Dollarisation Effects on Investments in Ecuador

Marcus Axelson and Helena Gustafsson

Abstract

This thesis explores the field of dollarisation as a macroeconomic instrument to increase domestic and foreign investments. The dollarisation is a pressing issue, especially for countries suffering from high inflation rate and decreasing purchasing power of their national currency.

The aim of the study is to investigate whether the dollarisation in Ecuador has had any effects on domestic and foreign investment.

The frame of references consists of two parts. In the first part, we present an introduction to the dollarisation concept, the origins and the effects of the implementation. The second part concerns domestic and foreign investment. The determinant factors of expected profitability are presented herein which constitutes our main tool for analysis.

Keyword
Dollarisation, Investment, Consequences of dollarisation, Ecuador, Economics
Abstract

Background: This thesis explores the field of dollarisation as a macroeconomic instrument to increase domestic and foreign investments. The dollarisation is a pressing issue, especially for countries suffering from high inflation rate and decreasing purchasing power of their national currency. The dollarisation is, for several countries in Latin America, of topical interest and many of them are waiting to see the result from the Ecuadorian process.

Purpose: The aim of this thesis is to investigate whether the dollarisation in Ecuador has had any effects on domestic and foreign investment.

Frame of References: The frame of references consists of two parts. In the first part, we present an introduction to the dollarisation concept, the origins and the effects of the implementation. The second part concerns domestic and foreign investment. The determinant factors of expected profitability are presented herein which constitutes our main tool for analysis.

Field study: The study was conducted in Quito, Ecuador, from the end of October to the end of December 2001, as a Minor Field Study, funded by the Swedish Development Co-operation Agency (Sida). To fulfil our purpose we have carried out an empirical study about the investments before and after the dollarisation and collected both secondary and primary data. The primary data was collected from a number of interviews that we carried out with representatives from companies and institutions highly involved in the dollarisation process.

Conclusions: Our empirical study shows that investment have increased after the dollarisation in which the construction of the new pipeline constitutes the main part. Besides that, and even if foreign investors are facing lower country risk, interest rate and a stable currency it is most and foremost the domestic investor who has been benefited by the dollarisation. Nonetheless, still there are a number of features to improve such as the presence of opacity and political insecurity before Ecuador will be able to enjoy all the potential benefits from the dollarisation.
Acknowledgement

We would like to thank Juan-Carlos Estibill at Linköping University for making us aware of the Minor Field Study (MFS) scholarship and the Swedish international development and Co-operation Agency (Sida) for enabling students to receive scholarships in order to develop their knowledge about the third world. Sida gave us the opportunity to write our master degree thesis in Ecuador during eight weeks and this has increased our understanding of the problems developing countries are facing.

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1 Introduction

This thesis is part of a Minor Field Study (MFS) in Quito, Ecuador, realised in November and December 2001. In the introductory chapter we will discuss the background to our study with the purpose to increase the understanding of coming chapters. Further on we will give a presentation of the problem and the purpose of the thesis, the delimitations, and finally the data collection.

1.1 Problem Background

This thesis concerns the dollarisation\(^1\) as a macroeconomic instrument to increase both domestic and foreign investments. The macroeconomic environment with the present country risk and corresponding investment climate is of crucial importance for future investment.

Most nations have their own currencies, but in a number of countries a foreign currency has unofficially become to serve as means of payment, store of value, and unit of account. This is what we call informal dollarisation. Especially countries suffering from high inflation rate are facing this phenomenon as a consequence of decreasing purchasing power of their national currencies. Dramatic and costly devaluation of national currencies and common to most economic crises has led domestic residents to take the unofficial dollarisation one step further. Then, official dollarisation emerges as a feasible alternative.

Economies in Latin America is perhaps those who have searched for alternative exchange rate arrangements more than others and Ecuador is one of the first countries in the region who has taken this into action when adopting the US$ as legal tender. Under this plan the Ecuadorian government gave up any power to conduct independent monetary policy and will implicitly accept the monetary policy decisions of the United States. The expectations in the short run were to stabilise the economy and as a result, reach economic growth in the long run. So far, the first issue has been successful but there is still more to come. It is desirable to find a relation between improvements in macroeconomic key factors with the dollarisation, not only for Ecuador but also for all other countries thinking about choosing the same exit.

\(^1\) The term dollarisation refers, although the name, not only to the adoption of the US$, but to the adoption of any currency.
1.2 Problem Discussion

One of the indirect purposes of the dollarisation process in Ecuador was to increment domestic and foreign investments. This thesis is conducted in order to examine whether an increase in investments can be put in relation to and as a direct cause of the dollarisation. Furthermore, every country is equipped with certain preconditions that favour investment to different extensions. With this in mind it will also be important to find out more about the investment climate and how it influences the investment decision. It may also be a fact that the investment climate affects the dollarisation's potential impact on the investments.

1.3 Purpose

The purpose of this thesis is to investigate whether the dollarisation in Ecuador have had any effect on domestic and foreign investments.

1.4 Delimitation

The opinions about the many aspects of the dollarisation and its impact on a country's economic situation are varying. The fact that the dollarisation, as a macroeconomic instrument, is a relatively untried measure makes it even more important to delimit this study and put attention to a few aspects that we will analyse. The following delimitation will be made:

(1) Not only the dollarised country will be affected by the dollarisation process but also the country which currency is adopted, in this case the United States. However, the economy of Ecuador is of little importance to the United States and possesses few possibilities to have any considerable impact on the economy. Therefore, advantages and disadvantages for the United States will be omitted in this study.

(2) Through the lack of dollarisation theories we will keep the objective on investment theories in order to decide whether the dollarisation could be put in relation to any changes in domestic and foreign investments.

(3) Financial investments will not be taken into consideration in this thesis.

(4) Only a few countries have experienced a dollarisation process. Despite that, the substantial differences concerning preconditions and the overall macroeconomic environment (where the size of the economy is the greatest difference) could cause a misleading comparison.
(5) The level of unemployment and the educational level constitute both as an incentive/disincentive to and an effect of investment. Neither of these aspects will be considered.

(6) No distinction will be made between the announcement and the actual implementation of the dollarisation. Therefore, the date of announcement will serve as the starting point for our discussion.

(7) We have chosen to present the most general and often mentioned potential effects of official dollarisation. The effects described in the frame of references are significant when the dollarisation is demand related, but may appear as a consequence of any dollarisation process. The effects described are chosen with respect to that a severe macroeconomic environment existed before the dollarisation decision.

1.5 Data Collection

The primary data in this thesis consist of interviews made in Quito and an empirical study about domestic and foreign investment. Due to the fact that our problem, as far as we know, never has been investigated, the interviews play a significant role in this thesis. When reading articles about investment and dollarisation we got several indications on what persons to contact and one interview often leads to another. We have used barely ten respondents, both from the private sector, the governmental institutions, and the university area. Usually we contacted our potential respondent by using e-mail or telephone. Both of them were equally effective.

Our secondary data collection started in Sweden. Before we initiated our own research we had the opportunity to read a very good bachelors thesis on dollarisation. It helped us with a lot of sources and provided us with basic knowledge about the subject. When arriving to Quito we first contacted our tutor and had an opening meeting with him. He gave us several suggestions on where to find secondary data. This information included the Central Bank of Ecuador, the Superintendence of Companies, Superintendence of Banks, the magazine Gestión, Consejo Nacional de Modernización and Corporación Financiera Nacional. Most of these are government entities, and have public libraries. We also found useful information at their corresponding homepages.

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2 Arnöman, Per & Magnus Carlsson, Dollarisation. - An untried macroeconomic measure (Linköping: C-uppsats, 2001)
3 Zambrano Orejuela, Iván. Principal Professor at the department for Design and Production, Escuela Politécnica Nacional, Ecuador.
net site, www.ecuadorexplorer.com, has several business links that have been important to our empirical chapter. Except from links to the homepages of the entities mentioned above, it has links to embassies with up to date information on for example the investment climate.

1.5.1 Criticism of Data

The dollarisation process has been very emotional to the Ecuadorian people, resulting in everybody having an opinion that influences his or her way of thinking. In general terms, one can say that the government, the authorities and the companies have a positive approach to the dollarisation while the man on the street and some economists and journalists have a negative approach. Due to our subject we have interviewed people mostly in favour of the dollarisation and the purpose of the thesis itself has a hidden opinion, that the dollarisation has been good to the Ecuadorian economy in general and to the investments in particular. It should be mentioned that we also adopted a positive attitude towards the dollarisation. We are highly aware of the subjectivity of our respondents and of ourselves and are therefore making an extra effort to keep the level in this thesis as objective as possible. This critical point of view also includes the secondary sources. Especially Internet sources should be treated with caution, in aspects of the objectivity and absence of authors.

Most respondents were not comfortable with their English and we therefore had to do most of the interviews in Spanish. The Swedish-speaking respondents were interviewed in Swedish. We used a tape recorder in all the cases. Different native language increases the risk of misinterpretations and misunderstandings and we will be aware of this when analysing the data.
2 Introduction to the Ecuadorian Economy

This chapter will give a short introduction to the Ecuadorian economy, including the productive sector, the government role in the economy, and the trade situation. The chapter is concluded with a statistic overview of some macroeconomic variables.

Ecuador (see figure 1) is a republic of approximately 13 million inhabitants located at the equator in South America. The economy generated a GDP of about US$13,600 millions in 2000 and provides formal sector jobs for about 2.9 million people. Its 271,000 square contain widely geographical and biological diversity with rich economic potential. The country consists of four distinct regions: The tropical lowlands of the Pacific coast, the mountains and valleys of the Andean Sierra, the Amazon rain forest of the Oriente, and the Galapagos Islands.

Until the 1970s, Ecuador was an agrarian country dependent on commodity exports, such as cacao and bananas. Starting in 1972, oil development in the Amazon basin contributed to a decade of rapid growth, averaging 9 percent annually, that financed expanded public services, state enterprises, infrastructure, and import-substitution manufacturing. When oil prices fell during the early 1980s Ecuador failed to reduce inefficient state involvement in the economy. The 1980s was a decade of stagnation with debt and inflation. During the 1990s, Ecuador made some market-oriented structural reforms, but incomplete implementation failed to create sustainable growth. Falling oil prices, the hurricane El Niño and the international financial crisis further exacerbated Ecuador’s economic worries in the 1990s.4 (Read more about the crisis that ended up with the dollarisation decision on pages 24-25)

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2.1 The Productive Sector

Ecuador (1990-1999) has more than 80 percent of their export concentrated to five goods: petroleum, bananas, shrimp, cacao, and coffee, where petroleum production continues to be the mainstay of the Ecuadorian economy. The majority of crude production comes from fields in the Amazon basin originally developed by Texaco and now operated by Petroecuador, the state oil company. Petroleum is the basis for Ecuador's external economy. The state-operated oil sector accounts for about 45 percent of public sector revenue and 50 percent of export earnings. Oil production is expected to double in a near future thanks to the construction of the new Transandean Heavy Oil Pipeline to transport Ecuador's crude to market. The construction of the new oil pipeline is expected to spur further research, development and production and will reportedly generate thousands of new jobs and large investments. The pipeline will allow Ecuador to double its oil exports when it becomes operational, at the beginning of 2004.

Ecuador has an extensive, but underdeveloped, mining potential. These reserves are attracting international interest. Four well-known foreign mining firms have been granted large concessions in Ecuador over the past year. In August 2000, the government adopted a new mining law. The accompanying regulations were published in April 2001. The aim of the new law and regulations is to spur investment in the sector by enhancing legal protection for mining investors, eliminating royalties and addressing environmental concerns. Ecuador is the world's largest exporter of bananas. Tourism plays an increasingly important role in the economy and is now the third-largest source of foreign exchange (after petroleum and repatriated capital from emigrants). Tourism to Ecuador in 2000 increased 27 percent.

2.2 The Government's Role in the Economy

The state role in the Ecuadorian economy has unfortunately been synonymous with bureaucratic regulation, unproductive subsidies, and state ownership of important economic assets. The result has been an adverse development of social and economical changes. Federal budget expenditure

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5 Benalcázar, René Dr. & José Villacís Paz y Mino, Revista Economía No 97. (Quito: Instituto de Investigaciones Económicas, Facultad de Ciencias Económicas, Universidad Central del Ecuador, 2001), 56
8 Ibid.
9 Ibid.
accounts for a substantial part of GDP. Ecuador’s military forces are major economic players and run a large empire that includes interests in aviation, agriculture, banking, transportation, shrimp, and flowers, among other areas. The government has also found itself managing a large part of Ecuador’s financial sector, following state intervention to prevent a systemic banking collapse in late 1999.

2.3 Export and Import

The United States owns the position of both being the primary market for Ecuadorian exports and the key supplier of Ecuador’s import needs. The United States purchased 38 percent of the Ecuadorian export in 2000. Ecuador’s eight largest non-US suppliers are Colombia, Japan, Venezuela, Chile, Germany, Mexico, Argentina, and Brazil, which together enjoy a 45 percent share of the Ecuadorian import market. Ecuador has free trade agreements with Colombia, Venezuela, and Chile, obtaining 26 percent of its imports from those countries in 2000. Ecuador joined the World Trade Organisation (WTO) in January 1996.10 Ecuador has also agreed, as member of the Andean Community, to liberalise trade with MERCOSUR by the year 2000 and fully supports a Free trade Area of the Americas by 2005.11

2.4 Other Macroeconomic Statistics

In figure 2 we present some data with the purpose to accentuate the macroeconomic problems Ecuador has had in the past and also to show the situation and estimates for 2001 and 2002. Reading the exhibit below one can easily understand that the economic history of Ecuador has not been a happy one. Nevertheless, the progress is fast and Ecuador’s economy is expected to recuperate very soon.

<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Inflation rate</td>
<td>30%</td>
<td>43%</td>
<td>61%</td>
<td>91%</td>
<td>22%</td>
<td>9%*</td>
</tr>
<tr>
<td>GDP (Millions US$)</td>
<td>19,157</td>
<td>19,76</td>
<td>13,769</td>
<td>13,649</td>
<td>17,810*</td>
<td>19,702*</td>
</tr>
<tr>
<td>GDP per capita (US$)</td>
<td>1,638</td>
<td>1,655</td>
<td>1,619</td>
<td>1,079</td>
<td>1,383*</td>
<td>#</td>
</tr>
<tr>
<td>GDP growth</td>
<td>3.3%</td>
<td>0.8%</td>
<td>-7.3%</td>
<td>2.3%</td>
<td>5.4%</td>
<td>4.0%*</td>
</tr>
<tr>
<td>GDP-deflator</td>
<td>26</td>
<td>35</td>
<td>62</td>
<td>106</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Exchange Rate (Sucre/ US$)</td>
<td>3,998</td>
<td>5,441</td>
<td>11,830</td>
<td>25,000</td>
<td>25,000</td>
<td>25,000</td>
</tr>
</tbody>
</table>

* = Estimate  
# = Not available

Figure 2: Economic development, history and forecast  

The inflation rate in 2001 was 22.44 percent and Carlos Julio Emanuel, the minister of finance and economics, is convinced that the inflation rate will lower to one digit next year. The estimated inflation rate for 2002 is 8 to 9 percent. This is the most favourable rate in many decades. The high inflation rate Ecuador has had in dollars has been on the one side difficult for both the people and the producing firms in the country. On the other side the importing companies have benefited from higher margins. However, a two digit inflation rate in US$ is not a sustainable situation and everybody will benefit from a lower inflation. The growth in 2001 was 5.4 percent, which was the highest growth rate in Latin America considering the same period, with an average of 0.4 percent. The estimate of the growth rate was downgraded due to the terror attacks in US, 11 September 2001, but the impact of the attacks was not that strong as expected.

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15 Banco Central del Ecuador: www.bce.fin.ec
3 Frame of References

The frame of references is divided in two parts. 3.1 gives an introduction to the dollarisation concept, the origins to the application of this macroeconomic tool and the theoretical effects of the implementation. 3.2 concerns investment and both domestic and foreign investment are considered. We will also put attention to the importance of a favourable investment climate.

3.1 Dollarisation

A wide definition of dollarisation is that it refers to whatever process, where foreign currency replaces the domestic currency in any one of their three functions: as a store of value, unit of account and medium of exchange.\(^{16}\)

3.1.1 The Dollarisation Decision

Except from unofficial use of foreign currency, only a few countries have officially adopted a foreign currency as legal tender. The major reasons to why the official dollarisation is not more widespread include the political symbolism of a national currency, historical patterns, and economic factors such as the perceived cost of dollarisation. The process may have diverse origins. One is the case of supply, when a nation from the beginning decides to use the foreign currency as the genuine monetary unit. Another possible origin is the case of demand. Demand related dollarisation is a consequence of portfolio decisions of individuals and companies that pass to the use of the foreign currency as their monetary unit and as their currency of escape.\(^{17}\) Among the factors that explain the dollarisation phenomena are, particularly in Latin America; macroeconomic instability, poor development of the financial markets, lack of credibility in the stabilisation programs, increasing integration to related economies, a history of high inflation, and institutional factors.\(^{18}\)

In the case of dollarisation caused by demand, the process first captures an informal character. The informal dollarisation is a chain of spontaneous actions as an answer to the destruction of the acquisition power of the local currency. The agents escape to assets denominated in strong currencies, usually the US$. The process of the informal dollarisation includes various steps. The

\(^{17}\) Bogetic, Zeljko (2000) Full Dollarisation: Fad or Future. Challenge Vol. 43
\(^{18}\) Naranjo Chiriboga, Marco P. La Dolarización de la Economía Ecuatoriana, Boletín Economía, 85. (Quito: Instituto de Investigaciones Económicas, Facultad de Ciencias Económicas. Universidad Central del Ecuador, 2001), 14-18
first is considered as asset substitution, where the agents acquire foreign bonds or deposit a certain amount of their savings abroad (flight of capital). The second is called currency substitution. The agents acquire means of payment, bills or bank accounts at home, in the foreign currency. Finally, the third step, when already much of the products and services are denominated in the foreign currency like rents, automobile prices, and other domestic equipment, the informal dollarisation is completed when products of little value, like food products, drinks, diversion, etceteras, is nominated in the foreign currency.19

An economy is dollarised when the indicators of money supply, are expressed in a foreign currency of more than 30 percent. Various indicators permit us to estimate the level of dollarisation in an economy. To determinate the substitution of money it is important to analyse the behaviour of the monetary deposits in foreign currency in relation to total deposits. To appreciate the substitution of assets is fundamental to analyse the behaviour of the quasi money that includes the bank’s captions on term in the national currency and in the foreign currency, conformed of the sum of deposits of saving, etc. An additional indicator has to do with the portfolio of debt or liability, in particular when these are denominated in dollars.20

The informal dollarisation has lamentable consequences on the country’s economy. It limits the monetary, exchange rate, and fiscal policy. The purchasing power of income earned in the local currency decreases and the interest rates increases due to the intents to stimulate saving in the local currency. The currency risk and the credit risk of the finance system increase and the incomes from seigniorage become limited.21

3.1.2 The Consequences of Official Dollarisation

The adoption of full dollarisation is equal to 100 percent substitution of the local currency for the foreign currency. The full dollarisation rests over some particular features.

- The only currency is the dollar and the local currency disappears. It may exist fractions of the new currency for exclusive use of this particular country.
- The money supply is denominated in dollars and is supported by the balance of payments and by a sufficient initial amount in the foreign currency reserve.

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19 Naranjo Chiriboga (2001), 14-18
20 Ibid.
21 Ibid.
The capital flows are free to enter and leave without any restrictions.

The central bank restructures its traditional function and acquires new functions.\(^{22}\)

The official dollarisation may give rise to several effects on the economy. Some of them are immediate and others are to be observed in the long run.\(^{23}\)

The dollarisation eliminates “per se” the possibilities of devaluation. Consequently this immediately decreases the currency risk or risk premium, something that is very important to lower the inflation and interest rates.\(^{24}\) For all countries, it is necessary to make long-term investment and consumption plans. This requires a stable economic environment and the limitation of the currency risk certainly helps in this aspect. Another saving is that the common operations of defence (for example hedging) against possible devaluation disappears, something that benefit and facilitates the investment and the international trade. Furthermore, the dollarisation reduces some of the transaction costs, like the purchase and sales of foreign currency.\(^{25}\) The long term planning is also helped by that the inflation rate has to converge to the international inflation rate, and in particular to the one registered in the country with which it has the largest volume of foreign trade. The government cannot issue money with the official dollarisation something that generates fiscal discipline. The correction of the fiscal deficit is only possible mediates loans and taxes. Together with the elimination of devaluation this will have a positive impact on the inflation rate.\(^{26}\)

The dollarisation reduces the differential between the domestic interest rate and the international interest rate. The level of the interest rates in the local currency includes a component that captures the expectations of a future devaluation. When there are estimates of high levels of monetary devaluation the interest rates tend to be elevated. The dollarisation eliminates the local currency and, as explained above, consequently the risk of devaluation. This could decrease the interest rates. The expectation of devaluation is not the only component of the interest rate and it is of essence to under-

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\(^{22}\) Naranjo Chiriboga (2001), 14-18

\(^{23}\) An assumption in this section is that the adopted currency is sound and the volatility of the exchange rate is relatively small. This assumption includes a stable economic environment in the “currency country”.

\(^{24}\) Naranjo Chiriboga (2001), 14-18


\(^{26}\) Pozo Crespo, Fernando. Riesgos y oportunidades de la Dolarización en el Ecuador, Gestión N.° 58 February 2000, 11-12
stand that the interest rates will not decrease easily to international levels. It exist at least two
other components that are fundamental, the expected inflation rate and the country risk.27

There have been some difficulties to quantify the size of the potential credibility gains from official
dollarisation. All above-mentioned factors will have a beneficial impact on the credibility of the
country. The three main arguments for an increasing credibility are lower interest rates, the
monetary policy will be taken out of the hands of the domestic central bank (if the central bank
cannot fully commit to its policy announcement, there is a benefit of taking control away), and
the creation of fiscal discipline. Together they will affect investors in a positive way when esti-
mating the possibility of future economic crisis and the ultimate result of increasing credibility
due to dollarisation ought to be higher levels of investments and economic growth.28

In one way, we have seen that the macroeconomic situation may improve in a country after the
dollarisation. Normally there is a very strong adjustment period until reaching stability, something
that might reduce part of the positive effects related to the process. In another way, the dollarisa-
tion may increase the risk from various points of views, something that may reduce the potential
credibility gains.29

One of the most important costs of dollarisation is the loss of seigniorage30. The loss has two as-
pects. It could be regarded as a one-time stock cost in terms of the amount that has to be ac-
quired, or as a continuously flow of costs in terms of seigniorage revenues foregone. The stock
cost is the initial cost of obtaining dollar bills and coins necessary to replace domestic currency in
circulation. The flow cost is considered as the loss of seigniorage year after year. Full dollarisation
diverts this flow of revenue from the domestic monetary authority to a foreign monetary author-
ity. The money printed in an economy can be treated as a non-interest demanding debt that dis-
appears adopting the dollarisation.31

27 Pozo Crespo, Fernando. Riesgos y oportunidades de la Dolarización en el Ecuador, Gestión N o 58 February 2000, 11-12
30 The concept of seigniorage as a government’s profit from issuing coinage that costs less to mint than its face value is essentially the same with paper currencies: abstracting from the minor cost of printing paper money, seigniorage is simply the increase in the volume of domestic currency. Currency can be thought of as non-interest bearing debt, and the ability to issue it as a source of revenue for the monetary authorities.
31 Bogetic (2000), 27-29
There is also a cost of losing the monetary and exchange rate policy. In the dollarised economy the government cannot finance budget deficits by creating inflation/devaluation because it does not issue the currency. In the presence of asymmetric shocks this could imply problems for the economy. It may result in a growing debt and/or more social conflict. Depending on the context, if the instrument has not been used correctly in the past, the effects of the loss may be positive. There is also a cost of losing a guarantor, usually the central bank, as a lender of last resort. After the dollarisation the central bank cannot print money to give loans to the bank system and depends on the amount of foreign currency entering from abroad. Though, some are arguing that this will lead to the discovery of structural problems in the financial sector, because the moral risk disappears concerning that the Central Bank is no longer the lender of last resort.

The most obvious countries that will benefit from full dollarisation are those already highly integrated with the “currency-country” (for example United States) in trade and financial relations. The current discussion focuses on a different group of candidates; emerging market economies exposed to volatile capital flows but not necessarily close, in an economic sense, to the United States. For this group, the more the US$ is used in their domestic goods and financial markets, the smaller the advantage of keeping a national currency.

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32 Bogetic (2000), 31
33 Acosta, Carrasco, & de Ginatta, et al. (2000)
34 Berg & Borensztein (2000)
3.1.3 Summary

Figure 3 summarises 3.1 and all the factors that influence the dollarisation decision.

Potential Benefits
- Eliminates devaluation
- Loss of monetary and exchange rate policy
- Lowers inflation
- Lowers interest rates
- Reduces transaction costs
- Generates fiscal discipline

Potential Costs
- Loss of seignorage
- Loss of monetary and exchange rate policy
- Loss of lender of last resort
- Time adjustment

Credibility gains

Credibility losses

Origins to the dollarisation
- Demand
- Supply

Preconditions

The dollarisation decision

Figure 3: The Dollarisation Decision
3.2 Investment

3.2.1 Why Investment Matters

The most comprehensive measure over all level of economic activity is the value of a county’s total production of good and services, called national product. One important component of the national product is gross investment. Gross investment minus replacement investment is net investment. If the net investment is positive this increases the economy’s total stock of capital while replacement investment keeps the existing stock intact by replacing what have been used. All of gross investment is included in the calculation of national income. This is because all investment goods are part of the nation’s total output and the production of them creates income and employment no matter if the good produced are part of the net investment or are merely replacement investment. Investment expenditure is the most volatile component of GDP and changes in investment expenditure are strongly associated with economic fluctuations. Most economists believe that foreign investment has positive effects on the economy. More total investment is possible than if all investment had to be financed by domestic savings. The foreign investment also contributes to a higher rate of growth due to a more rapid rise in the capital available for each worker and the transfer of superior technology in all areas may lead to higher wages through use of best-practice technology. Besides the benefits of foreign investment there are also costs related to the same. The costs normally mentioned are the loss of profit to foreigners, loss of control over domestic resources and loss of key activities. Both saving and investment have an effect on the level and the rate of growth of real national income. Growth is only influenced by the investment that adds to a nations productive capacity. The four most important determinants of growth of total output are; growth in the labour force, investment in human capital, investment in physical capital and technological change.

To summarise one could say that investment is essential to an economy both in the short and in the long run. It creates jobs and contributes to higher GDP and the level of growth in the economy.

3.2.2 Investment Decisions

The investment decision is of strategic character and depends basically on an expectation to reach a higher wealth in the future compared to the capital allocated for the purpose. In terms of monetary flows this is equivalent to an initial cost, in exchange of receiving a future sequence of
generated resources. The quantity of investment goods demanded depends on the real interest rate, which is the cost of financing the investment and the expected profit rate, which in this thesis stands for the overall “investment climate”.

Other things being equal, the higher the real interest rate, the higher the cost of borrowing money for investment purposes and the less amount for desired investment expenditure. On the other hand, other things remaining the same, the greater the expected profit rate from new capital, the greater is the amount of investment. The investment function relates the quantity of investment, $I$, to the real interest rate, $r$, and the expected profit rate, $\Pi^*$:

$$I = I(r, \Pi^*)$$

The investment function is illustrated in figure 4. If the real interest rate rises there is a movement up the investment demand curve, implying fewer investment projects are profitable. If there is an increase in the expected profit rate we have an increases in investment demand, which is indicated by the investment demand curve shifting rightward.
3.2.3 Investment Climate\textsuperscript{35} 

One of the main questions, currently studied by economists who study growth and development, are why some countries invest more than others? This section will present a basic framework considering day-to-day investment problems.

3.2.3.1 A Business Investment Problem

Considering a hypothetical example where you are the manager of a large multinational corporation and you have to decide whether opening a subsidiary in a foreign country.\textsuperscript{36} One approach to evaluating this investment project is the cost-benefit analysis. Suppose that launching the business subsidiary involves a one-time set-up cost $F$. This set-up cost may include for example both domestic and foreign licenses, as well as business contacts with suppliers and distributors in the foreign country. Once the business is set up, one can assume that it generates a profit every year that the business operates. If $\Pi^*$ denotes the expected present value of the profit stream, then $\Pi^*$ is the value of the subsidiary after the one-time set-up cost, $F$ is paid. Taking this into consideration the decision whether or not to undertake the investment project is quite clear. If the value of the business after it is set up is larger than the cost of setting up the subsidiary, then the manager should undertake the project.

There are large differences in the costs of setting up a business and in the ability of the investors to reap returns from their investments across countries. Such variation arises in large part from differences in government policies and institutions that might be called infrastructure. A “good” government provides the institutions and infrastructure that minimise $F$ and maximise $\Pi^*$.

3.2.3.2 Determinants of Set-up Costs

Establishing a business requires several steps. Each of these steps involves interaction with another party, and if the other party has the ability to hold up the business, problems can arise. Setting up a business, independent of the size of the business, require things like purchasing property, the inspection by officials, obtaining electricity, and receiving a business permit. Each of these steps offers an opportunity for a bureaucrat to seek a bribe or for the government to charge


\textsuperscript{36} Observe that the example of opening a subsidiary in a foreign country is nothing but an example. The basic framework can be used to the determination of domestic investment by a local company, the transfer of technology by a multinational corporation, or the decision to accumulate skills by an individual.
a fee. These kinds of concerns can be very serious and are very hard to forecast. In advanced
countries this issue may seem unimportant as a matter of practice. Advanced countries provide a
dynamic business environment, full of investment and entrepreneurship, exactly because these
corns are minimised. However, evidences from some countries show that these problems
could be substantial.

3.2.3.3 Determinants of the Expected Profitability

Besides the set-up costs, the determinants of the expected profitability have to be considered. We
will classify these determinants into three categories; the size of the market, the extent to which
the economy favours production instead of diversion and the stability of the economic environ-
ment.

The size of the market is an important determinant of $\Pi^*$ and therefore a critical factor in deciding
whether or not investments get undertaken. The presence of a large market increases the poten-
tial reward for making the investment. National borders need not limit the market for a particular
investment. The extent to which an economy is open to international trade has a profound influ-
ence on the size of the market. An investment climate that favours production encourages individuals to
engage in transactions of goods and services. In contrast, diversion takes the form of the theft or
expropriation of resources from productive units. Diversity may correspond to illegal activity,
such as theft and corruption, or it may be legal as in the case of confiscatory taxation, frivolous
litigation, and lobbying. The extent to which the environment in the economy favours production
or diversion depends mainly on the government. The government sets the rules of the game that
provide the framework for economic transaction. In economies with an infrastructure that fa-
vours diversion, the government is often the chief agent of diversion. The first effect of diversion
on a business is that it acts like a tax. Some fraction of the revenue or profits of an investment are
taken away from the investor. The second effect is that diversion encourages the entrepreneur to
take measures to avoid the diversion. For example, hire extra guards and lawyers and pay bribes.
Finally, the stability of the economic environment can itself be an important determinant to the returns
to investing. An economy in which the rules of the game and the institutions are frequently
changing may be a risky place in which to invest. Perhaps the policies in place today may favour
productive activities, but the policies tomorrow will not. Revolutions and wars are extreme forms
of instability. The three above-mentioned characteristics encourage domestic investment by firms
in physical capital, foreign investments that may involve transfer of better technologies, and the
accumulation of skills by individuals. The government policies and institutions intended to be
responsible for an efficient infrastructure of an economy determine the investment and productivity, and therefore also determine the wealth of nations.

3.2.4 Foreign Investment

Investment, whether originated domestically or from abroad, is divided into two basic types: direct investments and portfolio investments. Direct investment describes an investment made to acquire and manage a continuing interest in the target entity. When the entity is located in one country and the investor is located in another country, the investment is referred to as foreign direct investment (FDI). FDI is generally defined as ownership of 10 percent or more of the shares or voting power of an incorporated entity or the holding of a right to 10 percent or more of the profits of an unincorporated entity. Ownership of less than 10 percent of an entity is referred to as portfolio investment. This generally implies an essentially passive interest only in the earnings potential of stock in the firm. Direct investment may be effected through receipts of shares in exchange for capital or as reinvestment of earnings of the entity.37

3.2.4.1 Legal Framework for FDI38

The legal context or framework within which FDI is admitted and regulated in a country is known as the “FDI Regime”. This includes the whole array within that country of constitutional provisions, laws, regulations, policies, and practices taken together; specifically establish and define the rights and obligations of both the foreign investor and the state with regard to FDI. This FDI regime may be supplemented by certain international conventions or treaties that confer certain rights or impose certain regulations on the signatory countries that may expand, reduce, or otherwise vary the rights and obligations of foreign investors and the state established under their FDI regimes. Additionally, there nearly always exist a broad spectrum of laws, regulations, policies, or practices in a country that are FDI-specific but nonetheless affect FDI and foreign investors in ways that can support or undermine the FDI regime.

3.2.4.2 Incentives and Disincentives for Foreign Investment39

General reasons that might impel prospective foreign investors to choose one country opposed to another includes: a stable economic environment, comparative advantages, continuing progress in macroeconomic reforms and restructuring, limited foreign exchange restrictions especially

38 Ibid.
39 Ibid.
on capital and profits repatriations, unrestricted use of expatriate managers and technicians, and
growing local and regional markets. Needless to say, a fair legal and regulatory regime and a sup-
portive business climate is most essential for foreign investors as well as an adequate intellectual
property rights protection. Among the disadvantages to FDI that may repel it are performance
requirements; political instability, a generally unfavourable business and investment climate, gov-
ernmental resistance to macroeconomic reforms and restructuring, inflation, volatile exchange
rates, poor public sector and financial management, overly legalistic law system, corruption, ex-
port taxes, monopolies, lack of investment financing or active financial service sector.

3.2.4.3 Opacity

"Opacity is the lack of clear, accurate, formal, easily discernible, and widely accepted practices in the broad arena
where business, finance, and government meet. The Opacity Index was conceived to bring the light of quantitative
measurement to a topic about which reach ethical judgments have often dominated public and private discussion.
The Opacity Index can be used to estimate how much certain behaviours and structures cost for governments as well
as domestic and foreign business” (www.opacityindex.com)

The purpose of the Opacity index is twofold: to offer a clear and accurate concept of opacity and
its effects and to provide measurement of opacity that can guide businessmen and governments
towards greater transparency. Another concern is to estimate the percentage of foreign invest-
ments deterred - that is, never invested or invested elsewhere owing to the opacity of a country’s
overall economic environment.

The Opacity index estimates the extent to which five key factors contributes to, or diminish, the
transparency of the capital market and the overall economic environment. These five dimensions
are measured separately on the basis of survey interviews with bankers, equity analysts, chief fi-
nancial officers, and then integrated into a composite score, the O-factor. The composite O-
factor is calculated by averaging (on an equally weighted basis) the different components of
opacity for each country in the report. The specific formula for computing the O-factor and its
underlying five factors is shown below:

40 Opacity Index. www.opacityindex.com
41 In the empirical section where the results from the survey are presented the reader should keep in mind that in
terms of economic research the Opacity index is a relatively new concept. All statistical data used to create the index
is therefore estimated and should for that reason only serve as estimates.
\[ O_i = \frac{1}{5} \times (C_i + L_i + E_i + A_i + R_i) \]

\( O \) refers to the composite O-factor (the final score), \( C \) refers to the impact of corrupt practices, \( L \) refers to the effect of legal and juridical opacity (including shareholder rights), \( E \) refers to economic/policy opacity, \( A \) refers to accounting/corporate governance opacity and \( R \) refers to the impact of regulatory opacity and uncertain/arbitrariness. The level of opacity is measured on a scale from 0 - 150. If all respondents were identifying perfect transparency the result would be 0, and the opposite result, if all respondents were identifying perfect opacity conditions, the result would be 150. The meaning of the index score and assuming deterred foreign investments can be viewed as the answered to the following question: If a country can reduce its opacity to the low level of the benchmark country (holding constant the level of opacity in all other countries), how great an increase in foreign investments can the country expect to receive? Foreign investments in particular has been recognised as very important in economic growth and specially for developing nations and economies in transition. It provides not just the needed capital for the host country, but more importantly, the needed technology and managerial and marketing know-how. Therefore, every unit of lost foreign investment could be a lost opportunity for faster economic growth.

3.2.5 Country Risk\(^{42}\)

The country risk can be expressed in two components: the political risk and the risk of suspended payments. The latter one constitutes of the uncertainty of the possible default of the obligations of a certain State. In other words, it is the statistical probability of that the loans taken by the State is not honoured in the predetermined ways. The political risk, on the other hand, includes the risk of future legal changes, which may affect import and export business. In a strict sense, the country risk has to do with the compliment of the debt of the State that they emit. In a broader sense, this risk is extended towards all the economic agents (private or public) of the country. The sum of this tells us that the country risk depends, on the one hand of the probability of default of the State and the default of the companies on the other hand. Like all risks, the country risk is traduced in an interest rate. It corresponds to the value of the additional interest rate (risk premium) that the investor demands for investing their money in another country.

\(^{42}\) Ambram, Jorge Dr. Intimidades del “Riesgo País”. Revista Ekos No 17, May 2001, Ecuador, 8-9
It exists various private entities that qualify risk at an international level. Their opinions influence definitely, among other things, the investment decisions. A qualification from Moody’s or Standard and Poor’s commonly determine, in the practice of the markets, the interest rate applied on a determined financial transaction; the better the qualifying, the lower interest rate. A bad qualification warn “literally spoken” the private and institutional investors from doing business with that particular country.

3.2.6 Summary

In section 3.2 we have distinguished several factors that determine investment. On the one hand we have the real interest rate and on the other hand we have the expected profit rate that in this thesis has the broad definition as investment climate. The expected profit is basically in common for domestic and foreign investors. In figure 5 the investment function and especially the factors that determine the expected profit rate in theory are distinguished. All of these factors constitute a base for the credibility of the economy.

\[ I = I(\sigma, \Pi^*) \]

**Figure 5**: The Investment Decision
3.3 Summary

In this chapter we have studied the dollarisation and the determinants of the investment decision at a theoretical level. There are both positive and negative aspects of the dollarisation. Some of them may have a positive/negative influence over the investment decision and some of them may not. The investment decision is based upon the investment function. If the dollarisation affects the investment function it may also affect the decision about whether to undertake an investment or not.

\[ I = I (r, \Pi^*) \]

**Figure 6: Summary Chapter 3**

Figure 6 will be our point of action in the coming chapters, where we will (1) study whether the dollarisation has had any impact on the investment decision mediates the investment function, (2) study what impact the components of the investment function will have on foreign and domestic investment, and (3) study if the components that build up the investment function may influence the power of the dollarisation.
4 Empirical

The empirical chapter is divided in two parts. 4.1 treats the dollarisation in Ecuador and 4.2 concerns the investment in Ecuador.

4.1 The Dollarisation in Ecuador

4.1.1 The Dollarisation Decision

In the end of the year 1999, the economic situation in Ecuador went out of control. Ecuador underwent its worst economic crisis in history. Apart from El Niño, the country had to face a drop in oil prices, and the effects of the Asian and Brazilian financial crisis. But the most serious problem was the handle of the crisis by the politicians.43 This year, Ecuador ended up with an annual inflation rate of 60.7 percent, and the real monthly payments to the average worker fell dramatically. The inflation was among other things stimulated of the continuously depreciation of the Sucre that between January and December 1999 reached 200 percent and 244 percent in January 2000 (See figure 2 for the exact exchange rates). The decrease of confidence under this period (1999) had various causes: the freeze of the public bank deposits, the weakness of the bank sector, the issue of money (superior of more than three times the inflation in 1999) to cover the increasing fiscal deficit, and the default on the Brady Bonds.44 All these factors played a central role in generating unfavourable expectations of the economic agents and increased the informal dollarisation. The sum of Ecuadorian deposits in the exterior reached 53.7 percent of the total deposits in 199945. There are certain indications on that the Ecuadorian economy was highly informally dollarised under this period, both in the aspect of currency substitution and asset substitution. In the dollarisation chapter we accentuated three main variables that indicates when an economy is dollarised: the monetary deposits, the behaviour of quasi money and the portfolio of debt. In figure 7 you can see how these three variables have changed over time between 1989 and 1999.

43 Salgado Tamayo, Manuel Dr. La Dolarización y sus efectos, Boletín Economía, 85. (Quito: Instituto de Investigaciones Económicas, Facultad de Ciencias Económicas. Universidad Central del Ecuador, 2001), 20
44 Abril, Galo, La Dolarización, Efectos y Reformas, (Quito: April, 2000), 1-2
45 Naranjo Chiriboga (2001), 16
<table>
<thead>
<tr>
<th>Year</th>
<th>Monetary foreign deposits / total deposits %</th>
<th>Quasi foreign currency / Total quasi currency %</th>
<th>Debt Portfolio of foreign currency / total portfolio %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>14.7</td>
<td>9.7</td>
<td>1.9</td>
</tr>
<tr>
<td>1990</td>
<td>13.3</td>
<td>7.4</td>
<td>1.6</td>
</tr>
<tr>
<td>1991</td>
<td>14.5</td>
<td>7.5</td>
<td>3.0</td>
</tr>
<tr>
<td>1992</td>
<td>20.0</td>
<td>10.8</td>
<td>6.8</td>
</tr>
<tr>
<td>1993</td>
<td>16.9</td>
<td>12.6</td>
<td>13.4</td>
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<tr>
<td>1994</td>
<td>15.6</td>
<td>15.7</td>
<td>20.3</td>
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<td>1995</td>
<td>19.2</td>
<td>24.3</td>
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<tr>
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<td>60.4</td>
</tr>
<tr>
<td>1999</td>
<td>53.7</td>
<td>47.4</td>
<td>66.5</td>
</tr>
</tbody>
</table>

**Figure 7:** The Informal Dollarisation in Ecuador

Source: Salgado Tamayo, Manuel Dr. *La Dolarización y sus efectos*, Boletín Economía, 85. (Quito: Instituto de Investigaciones Económicas, Facultad de Ciencias Económicas. Universidad Central del Ecuador, 2001)

In the intents to decrease the accelerated savings in US$, the Central Bank incremented the liquidity ratio to 24 percent of the total deposits and elevated the interest rate of the Bonds of Monetary Stabilisation to levels superior to 150 percent annual. Due to this circumstances, the investments already located at low levels, fell dramatically. The growth of GDP in 1999 was negative and equal to -7.3 percent, more than three times inferior to the demographic increase. This induced a large loss of the potential to generate wealth in the economy.

In 1999 the former president, Jamil Mahuad, proposed to dollarise the Ecuadorian economy, but his program was not part of an economic package. The suggestion came out of desperation when his approval rating fell below 10 percent. Until then, the adopted measures to handle the crisis had been unsuccessful. Although the proposal led to a rise in his approval rate he was soon ousted in a coup. However, his vice-president Gustavo Noboa recognised the popularity of the dollarisation and therefore moved aggressively to make the US$ the currency of Ecuador. The parity was fixed to 25,000 Sucres/US$. The currencies were permitted to circulate simultaneously for a period of one year. Despite minor problems, such as an initial lack of small change and low-denomination bills, the course of action proceeded smoothly. At the beginning of 2001, over 98 percent of all transactions were being conducted in US$ and familiarity with the new currency was widespread throughout the country.

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46 Abril, Galo, *La Dolarización, Efectos y Reformas*, (Quito: April, 2000), 2
4.1.2 The Consequences of the Official Dollarisation in Ecuador

The statistics show that the country’s economic outlook has stabilised since the dollarisation. GDP grew 2.3 percent in 2000 and as much as 5.4 percent in 2001\(^49\). However, serious economic problems remain. Poverty has more than doubled in the last six years. 70 percent of the population lived in poverty in 2000, up from 32 percent in 1995. The financial sector remains weak, and public confidence in Ecuadorian banks is extremely fragile.\(^50\)

The dollarisation has eliminated the possibilities of devaluation in Ecuador. Consequently this immediately decreased the currency risk or risk premium and the case in trading with the United States, the currency risk now is eliminated. The concepts, uncertainty, unfavourable expectations and speculation originated from the Sucre have now disappeared\(^51\). “The adoption of the dollar brought security to the people of knowing that they have a fixed currency: there is no devaluation. Under these two years that we have had the dollar the situation has been stable, one dollar is still 25,000 Sucres. This has permitted the companies to have more security in terms of the stock of raw material, the employees, and the relations with the exterior. On the one hand it has favoured the companies, and on the other hand it has also benefited the investors in some extent.” (Xavier Muños, Superintendente de Compañías)

The dollarisation has also opened the important credit market that is essential to many sectors.\(^52\) “The dollarisation means not having devaluation. Which is excellent. With 20 percent of devaluation and if you give 120 days credit of payment you are loosing money. Thus, you could make a profit in Sucre but as soon as you put your balance or money in dollars you are loosing money. Now with the dollarisation we are making money.” (Roy Calero, General Manager at Electrolux, Ecuador)

The elimination of the Sucre and consequently not having possibilities to devaluate is not solely good. Ecuador looses a traditional tool that has been used to generate the so-called real devaluation, and an adjustment mechanism to cushion the negative impact of real shocks.\(^53\) Furthermore, the exporting companies in Ecuador are not advantageous in relation to the change from 200

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\(^{50}\) Ecuador Explorer, www.ecuadorexplorer.com
\(^{51}\) Abril, Galo, La Dolarización, Efectos y Reformas, (Quito: April, 2000), 4
\(^{52}\) El Financiero, Línea blanca cubre expectativas del 2001, 26-30.11.2001, Guayaquil, 7
\(^{53}\) Baquero Latorre, Marco A, Pérdida de la Devaluación: Algunos Costos y Beneficios. (Nota Técnica No 64, 2001, www.bce.fin.ec), 1
percent devaluation to zero devaluation. They have been using price and consequently the devaluation as a comparative advantage. Loosing this advantage many of the exporting firms turn unprofitable and with the high inflation in dollars the situation become even worse. This is already reflected in a negative balance of trade.\textsuperscript{54}

Besides the disappearance of the devaluation concept as well as the elimination of the Ecuadorian State’s possibility to issue “undesired” money have together reduced the inflation rate. Before the inflation is able to lower to international levels there will be and it is going on, an adjustment period. As the statistics show (see figure 2) the inflation rate, in US$, was approximately 91 percent in 2000 and 22 percent in 2001.\textsuperscript{55} This is not to be compared with other high-inflation countries where the devaluation follows the same pace. After the dollarisation the prices have more than doubled. The producing companies, domestic and foreign, are now facing extremely high costs in all levels of their business. “With the high inflation that the country has had in dollar, the imported products result more profitable than the domestic produced ones. They have their fixed cost in dollar in contrast to the Ecuadorian products which production costs increment every day. The first impact of the dollarisation was highly positive. Overnight we saw our inventory, final products, products in process, and raw material, expressed in dollars was very cheap. But this effect diminished during the year 2000. With the difficulty to translate the prices into dollars and the plummet of the acquisition power of the Ecuadorian people, the profitability reached smaller and smaller values until they reached critic levels.” (Gustavo Adolfo Duque Meza, General Manager at Productos Familia del Ecuador) Although decreasing inflation, there are diverging opinions about the overall effects (positive or negative) of the loss of the monetary policy in the long run. The Latin American economies operate in a volatile international environment. The volatility is determined more than anything by the capital flows, and consequently the international financial market determines the economic cycles. In February 2000, Ecuador adopted the law “Ley de Transformación y Desarrollo Económico del Ecuador”. The essence of the law treats the loss of the monetary policy. One can argue that the politicians have failed to handle the monetary policy in the past, but with the dollarisation it is a fact that the country looses flexibility in controlling the volatility in the international financial markets.\textsuperscript{56}

\textsuperscript{54} de la Paz Vela, María. A la sombra del gigante herido, Gestión N o 88 October 2001, Ecuador, 18
\textsuperscript{55} Banco Central del Ecuador, \url{www.bce.fin.ec}
\textsuperscript{56} Benalcázar, René Dr. & José Villacís Paz y Miño, Revista Economía N o 97. (Quito: Instituto de Investigaciones Económicas, Facultad de Ciencias Económicas, Universidad Central del Ecuador, 2001), 20-21, 24
One of the objectives with the Ecuadorian dollarisation was to achieve a level of converged interest rates towards the ones in United States plus one percent that should reflect the country risk. At the end of 1999, just before the application of the dollarisation, the inter bank rate was over 150 percent (bid). In January 2000 the interbank rate decreased to an average of 58 percent and in January 2002 the same rate was 1.69 percent. In figure 8 we present the real interest rate (ask) for the period 1997-2001. Due to the elevated inflation rate the real interest rate 2000-2001 is negative. The nominal interest rate for the same period was approximately 16 percent. The nominal interest rate in Sucres was 1997, 37 percent and 1998-1999, over 60 percent.

![Figure 8: Average Real Referential Interest Rate (ask) 1997-2001](source: www.bcn.fin.ec)

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57 Banco Central del Ecuador. [www.bce.fin.ec](http://www.bce.fin.ec)
58 Brito, Vanessa. Dolarización: tanque de oxígeno para Mahuad, Gestión No 67 January 2000, 22-23
59 Banco Central del Ecuador. [www.bce.fin.ec](http://www.bce.fin.ec)

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28
4.1.3 Summary

In figure 3 we presented the potential effects of dollarisation. In figure 9 the most important and observed effects of Ecuador's dollarisation are presented.
4.2 Investment in Ecuador

4.2.1 Investment Statistics

4.2.1.1 Domestic Investment

The level of domestic investment in Ecuador is located at low levels. There are an average of five stockholders per company\(^61\), and financing projects might therefore be difficult. Businessmen do some investments but of negligible numbers\(^62\). The only domestic entity that has been investing important sums is the government\(^63\). Figure 10 shows the non-financial domestic investment corresponding to the period 1994-2001. We have chosen to present the data in an indexed form with respect to the different inflation rates. The original source\(^64\) is the nominal investment in Sucres and not US$ considering an assumption of the domestic investment is carried out in the local currency and not in a foreign currency.\(^65\)

![Figure 10: Domestic Investment (non-financial) 1994-2001](1997=100)

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\(^61\) Interview: Muños, Xavier. Superintendente de Compañías, 07.11.2001.

\(^62\) Informe de Labores 1999-2000. Superintendencia de Compañías, 88

\(^63\) Interview: Parreño, Lenin. Dirección de programación económica y políticas, Banco Central del Ecuador, 03.12.2001.

\(^64\) Superintendencia de Compañías - Dirección de Informática

\(^65\) Transforming the nominal investment data into US$ and using an average exchange rate (and therefore ignoring devaluation) gives almost exactly the same curve as in figure 10.

\(^66\) The input data for the years 2000 and 2001 are the nominal investment in US$ transformed to Sucres, using the fixed exchange rate, 25,000 Sucres/US$.

\(^67\) The data for 2001 corresponds to the period January – October.

\(^68\) The nominal investment expenditure in Sucres is indexed with respect to the inflation rate presented in figure 2, chapter 2 and the inflation rates used for 1994, 1995, and 1996 are, 19 percent 23 percent and 25.5 percent respectively. (Source: Banco Central del Ecuador: (www.bce.fin.ec))
Considering figure 10 one can observe a slightly up going trend of the domestic investment. 1997 was, thanks to a substantial investment in transportation, a good investment year in real terms. The dollarisation was announced and completed in 2000 and the inflation rate this year was almost 100 percent. However, even the nominal investment was located at low levels. 2001 is identified by a more than doubled amount spend on investment compared to 1997. The construction of a new pipeline created thousands of jobs in 2001 and other sectors are revising their investment plans in accordance to new and more stable conditions.69

4.2.1.2 Foreign Investment

The decision to invest in Ecuador depends basically on the access to markets, access to natural resources, and access to human resources. It seems like there are converging opinions about the effects of the dollarisation. In a qualitative study, almost 90 percent of the respondents (businessmen) believe that this new macroeconomic change implicates similar or better conditions than before.70 Figure 11 illustrates the non-financial foreign investment in Ecuador during the period 1994 -2001.71 We have chosen to present a series of indexed data where the devaluation is not taken into consideration. The source of information72 is the nominal investment in US$ considering an assumption about the major part of the FDI is accomplished in US$.

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69 Informe de Labores 1999-2000. Superintendencia de Compañías, 88
70 Granada & Lucio Paredes, 1, 4-5, 14
71 The data for 2001 correspond to the period January – June.
72 Superintendencia de Compañías - Dirección de Informática
73 The data for 2001 correspond to the period January – June.
74 The data for 1994-1999 has been transformed from Sucres to Dollars, using the intermediate interbank sell rate for the corresponding period.
The largest foreign investors in Ecuador are petroleum companies engaged in exploration and production in the Amazon Basin, including Occidental Energy. Despite attempts from the Ecuadorian government to attract investors in other sectors than petroleum, foreign investment remains to be concentrated in the oil sector. The construction of the Transandean Heavy Oil Pipeline from 2001-2003 reinforces this trend and constitutes the major explanation of the extremely positive trend in figure 11. Except from the petroleum industry, the economic activities that attract most foreign investment are construction, the industrial sector, the commercial sector and agriculture. In 2000 and 2001 the tourism was very important. There are many possibilities to improvements, in particular the ecological tourism that possesses extraordinary conditions in Ecuador.75

4.2.2 Investment Climate in Ecuador

The current regime in Ecuador and its congress have approved to implement considerable changes in order to improve the former investment climate and by that increase both domestic and foreign investments.76 The subject is of primary interest, especially when the investments undertaken and planned in the future are far from the level of satisfaction.77 One of the main reasons to the low level of investment is the presence of corruption. Transparency International ranked Ecuador last among countries it surveyed in the region in its 2000 Corruption Perceptions Index. The ranking conveys the views of international investors operating in the country. Ecuador has laws and regulations to combat official corruption, but they are rarely enforced.78

A governmental modernisation program is in progress but was effectively blocked in the Ecuadorian congress for a number of years, just enough to slow down the development of the economy. The ones who saw their power disappear and by that also the opportunity to make money through bribes was fighting their tale off in an attempt to keep the old system intact.79 The corruption problem is widespread through the whole system and illicit payments for official services and theft of public funds takes place frequently. Dispute settlement procedures are complicated by the lack of transparency in the juridical system and the openness of many judges to bribery.80 Another effect is that potential investors and those already existing never knows whether the

75 Interview: Muños, Xavier.
76 Abril, Galo (2001), Investment Considerations, CONAM, 15
77 Banco Central del Ecuador (2001) Investment Comparison Study, Final Report, 10
78 de la Paz Vela, María. Inseguridad Jurídica: Traba para la inversión extranjera, Gestión N o 55 January 1999, 12-18
79 Interview: Abril, Galo. CONAM, 14.11.2001
www.usatrade.org
local authorities will demand any “gratuities” for issuing necessary permits, absolutely essential for expansion or to set up a business. Nevertheless, the grave corruption is of greatest concern to politicians and future investors mostly because it creates an environment were political disorganisation and officious bureaucracy having a considerable negative impact on the economy. Their presence results in difficulties to achieve national consensus and cooperation necessary to effect wide-ranging macroeconomic reforms and restructuring. A high degree of officiousness on the part of the Ecuadorian governments bureaucracy, especially at the middle and lower levels which function at the day-to-day confrontational level. Bureaucrats are alleged to violate the law on occasions and to continue to delay reforms and harass business firms and entrepreneurs. “I have been through this with a number of private firms and they uniformly complains at length about the bureaucracy’s ability to create situations of increasing costs involved with any interaction with the government. This generates unnecessary complications, unreasonable demands, excessive delays in normally routine operations and with the situation reaching crisis proportions in customs administration, the provision of government owned public services and the processing of labour disputes.”(Galo Abril, CONAM). One of our respondents confirmed the customs-administration problem when he complained about the unnecessarily complex and lengthy imports procedures and practices of Ecuadorian customs. Costs associated with such procedures and delays often surpass any tariff reduction or exemption granted as incentives.

4.2.3 Foreign Investment in Ecuador

Ecuador’s foreign trade policy is aimed at the integration of Ecuador into the global economy and the creation of commercial opportunities for Ecuadorian goods and services abroad. This policy combines unilateral trade measures with bilateral, regional and multilateral negotiations, including the reduction of trade barriers, increased transparency and the establishment of dispute settlement mechanisms. Ecuador recently created the External Trade and Investment Council (COMEXI) and the Export and Investment Promotion Corporation (CORPEI) to monitor the promotion of trade and investment.

4.2.3.1 Legal Framework for FDI in Ecuador

The Ecuadorian FDI regime has done significant progress considering new laws, regulations and policies in order to attract foreign investors. “It has taken a substantial amount of hard work be-

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81 Interview: Hansen, Odd. Swedish Consulate in Ecuador, 07.11.2001
82 Interview: Calero, Roy. Electrolux, Ecuador, 28.11.2001
83 Banco Central, (2001), Investment Comparison Study, Final Report, 3-4
fore all these improvements could be feasible. For example, the investment law enacted in 1997, was followed by an investment guarantee to foreign investors which assures a company, investing in Ecuador, that those regulations and laws, including tax laws, held when the contract was signed will continue to be so under the contract. Under current regulations, foreign investors receive the same rights, both financial and juridical, of entry as Ecuadorian private investors. Foreign investment with up to 100 percent foreign equity is allowed without prior authorisation or screening in most sectors of the Ecuadorian economy currently open to domestic private investment.” (Galo Abril, CONAM) The problem is that theory and practice do not coincide, an experience well known for many investors. Therefore, this should be kept in mind when reading this section on account of the legal framework for FDI in Ecuador.

In 1999, the Ecuadorian government created the Ecuadorian Intellectual Property Institution, IPR, to handle all disputes concerning registration of patents, trademarks and copyrights. Since the establishment of IPR, enforcement has indeed improved. Ecuador’s intellectual property regime is governed by the “Law on Intellectual Property” adopted in 1998. The law provides criminal and administrative relief to right holders. However, the compulsory registration of patents is relatively limited and the new IPR law does not give adequate protection for “second use” patent. Concerning trademarks, foreign investors are permitted to register their trademarks in 10 years periods. It is the same process when companies want to renew existing ones.

The government has established liberal foreign investment laws and policies, granting foreign investors equal treatment as domestic investors. Foreign investors are allowed free remittance of profits or dividends and free repatriation of capital. This means that foreign entities are allowed to own business enterprises and engage in almost all forms of business activity.

4.2.3.2 Incentives and Disincentives for Foreign Investment in Ecuador
The investment decision in Ecuador depends basically upon the access to markets. Also the access to natural resources is important, especially in the petroleum and agriculture sector. Although a small market in itself in comparison to other major Latin American nations, Ecuador nevertheless counts a number of basic general incentives for FDI. It has an ideal geographic

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86 Abril, Galo (2001), Investment Considerations, CONAM, 11-16
87 Granada & Lucio Paredes, 4-5
location, capable of serving the extend Andean market, especially by air from two major cities. It compromises an unusual variety of climates hospitable to nearly all forms of traditional and non-traditional agriculture, a sector in which it is universally agreed to have significant natural comparative advantages. It is well endowed with basic natural resources, providing a degree of natural comparative advantages in the exploitation of minerals, petroleum and fisheries. In terms of the manufacturing sector it is believed to have notable comparative advantages in the areas of textiles, yarn and fabric, non-metallic mineral manufacturing and chemicals.\footnote{88 Banco Central, (2001), Investment Comparison Study, Final Report, 15-16}

Despite its laudable progress in recent initiatives to eliminate a number of overt barriers for foreign investments, Ecuador still exhibits a number of significant disincentives to FDI.\footnote{89 Ibid., 44} Specific disincentives are targeted directly on foreign investments or whose impact appears to fall more heavily upon foreign investors than on wholly domestic firms. These arise out of law and regulations and government policies.\footnote{90 Ecuador Commercial Guide, U.S. Foreign Commercial Service and U.S. Department of State, 2001. \url{www.usatrade.org}}

The labour regime in Ecuador is known as a specific disincentive to foreign investments. Although it affects all business firms, it has a particularly inhibiting impact on potential foreign investments. The basic reason is that the entire system is biased against and unfair to private enterprises. Moreover, an unduly rigid, prejudicial labour regime may be counterproductive since it tends to lead enterprises to seek investments in technology, designed to reduce the overall percentage level of labour inputs. Furthermore, the Ecuadorian labour laws and processes procedures adopted years ago are highly politicised and stacked against management.\footnote{91 Banco Central, (2001), Investment Comparison Study, Final Report, 63}

The most complex problem and explanation to why foreign investors refrain investments is the clear and present corruption, which is widespread in Ecuador (see page 32). Closely related to this problem is the lack of legal security existing in practise for foreign investors. “One of the backsides of the corruption in Ecuador is its impact on the legal system. There is no legal security. This converts into a problem if you, which is not that uncommon, should be in a situation of dispute. There exist laws but the judges are influenced of bribes and do not judge in accordance with the law.” (Odd Hansen, General Consul, the Swedish Consulate in Ecuador) The investor who wants to do all things right, takes very serious on the problems of the juridical inconsistency with the
principles of confidence and stability. Continuous change of laws and regulations, and in many cases the defective application, destroys other aspects having a direct effect on the investment policy and forces the investor to search other alternatives.\textsuperscript{92} 2002 is election year and the rules of the games are expected to change once again. Two of our foreign company-respondents were very preoccupied concerning this theme and one of them explained that depending on the outcome they were more or less prepared to leave Ecuador in spite of extremely good profit rate in recent years.

4.2.3.3 Opacity in Ecuador and Regional Neighbours\textsuperscript{93}

Figure 12 shows the O-factor score for Ecuador and the other countries present in the Opacity Index Project. The underlying key factors presented earlier are also available below. The result shows that Ecuador is noted with the highest score in three out of five components, establishing the highest level of opacity. It is only when economic policy and regulatory system is measured that another country is noted with a higher score.\textsuperscript{94}

<table>
<thead>
<tr>
<th>Country</th>
<th>C</th>
<th>L</th>
<th>E</th>
<th>A</th>
<th>R</th>
<th>O-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>56</td>
<td>63</td>
<td>68</td>
<td>49</td>
<td>67</td>
<td>61</td>
</tr>
<tr>
<td>Brazil</td>
<td>53</td>
<td>59</td>
<td>68</td>
<td>63</td>
<td>62</td>
<td>61</td>
</tr>
<tr>
<td>Uruguay</td>
<td>44</td>
<td>56</td>
<td>61</td>
<td>56</td>
<td>49</td>
<td>53</td>
</tr>
<tr>
<td>Chile</td>
<td>30</td>
<td>32</td>
<td>52</td>
<td>28</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Colombia</td>
<td>48</td>
<td>66</td>
<td>77</td>
<td>55</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>Ecuador</td>
<td>60</td>
<td>72</td>
<td>78</td>
<td>68</td>
<td>62</td>
<td>68</td>
</tr>
<tr>
<td>Mexico</td>
<td>42</td>
<td>58</td>
<td>57</td>
<td>29</td>
<td>52</td>
<td>48</td>
</tr>
<tr>
<td>Peru</td>
<td>46</td>
<td>58</td>
<td>65</td>
<td>61</td>
<td>57</td>
<td>58</td>
</tr>
<tr>
<td>Venezuela</td>
<td>53</td>
<td>68</td>
<td>80</td>
<td>50</td>
<td>67</td>
<td>63</td>
</tr>
</tbody>
</table>

Figure 12: Scores for O-factor and Components: Ecuador and Regional Neighbours. Source: Opacity Index. www.opacityindex.com

One question that should be asked is if the O-factor, in the real world, does have a meaning. Figure 13 summarises the research to date on the cost of opacity. Even here the numbers are estimates but generated by statistical studies of publicly available data in conjunction with the opacity index. Even if the numbers are estimates they do indicate real costs to investing business and

\textsuperscript{92} Granada & Lucio Paredes, 11

\textsuperscript{93} Opacity Index, www.opacityindex.com

\textsuperscript{94} Once again we would like to emphasise that these numbers are estimates and should therefore not be used for competitive matters. Instead one should see the differences as a possibility for less transparent countries to learn from those with greater transparency.
governments. Not to forget is that these costs ultimately affects the country itself and its economy due to the presence of opacity.

<table>
<thead>
<tr>
<th>Country</th>
<th>O-factor</th>
<th>Tax-Equivalent (%)</th>
<th>Opacity-Risk Premium (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>61</td>
<td>25</td>
<td>6.39</td>
</tr>
<tr>
<td>Brazil</td>
<td>61</td>
<td>25</td>
<td>6.45</td>
</tr>
<tr>
<td>Uruguay</td>
<td>53</td>
<td>19</td>
<td>4.52</td>
</tr>
<tr>
<td>Chile</td>
<td>36</td>
<td>5</td>
<td>0.03</td>
</tr>
<tr>
<td>Colombia</td>
<td>60</td>
<td>25</td>
<td>6.32</td>
</tr>
<tr>
<td>Ecuador</td>
<td>68</td>
<td>31</td>
<td>8.26</td>
</tr>
<tr>
<td>Mexico</td>
<td>48</td>
<td>15</td>
<td>3.08</td>
</tr>
<tr>
<td>Peru</td>
<td>58</td>
<td>23</td>
<td>5.63</td>
</tr>
<tr>
<td>Venezuela</td>
<td>63</td>
<td>27</td>
<td>7.12</td>
</tr>
</tbody>
</table>

**Figure 13:** The Cost of Opacity: Ecuador and Regional Neighbours
Source: Opacity Index. [www.opacityindex.com](http://www.opacityindex.com)

Column 1 arrays O-factor scores for Ecuador and regional neighbours included in the survey. The subsequent columns show the results of using these scores in conjunction with other data, in order to estimate three different negative effects of opacity on capital markets. Column 2 shows the estimated impact of opacity, as if it is present would levies a hidden surtax of investments into a country and FDI. Chile serves as a benchmark for the rest of the countries. It should be clear that the O-factor exacts a considerable hidden tax, which in turn will have negative effects on corporate investments. In Column 3 appear estimates of the additional risk premium required by investors purchasing the sovereign debt issued by governments in the region. Several qualifications must be kept in mind to align these numbers as realistically, especially with the actual interest rate of sovereign bonds. However these numbers points towards an additional cost due to opacity. Calculations based on the denomination of the bond as well as on the amount of hard currency reserves indicate that each point on the Opacity index results in an extra risk premium demanded by investors.

Figure 14 below, shows the estimated quantity of deterred FDI due to opacity for Ecuador and its regional neighbours Ecuador is noted with the highest O-factor score owing to its high perceived corruption, legal and accounting opacity. This in turn indicates that it is within these fields that the country has the greatest opportunities to improvements. The level of estimated deterred FDI, at between 135 and 179 percent or US$977 million to US$1.295 billion, speaks for itself and constitutes an enormous opportunity to increase the level of FDI by reducing opacity.
<table>
<thead>
<tr>
<th>Country</th>
<th>Survey O-factor</th>
<th>Dettered FDI (%) Lower Bound</th>
<th>Dettered FDI (US$ Millions) Lower Bound</th>
<th>Dettered FDI (%) Point Estimate</th>
<th>Dettered FDI (US$ Millions) Point Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>60</td>
<td>105</td>
<td>14,15</td>
<td>139</td>
<td>18,732</td>
</tr>
<tr>
<td>Brazil</td>
<td>61</td>
<td>106</td>
<td>30,267</td>
<td>141</td>
<td>40,261</td>
</tr>
<tr>
<td>Chile</td>
<td>36</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Colombia</td>
<td>60</td>
<td>104</td>
<td>3,462</td>
<td>138</td>
<td>4,593</td>
</tr>
<tr>
<td>Ecuador</td>
<td>68</td>
<td>135</td>
<td>977</td>
<td>179</td>
<td>1,295</td>
</tr>
<tr>
<td>Peru</td>
<td>58</td>
<td>93</td>
<td>1,787</td>
<td>123</td>
<td>2,363</td>
</tr>
<tr>
<td>Uruguay</td>
<td>53</td>
<td>75</td>
<td>132</td>
<td>100</td>
<td>176</td>
</tr>
<tr>
<td>Venezuela</td>
<td>63</td>
<td>117</td>
<td>5,275</td>
<td>155</td>
<td>6,988</td>
</tr>
</tbody>
</table>

* The calculations in the report are based on the point estimates of a particular regression and involve assumptions. This in turn makes it possible for the reader to make alternative calculations and assumptions.

** The dollar amounts of deterred FDI, in millions of US$ at the 1999 price, are computed in the following way. First of all the average inflow of FDI over a three year period, 1997-1999, are calculated based on country-specific balance of payment data from the IMF. Second, this average is multiplied by the estimated percentage loss of FDI to arrive at the estimated dollar amount of deterred FDI.

*** Two different kinds of deterred FDI is presented in the report. On the one hand we have percentage terms and on the other related estimates in US$. The relationship between opacity and deterred FDI is assumed to be very closed but is of course not proved to be completely related. To show this the authors created a lower-bound range which represents the uncertainty of the relationship between deterred FDI and opacity being a precise number, rather than falling somewhere within a range. The lower-bound estimates represent the amount of deterred FDI at the lower end of this range.

### 4.2.4 The Country Risk in Ecuador

The country risk is visible as a rise of the interest rate. For example, to buy "Global Bonds" issued by Ecuador, the investors require an effective return of 18 percent annually to the determined duration. This implies if the Brady Bonds pay 5 percent annually the Ecuadorian risk is 13 percent. This rate corresponds to the value of the excessive interest rate that an investor demands to invest in Ecuador instead of the United States. The qualification of Ecuador by the rating agencies is not very advantageous. As a comparison, the qualification of Ecuador’s long-term country risk is less favourable than Cuba’s. (Compare in this case Moody’s rating for Ecuador Caa2 and for Cuba, Caa1.)

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95. Although this example consider a financial investment it is here the most suitable to explain the country risk. The line of reasoning can of course be translated into a non-financial investment.

96. Ambram (2001), Revista Ekos, No 17, 9
In the end of 2001, Standard & Poor’s revised its outlook on its long-term ratings on Ecuador to stable from negative. At the same time, the rating agency affirmed its triple-‘C’+ long-term and single-‘C’ short-term local and foreign currency sovereign credit ratings. The outlook revision reflected an improved policy and financing prospects streaming from recent progress toward completion of the government’s standby agreement with the IMF. An ongoing commitment to an IMF program, as well as positive relations with other multilateral and bilateral creditors, is crucial from a credit perspective. Ecuador does not have access to affordable external market finance, and funding from the domestic market is limited. Financing of any fiscal shortfall from the Finance Ministry’s 2002 planned budget and of amortisation depend upon official external resources, which in turn, depend upon successful adherence to the current IMF program and ability to negotiate a subsequent IMF agreement. However, short- and medium-term fiscal and political confrontations remain. Dollarisation and limited financing capabilities severely limit room for fiscal policy manoeuvring in Ecuador. The Ecuadorian oil basket implies spending cuts for the 2002 budget that could be difficult in an election year. The fragile state of public-sector banks presents additional risk. While Ecuador has balanced its general government budget in 2000-2001, a heavy general government debt burden of 77 percent of GDP limits flexibility, highlighting the need for sustained fiscal adjustment. Political and judicial constraints continue to obstruct fiscal and structural reform (such as privatisation).97

The actual consequences of a change in rating may be extensive, because many of the international operators, in particular the private ones, follow these ratings almost mechanically. The risk qualifications of the private agencies affect the “desire” of the private investors, institutional and non-institutional. For Ecuador it also exist a superior qualificator, the IMF. Their opinion has not only a large impact on private investors but also on the financial multilateral organisms.98

The country risk of Ecuador, proportionate by JP Morgan, registered a historical low this year, 2002, by closing at 11 percent, lower than Argentina and Venezuela. The JP Morgan country risk measures, in percent, the risk differential between the debt sobering of an emerging country and the one issued by the Treasury Department in United States. The highest level registered on the indicator was in June 2000, 47.12 percent. In parallel forms the prices of the “Global Bonds”,

97 Standard & Poor’s, Outlook on Ecuador Revised to Stable, www.standardandpoors.com
98 Ambram (2001), Revista Ekos, N o 17, 9
both 12 years and 30 years, showed recuperation in the prices of sale. On the 22 of January the prices were 80.75 respectively 53.75 in comparison to the 18 of January 2002, 79.25 and 52.75.99

4.2.5 Summary

In section 4.2 we have distinguished several factors that determine the investment in Ecuador. On the one hand we have the real interest rate and on the other hand we have the expected profit rate. In figure 15 the investment function for Ecuador and especially the factors that determine the expected profit rate are distinguished.

\[ I = I (r, \Pi^*) \]

Figure 15: The Investment Decision

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99 Bolsa de Valores de Quito, [www.ccbvq.com/bolsa](http://www.ccbvq.com/bolsa)
4.3 Summary

In this chapter we have described our empirical findings. We have given an account of the underlying factors to the dollarisation in Ecuador and the consequences that followed as well as potential benefits and costs. Both real and possible consequences relevant to this thesis are shown in figure 16. Later on, we continued to give an overall picture of the investment statistics on domestic and foreign investments. The chapter is concluded with a description of the overall investment climate and the underlying determinants, issues of decisive importance for any investor.

<table>
<thead>
<tr>
<th>Elimination of devaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower inflation rate</td>
</tr>
<tr>
<td>Lower interest rates</td>
</tr>
<tr>
<td>Loss of seigniorage</td>
</tr>
<tr>
<td>Loss of monetary policy</td>
</tr>
<tr>
<td>Loss of lender of last resort</td>
</tr>
</tbody>
</table>

\[ I = I (r, \Pi') \]

**Figure 16**: Summary Chapter 4
5 Analysis

We have in the frame of references presented the components of the investment decision and in the empirical chapter presented what constitutes the investment decision in Ecuador. All of that is summarised in figure 14 in the empirical chapter 4. Figure 15 and 16 will be our point of action in analysing our data. In this chapter we are going to analyse how, if, and what impact the dollarisation have had on investment decision until now and also present what may happen in the future. We will also consider aspects that may slow down the power of the dollarisation.

Before we go any further, we would like to emphasise that the credibility of the Ecuadorian market is not attribute of an economic or monetary system that cannot easily be imported together with a strong currency. In exchange it is something that the country has to generate, struggle for, and finally achieve due to hard work. Security and credibility are two main features not to be failed in the governmental policy. Therefore, without a convincing approach it will be difficult see a substantial raise in investment despite the use of the US$. Our assumption is that if the dollarisation effects contributing to higher credibility are too small or if the effects that reduce the credibility are to many, the country may have difficulties to attract investors. The situation will turn even more difficult if there are a lot of supportive factors that the dollarisation cannot affect.

5.1 Interest rate

In theory the interest rate is of crucial importance when deciding whether or not undertaking an investment. The statistics show that the interest rate has without any doubt adopted a decreasing trend after the adoption of the US$. The reduction can exclusively be related to the benefits of the dollarisation. Although negative in real terms it is still excessive in a dollarisation framework and even more excessive reflecting the cost of money that operates in the international market. Besides the adoption of a stronger currency and lower inflation, the desirable convergence to international levels depends in a great extent on the country risk. Therefore, the interest rate will still remain at higher levels reflecting the risk for fiscal crisis, financial crisis and devastating of debt.

In any case, we believe that the elimination of the devaluation and the lower interest rates permit the repayment of debt to the productive sector and eventually make room for investments that may reactivate the economy. Lower interest rates have the potential to open up for all this investment projects that have been marginalized due to the elevated costs of credit. In a near future
it is of essence to find an equilibrium interest rate where investment is profitable and where savings is stimulated and not eroded by a negative or too low real interest rate.

5.2 Expected Profit Rate

We are fairly sure that the present condition of the basic factors that determine both set-up costs and expected profitability affect the potential investors view in a negative way. Our analysis is that, in theory, significant improvements have been achieved, but the investment climate still favours diversion instead of production. It seems like the conditions in Ecuador are not favouring neither domestic nor foreign investments. The main reason could be that the Ecuadorian scene is unstable due to the rules of the game are constantly changing. Even if the present government have managed to perform considerable changes in order to improve the legal security and eliminate structures that make corruption possible, the present situation refrain the investments.

5.2.1 Macroeconomic Environment

The current regime has made great effort to improve the macroeconomic climate in Ecuador, but the lack of former initiatives has caused great damage to the country’s economy. The unstable economic environment in Ecuador has made a normal development of the productive sector extremely difficult. This is why they are lagging behind the pace of macroeconomic reforms, economic growth and prospects compared to its regional neighbours.

We support our opinion of that the causes to the macroeconomic instability in Ecuador consists of two main contributory factors. On the one hand we have the fiscal indiscipline caused by continuous deficits and the bad quality of spending, something that have been covered in a great extent with foreign and domestic debt. On the other hand, the use of the Central Bank as an instrument of finance of the economy (the productive sector, bank sector, and the State), and this despite legal and constitutional prohibits, has turned more strict over time. Our opinion is that, all together this has caused a climate of enormous risk and non-credibility. In some way this theme improved with the dollarisation, most of all in terms of incentives to efficiency, clarity and transparency of accounts, and an overall serenity. In another way the dollarisation may increase the risk from various points of views. The banks do not have a lender of last resort, the government cannot easily finance via inflation, and the devaluation instrument has disappeared. In this context it is important to consider the fiscal policy as a valuable instrument with whom one accounts to incorporate positive elements in a process of recuperation like the one initiated in the
country and at last achieve the objective of improving the image of Ecuador to foreign investors.

The dollarisation has thus far, proven been successful in stabilising the Ecuadorian economy. In 2001 inflation declined towards 20 percent and real GDP growth surpassed 5 percent, outperforming the Latin American region. In addition, the construction of the long-awaited second oil pipeline is in progress. One can speculate about whether the dollarisation was the releasing factor to the construction of the pipeline that had been planned for over ten years. If that holds for true, the dollarisation has had an extremely important impact on the investment. We believe that our data gives us objective reasons to state that the, thanks to the dollarisation, decreasing inflation rate, absence of a volatile exchange rate, and lower interest rates, etc. is about to reactivate the investment. It is now easier to do prognoses of earnings, profit, costs and prices. One can say that the new environment has in some extent transformed uncertainty to risk, which is easier for the investor to price. When the uncertainty is transformed into risk it is easier for the investor to predict a real cost of the investment, consequently easier determine whether an investment is profitable to undertake or not. However, there are still many factors contributing to an uncertain investment climate.

5.2.2 Political Insecurity

Bureaucracy distinguishes the institutions and the political system in Ecuador. It does not exist confidence about, that the power of the State achieve consensus in the moment of forming the economic policy and consequently no guarantee of their investment. To correct the non-existing level of credibility a series of compromises from the government is required, including the reduction of the size of the state. Exist a nonnumeric of entities that have the potential of financial autonomy without being a burden to the State. Additionally, this should implicate incentives to be more effective. Ecuador is also characterised by political insecurity in the recent past. We are assuming that one of the factors which contributes to why, foreign investors in particular, are adopting a wait-and-see policy in their investment decisions is the election this year. It is impossible to tell what result any outcome might bring and if the current path of reforms, to put finances in order, will be held under an eventual new regime.

Uncertainty exists when the investors are unsure of the rules of the game. Many investors refuse to have uncertain assets in their portfolio. The absence of adequate information results in that nobody invests because nobody can determine the odds of reaping a fair return on investment.
We have not been able to establish any improvements connected to the dollarisation within institutions or the political system in Ecuador. This is a theme of great importance to the investor, especially to the foreign investor, and will continue to deteriorate investments independent of the adoption of the US$ or not. We find it most likely that the insecurity on the political level, indirect reduces some of the favourable dollarisation effects on investment. If the uncertainty would not exist, more investors may be interested in investing in Ecuador due to the new macroeconomic benefits. It is also possible that the political insecurity has struck foreign investment harder than the domestic investment. The local players are used to the insecure environment and are more skilled in taking these factors into consideration when deciding whether to invest or not.

5.2.3 Size of the Market

The size of the market is one of the determinants to the expected profitability of an investment. Ecuador has a small and poor population in monetary terms that makes it more difficult for the investor to reap return from their sales. The size of the market is closely related to the purchasing power, which in turn is related to, among other things, the GDP per capita. As shown in figure 2, the GDP per capita has lowered after the dollarisation. The high inflation in dollar during the transition period has caused severe effects on GDP per capita. However, in 2002 the inflation rate is expected to halve and with the high growth rate started in 2001 this negative trend may change. Hence, the dollarisation have a positive impact on the growth rate and with a higher growth the market size will also increase, which in turn may lead to higher expectations of profit and consequently higher domestic and foreign investment. Not only the size of the domestic market determine the size of the market but also the openness to international trade. In theory, Ecuador is an open economy. It is in the first hand tariffs, various trade related agreements and governmental decisions that determine this part of the market size. We cannot see how the dollarisation should have an impact over the openness of the economy and the market size is therefore only partly affected of the dollarisation. Unless Ecuador can hold the promise to keep to its current path of reforms and new regulations or of being an effective export platform to the other members of the Andean pact, potential investors are likely to pass up Ecuador for the volume gains and consequent profits realisable elsewhere.

5.2.4 FDI-Regime

In theory Ecuador has a FDI regime shaped to encourage foreign investment. Many changes are in progress that will, if working, have a positive effect on FDI. The reform package, launched at the same time as the decision to dollarise, contained many new laws and regulations but as long
as the industry is fairly concentrated to the State and a few large players, nothing will change the fact that future investors are seeking other alternatives. The above line of reasoning makes it clear that the dollarisation is not able to influence the regime for the foreign investment. We find it more likely that the regime slows down the positive effects of the dollarisation. The large actors may have certain invisible advantages and powers. Even though more favourable investment projections is possible due to the dollarisation effects, it may be difficult to enter the market or posses the same rights as these large players.

5.2.5 Opacity

We have seen in the empirical section that Ecuador was noted with the highest level of opacity in comparison with its regional neighbours, most and foremost owing to the high level of corruption and legal opacity. With this in mind and taking as a starting point that FDI is one of the utmost important questions for economic growth it is no understatement to say that the current level of opacity serves as a substantial disadvantage for Ecuador in its attempt to attract foreign investors. The question is how these two are related to each other and why it is of crucial importance for the Ecuadorian government to break this pattern.

We will try to show this relation with the following reasoning. Let us assume that the low level of productivity due to opacity inevitable leads to low wages. This is consistent with a decrease in savings and investments. In turn, this tends to lower the productivity, which also has been the case in Ecuador during the last decade. It is most likely, if this situation holds, that the final result will be underdevelopment. We believe that an increase of FDI could help to break this pattern. New technology in combination with better know-how and efficient management should contribute to higher stocks of savings and improved productivity. In the long run, problems with inefficient labour and capital stocks should be adjusted to demanded level and result in a long-term economic growth. This will also be a result from increasing entrepreneurship needed in order to meet growing demands on goods and services.

We have formed our opinion of that the inability to attract FDI and to reach this development is most and foremost caused by the high level of corruption which is endemic on all levels in the society. Both domestic and foreign investments are affected through corruption but especially the latter one. Foreign investors, those who despite their knowledge of high corruption, decides to invest in Ecuador might in return demand special considerations such as tax breaks or immunity from certain regulations. Such considerations will in turn substantiate the influence of corruption.
We have seen that the power of the industry is concentrated, which we believe contributes to the most detrimental effect, namely that the proceeds from existing FDI are not distributed through the economy but divert instead into the hands of a powerful few.

The opaque legal system is another factor why investors are seeking other alternatives to the Ecuadorian market. We have seen that foreign investors cannot be sure whether they will face the same rights as domestic investors or if their legal rights will be held under the contract or changed during the next day. Among the new regulations, property rights were one of the main issues for the government to deal with. This is just an example of how, even if legislated, certain features create uncertainty in a country where corruption rules. This uncertainty might as well lead to an unwillingness to share for example intellectual property or engage in certain kinds of technology transfer. We are convinced that the absolute consequence from this, when investors lack confidence in the Ecuadorian legal system, foreign direct investments will be structured to ensure that the proceeds are invested elsewhere.

Instead of seeing problems, Ecuador should see their level of opacity as a great opportunity to improve their economic environment. We have learned, from the empirical section where we discussed the cost of opacity in terms of deterred FDI, that statistical tests show that Ecuador could expect a great an increase in FDI if they manage to lower their level of opacity to the same as the benchmark country. The changes so far have been theoretical but are still not believed to hold in practice. Besides the above-mentioned factors, the fact that the unfavourable investment climate has been significant for Ecuador during the last decades, contributes to maintain the investors opinion of not doing business in the country. Many of the legislated changes were taken with the purpose to strengthen the positive effects from the dollarisation. However, as long as these regulated rules are met with doubtfulness from foreign investors many of those absolutely necessary investments, to create long term economic growth and economic stability, will be kept in transit.

5.2.6 Country Risk

It seems like the dollarisation has had only some impact on the country risk of Ecuador. There are still a variety of factors that contribute to a risky and uncertain environment for the investor. This will require the interest rates to exceed the international levels just to attract the highly needed capital. We believe that the decrease of the country risk in Ecuador depends fundamentally on the macroeconomic stability reflected in the growth rate of GDP of 5.4 percent, the lev-
els of foreign investment and the possible agreements with IMF. If the influential private rating agencies lower their country risk for Ecuador, this could mean a lot to foreign investment. Although decreasing, the country risk is still high and it will take a substantial amount of time and work before it could reach a more normal level. If the positive effects of the dollarisation remain, it is up to all the above-mentioned factors (that the dollarisation cannot affect, but yet have an impact on foreign investment) to improve.
6 Conclusions

The dollarisation is an unusual macroeconomic measure that affects the investment in some extent but is not to be seen as a magic potion or an overall solution. In the final chapter we will present the conclusions of this thesis.

The immediate and short run consequences of the dollarisation like, the elimination of devaluation lower inflation, and lower interest rates have stabilised the Ecuadorian economy in some extent. Even the country risk has lowered partly due to the effects of the dollarisation, something that was not predicted neither by our applied theory nor by our respondents nor by the major part of our secondary sources. The widespread uncertainty that constitutes as a disincentive to both foreign and domestic investment has now partly been transformed into risk. Nevertheless, Ecuador is still an insecure place where to invest due to the rules of the game are unreliable. The dollarisation does not have any impact on much of the variables that constitutes the economic environment, like the lack of finance possibilities, political insecurity, opacity, legal security and corruption. The negative effects of the dollarisation are not to be underestimated in the long run. Several of these variables in fact reduce the benefits of the dollarisation.

As our empirical study show, the investment indeed has increased after the dollarisation. Still the major part of the investments in 2001 is related to the construction of the new pipeline that in and of itself is a direct consequence of the dollarisation. The fact that Ecuador took the decision to dollarise two years ago makes it impossible to come to any absolute and final conclusions about its effect on investment. The underlying factors which causes the unreliable environment in which domestic and foreign investors have to operate within and the up coming election actually convert our conclusions into economic forecasts for the next year. We can see on the one hand that the conditions for both domestic and foreign investors have improved and on the other hand we see the risky and constantly changing environment where the investments have to breed.

However, the short run conclusion that we have been able to state so far is that the investment has increased as a direct consequence of the dollarisation. With some certainty we can say that all the previewed benefits of the experts have not appeared. If this is a question of time is hard to tell. An important fact, not to be overlooked, is that the dollarisation was followed by a period filled with substantial adjustments. This in turn could have played a significant role considering the development of the positive effects attributed to the process. If the dollarisation implies
stronger confidence and higher stability it will mean a lot to the Ecuadorian economy. The national savings will increase, the return on capital will increase, the foreign savings and direct investments will increase and finally the interest rates will decrease (international interest rate plus country risk). Together they will contribute to increment the investments, reactivate the production and increase employment. Credibility and security implicates the possibility of return on Ecuadorian capital, deposited abroad and the beginning, with support from the foreign direct investment, of investment projects. Unfortunately the dollarisation is not a panacea. The government has to do an effort to improve their credibility and the investment climate in terms of laws, elimination of opacity, etc. Just then, the investment will have sufficient preconditions to skyrocket.
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