figure. Though the short-run effects on inflation should be minimized, an optimal level of unemployment would range between 7 and 7.5%. This rate is about the midpoint between the current and 1997 levels of unemployment. The Central Bank projects a hopeful outlook for this indicator, projecting that unemployment will fall in the years to come. However, given their

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6 from 1998 to 1999
7 Money supply rates are adjusted for prices
8 National Statistics Bureau
commitment to low inflation, the Phillips curve model would suggest that the country may need to accept some inflation to push unemployment to recede.

IV. Policy Recommendations

A. Policy Option: Maintain Status Quo
This option would be to simply maintain the status quo policy of a floating currency. Chile has been doing well for the past few years, so keeping the same monetary and fiscal policy patterns holds considerable viability. Although Chile is still influenced by global trends (thus exposing their vulnerability), much of their success has been based on having such an open, free-trade oriented economy. This is undoubtedly a powerful trajectory on which Chile’s success rests. Reversing those policies at this point would make foreign investors afraid, pull out, and could quickly sink Chile’s economy.

Policy Implications for Option A
In order to examine the efficacy of this policy option, it is important to look at the present economic trends and projections based on these trends. After experiencing downturns during the last two quarters of 2001, Chile appears to be recovering from these shocks. In fact, if the September 11 attacks did not occur, Chile may have had a remarkable year. Exports increased by 13.9% by the end of the 2nd quarter and then dropped to 5.9% by the end of the 3rd. However, by years end, export growth was up to 7.5% which sustained their rising levels of net exports. The Central Bank also expects the Current Account Balance to remain relatively low compared to the previous two years (see Figure 2). For example, in 2000 current account balance was -988 million (in US dollar terms); in 2001 it was –1025 million and in 2002 and 2003 (assuming no shocks and policy changes): the current account would remain at -675 million dollars9. This figure is fairly low compared to previous years, especially prior to the flotation policy. One limitation of this option, is the assumption that Chile’s economy will not be affected by external factors (i.e. world economy). However, as a small open-economy, Chile still remains vulnerable to the economic trends of larger countries, as well as neighboring Latin American countries (e.g. Argentina and Brazil). Therefore, the economy may not remain as stable as the Central Bank predicts.

Figure 2: Current Account

![Current Account Balance Graph](image)

9 Central Bank of Chile (Monetary Report January 2002)
B. Policy Option: Invest in Domestic Infrastructure

This option addresses Chile’s susceptibility to world markets by investing in Chile’s domestic infrastructure. To stimulate economic growth and increase sustainable economic output, Chile should improve job training, bolster health services and support education. All of these investments will increase the efficiency and productivity of the labor force and increase the standard of living of portions of the population. With a 95% literacy rate, Chile already has a very educated population. These measures will take advantage of this asset and support a high potential productivity. This policy will help safeguard Chile’s economy from unpredictable changes in the global economy by increasing the domestic capacity for producing goods and by increasing human capital. The increases in government spending on these initiatives will need to be paid for by an increase in taxes or decreases in consumption. Further macroeconomic research is needed to determine the most appropriate source of funding.

Policy Implications for Option B:

An analysis of Chile’s investment in its infrastructure is best done using the Solow Growth model. This model will explain the effects of an increase in human capital when workers are made more efficient. This model assumes constant returns to scale and no endogenous growth in Chile. According to the model, output is a function of capital and effective workers. When we invest in the infrastructure of Chile to make its workers better trained, healthier and more educated, we increase their effectiveness. Considering that a country’s capital is inclusive of its human capital, this increase in the efficiency of the labor force also increases the country’s capital. Referring to the graph below, we see that this increase in capital is reflected by an increase of capital per worker along the x-axis. Assuming all else remains constant (savings rate, depreciation, population growth, etc.) this movement will increase output as it is measured off of the production function. However, as the capital (and output) of the country increases, the rate of its growth should decrease.
The boosting of Chile’s domestic infrastructure will require an increase in government spending. The IS-LM model explains the effects of an increase in government spending to pay for the investment in Chile’s infrastructure. An increase in government expenditure will increase peoples’ planned expenditures and therefore increase output by the government-purchase multiplier \[\frac{1}{1 - MPC}\]. An increase in government expenditures will therefore shift the IS curve to the right, increasing GDP and interest rates. The rise in interest rates will appreciate the currency and make Chilean goods more expensive, decreasing net exports. However, because Chile is a small country with flexible exchange rates, this decrease in net exports will drive the interest rate down and shift the IS curve back to where it was originally.

![Figure 3: Impact of Policy Option B](image)

V. Conclusions
Considering the unreliable state of the world economy, Policy Option B is recommended at present time. The policy should be implemented as a moderate initiative that will help to maintain stable levels of economic indicators while slightly shifting the focus of the economy from export markets to domestic independence. Special effort should be made to continue export efforts so as not to alienate foreign investors or foreign markets. With regard to Chile’s economic indicators, it also should be noted that in addition to its serious successes in GDP growth, poverty also remains a persistent liability to the country. In spite of increased income in the country, over one fifth of the population currently lives below the poverty line.\(^{10}\) The income is not evenly distributed among the population. Unfortunately, we do not have models to describe income inequalities like this, so we are unable to analyze the trend. This is an important topic for further research.

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