

Crisis and Dollarization in Ecuador Stability, Growth, and Social Equity

Paul Beckerman and Andrés Solimano Editors



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Preface

Understanding the nature of deep economic crises and social disarray and formulating adequate exchange rate and other policies for stabilization, growth, and social equity are topics of great importance in developing countries and emerging economies in the turbulent world of the early 21st century.

The experience of Ecuador in the late 1990s and the early 21st century showcases a country with structural problems of low growth, regional divides, and social and ethnic fragmentation made more acute by a severe currency and banking crisis in the late 1990s. Ecuador's response to the crisis centered on the adoption of foreign money-dollarizationas a last-resort measure to cope with total distrust in the national currency and domestic institutions after repeated cycles of failed stabilization and crisis. This book assesses several aspects of the Ecuadoran experience, including a historical analysis of the main features of the country's economic development and the main political economy features that set the background for the most recent cycle of crisis and stabilization. The book analyzes in detail the characteristics of the economic crisis of 1998–99 and the subsequent experiment with dollarization and its initial results. Then the book turns to the impact of the crisis and subsequent stabilization through dollarization on poverty, inequality, marginalization, gender, and the Ecuadoran family. The book also assesses the ability of existing social-protection institutions to cope with a severe economic crisis and subsequent stabilization.

Most of the material for this book was initiated when several of the authors belonged to what was then the World Bank's Country Department for Ecuador, Colombia, and Venezuela. The work benefited from first-hand involvement—at times at the highest political level—in Ecuador until mid-2000.

We want to acknowledge several people and former colleagues who made this book possible. David de Ferranti, World Bank Vice President for Latin America and the Caribbean, provided generous financial support to fund this publication and encouraged a free analysis of events and

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Abbreviations

AGD	Agencia de Garantía de Depósitos (Deposit Insurance
	Agency, Ecuador)
CAF	Andean Development Corporation
CAN	Andean Community of Nations
CDC	Centers for Disease Control, U.S.
CEPLAES	Centro de Planificación y Estudios Sociales (World Bank
	Poverty Group)
CONAMU	el Consejo de las Mujeres del Ecuador (National Council
	of Ecuadoran Women)
DDSR	debt-and-debt-service reduction
DINAMU	Dirección Nacional de la Mujer (National Directory for
	Women, Ecuador)
ECD	early childhood development
ECV	Encuesta de Condiciones de Vida (Ecuador LSMS
	survey)
EAP	economically active population
EU	European Union
FISE	Fondo de Inversión Social de Emergencia (Emergency
	Social Investment Fund, Ecuador)
GDP	gross domestic product
IDB	Inter-American Development Bank
IESS	Instituto Ecuatoriano de Seguro Social (Ecuadoran
	Social Security Institute)
IMF	International Monetary Fund
INEC	Instituto Nacional de Estadística y Censo (National
	Institute of Statistics and Census, Ecuador)
INNFA	Instituto Nacional del Niño y de la Familia (National
	Institute of the Child and the Family, Ecuador)
LIBOR	London interbank offered rate
LSMS	Living Standards Measurement Study
MERCOSUR	Mercado Común del Sur (Southern Common Market)
NCHS	National Center for Health Statistics, U.S.
NGO	nongovernmental organization
OECD	Organisation for Economic Co-operation and
	Development

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OPEC	Organization of Petroleum Exporting Countries
ORI	Operación Rescate Infantil (Child Rescue Program,
	Ecuador)
PACMI	Programa de Alimentación Complementaria
	Materno-Infantil (Maternal-Infant Nutrition Program,
	Ecuador)
PAHO	Pan American Health Organization
PANN	Programa Nacional de Alimentación y Nutrición (Food
	and Nutrition Program that replaces PACMI in Ecuador)
PDI	Programa de Desarrollo Infantil (Child Development
	Program, Ecuador)
PRONEPE	Alternativo Programa Nacional de la Educación
	Prescolar (National Alternative Preschool Education
	Program, Ecuador)
SIISE	Sistema Integrado de Indicadores Sociales del Ecuador
	(Integrated System of Social Indicators of Ecuador)
SIMUJER	Situation of Women and Gender Inequality Indicators
	database, Ecuador
STFS	Secretaría Técnica del Frente Social (Technical Secretariat
	of the Social Front, Ecuador)
VAT	value added tax
WHO	World Health Organization

1 Crisis and Dollarization: An Overview

Andrés Solimano

Introduction

On January 9, 2000, Ecuador decided to adopt the U.S. dollar as its national currency, its domestic medium of exchange, and its unit of account,¹ thus becoming the first country to officially dollarize its economy in the 21st century. The purpose of this book is to analyze the context within which dollarization took place in Ecuador and some of its economic consequences. It describes the initial conditions, accompanying policies, and response of the economy to the official adoption of a foreign currency as the legal tender and the issues the still-new Ecuadoran experience with dollarization suggests for other countries considering the adoption of a new monetary regime. Another important theme of the book is the social impact of the crisis of the late 1990s and of subsequent dollarization.

The end of the 20th century caught Ecuador in one of the more serious economic crises—compounded by a governance crisis—in its Republican history. The country was on the verge of hyperinflation in late 1999 with the price level increasing at a rate of near 30 percent per month. The national currency, the sucre, was in free fall. The government had intervened in the banking system, and a large part of the deposits of the public was frozen. Internationally, in late 1999 the country was in partial arrears with private creditors and bondholders and, for various reasons, the International Monetary Fund (IMF) had withheld for nearly a year a crucial loan to support the balance of payments. This, in turn, forced the World Bank and the Inter-American Development Bank (IDB) to postpone their own policy-based lending to Ecuador in 1999, attendant to the

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stalemate with the loan by the IMF. At a time when hyperinflation had abated in Latin America, the Ecuadoran case of extreme monetary instability was clearly a regional anomaly for the late 1990s.

Most of the ingredients of high inflation and acute monetary instability were present: (a) a flight from national money and de-facto dollarization² as nationals and foreigners in Ecuador lost all confidence in the capacity of the sucre to serve its store-of-value function, (b) large fiscal deficits, (c) a sharp contraction in real economic activity, and (d) a severe banking crisis.³ The increasingly cornered government, led by President Jamil Mahuad, a highly educated and intellectually sophisticated socialdemocrat, could not gather congressional support for passing crucial tax legislation and other measures to stabilize the economy. This situation, combined with the near paralysis of the international financial institutions based in Washington, helped bring about an economic meltdown manifested in very high inflation, a banking crisis, economic depression, and social disarray during most of 1999. It is important to recognize that the Ecuadoran crisis took place in a delicate situation of security within the Andean region. On the one hand, Ecuador and Peru were trying to consolidate an historic peace agreement signed by Ecuadoran President Jamil Mahuad and Peruvian President Alberto Fujimori in October of 1998. On the other hand, Ecuador was exposed to the potentially destabilizing effects of acute intensification of the armed conflict in Colombia, a country that shares a long border with Ecuador.

In this setting, and in one of the more dramatic experiments in recent monetary history, the Ecuadoran government decided, in January of 2000, to adopt, de facto, unilaterally, and apparently without much external consultation, the U.S. dollar as its national currency. This was a "policy of last resort," an almost desperate move to restore some degree of monetary and price stability in a country that needed an urgent monetary anchor to stabilize expectations, avoid hyperinflation, stop uncontrolled currency depreciation, and enable resumption of normal economic and financial activity.

Official dollarization had a political motivation as well. In late 1999, constitutionally elected President Mahuad was facing a sharp plunge in his popularity. His presidency was being challenged by a particularly adverse set of events: a severe economic crisis, an active and militant indigenous movement with radical political and economic demands, a badly divided and fragmented parliament, and a restive army. In these circumstances, a radical change in the monetary regime toward dollarization was seen by President Mahuad as a way to regain the initiative for his government, by changing the focus of the national debate away from purely political issues toward much needed economic stabilization. In spite of the announcement of official dollarization, President

Mahuad was deposed on January 21, 2000, following an indigenous uprising that seized the parliament building with support from units of the army. After late-night negotiations involving rebellious colonels, members of the political class, the U.S. Embassy in Quito, and the Organization of American States, the rebels stood down and Vice President Gustavo Noboa was sworn in as the new President of Ecuador in the Ministry of Defense with the support of the army. The "constitutional order" was restored.

The new government of Gustavo Noboa ratified the change of monetary regime initiated by President Mahuad, and official dollarization was adopted, in haste, and under very fragile conditions. At this stage, consultations were initiated with the U.S. government, whose currency was to be adopted. The reluctant IMF, which had distanced itself from the Mahuad administration, resumed lending in April 2000, and entered into full collaboration to ensure the success of the change in the monetary regime.⁴

The mechanics and economic effects of dollarization are important subjects of this book. Supportive economic and financial legislation—the Law of Economic Transformation—was approved in March 2000. This legislation included a number of structural changes in several areas. In August 2000 Ecuador successfully carried out a bond exchange, which reduced its massive Brady debt by roughly a third, and its bilateral external debt was rescheduled in September 2000 by the Paris Club. The economy benefited from an increase in the international price of oil, which helped to improve the fiscal accounts and the balance of payments. At the same time, important efforts to improve tax collection were undertaken. The income tax, which had been suspended in January 1999, was reinstated. The fiscal accounts improved sharply, passing from a fiscal deficit of near 5 percent of gross domestic product (GDP) in 1999 to a small surplus in 2000.

The balance of payments also improved, as a result of a combination of favorable oil prices, the repatriation of flight capital helped by the liberalization of dollar deposits in the banking system associated with official dollarization and, very importantly, by a surge in foreign remittances of Ecuadorans following massive emigration after the crisis that began in 1998–99.⁵ As a consequence of all these factors, the current account of the balance of payments registered a surplus of nearly 10 percent of GDP in 2000 compared with a deficit of roughly the same magnitude in 1999.

The progress in solving the banking system crisis was slower than in other areas. In spite of intensive work to rationalize, dispose the assets of nonviable banks, privatize intervened banks, and other measures, as of 2001 a considerable segment of the Ecuadoran banking system still remained in the hands of the Deposit Insurance Agency (Agencia de Garantía de Depósitos, AGD), which underwent several changes in its management structure in 2000 and 2001.

Dollarization succeeded in stabilizing expectations, as reflected in declining interest rates and induced capital repatriation. Banks registered an increase in their deposits from the public. Dollarization did not stop inflation immediately, because adjustment to a new equilibrium level for the real exchange rate, undervalued when dollarization was launched, was reached through inflation. In addition, GDP started to recover following official dollarization, helped by a gradual recovery of confidence and favorable external shocks. In turn, unemployment has slowly declined and real wages have become more stable, although real wage levels are rather depressed in dollar terms.

Historical and Structural Features of Ecuadoran Economy and Society

The deep economic crisis of the late 1990s that preceded dollarization in Ecuador was, as argued in this book (see chapters 2 and 3), the culmination, in dramatic overtones, of an economic and governance crisis associated with several structural characteristics of Ecuadoran economy and society. Historically, the emergence of Ecuador as an independent state from the the Confederation of Gran Colombia in 1830 created a country with two main competing regions: a coastal area (Costa) centered around the city of Guayaquil and the Sierra or highlands around the capital city of Quito. The two regions have different social, economic, cultural, and ethnic characteristics. Regional disputes have been an important source of social and political instability in Ecuador throughout the 19th and 20th centuries. Ecuador's main political parties are formed along regional lines, weakening central authority and forcing a style of policymaking that allocates resources, taxes, and quotas of political power in an effort to maintain regional balance.⁶ Economy-wide objectives such as economic growth and monetary stability are often displaced by the needs of regional balancing, redistribution, and rent-seeking. In turn, Ecuador, like most Latin American countries, is a highly socially stratified country. Wealthy people, elite landowners, and financial and industrial entrepreneurs coexist with a population that is mostly poor (see chapter 4) and with a large (at times politically active) indigenous population. This social structure superimposed on the regional divide often hampers the capacity of governments to undertake national policies that garner wide social consensus. During the 20th century the country endured repeated constitutional reforms, presidential crises, and cycles of military governments followed by civilian rule (see Solimano 2002), both trying to ensure stable governance and economic development but with often disappointing results.

The difficulties of building stable governing coalitions were exacerbated in the late 1990s. In fact, since 1996 Ecuador has had four different Presidents: Abdalá Bucaram, Fabián Alarcón, Jamil Mahuad, and Gustavo Noboa.⁷ Over the same period there were about 10 finance ministers plus a frequent rotation of the technocracy working in government. Many of the most able and qualified people left the country.

A common feature of the Ecuadoran economy in the 20th century has been the dependence of real economic activity, the fiscal accounts, and the balance of payments on exports of a few commodities, such as cacao, bananas, shrimp, and oil. This dependence has made the economy prone to volatility associated with cycles in the international prices of commodities and climatic changes. This dependence on commodity prices was accentuated in the 1970s with the oil price boom. Although the oil boom allowed a doubling of the yearly real growth rate of GDP of previous decades, from an annual rate of growth of 4.7 percent per year in 1950–60 to 9.4 percent in the 1970s, this dynamism was ultimately short-lived. In the 1980s and 1990s the economy reverted to average GDP growth rates on the order of 2 percent, lower than the historic average of the past 50 years in Ecuador and in Latin America.

In the 1980s Ecuador, like other Latin American economies, suffered a foreign debt crisis after the windfall of oil revenues of the 1970s, and the cycle of foreign overborrowing of that decade. As a consequence, GDP growth declined to around 2 percent in the 1980s, down from more than 9 percent in the previous decade. In the 1990s, Ecuador started reforms that were never completed, suffered several large external shocks and natural disasters, and then culminated the decade with the disruptive economic and financial crisis we have already discussed and which is analyzed in further detail in the next chapter of this book.

An important cause of Ecuador's unsatisfactory economic performance is weak institutions. The fiscal structure has traditionally been very dependent on the revenues of oil and taxes on other commodities and, until recently, has suffered from the widespread practice of tax evasion. Public expenditure is far from efficient and well directed. In turn, the crisis of the banking system that started in 1998 also revealed serious shortcomings in the regulatory structure of the system, a pattern of loan concentration, and the vulnerability of the bank's portfolios to high real interest rates and overall economic decline.

Still, there is room for (cautious) optimism. Ecuador is a country with significant economic potential. It has a strong natural resource base and talented people, its geographical proximity to major international mar-

kets in the "center" makes it a favorable location for international trade and foreign investment, and, in spite of its complex social and regional structure, it is generally a country of social peace.

Dollarization: Lessons and Challenges Ahead

The experience of Ecuador with dollarization is of interest for the rest of Latin America and other emerging economies wrestling with the adoption of the adequate exchange-rate regime in a world of increased financial integration but also of volatility and instability. We can highlight six important areas in which the Ecuadoran experience is relevant for other nations.

Dollarization under Fragile Initial Conditions

The choice of a monetary regime by a country is a far-reaching decision that, under normal circumstances, must be preceded by a period of internal discussion of the merits and possible disadvantages of possible alternatives. Moreover, the introduction of a foreign currency to replace the national currency needs to be accompanied by adequate preparation and by legal reforms in several areas of the economy. A solid banking system, a sustainable fiscal position, and wage and price flexibility are all economic preconditions for successful dollarization. On the legal side, basic legislation must be introduced to legally sanction the new currency and allow contracts (wages, rents, and so on) to be made in foreign currency (now also the national currency). Also, the accounting systems of banks and corporations have to adopt new practices and conventions in line with the fact that a foreign currency is the legal tender after official dollarization is adopted.

The decision of when to dollarize (for example, its timing and sequencing) is, however, a matter of debate. Some people adopt the position that dollarization need not wait on these other reforms to be in place and believe, on the contrary, that dollarization can accelerate the overall process of reform.⁸

As shown earlier, adequate fiscal, financial conditions, and accounting practices were *not* present when Ecuador announced dollarization in January 2000. It is apparent that dollarization was not a decision made under controlled conditions to ensure its success. Rather, it was a bold move to reverse a situation of near hyperinflation and massive flight away from domestic currency, debased after a long period of monetary instability. Also, as already mentioned, the fiscal budget was in a sizable deficit during the year preceding dollarization and the state intervened in a large part of the banking system, with several important banks having negative net worth.

Important pieces of legislation regarding the banking system, the new accounting systems, the conversion of contracts from sucres to dollars, labor laws, and other laws were passed after dollarization was launched. In fact, the legal approval of dollarization came in March 2000 and it was fully implemented in September 2000. The degree of public support for dollarization was mixed. Various groups, such as the indigenous people's movement and left-wing political parties, opposed dollarization, in part on nationalistic grounds. The middle class, industrialists, and bankers, however, supported dollarization both in Guayaquil and Quito. Very importantly, Congress ultimately supported dollarization. The United States was initially very cautious in supporting the measure taken by Ecuador. In the end dollarization was launched, implemented, and as of early 2002 consolidated. In a metaphoric sense, dollarization was a revolutionary regime change in the monetary system of the country and, like many revolutions, starting from dramatically deteriorated conditions, it still succeeded in holding. Of course, other countries considering dollarizing would certainly benefit from more stable and balanced initial conditions. This was, indeed, the case of El Salvador, which decided to dollarize in January 2001 in far more comfortable fiscal and financial conditions than those of Ecuador just a year before. Indeed, El Salvador had maintained a fixed exchange-rate regime for almost a decade, and dollarization was seen as a "natural" consequence of a long period of a fixed exchange rate, low domestic inflation, and a largely dollarized banking system. A more distant case of dollarization is Panama, which adopted the system in 1903 and has nearly a century of economic history with a foreign currency as the national currency.⁹

The Dynamics of Inflation, the Real Exchange Rate, and Output

Dollarization was adopted in Ecuador mainly to stop very high inflation.¹⁰ In the last quarter of 1999 the consumer price index rose by 60 percent; the wholesale price index rose by 187 percent. However, the domestic price level continued to rise rapidly after dollarization was adopted, following a sharp depreciation of the currency from 18,000 to 25,000 sucres per dollar.¹¹ There were two main reasons for the large depreciation of the currency preceding dollarization that was fueled by wild expectations of Ecuador's financial markets: (1) the intent to avoid a real appreciation after dollarization on account of "residual inflation" and (2) the need to increase the purchasing power of a limited level of international reserves (dollars) to buy (cheaply) the monetary base in sucres at a more depreciated exchange rate. This latter factor was important since Ecuador had a very low level of international reserves at the time dollarization was implemented. Domestic prices nearly doubled over 2000. For 2001, however, inflation was only about 25 percent. Clearly, after official dollarization the speed of convergence of the domestic price level to a new international parity was gradual and spread over at least two years after the new currency was introduced.

A similar speed of inflation convergence was observed in Estonia, a country that introduced a currency board in 1992. In Estonia inflation converged to moderately low levels, only two years later, in 1994.¹²

The real exchange rate in Ecuador depreciated mildly in 1998 (about 3.5 percent), but depreciated about 40 percent in 1999. After an additional real depreciation in January of 2000 following the "last" maxi-depreciation of the sucre, the real exchange rate (a somewhat peculiar concept in a dollarized economy) began steadily appreciating in February 2000 and afterwards as a consequence of the slow process of convergence of the domestic price level already noted above (see chapter 3 for a more detailed analysis of these trends).

This pattern of rapid real depreciation of the national currency before the change in the monetary regime followed by a real appreciation of the currency was observed in three countries that adopted currency boards in the early 1990s: Argentina in 1991, Estonia in 1992, and Lithuania in 1994. As the acute crisis of Argentina in late 2001 and early 2002 is showing rather dramatically, the failure to correct the real appreciation of the currency through domestic deflation, cuts in nominal wages, and unemployment can be so costly as to generate an economic and political crisis of large proportions leading, among other things, to abandonment of the seemingly irreversible currency board regime.

The growth cycle before and after official dollarization in Ecuador was the following: real GDP contracted sharply in 1999, falling by 7.3 percent that year, with unemployment rising from 11 to 15 percent. As chapters 2 and 3 of this book document, this situation was the combined effect of several factors: external shocks (a decline in oil prices in 1998/99), natural disasters (the El Niño phenomena in 1997/98), domestic instability, and a severe banking crisis. The latter clearly amplified the contractionary effects of the other shocks. GDP grew by 2.3 percent in 2000, as a consequence of an improvement in domestic confidence following dollarization (domestic interest rates fell) and by a recovery in international oil prices. Real growth reached 5.4 percent in 2001 as the gradual stabilization in inflation consolidated, confidence recovered, and construction of the second Transandean oil-pipeline generated employment and income. However, social conditions in Ecuador postdollarization still remain precarious (see chapters 4 and 5).

Dollarization in Ecuador and Exchange-Rate Regimes in the Andean Area

Ecuador is a member of the Andean Community of Nations (CAN), a free-trade area. Although exchange-rate regime harmonization among its member countries is not practiced in the CAN, and monetary integration is still not on their agenda, the fact is that Ecuador's new monetary system adds to the already large variety of exchange-regimes in the Andean region. At present (mid-2002) we have floating exchange-rate regimes in Peru, Colombia, and República Bolivariana de Venezuela, a crawling peg system in Bolivia, and a foreign-currency regime in Ecuador. The fact that two trade partners (and neighboring countries) of Ecuador-Peru and Colombia-are in a floating exchange-rate regime while Ecuador is dollarized creates the potential for Ecuador to lose regional competitiveness, should these countries depreciate their currencies, an option unavailable to Ecuador. In the context of MERCOSUR (Mercado Común del Sur) countries, this is what exactly happened to Argentina when Brazil sharply devalued its national currency, the real, in early 1999, causing Argentina to suffer an important loss of competitiveness. Argentina, with its currency board system, could not adjust its exchange-rate parity to maintain competitiveness. A similar situation is starting to face Ecuador, so this can be considered a vulnerability of the new system. A more general lesson here is that decisions made by one country on its exchangerate regime should consider the interdependences with the exchange-rate regimes of other member countries of the same integration bloc. The CAN and MERCOSUR are just starting to put in place mechanisms of consultation on monetary and fiscal policy among their member countries. Such consultations are still far behind experiences of macroeconomic coordination and harmonization such as that of the European Union (EU), in which the exchange-rate regimes were defined in a collective way. Of course, the degree of integration in goods, capital, and labor markets in the EU is far higher than in the CAN (or MERCOSUR).¹³ Still, the development of practices of mutual consultation in monetary and exchange-rate matters among member countries is worth pursuing.

Seigniorage and Lender of Last Resort

A classic argument in the case for national money¹⁴ is that, by giving up the use of national money and adopting a foreign currency, a country loses a source of revenue, given by the difference between the real command of resources that the creation of money entails and the low cost of producing (paper) money. This difference is called seigniorage. For ranges of low to moderate inflation and with "normal" demand for money, seigniorage can represent several points of GDP. By adopting the U.S. dollar as its national currency, Ecuador loses this source of revenue and transfers seigniorage to the Federal Reserve Bank of the United States: However, the quantitative importance of the loss of seigniorage in Ecuador is bound to be modest, as the economy was already highly demonetized and de-facto dollarized before the U.S. dollar was officially adopted. In any case, it should not be ruled out that in the future some arrangement could be made for the seigniorage to be shared with Ecuador.

Another feature of a dollarized system is the apparent absence of a lender of last resort. Because the Central Bank, still in existence in Ecuador, cannot create money any more, banks will be unable, unlike in the past, to resort to bailouts and credits from the Central Bank. In the absence of national money, the Central Bank ceases to play the role of lender of last resort. However, as the commercial banking system was in such a fragile condition in Ecuador at the time of dollarization, a special contingency fund for banks in distress was created following official dollarization. From this perspective, this fund can be viewed something like a lender of last resort in the event of a banking crisis. Moreover, as has been the case in history, for example in the United States during episodes of banking crisis before 1913, the year the Federal Reserve System was created, the resolution of banking crisis or liquidity shocks was arranged by private financiers such as J. P. Morgan. In other cases, the resources for performing the functions of lender of last resort can come from the fiscal budget or from foreign borrowing.

The Adjustment Mechanism of the Dollarized Economy

An economy operating with a foreign currency as the legal tender works in several respects like the economies under the gold standard of the pre-1913 world. The so-called *price-specie flow mechanism* of David Hume described such a system as one in which balance of payments disequilibria had a domestic monetary counterpart (money expands when there is a balance of payments surplus and contracts when there is a deficit). These changes in the money supply affect domestic prices relative to world prices, thereby automatically correcting the balance of payments disequilibria and, in this way, restoring macroeconomic balance. This system rests on a combination of policy rules and price and wage flexibility. A critical point of the mechanism is that it requires both downward as well as upward wage and price flexibility. In particular, when there is a loss of external competitiveness a *deflation* of prices and salaries is needed to correct external and internal imbalances.

By adopting official dollarization, Ecuador entered into the world of tight rules in economic policy. As mentioned before, in the new system, the Central Bank can neither print money nor adjust the exchange parity between a national and foreign currency since the national currency was abolished. Fiscal deficits cannot be monetized, and commercial banks cannot receive credit from the Central Bank in national currency to resolve financial difficulties. The new system also puts strong requirements on fiscal solvency and domestic financial stability. This, needless to say, implies a strong departure from previous practices in the conduct of monetary, fiscal, and exchange-rate policies in Ecuador.

The other component of David Hume's price-specie flow mechanism is wage and price flexibility. Certainly Ecuador has had a lot of upward price flexibility in the recent past. The point, however, is to what extent there is also downward wage and price flexibility in Ecuador to correct relative prices in the wake of external shocks and natural disasters, to which the Ecuadoran economy has been quite prone in the recent past (see chapter 2). A subtle point is that although in Argentina there was some downward wage and price flexibility, but this was still not enough to reverse a real appreciation of the currency. In addition, cutting nominal wages, as anticipated by Keynes long ago, can be very unpopular and practically costly in a modern contractual economy. Thus it is not a recommendable course of action on which to rely to correct currency misalignments.

Dollarization and Hard Pegs

In the recent discussion of exchange-rate regimes a "bi-polar" view emerged. According to this view, for a financially integrated economy, two regimes are bound to be viable: "hard pegs" (currency boards, dollarization, or currency union) or exchange-rate flexibility.¹⁵ "Intermediate" exchange-rate regimes such as (soft) fixed-exchange rates, crawling pegs, and others are bound to be susceptible to crisis and failure in a context of high capital mobility. Only hard pegs and flexible rates would endure according to the bi-polar view. After the current Argentine crisis, this view is severely challenged.

Several emerging economies have been in the hard peg group: Argentina (until December 2001), Bulgaria, and Hong Kong, China, all have had currency boards; Panama, Ecuador, and El Salvador are countries that use the U.S. dollar as their national currency. In turn, for developed economies, the countries of the EU have decided to adopt a common currency, the euro, another form of hard peg from the perspective of each member country. Argentina and Bulgaria are cases of countries that adopted currency boards after experiencing periods of very high inflation or hyperinflation. The other countries entered into a hard-peg currency arrangement in more gradual fashion and after a preparation period. Ecuador shares with Argentina and Bulgaria the fact that it adopted a hard-peg regime because of the urgent need to restore credibility after experiencing extreme monetary instability.¹⁶

Although the recent experience with hard pegs suggests that they were mostly successful in stopping high inflation, often in a gradual way, and helped to restore stability, an important issue is the capacity of the system to last over long periods of time. This leads us to the complex problem of the "exiting option." As the events of early 2002 in Argentina show, the exiting from a currency board, if not well prepared and anticipated, can be extremely traumatic, possibly involving an implosion of the economy. In general, once a country has adopted a hard peg it is not expected to exit. The recent abandonment by Argentina of its currency board is starting to shatter this long-held view. The adoption of a hard peg is a kind of open-ended choice, almost irreversible. In fact, hard pegs are conceived to side step the main weakness of "soft pegs" (fixed exchange rates, crawling pegs), namely, that frequent exits from the fixed system are often unanticipated and disruptive and often entail credibility loss for the monetary authorities. However, loss of the exit option should ultimately be considered a limitation of hard pegs if exiting is needed in extremis.

Social Impact of Economic Crisis and Dollarization

Economic crisis can have very adverse social consequences. In the late 1990s Ecuador suffered a sharp recession and a large increase in unemployment. Output contraction and job losses reduced economic welfare of the citizens, particularly that of the unemployed. In addition, as the economic crisis came with instability, continuous currency depreciation, and high and volatile inflation, there was a reduction in real wages, affecting workers and their families as well as other low-income groups and classes whose incomes grow (if at all) at a slower pace than the exchange rate and average prices. In the case of Ecuador, as documented in chapter 4, unemployment, poverty, and inequality all worsened in this period. From a longer-term perspective, the low (and volatile) rate of GDP growth of the 1980s and 1990s implied almost stagnant income per capita for a long period, with minimal poverty reduction, persistent inequality, and social marginalization of minorities. This social situation worsened further because of the economic crisis of the late 1990s. The social impact of dollarization has to be evaluated against this background. Gender biases, in turn, seem to make crises affect women more adversely (see chapter 5).

Dollarization, as we document in this book, has not been costless in Ecuador. The exchange rate chosen for conversion of the money supply in sucres to dollars (25 sucres per dollar) was a very undervalued rate. As a consequence, there was a sharp reduction in real wages in dollars. As inflation continued at a significant (although declining) pace after dollarization, real wages suffered from continuous inflation and slack in the labor market. However, as of early 2002, about two years after dollarization was adopted, the real exchange rate has started to appreciate and real wages to recover. In addition, following the pattern of other exchange-rate-based stabilization plans, a recovery of consumption and an increase in relative prices of nontradable goods and assets accompanied a recovery in economic activity, with declining unemployment and some improvement in deteriorated social conditions. Still, the mediumterm effects on the external competitiveness of Ecuador of currency appreciation must not be neglected.

In retrospect, the social impact of dollarization was affected by the precarious nature of social safety nets in Ecuador that were unable to shield vulnerable groups, the poor, women, and the unemployed from the social costs associated with both the economic crisis of 1998–99 and the stabilization efforts afterwards.

Organization of This Book

This volume comprises four other chapters. In chapter 2, Paul Beckerman presents a broad analysis of long-term characteristics of the Ecuadoran economy covering several dimensions: economic structure, geography, social structure, and regional divides; frequency of governance crisis; dependence on volatile commodity prices; fiscal and financial structure; and exposure to natural disasters. The chapter places the late 1990s economic crisis that preceded official dollarization in historical perspective. Chapter 3, by Paul Beckerman and Hernan Cortés-Douglas, provides an indepth analysis and documentation of the Ecuadoran experience following dollarization. It analyzes in detail the workings of the new monetary system, the behavior of the fiscal and banking systems, the adjustment in prices and the real exchange rate, and real economic activity after official dollarization in 2000 and 2001. Chapter 4, by Suhas Parandekar, Rob Vos, and Donald Winkler, elaborates and carefully documents the effects of the crisis on unemployment, real wages, and income distribution as well as the effects and limitations of policies to counteract these adverse social effects. Finally, chapter 5 by Maria Correia discusses the gender and family dimensions of Ecuador's severe economic crisis of the late 1990s.

Notes

1. The old national currency, the sucre, retained de jure legal status under the Constitution, essentially because the government believed it would simply have been too complicated to change the Constitution.

2. By December of 1999, around 66 percent of total deposits in the Ecuadoran financial system were in U.S. dollars and nearly 90 percent of the credit was in dollars.

3. Historically, not all experiences with very high inflation and hyperinflation came along with a banking crisis; see Solimano (1990a, 1991).

4. See Fischer (2001b) for an account of the relationship between Ecuador and the IMF, from the perspective of the latter.

5. It is estimated that around 1 million Ecuadorans left the country between 1998 and 2001.

6. See Hurtado (1993) for a thorough analysis of Ecuador's economic, social, and political structure in both the colonial period and in the Republican era.

7. See Arteta and Hurtado (2002) for a recent political economy analysis of Ecuador.

8. See Eichengreen (2002) for analysis of alternative views on the timing and sequencing of dollarization. Berg and Borenztein (2000) and Calvo (1999) review several pros and cons of dollarization as an exchange-rate regime.

9. See Moreno-Villalaz (1999) for an analysis of the Panama experience as a dollar economy.

10. A more acute situation of near hyperinflation before adopting a hard peg regime was observed in Bulgaria in the 1990s. That country adopted a currency board in July of 1997. Preceding the currency board, inflation reached 500 percent in January 1997 and more than 2,000 percent in March of that year; see Gulde (1999). For an early analysis of inflation dynamics in post-Communist Bulgaria, see Solimano (1990b).

11. See Arteta (2001) for an analysis of that period.

12. See Baliño and Enoch (1997).

13. See Scandizzo (2001).

14. See Fischer (1982 and 1993) for an assessment of the arguments for national money and their empirical significance.

15. See Fischer (2001a) for an interesting discussion of the bi-polar view of exchange-rate regimes.

16. See Calcagno, Manuelito, and Titelman (2001) for a comparison of Ecuador's dollarization with Argentina's currency board.

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2 Longer-Term Origins of Ecuador's "Predollarization" Crisis

Paul Beckerman

1. Introduction

On January 9, 2000, Ecuador's government fixed its exchange rate, which had been floating for nearly 11 months, and announced that it would submit legislation to the Congress to fully dollarize the economy. At that moment, Ecuador's sucre was in apparent free fall, having lost two-thirds of its U.S.-dollar value during 1999 and a quarter during the first week of the new year alone. Real GDP had fallen 7.3 percent in 1999, and the recession was apparently still deepening. Commercial banks were in deep crisis: several large ones had failed, and credit operations were virtually suspended. A liquidity crisis loomed as banks prepared for March 2000, when release of time deposits, frozen for a year in March 1999, was to commence.

On January 21, President Jamil Mahuad, who had been elected to a five-year term in mid-1998, was forced from office, mainly because of dissatisfaction with the economy and opposition by some people to dollarization. After an unsuccessful coup attempt by some military officers and leaders of Ecuador's indigenous people, the vice president assumed the presidency, just barely maintaining constitutional normality. Seeing no alternative, the new government pressed forward with dollarization. In early February it submitted the necessary legislation to the Congress, which approved it after rapid debate. Some left-of-center parties expressed their opposition by not participating. Once the president

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approved the law in early March, the Central Bank began purchasing sucres from circulation, and the country adopted the U.S. dollar as its currency. The conversion was complete well before the year's end.

The crisis that precipitated the move to dollarization was triggered in late 1997 and 1998 by a combination of exogenous external and climatic shocks. These shocks included (a) plunging oil-export prices, (b) heavy damage from El Niño rains, and (c) various effects of the East Asian, Russian, and Brazilian financial crises. The shocks widened the 1998 current-account deficit and made the pre-announced crawling-band exchange-rate policy unsustainable, forcing the authorities to float the sucre in early 1999. By reducing revenue, increasing the domestic-currency equivalent of the public-debt service, and forcing increased expenditure to cope with the El Niño disaster, the shocks widened the 1998 fiscal deficit. In addition, the shocks damaged commercial banks' loan portfolios. The exchange-rate depreciation was especially hard on the banks, because their balance sheets were partially dollarized. Although they had made a point of keeping dollar assets matched with dollar liabilities, many of the banks' dollar borrowers were themselves unmatched, with sucre earnings backing dollar liabilities. Exchange-rate depreciation therefore increased banks' nonperforming assets and reduced cash repayments. Depositors, fearing for banks' safety, began withdrawing, intensifying banks' illiquidity, even as the depreciation swelled the dollar deposit stocks in sucre terms.

The authorities tried to deal with the banking crisis in late 1998 by fully guaranteeing all bank deposits, and then, in March 1999, by freezing deposits. The deposit freeze threw the economy into disarray, however, and the authorities found they had no choice but to unfreeze checking and savings accounts gradually. Withdrawals intensified, however, and the Central Bank found it had little choice but to provide the banks credit to prevent a payments-system collapse. This domestic-credit creation more than doubled the monetary base during 1999, inducing a sharp exchange-rate slide toward the year's end. If the authorities had not dollarized when they did, hyperinflation was pretty much inevitable.

This chapter examines the underlying causes of this "predollarization" crisis —that is, the reasons why the 1998 shocks produced a crisis of such magnitude. Similar shocks had serious consequences in neighboring economies at the same time, but in no case so devastating as in Ecuador. The main thesis is that a combination of specific characteristics of Ecuador's economic and political systems accounted for the severity of the crisis. These characteristics included (a) the heavy dependence of public revenue on volatile oil earnings, (b) the banking system's exposure to Ecuador's volatile and risky activities, (c) inadequate banking supervision, (d) political fragmentation, (e) weak public administration, (f) the

political system's tendency to maintain energy subsidization, and—particularly important—(g) the financial system's partial dollarization. These characteristics were in turn the consequences of deeper geographic and historical realities, including (a) rivalry between Ecuador's coastal and highland regions, (b) the volatility of Ecuador's commodity export markets, and (c) the country's exposure to natural disasters, including earthquakes, volcanic eruptions, episodes of excessive rainfall, and drought. In addition, since the 1970s, the economy has suffered from the interrelated consequences of (d) excessive public-debt accumulation, (e) lagging and uneven structural reform in the public and financial sectors, and (f) the exchange-rate instability deriving from the need to cope with the external debt.

This chapter will first set out the longer-term background to the predollarization crisis and then show how the characteristics of the economy and society affected the evolution of the crisis in 1998 and 1999. Part 2 describes the deep historical origins of the crisis. Its sections discuss (A) the historical background of Ecuador's regionalism, political fragmentation, and administrative weakness; (B) the economy's unusual vulnerability to "contingencies"; and (C) the ways in which the structural changes carried out by the military government during the 1970s oil boom led to heavy external-debt accumulation and to many of the structural problems that still awaited reform when the crisis began.¹ Part 3 describes the state of structural reform going into the crisis. Its sections focus on (A) the public sector; (B) the financial system and the crucial problem of its partial dollarization; and (C) certain additional areas in which structural-reform agendas remain-formal labor markets and trade policy. With this background, Part 4 recounts the evolution of the 1998-99 crisis. Part 5 then presents summary conclusions regarding the underlying causes of the crisis.

2. Historical Background of Ecuador's Predollarization Crisis

The root causes of the crisis that preceded Ecuador's move to dollarization were the country's deeper historical and geographical circumstances. The political and administrative weakness of Ecuador's government helps explain its inability to act rapidly and forcefully to deal with the combination of contingencies that thrust the economy into crisis. The essential conditions of the crisis, however, were (a) the structural dependence on oil exports beginning in the 1970s, (b) the massive accumulation of public debt that resulted, and (c) the need to generate an export surplus to service the debt, which, together, led to (d) the partial dollarization of the financial system.

A. Historical Roots of Ecuador's Governance Problems

Complex governance problems, including regional rivalry, political fragmentation, weak public administration, and pervasive corruption, figure centrally among the reasons for Ecuador's poor growth performance, particularly during the past two decades. These problems derive in large measure from the peculiar nature of Ecuador's historical formative process.²

Rivalry between the "Sierra" (mountain highlands), centered on the capital, Quito, and the "Costa" (coastal lowlands), centered on the port city of Guayaquil, has been a standing theme of Ecuador's history. The two regions have always been culturally and economically distinct. The balancing of regional interests has imparted a marked style to political and administrative structures and decisionmaking. One consequence of the regional rivalry is that the central government's political and administrative powers and capacities have been limited. Even at moments of national crisis, government policies and actions have often had to subordinate broader national interests to reconciliation of regional interests. The 1998 banking crisis (see Part 4) is a clear example of this: The worst-affected banks were Guayaquil-based, but regional sensitivities and political interference prevented the banking supervisors from taking timely, effective action.

Before the Republic's creation in 1830, what are now its two main regions had been quite separate from one another. The present Sierra region was an important part of the Inca Empire; in contrast, the Incas subjugated the present coastal areas only a few decades before the Spanish arrived in 1532, and had not yet integrated them into their empire.³ During the three centuries of Spanish rule, Quito and surrounding areas developed in isolation from the coastal lowlands, which consisted largely of self-governing indigenous communities. Guayaquil developed as a center for intracolonial sea trade (mostly illegal under Spanish mercantilist rule). Although many crucial events in the continental independence campaign of the early 1800s took place in what is now Ecuador, events in the highlands and on the coast were basically unrelated.⁴ Quito's and Guayaquil's initial uprisings, for example, were uncoordinated. In their July 1822 meeting in Guayaquil, Bolívar apparently persuaded San Martín to permit Guayaquil to join Quito in a "District of the South" within the Gran Colombia confederation (comprising modern Colombia, Panama, the República Boliviariana de Venezuela, and Ecuador), rather than Peru. Guayaquil's inhabitants were fearful of Lima's dominance. In 1830, when Gran Colombia disintegrated, this District of the South constituted itself as the "Republic of the Equator."

The new republic underwent decades of internal struggle to determine how it would be governed. During the republic's first century, ideological and regional interests coincided: proclerical, centralizing, landowning "Conservatives" were based in Quito, while anticlerical, decentralizing, commercial "Liberals" were based in Guayaquil. From 1860 until 1895 the Conservatives were generally dominant. Between 1860 and 1875 Ecuador achieved some material progress under Gabriel García Moreno's proclerical, centralizing dictatorship, but this government engendered regional resentment. From 1895 until 1925 the Liberals generally dominated the country, largely on the basis of the rise of the coastal cacao economy. The Liberals' own factional conflicts subjected the country to instability, however. Over the course of its first century, Ecuador repeatedly changed its constitution and governmental structure, introducing and removing an upper legislative chamber, changing the role of the Church, extending the suffrage, and so on.⁵

The regional rivalry has led, first, to a set of standing compromises limiting central political and administrative powers, and, second, to the political prioritization of regional balance. Fearful that an administration largely from one region might impose its will on the other, the writers of Ecuador's constitutions tended to limit central political and administrative power, in particular, executive power. Twentieth-century constitutions made it relatively easy for the Congress to impeach and remove cabinet ministers, for example, even on purely political grounds. Legal intimidation-prosecuting or suing public officials, for example-has often been used to limit political and administrative power. Administrative institutions have been kept weak, both in mandates and capabilities. The determination of the regions to protect their positions and interests manifests itself in many other ways. For example, the country's longstanding practice of tax earmarking ensures, among other things, that particular localities and interest groups receive "fair shares" of national resources, at the cost of complicating expenditure programming, and the traditional cross-party regional caucuses of the Congress work together to advance regional interests.

Since July 1925, when the Conservatives and Liberals gave way to new political groupings in the wake of the *Revolución Juliana* (see section B below), Ecuador's political parties have been fragmented and unstable. As of mid-2001, representatives of 10 parties sit in the (unicameral) national Congress. The parties are difficult to classify ideologically. Populism figures heavily in their styles and substance. Of the four largest, two are relatively, if inconsistently, center-right and center-left parties based mainly in the Sierra and two are relatively center-right and center-left parties based mainly in the Costa.⁶ Another party (*Pachakutik*) claims exclusively to represent indigenous ethnic minorities. During 1998 and 1999, party fragmentation made it difficult to pass emergency legislation that was essential precisely because of the limitations of the central government's executive and administrative powers (see Part 4).

A paradoxical consequence of Ecuador's regionalism has been a longstanding failure to develop effective subnational governments. While regional interests have sought to limit central political and administrative power since Independence, they have also generally sought to limit regional autonomy, for fear that it could break the country apart. As a consequence, provincial administrations have simply not had the powers and the resources they needed for full governmental effectiveness. Some municipal administrations have proved more effective, but in general they have suffered from inadequate resources. Although Ecuador is small by comparison with its neighbors, it has a large territory with diverse populations. Proper application of the subsidiarity principle would undoubtedly improve administrative efficiency and enhance political participation and accountability. In recent years, Ecuadorans have been formulating and debating proposals for regional autonomy and decentralization. It remains to be seen, however, whether these proposals can be implemented in ways that would be politically, administratively, and financially feasible.

B. Ecuador's Vulnerability to Economic Shocks and Natural Contingences

Just as its deeper political history helps explain its political fragmentation and administrative weakness, geography and topography are fundamental to explain the "contingency" to which Ecuador is subject. Ecuador has always depended heavily on volatile commodity export earnings and has always been especially vulnerable to seismic and climatic disasters. This section reviews the historical processes leading up to the oil boom of the 1970s, discusses Ecuador's exposure to natural contingencies and shocks, and briefly discusses the more recent instability of external financial flows, which has become an additional dimension of vulnerability.

DEPENDENCE ON COMMODITY EXPORTS. Throughout its history, reliance on primary commodity exports has subjected Ecuador, like many other Latin American economies, to debilitating boom-and-bust cycles. During the 20th century, three commodity exports—cacao, bananas, and oil played crucial roles in the country's economic and political development. Cacao, produced in coastal agricultural areas, gradually became Ecuador's first large-scale commodity export during the latter part of the 19th century. Cacao exporters' growing wealth powered the Liberal Party's rise. During the first two decades of the 20th century, the Liberal Party fell under the sway of a group of Guayaquil cacao producers and the trading firms and banks associated with them.⁷ The party's control of the government enabled some business figures to divert revenue flows to
themselves or their supporters, while the banks extended profitable loans to cover a growing public deficit. The banks created money (there was neither a central bank nor a banking supervisor), causing an inflation problem. This "system" collapsed in the 1920s when a series of external shocks struck the cacao economy. Fungal disease sharply reduced output, while growing cacao exports by British colonies (and later, the onset of the world Depression) drove down world prices. As a result, real wages and incomes fell sharply, and deflation set in. In the early 1920s Guayaquil workers carried out a general strike, while in the Sierra peasants organized protest movements. The government repressed these violently.

In July 1925 a "League of Young Army Officers" seized power (the Revolución Juliana). Its stated objective was to end the Conservatives' and Liberals' dominance and to begin carrying out modernizing reforms. It organized a provisional government, naming Isidro Ayora, a wealthy opponent of the Liberals from Guayaquil, to serve as president. His government's accomplishments included drafting a new constitution (Ecuador's 13th), which enhanced the power of the legislature and diminished the power of the executive; wide-ranging fiscal and monetary reforms (recommended by an advisory mission headed by Edwin Kemmerer of Princeton University), including establishment of the Central Bank; and progressive social reforms, including establishment of the state pension system. The collapse of the cacao economy prevented economic recovery, however: Cacao exports fell from US\$15 million in 1928 to US\$7 million in 1931 and US\$5 million in 1932. The government could not deal effectively with the economy, and in 1931 another military coup removed Ayora from office.

From the standpoint of export-commodity dependence, the half-century between the Revolución Juliana and the rise of the "oil economy" in the 1970s can be divided roughly into three periods. In the first period, from approximately 1925 until the late 1940s, Ecuador's economy continued to stagnate in the aftermath of the cacao collapse. A populist movement emerged in the early 1930s, under the personalist, charismatic leadership of José María Velasco, who served as president five times between 1934 and 1972. The 1930s and 1940s were a period of political instability, during which the government alternated among (a) representatives of the Quito and Guayaquil elites; (b) Velasco and his supporters, who sought generally to implement expansionary public-expenditure policies; and (c) the military, who intervened several times to change governments but did not themselves retain power over extended periods. The second period, from 1948 to 1958, was characterized by political stability, mainly because it coincided with the rise of Ecuador's banana economy. During the 1940s, after disease devastated Central American banana plantations, Ecuador began producing and exporting heavily. Banana exports grew from US\$2 million to US\$20 million between 1948 and 1952 as volumes and prices rose. Three presidents, including Velasco, served full four-year constitutional terms between 1948 and 1960. Until the late 1950s the favorable effects of the banana boom on the economy and hence on government revenue enabled all three presidents to govern without having to confront serious economic crises.⁸

Renewed economic instability characterized the third period, beginning in the late 1950s. Falling banana prices brought about recession, unemployment, and intensified social protest. In 1960 Velasco was elected to his fourth term as president, promising to confront the economic downturn. Declining government revenue made it impossible for him to make good on his electoral promises, however, and he was forced to resign just over halfway through his term. Soon afterwards the military took power themselves, announcing that this time they intended to retain power long enough to carry out modernizing reforms. In 1964 this government enacted a land reform that significantly changed land tenancy in the Sierra, although it preserved commercial holdings in the Costa. Persisting low commodity-export prices, however, made it no less difficult for the military government to manage the economy and the fiscal accounts effectively. Unable to agree on a policy program to confront the economic malaise, and increasingly unpopular because of political repression, the military decided to step down in 1966. Following an interim government, which produced a new constitution, new elections were held in 1968.

Velasco was then elected President for the fifth time, winning a plurality of votes cast among five candidates. For three years, his government struggled in the face of inadequate legislative support and low banana export receipts to maintain a populist spending program. In June 1970 he assumed dictatorial powers, dissolving the Congress and dismissing the Supreme Court. Two months later he devalued the sucre from 18 to 25 per dollar (the rate of 18 had stood for nearly a decade), instituted capital controls, and decreed tax and tariff increases. In February 1972, however, largely to head off the election of a populist candidate for president they disliked, the military removed Velasco and assumed power. Earlier, in 1964, the government had granted prospecting and development concessions for the Amazon basin to several foreign oil companies, several of which made significant discoveries within several years. By the early 1970s, following construction of an oil pipeline from the producing fields over the Andes Mountains to the coast, sizable revenue flows seemed likely. Upon taking power in 1972, the military declared that they would retain power long enough to ensure that the oil earnings were applied to national development and social reform.⁹ Unfortunately, oil turned out to be yet another volatile export commodity (section C below takes up the themes of oil-based growth and external debt since 1970).

EXPOSURE TO FORCES OF NATURE. Along with world commodity markets, forces of nature have been another standing source of contingency for Ecuador's economy. Ecuador is prone to earthquakes, landslides, volcanic eruptions, and extended periods of both drought and excessive rain. The record during the past 20 years indicates the nature of the problem. In 1975 and 1983, Ecuador experienced damaging El Niño episodes, with severe rain damage to coastal agricultural output and transport infrastructure and a substantial decline in fishing production. A new round of the phenomenon in 1998 was one of the shocks contributing to the predollarization crisis. Infrastructure accumulation and population growth imply that, as time passes, the consequences of any particular natural disaster increase. Drought has been a recurring problem, affecting agricultural production and electricity generation in several recent years. A drought in 1995, for example, affected export and domestic food crops as well as electrical power supplies. Earthquakes are a standing hazard. In 1987, an earthquake tore apart 40 kilometers of the Transandean Pipeline, stopping oil production for five months (see section C following). Volcanoes are another hazard. During 1999, in the midst of the economic crisis, two eruptions-one (Guagua Pichincha) on the outskirts of Quito, the other (Tungurahua) near a rich agricultural and resort areafurther disrupted economic activity and created uncertainty. Relatively few lives were lost, but property damage was considerable and tourism was affected. Many countries face standing risks from natural phenomena. Still, were one to list the world's economies according to the frequency and variety of their natural disasters, Ecuador would surely rank relatively high. The likelihood of the occurrence of natural disasters discourages many kinds of investment, and the disasters themselves tend to have significant consequences for economic growth and stability.

EXPOSURE TO SHIFTS IN CROSS-BORDER FINANCIAL FLOWS. More recently, integration with world financial markets has exposed Ecuador to another dimension of volatility. Wealth-holders have been able to move resources with increasing ease between on- and offshore placements, as perceptions and realities of relative rates of return and bank safety evolve. As in other economies, this activity has imparted an additional dimension of vulnerability to financial activities. In 1994 and 1995, Ecuador experienced a round of inflows followed by outflows (see section C below), which intensified the business cycle. Meanwhile, Ecuadoran financial institutions have continued to do business with foreign banks, coming to rely heavily on external funds for trade and working-capital credit. During 1998 many of these lines were withdrawn—again, at a moment when their withdrawal was especially inconvenient both for banks and for the balance of payments (see Part 4). The benefits and drawbacks of crossborder financial-capital flows have been a subject of worldwide controversy. While presumably beneficial for developing economies, since they augment the resource base for capital formation, in Ecuador as elsewhere they are an additional source of economic vulnerability.

C. Oil, External Debt, and Ecuador's Exchange-rate Instability

Ecuador's present external-debt problem can be traced back to the 1970s, when the start of large-scale oil exports generated a growth spurt and the private and public sectors began borrowing heavily. No less important, a large part of the present unfinished structural-adjustment agenda involves reversing changes the military government made in the 1970s. This section reviews Ecuador's macroeconomic evolution from the mid-1970s up to the start of the predollarization crisis. The essential argument is that the need to service the external debt reduced economic growth and sustained the exchange-rate instability.

The start of large-scale oil exports came at just the moment that the Organization of Petroleum Exporting Countries (OPEC) succeeded in raising world oil prices. In 1972, soon after taking power, the military renegotiated some of the concession contracts to increase the nation's share of the proceeds.¹⁰ In 1973 they took Ecuador into OPEC. On the basis of the surge in oil revenue, the military government increased public-sector employment and capital formation rapidly, raising overall government expenditure by about two-thirds between 1972 and 1975. It reduced domestic taxation: non-oil public-sector revenue fell from 18.7 percent of GDP in 1972 to 13.8 percent in 1975, while oil revenue rose from 2 to 8.4 percent. The government applied part of the oil earnings to subsidize domestic electricity and oil derivatives. From 1970 to 1977 annual real GDP growth exceeded 9 percent¹¹ (compared with just below 6 percent in the 1960s).

As the economy grew, Ecuador's private sector—mainly commercial banks—began borrowing from foreign banks engaged in "recycling" OPEC surpluses. During 1974 and 1975, however, rising aggregate demand induced inflationary pressure. Oil revenue slipped as world recession drove down world oil prices. The 1975 El Niño episode affected coastal agriculture and fishing, reducing government revenue. To avoid raising non-oil taxes or reducing expenditure and subsidies, the government began borrowing externally to finance its deficit. At the end of 1979 the overall public external-debt stock reached US\$4.5 billion (about 28 percent of GDP), compared with US\$324 million (20 percent of GDP) at the end of 1970 (see figure 2.1).



Figure 2.1 Ecuador: Year-end Public and Publicly Guaranteed External Debt (US\$ million), 1970–2000

In 1976 the military government, its support eroded by inflation and internal disputes, decided to restore constitutional government. In 1979, after a lengthy process including the elaboration of a new constitution, a popular Guayaquil political figure, Jaime Roldós, was elected president. His government faced deepening economic problems. Some were of its own making: Soon after taking office, the government raised the minimum wage and other wage benefits, which had significant fiscal consequences. The larger problem, however, was an external shock. Following the U.S. Federal Reserve's monetary tightening and the onset of world recession, rising interest rates and diminished oil and other commodity prices thrust Ecuador, like most other South American economies, into debt crisis. Higher interest rates on floating-rate debt led to a sharp deterioration in both private- and public-sector financial positions. President Roldós' death in a May 1981 air disaster further complicated the government's problems. The vice president, Osvaldo Hurtado, immediately assumed the presidency and began steering the economy into adjustment to the new macroeconomic realities.

[■] Multilateral ■ Bilateral □ Bonds ⊟ Other private sources Source: World Bank.

In 1982, under the pressure of surging interest rates on its external debt and recession induced by declining terms of trade, Ecuador's overall public-sector deficit reached 7.5 percent of GDP and its current-account deficit widened to nearly 8.5 percent of GDP. In May of that year, as part of an IMF-supported program, the government devalued the exchange rate, which had been fixed at 25 sucres per dollar since 1970, by 25 percent against the dollar. It also raised the (controlled) banking-system interest rates and raised the prices of a broad range of public-sector goods and services. In March 1983 the authorities devalued again and then commenced mini-devaluations to keep the exchange rate from slipping behind the price level. Consumer prices rose 63.4 percent over 1983 prices while real GDP declined 2.8 percent, largely because of that year's severe El Niño episode. On the basis of the IMF program (which succeeded in the sense that Ecuador met its conditionality and it was disbursed fully), foreign commercial banks reached agreement with Ecuador on debt rescheduling, and in July 1983 the Paris Club agreed to reschedule amortization due between June 1983 and May 1984.

Repeated exchange-rate depreciation was a fundamental change for Ecuador, with at least two lasting consequences. First, it sharply increased the private sector's—in particular, commercial banks'—external debt-service obligations. Beginning in 1983, the Central Bank assumed the bulk of the private external debt (about US\$1.5 billion, 11 percent of 1982 GDP) in exchange for sucre debt, under its *sucretización* policy¹² (see Bayas and Somensatto 1994). *Sucretización* not only added significantly to the public debt stock, it also angered many citizens, who believed it was inappropriate to use public resources to bail out private borrowers and foreign creditors. The second consequence of the sliding exchange rate was that it set an incentive to move private wealth into dollars. At first this meant offshore placements, since until the 1990s bank operations in dollars were closely restricted. "Spontaneous" dollarization of informal contracts, real-estate valuations, professional services, and so on, also became increasingly widespread.

Throughout the 1980s and 1990s, policymakers struggled to set an exchange rate that was both stable and set the incentives for the net export flow required to service the external debt. They never succeeded in doing so permanently, however. Real growth, inflation, exchange-rate depreciation, and the public deficit remained highly unstable. Under León Febres Cordero's liberalizing government, which took office in August 1984, real GDP rebounded, growing 4.2 and 4.3 percent in 1984 and 1985, respectively, while inflation moderated to around 20 percent. In 1986, however, at the same time it began liberalizing commercial-bank interest rates, the government began a floating exchange rate for private-sector imports. Oil-export prices fell by more than half that year, how-

Period	President	Acceded to office through	Departure from office
Aug 79-May 81	Jaime Roldós	Election	Accidental death
May 81–Aug 84	Osvaldo Hurtado	Vice President, assumed office	Term concluded
Aug 84–Aug 88	León Febres Cordero		Term concluded
Aug 88-Aug 92	Rodrigo Borja	Election	Term concluded
Aug 92–Aug 96	Sixto Durán Ballén	Election	Term concluded
Aug 96–Feb 97	Abdalá Bucaram	Election	Removed by Congress
Feb 97–Aug 98	Fabián Alarcón	Designation by Congress	Term concluded
Aug 98–Jan 00	Jamil Mahuad	Election	Resigned
Jan 00-	Gustavo Noboa	Vice President, assumed office	-

Table 2.1 Ecuador: Governments, 1979–2001

ever, and in January 1987 the government suspended debt service to commercial banks. The March 1987 earthquake interrupted oil exports, and international reserves declined precipitously. The Central Bank tightened monetary policy to head off exchange-rate depreciation, but then finally stopped the float when the exchange rate came under speculative attack. Real GDP fell 6 percent in 1987 while consumer prices rose nearly 100 percent. Oil exports resumed in August 1987 after the pipeline was repaired, but with continuing high expenditure and subsidies the public deficit surged to more than 12 percent of GDP. The debt-service suspension continued for seven years.

Resumption of oil exports at somewhat higher prices led to a 10.5-percent GDP-growth rebound in 1988, but the public deficit remained massive, on the order of 10 percent of GDP. The external-debt stock, now accumulating mainly through interest arrears, grew more slowly. In mid-1988, soon after taking office following elections, a center-left government under President Rodrigo Borja announced a new policy package, including yet another large devaluation and introduction of a new exchange-auction system, with differentiated rates for private and public exporters and private importers. It then carried out mini-devaluations consistent with anticipated inflation of 30 percent. Consumer prices rose 54 and 50 percent in 1989 and 1990, respectively, however, and real growth slid to 0.3 percent in 1989. Over the next three years, real growth recovered to between 3 and 5 percent. Inflation persisted in the range of 50 to 60 percent, and the nonfinancial public-sector deficit remained around 6 to 7 percent of GDP, despite higher oil prices at the time of the Persian Gulf War. Building on the Cordero Government's reforms, the Borja Government undertook several

significant structural-adjustment initiatives, including a partial tax reform, trade liberalization, and progress toward financial-sector liberalization. In the run-up to the mid-1992 elections, however, government expenditure rose sharply, and, although the authorities maintained a relatively appreciated exchange rate, inflation persisted at high rates.

In mid-1992, Sixto Durán Ballén was elected president on a platform of stabilization, liberalization, and structural reform. Soon after taking office, his government announced another large policy package, encompassing a devaluation of 20 percent against the dollar and various fiscal measures, including increases in motor-fuel prices and electricity rates, a company-assets tax, expenditure cuts, and a public-employment freeze. These actions cut the 1993 public deficit nearly to zero. In August 1993 the authorities unified the foreign-exchange market and began a new policy of floating within a pre-announced crawling band. The idea was to set a nominal anchor that would help gradually to reduce the inflation rate. This exchange-rate policy continued until 1998 (see Part 4). Meanwhile, the Durán Ballén Government began developing and implementing a substantial structural-reform program (see Part 3, section A).

In late 1993 and 1994, following the introduction of the float-within-acrawling-band exchange-rate policy, Ecuador experienced a short-term, financial-capital inflow (see Jaramillo 1994). Unlike other economies, where capital flows tended primarily to go to the stock markets, these inflows went mostly to short-term, fixed-income applications, since high, short-term interest rates were now available on sucre deposits. The placements were made mostly by Ecuadoran nationals, repatriating holdings taken abroad in the 1980s. The inflows themselves increased foreignexchange reserves and so seemed to reduce exchange-rate risk, encouraging further inflows. The high interest rates on short-term sucre deposits were a standing source of instability, however: Capitalization of rates on the order of 30 percent into deposit balances meant that this became a basic growth rate for these monetary stocks, helping to sustain this rate as the economy's "inertial" inflation rate during the 1990s.

The period of arrears accumulation that commenced in January 1987 concluded in 1994, when, with IMF, World Bank, and IDB support, the authorities secured a debt-and-debt-service reduction (DDSR) deal with commercial-bank creditors, leaving Ecuador owing Brady bonds totaling just under US\$6 billion (see figure 2.1). (The multilateral agencies financed the collateral for the Brady bonds.) Even so, by the end of 1998 total public and publicly guaranteed external debt outstanding stood at just over US\$13 billion, about two-thirds of 1998 GDP—the heaviest burden by far among Latin America's 10 largest economies.¹³ (In September 1999 Ecuador would become the first nation to suspend servicing of Brady debt. See Part 4.)

The national-accounts data suggest that in the mid-1980s, under the stress of its adjustment to the debt crisis, Ecuador's macroeconomy shifted to a lower-growth mode. Figure 2.2 shows that per-capita real GDP and real consumption grew relatively rapidly until the early 1980s, along with the external debt, but then leveled off, remaining nearly unchanged over the past two decades. (The years 1987 and 1988 were exceptional because of the earthquake damage to the oil pipeline and the subsequent recovery.)

Figure 2.3 shows that the gross capital-formation rate rose through the late 1960s to relatively high levels. It remained high through the 1970s, but then declined abruptly in 1983, and has remained since then at lower levels. In 1999 and 2000 it fell precipitously on account of the economic crisis. (Capital formation surged in 1998, the first year of the crisis, largely because of reconstruction of infrastructure damaged by El Niño rains.)

Figure 2.4 shows that when per-capita real GDP leveled off in the early 1980s, the resource balance (net exports of goods and nonfactor services)





Note: Data are reflated using the GDP deflator. *Sources:* International Monetary Fund, World Bank.



Figure 2.3 Ecuador: Gross Domestic Capital Formation (at 1975 Prices, 1975 GDP = 100), 1965–2000

Source: National accounts of Ecuador.

shifted from deficit to surplus: Gross domestic saving (the difference between gross investment and the resource deficit) generally exceeded gross investment after the early 1980s—that is, Ecuador was carrying out external dissaving to limit growth of external liabilities.

Chronic exchange-rate instability (see figure 2.5) helped set the price incentive for this dissaving: Beginning in 1982, the various policy packages and mini-devaluations left the real-effective exchange rate at a consistently more depreciated value than it had maintained over the 1970s and 1980s.

This part has summarized a complex history, but several patterns seem clear. The oil euphoria of the 1970s not only failed to lead to sustained economic growth, it also left Ecuador with an overwhelming externaldebt "overhang." Moreover, by using oil proceeds to increase public expenditure and subsidization and reduce non-oil taxes, the government of the 1970s set in place revenue and expenditure structures that deepened the economy's vulnerability to shocks. During the 1980s and 1990s, the need to generate a net-export surplus reduced the resources available



Source: National accounts of Ecuador.

Figure 2.5 Ecuador: Exchange Rate (Sucres per U.S. Dollar); Trade-Weighted Real-Effective Exchange Rate (+ = Depreciation; 1990 = 100), June 1970–September 2001



Source: International Monetary Fund.

for capital formation. Moreover, to set the incentives to bring about the export surplus, policymakers had to sustain a real-effective exchange-rate depreciation. Doing so subjected the exchange rate to instability and uncertainty, encouraging the spontaneous dollarization that would help make the 1998 crisis so devastating.

3. Ecuador's Economic Structure Going into the Predollarization Crisis

As it went into the predollarization crisis in 1998, Ecuador still had a large pending structural-reform agenda. Oil dependence, the large size of the public sector, and heavy external debt made the public finances particularly vulnerable. But the most immediately dangerous structural problem turned out to be that, because the authorities had relied so heavily on exchange-rate depreciation to maintain the export surplus and externaldebt surplus, the economy's spontaneous dollarization was advancing inexorably. Partial dollarization left the financial system singularly vulnerable to the exchange-rate depreciation. This part considers the public sector, financial system, and other sectors in turn.

A. Public-sector Structure and Vulnerability

As policymakers struggled to cope with the debt problem during the 1980s, it became increasingly clear that the public-sector structure they had inherited from the 1970s was an obstacle to growth. The elected governments that followed the military regime found it difficult to limit public employment, target subsidies, and taxation sufficiently and efficiently. Public-sector management—in particular, tax administration, budget planning, and day-to-day expenditure administration—remained outmoded. The key oil, electricity, and telecommunications sectors were inefficient public monopolies, and the government owned and managed smaller enterprises in many other sectors. The reliance of public revenue on volatile oil earnings rather than on more stable revenue sources, together with the expenditure commitments deriving from the publicdebt burden, the essentially tenured public-sector labor force, and mandated transfers (required in many instances by revenue earmarking), made the fiscal accounts inherently vulnerable to exogenous shocks.

The elected governments of the 1980s and 1990s differed ideologically, but all were persuaded of the practical need for public-sector reform. The Cordero and Borja Governments made significant advances in financial liberalization and trade liberalization, but found substantive public-sector reform difficult to achieve. The Durán Ballén Government made somewhat more progress. Its 1992 Public Budgets Law set a legal basis for modernization of the systems of formulating and implementing public budgets. The Modernization of the State Law (1993) established a ministeriallevel "Modernization of the State Council" (CONAM) to plan and help bring about modernization and privatization. The Durán Ballén Government succeeded in divesting most of the smaller enterprises that had come under public control, and submitted legislation to the Congress to permit reorganization and eventual privatization of the telecommunications and electricity monopolies. During its first two years in office the Durán Ballén Government also made substantial progress in controlling public finances. It reduced noninterest public expenditure, in part through a program that reduced public-sector staffing by nearly 10 percent. This action, combined with forceful Central Bank policy management and implementation of the pre-announced crawling-peg exchange rate, helped reduce annual inflation to around 20 to 30 percent from the 40 to 50 percent prevailing in the early 1990s. These were hard-won reforms, secured in the face of broad political opposition. Even so, they were short of the comprehensive public-sector overhaul that Ecuador needed. The revenue base was still heavily dependent on oil; non-oil taxes were inefficient and widely evaded; and the public-sector payroll remained larger than Ecuador could afford (averaging 7.3 percent of GDP over the 1990s).

In 1995, the Durán Ballén Government's structural-reform effort faltered on account of unanticipated events, including (a) a border conflict with Peru in January; (b) extended drought in the middle part of the year; and (c) the resignation of the vice president, who had been managing economic policy, under corruption allegations. Under pressure from interest groups, the Congress held up progress on reorganization of the electricity and telecommunications sectors. The failure of two relatively large banks in 1995 and 1996 deepened the government's difficulties. The Central Bank provided liquidity credit to keep the banks open and took direct ownership of one.¹⁴ Real growth slowed in 1995. No further disbursements were provided by the IMF under its 1994 program after the first, and disbursements of the World Bank and IDB structural-adjustment loans were postponed on account of the failure to meet the conditionality.

Ecuador relapsed into political instability after the Durán Ballén Government left office in mid-1996. The government elected that year, under President Abdalá Bucaram, was forced from office by the Congress after only six months because growing alarm over corruption, the President's unusual personal style, and, finally, in January 1997, sharp increases in gasoline prices following relatively high exchange-rate depreciation led to widespread protests. The Congress then installed an 18-month interim government under President Fabián Alarcón, an anti-Bucaram leader in the Congress. This government had inadequate political support for anything more than caretaking. It made vigorous efforts to persuade the Congress to enact tax reform and to advance privatization, but these efforts were largely fruitless. To increase revenue it enacted a tariff surcharge, reversing the long process of trade liberalization. Moreover, in early 1998, with the conclusion of its term close, this government had to deal with the El Niño rains and declining oil-export prices that turned out to be the onset of the predollarization crisis.

The core of Ecuador's public-finance problem was (and indeed remains) that revenue depended too heavily on volatile oil earnings, while inadequate non-oil revenue and overwhelming debt-service and payroll commitments narrowed the scope for developmental expenditure. The incomplete public-sector reform agenda encompassed (a) reform of tax policy and administration, both to increase revenue and mitigate the effects of taxation for allocative efficiency; (b) implementation of oil-revenue stabilization mechanisms; (c) limitation and targeting of public subsidies; (d) reduction and improved management of publicsector staff; steps to ensure the efficiency and quality of (e) education, health, and social-welfare expenditure and of (f) public capital formation and maintenance; (g) modernization of legal and technical systems of budget planning and execution; (h) completion of privatization processes and regulatory development in the telecommunications, electric power, and hydrocarbons sectors; (i) modernization of the social-security system; and (j) implementation of politically, administratively, and fiscally viable public-sector decentralization.

Figure 2.6 shows how heavily Ecuador's public revenue has depended on crude-oil exports and domestic sales of oil derivatives. Revenue from these sources has been remarkably variable. In the four years 1996 to 1999, overall public-sector oil revenue, including domestic sales, was 8.2, 6.4, 4.6, and 7.5 percent of GDP, respectively. Revenue from oil exports alone amounted to 4.9, 3.2, 1.3, and 5.3 percent of GDP, respectively, in the same years.¹⁵ Export volume and production grew slowly because of delayed and inadequate investment in the sector, but unstable world oil prices accounted for most of the variability (see figure 2.7¹⁶). (Implementation of a "stabilization fund," which would even out the revenue flow by accumulating funds when oil proceeds were relatively high and releasing resources when oil proceeds were relatively low under rigorous rules, would help reduce oil-export revenue volatility.¹⁷)

Although the domestic non-oil taxation system generates inadequate revenue and is characterized by inefficiency and inequity, the difficulty of reaching agreement among the various parties in the Congress has impeded modernization. The reforms the Congress has approved since the crisis began have tended to be piecemeal, stopgap, and temporary measures. Beginning in 1999, the Congress and the Executive agreed to set an unusual 1 percent tax on financial transactions while suspending



Figure 2.6 Ecuador: Per-Capita Nonfinancial Public-Sector Revenue (in 1998 U.S. Dollars at 1998 Prices), 1990–2000

Source: Central Bank of Ecuador.

the personal and corporate income taxes, which had low yields and were difficult to administer. In April 1999, however, a realignment of political coalitions in the Congress led to restoration of the income tax. In November 1999, the Congress reduced the transactions-tax rate to 0.8 percent, allowing it to be credited against income tax, and lifted the value added tax (VAT) rate from 10 to 12 percent (but rejected an increase to 15 percent). The 12 percent VAT rate was still below the rates in comparable Latin American economies (Peru and Chile, for example, have 17 percent rates). The Congress essentially refused to consider integral reform proposals. A proper integral reform would rebuild the tax system as a whole, setting mutually appropriate rate structures for (a) VAT, (b) personal and company income tax, (c) excises, and (d) import levies, and would also modernize the national law covering provincial and municipal revenues, helping relieve financial constraints at those levels. (Kopits and others, 1999, discuss the taxation issues comprehensively.)

Ecuador maintains intricate systems of revenue sharing between the central administration, provincial and municipal governments, and sev-



Figure 2.7 Ecuador: Monthly Average Crude Oil-Export Price, June 1995–September 2001

Source: Central Bank of Ecuador.

eral specific autonomous public entities. In February 1997, just after the Bucaram Government was forced from office, the Congress and the interim government rapidly approved a measure under which 15 percent of central-government revenue would have to be transferred to subnational governments (9 and 11 percent in 1997 and 1998, respectively). In the event, this legislation proved difficult to implement, partly because of the continuing resource scarcity as the economy slid into crisis, but also because subnational governments themselves had inadequate absorption capacity and limited abilities to take on new spending responsibilities. Education, health, and most public works remain almost entirely centralgovernment responsibilities, and a large political and administrative effort would be required to decentralize them. Meanwhile, Ecuador maintains its long-standing practice of revenue earmarking, which has limited budget planners' scope to make discretionary expenditure choices. Tax evasion is widespread, partly because tax administration remains inadequately developed, but also because taxpayers have been "demoralized," perceiving that their taxes go to such "questionable" purposes as debt service, bureaucracy, and corruption.

On the expenditure side, the public payroll has been difficult for policymakers to control: Most public workers are unionized and effectively tenured. Pay levels are, as in many economies, politicized and contentious. About 90 percent of the roughly 240,000 workers on the central government's payroll work in the national education system, health (the central government runs public hospitals and various health programs), the national police, and the armed services. Employment in education, health, and the police will have to increase as Ecuador grows and develops (although this should be accompanied by a decline in the ratio of administrative to line staff). In addition to workers on the central government's direct payroll, mandated central-government transfers largely go to other public-sector workers (such as at universities). One consequence of the central government's chronically tight finances has been that its capital budget has been tightly constrained: Public expenditure on capital formation and maintenance has lagged, affecting real growth.

Figure 2.8 shows the evolution of the central government's expenditure over the 1990s. Expenditure is divided here into five functional categories: (1) education, health, and social services; (2) transport and communications; (3) agricultural development; (4) all other noninterest expenditure, and (5) interest on the public debt. While overall social expenditure declined in the crisis years of 1998 and 1999, the total inter-

Figure 2.8 Ecuador: Per-Capita Central Government Expenditure (in 1998 U.S. Dollars at 1998 Prices), 1990–2000



Source: Central Bank of Ecuador.

est bill increased sharply. In 1998 the nonfinancial public sector's accrued interest bill was 5.1 percent of GDP (of which external interest accounted for 3.8 percentage points). In 1999, accrued interest reached 10.1 percent of GDP, of which external interest accounted for 6.4 percentage points (again, largely because in 1999 recession and exchange-rate depreciation sharply reduced the GDP figure in this ratio's denominator).

It is important to note in this context that Ecuador's social safety net is especially limited (see chapter 4). Apart from the national pension system (discussed below), its most important component is the *Bono Solidario* set up in September 1998. This program provides small monthly stipends to mothers of poor families and to poor retirees who are registered by the Catholic Church. Survey work implies that beneficiaries include many people who should be ineligible¹⁸ while excluding many who would be eligible. The Emergency Social Investment Fund (*Fondo de Inversion Social Emergente*, FISE), created in 1993 with funding from various external sources, is used for local infrastructure projects in areas affected by emergencies, the idea in part being to employ people temporarily in order to provide them income. These programs apart, while there are various programs in education, health, and nutrition intended to benefit poorer people, none can be said to fulfill the objectives of a social safety net.

The rising public interest bill was driven by three developments after the mid-1990s. First, after running at relatively low levels after 1992, the public deficit widened. Second, net domestic financing came to figure more heavily than net external financing in overall public financing. And, third, since public borrowing was dollar-denominated, the real-effective exchange-rate depreciation increased the value of the interest bill. Domestic Treasury debt in bonds and bills rose from 1.2 percent of GDP at the end of 1993 to 7.1 percent at the end of 1998 (88 percent of which was dollar-denominated). This figure rose to 15.4 percent at the end of 1999 (largely on account of the sharp decline in the dollar value of GDP, resulting from recession and sharp real-effective exchange-rate depreciation). In addition, after December 1998, the Treasury added an additional US\$1.6 billion in dollar-denominated bonds to recapitalize commercial banks and pay deposit guarantees (see Part 4). (In November 1999, as the predollarization crisis turned acute, the authorities unilaterally termed out the dollar-denominated domestic debt falling due through December 2000 for seven years, with two years' grace, at London interbank offered rate (LIBOR) plus 2 percent interest.)

Although the volatile performance of public finances is basically the consequence of the volatility of oil revenue and the large interest bill and payroll, the problem has additional dimensions. The Public Budgets Law and various reform attempts by the Council for the Modernization of the State notwithstanding, administration of the various aspects of public finance has remained weaker than the country requires. Tax administration was lax until the mid-1990s, when the revenue service began to focus on "large taxpayers," an approach that has had some success in other countries. In 1998, however, the Alarcón Government carried out a thorough reform of tax administration, establishing a new agency and replacing a large proportion of the staff. This new agency has proved more successful than the one it replaced, largely because the transactions tax that went into effect in January 1999 provided vital information relevant for collection of other taxes. Customs administration gave rise to so many complaints of corruption that in the mid-1990s the authorities turned it over to a foreign company. The Bucaram Government restored it to civilian control, but complaints (and evidence) of corruption revived, and in 1997, the Alarcón government turned it temporarily over to military control.

Figure 2.9 shows a striking characteristic of Ecuador's nonfinancial public-sector accounts. Despite the economy's unsatisfactory growth performance in the 1990s, the primary balance has been strongly in surplus since 1990, excepting only the initial predollarization crisis year of 1998. Because the interest bill has been so large, however, the overall balance has tended to be in deficit. Ecuador's large primary balance raises several issues. One is the question of whether, when analyzing the effect of the primary deficit on the domestic economy, it is more appropriate to focus on the primary balance excluding oil-export revenue. A primary surplus (deficit) presumably indicates the net resource flow the fisc draws from (pumps into) an economy to pay down financial obligations or accumulate assets. In Ecuador's case, however, oil-export revenue flows do not pass through the domestic private economy. Another important issue is that the primary surplus is calculated for the consolidated nonfinancial public sector. This misses the point that operating surpluses in, say, state enterprises cannot be transferred directly to other public entities. (Moreover, there is a fundamental conceptual difference between a government deficit, which is a change in the public net liability position, and a stateenterprise's operating loss.) Analysis of Ecuador's fiscal accounts requires separate consideration of the various public-sector components---the central government, public enterprises, subnational governments, and social security. In recent years, the central government has been the main source of the overall public-sector deficit, and has been the main source of its variation. Regional and municipal governments ran a consolidated overall deficit of about -0.3 percent of GDP from 1996 through 1999 (although they managed slight surpluses in 2000 and 2001). Public enterprises ran a combined operating deficit of around 1 to 1.3 percent of GDP in 1996-99 (they managed surpluses of about 0.3 percent in 2000 and 2001).



Figure 2.9 Ecuador: Nonfinancial Public-Sector Overall and Primary Surplus (US\$ Million at 1998 Prices and Exchange Rate), 1990–2000.

Source: Central Bank of Ecuador.

Public finances have remained unstable partly because Ecuador's budget-management processes remain outdated. The processes by which annual budgets are formulated, considered by the Congress, codified into a payments calendar, adjusted over the course of budget exercise for unforeseen events, and finally executed have various shortcomings. These arise in part from the practical difficulty of planning properly in an unstable context; institutional complexities in the planning and implementation phases; and long-standing problems in the processing of information. Once dollarization brings about price stability, the need to alter the budget in mid-year for unanticipated events should diminish. Since the mid-1990s, with World Bank support, the government has been developing and implementing a modern, computerized management information system. The system was officially inaugurated for a core group of public entities in May 2000, and implementation has been proceeding since then. When this system is complete, policymakers will be in a far better position to plan and oversee public resource allocation. These changes will resolve only part of the problem of public-sector financial management, however: Apart from the "structural" problems of overreliance on oil revenue, the use of human

resources, and the external debt burden, Ecuador still needs to modernize its ways of determining public expenditure.

Part 4 argues that the structure of the public finances magnified the consequences of the 1997 and 1998 shocks that set off the predollarization crisis. Reduced oil revenue and the need to increase public expenditure on account of El Niño, together with the inflexibility of public expenditure, combined to increase the public deficit. The authorities simply could not reprogram expenditure sufficiently in response to their changed priorities.

Three additional aspects of Ecuador's public-sector structural-reform agenda go beyond the government budget narrowly defined. These are (a) the need for pension reform, (b) the issue of political and administrative decentralization, and (c) the lagging privatization of publicly owned assets.

Like many of South America's older national pension systems, Ecuador's pay-as-you-go social-security system has become financially unviable, and a fundamental reform, like those of Chile, Bolivia, Argentina, and Peru, is clearly necessary. Since the mid-1980s, in addition to contributions for its own staff, the central government has been providing a subsidy to the IESS (the Instituto Ecuatoriano de Seguro Social, that is, the Ecuadoran Social Security Institute) covering 40 percent of pension payments due as well as certain specific pension deficits, including those of the national police and armed forces. The subsidy has been provided in cash, however, only to the extent the IESS actually needed it to meet its obligations. The balance has been capitalized into an interest-bearing loan from the IESS to the government, which amounted to about US\$600 million by the end of 1999. At present, basic pension activity is restricted to the IESS, with no role for private institutions. Various reform proposals have been made, under which, in general, the central government would amortize the loan in cash over time, if and as the social-security system were placed on a viable financial basis and a role were created for the private sector. Many groups remain opposed to reform, however. Peasant groups in particular fear that reform could affect the Seguro Campesino, a program of pension and health benefits peasants receive but for which they make no direct contributions. Modernization of the socialsecurity system is essential to ensure that no new pension-system bailout becomes necessary, that workers receive the pensions for which they contributed, and that appropriately regulated private-sector financial institutions can participate in the system.

In recent years, debate has revived in Ecuador on the potential for political and administrative decentralization. Participants in these debates refer often to positive and negative points of recent decentralization experiences in other countries. Proponents argue that, by applying the "subsidiarity" principle and devolving political and administrative decisionmaking to more appropriate governmental levels, Ecuador could ease its regional rivalry (see Part 2) and make expenditure more responsive to local circumstances. Participants in these debates are well aware, however, of decentralization's pitfalls. Moreover, there is a wide range of views on precisely how it ought to be done. The fiscal aspects of decentralization are especially thorny. Ecuador's subnational governments are financially pressed, largely because existing legislation and outdated property values severely constrain their revenue-generation capacity and they have very limited financing capacities. As they elaborate their decentralization project, Ecuadorans will need to solve several problems simultaneously. Not only must they find a generally accepted political formula; they must ensure that expenditure responsibilities and financial resources of the various levels of governments are more or less balanced. (Brazil and Colombia offer striking examples of the dangers of decentralizing without such matching.)

The Durán Ballén Government successfully privatized many small enterprises (including several that had come under public control through insolvency), but privatization of the national telecommunications, electricity, and hydrocarbon monopolies has been more difficult. Political and labor-union opposition was only part of the problem. The technical problem was that the enterprises themselves were not organized on commercial bases, and so could not readily be transferred to private ownership. In the case of the electricity enterprise, establishment of new generating and transmission enterprises was delayed by the difficulty of allocating assets. Governments following the Durán Ballén Government gradually succeeded in reorganizing the telecommunications and electricity sectors, formulating sectoral policies, and creating new regulatory agencies. Thus far, however, the enterprises remain unsold (an attempt in November 1997 to auction management contracts and minority holdings in the telecommunications monopoly's two successor companies failed, and they are still in government hands). Moreover, rate setting remains subject to political pressure. The dollarization legislation approved in March 2000 included reforms increasing the shares of the telecommunications and electricity enterprises that private owners could hold. Thus far, the process of reorganizing and privatizing the state oil monopoly, PetroEcuador, has not yet been possible. To do so would require complex reorganization and legal reforms, and political and labor-union opposition remains powerful.

B. Ecuador's Financial System and Partial Dollarization

Ecuador's financial system proved especially vulnerable during 1998, and this was the main reason the crisis proved so devastating (see part 4

below). Beginning in the mid-1980s, Ecuador's financial system had undergone liberalization, which changed the financial system from a "repressed" structure with directed-credit programs, high reserve requirements, restricted foreign-exchange operations, and regulated interest rates to one in which private entities were essentially free to manage their affairs. The decade of liberalization culminated with the 1994 General Law of Financial Institutions. Directed-credit programs ended, reserve requirements were reduced and rationalized, interest rates were freed, and banks were permitted to accept dollar deposits and provide dollar loans. Commercial banks were allowed to have offshore operations, on the reasoning that if Ecuadoran funds could not be prevented from going off shore, it should at least be possible to bring them home for credit operations.

As it liberalized, Ecuador modernized its Central Bank. It phased out the Central Bank's export-subsidization programs and introduced modern monetary-management techniques, including more transparent procedures for lending to commercial banks and liquidity management through repurchase operations and open-market operations in Central Bank liabilities. In 1992 a new Law of the Monetary Regime and State Bank substantially modernized the institution. This law prohibited Central Bank direct lending to the public sector and transferred various debt stocks (including the external debt remaining from *sucretización*) from the Central Bank to the Treasury. The institution's technical capacities and staff skills were significantly upgraded. Until 1998, however, the monetary authority retained an antiquated structure, under which the Central Bank executed policy set out by a "Monetary Board" whose members were the finance minister, the banking superintendent, representatives of commercial banks and the nonbank private sector, and a fifth member elected by the other four. That year, a constitutional reform abolished this institution, created a conventional presidency and board of directors, and made them completely independent once they were appointed by the president and confirmed by the Congress.

Financial liberalization was not accompanied, however, by adequate development of banking supervision, for many of the same reasons why public administration generally had developed inadequately. Even after the onset of the 1998 banking crisis, many Ecuadorans perceived the exercise of banking supervision as political, not administrative. (There was a widespread view that if supervisors acted against Guayaquil banks, fairness required that they also act against Quito banks.) Banking supervision was inadequate at various levels. Laws and norms covering such matters as connected lending, portfolio concentration, risk management, capital adequacy, accounting standards, documentation, income recognition, and asset classification were uneven—in some instance outmoded, in some instances up-to-date. Enforcement was generally deficient, however, partly because supervisors' technical capacities were uneven, but also because bankers were often able to intimidate supervisory personnel administratively and legally. In any case, the main supervision problem was that the authorities had no formal means of intervening in banks short of liquidation.

Banks maintained many long-standing risky practices. Connected lending and portfolio concentration were commonplace—indeed, many banks belonged to economic groups that used them to serve their own financing needs. These practices aggravated the risks of bank lending in a contingency-prone economy. Liberalization provided banks scope to engage in additional risky activities, including aggressive interest-rate competition, offshore banking, and U.S.-dollar operations. While interestrate competition was a presumable objective of financial liberalization, absence of effective supervision meant banks could undertake riskier operations than they could safely manage. Managers of more conservative banks found themselves having to engage in risky activities in response to competition.

Offshore banking turned out to be a source of instability. Banks ran their offshore funding operations pretty much as if they were onshore, taking deposits and doing other business in branches within Ecuador. Although the Banking Superintendency nominally regulated these offshore operations, it was unable in fact to work effectively outside Ecuador. After the crisis began in 1998, the authorities' inadequate knowledge of the offshore banks' situation complicated their ability to deal with it. This is why in December 1998, for example, the authorities had little choice but to extend the same guarantee to offshore deposits that they provided to onshore deposits. The March 1999 deposit freeze applied to the off-shore banks, but banking authorities in some placesin particular, the United States-did not recognize it.¹⁹ Since the onset of the crisis, the authorities have concluded that, however logical the argument for allowing offshore operations may once have seemed, their inability to supervise such operations left the authorities little choice but to conclude them (the March 2000 dollarization legislation provided for a gradual phase-out).

Important as the financial system's operational and supervisory inadequacies were, the evolution of the predollarization crisis as described in Part 4 shows that the banking system's partial dollarization (see table 2.2) was probably the main reason the predollarization crisis evolved as it did. Strictly speaking, partial dollarization did not *cause* the crisis, but it did intensify the destabilizing effects of exchange-rate depreciation, making the crisis far harder to manage than it would otherwise have been. Partial dollarization meant that the economy was operating internally with two different units of account, subject to an unstable—that is, volatile and uncertain—exchange rate. Exchange-rate depreciation not only increased the sucre equivalent of the dollar component of the money supply, it also drove private firms and individuals with open, exposed positions into insolvency. Although commercial banks tried hard to maintain matched positions on their own balance sheets,²⁰ they apparently took less care to ensure that their borrowers had matching positions.

The reason "spontaneous" dollarization became so pervasive was that long experience of inflation and exchange-rate depreciation made the value of the national monetary uncertain, encouraging people to choose a hard currency unit to denominate their assets. In December 1996, 24 percent of all onshore bank demand, savings, and time deposits were in dollars rather than sucres; in December 1998, this percentage had risen to 41, and in March 2000 it stood at 63 (see figure 2.10). Over this period, the commercial banks' overall deposit base declined about 30 percent in dollar terms, with sucre deposits falling by more than two-thirds while total dollar deposits grew. Offshore deposits were entirely in dollars. In addition, a growing quantity of dollar currency circulated within Ecuador and came into increasing use for transactions.

Banks' loan portfolios underwent a corresponding evolution. In December 1994, 33 percent of all bank loans were in dollars; by December 1998, this percentage had risen to 60, and in March 2000 it stood at 91 (see figure 2.11). Moreover, after December 1998, the proportion of dollardenominated loans classified as nonperforming rose sharply, in contrast to sucre loans. As the crisis progressed, banks collected sucre loans and gave far fewer; at the same time, their dollar lending stocks stabilized and turned increasingly nonperforming on account of real-effective deprecia-

Year	Year-end percentage in U.S. dollars of:			
	Quasi money	Deposits	Loan portfolio	
1989	9.7	14.7	1.9	
1990	7.4	13.3	1.5	
1991	7.5	14.5	3.0	
1992	10.8	20.0	6.8	
1993	12.6	16.9	13.4	
1994	15.7	15.6	20.3	
1995	24.3	19.2	28.3	
1996	28.0	22.3	32.6	
1997	36.9	23.6	45.1	
1998	43.9	36.9	60.4	
1999	47.4	53.7	66.5	

Table 2.2 Ecuador: Dollarization Indicators

Source: Central Bank of Ecuador.



Figure 2.10 Ecuador: Onshore Commercial-Bank Deposits (US\$ Million)

Source: Central Bank of Ecuador.

tion, as borrowers without dollar income found it harder to meet their obligations.

As always, exchange-rate depreciation tended generally to increase the price level, if only by raising tradable-goods prices. With the money supply dollarized, depreciation directly increased its local-currency value, and so increased the pressure on the price level more than it otherwise would. Moreover, since the inflationary aftermath of any exchange-rate depreciation eroded at least some of its (real-effective) effect, deeper depreciation was required in the partially dollarized system to achieve any given external-accounts objective. On this reasoning, all other things being equal, the farther dollarization proceeded in the bank-deposit base, the larger the inflationary consequences of any exchange-rate depreciation were likely to be. Moreover, once the exchange rate and price level began rising, they affected the state of expectations and uncertainty regarding their future levels. This is true in any inflationary economy, but in an economy with two currency units the consequences were bound to be more complex and unstable. As the account in Part 4 indicates, once the exchange rate began depreciating sharply, commercial banks became acutely illiquid, first because debt service from dollar-denominated loans



Figure 2.11 Ecuador: Onshore Commercial-Bank Loans Performing Normally and in Arrears

Source: Central Bank of Ecuador.

diminished, and second because depositors, knowing or fearing that the banks' condition had deteriorated, began withdrawing.

In summary, the structural weaknesses of Ecuador's banking system meant that the system would play a central role in the evolution of the crisis. As a consequence of uneven structural reform, going into the crisis Ecuador had a liberalized, but inadequately supervised, banking system working in two units of account. Partial dollarization was, in hindsight, the crucial problem. Better supervision might have enabled the authorities to manage it better and faster, but, as Part 4 argues, a partially dollarized financial system would inevitably prove too vulnerable to sharp exchange-rate depreciation.

C. Labor-market and Foreign-trade Reform

Going into the crisis in 1998, the most important aspects of Ecuador's incomplete structural-reform agenda were those having to do with the public and financial sectors. Nevertheless, important structural-adjustment agendas remained in several other aspects of Ecuador's economy.

Two subjects worth mentioning in this connection are (a) formal labor markets and (b) the trade regime.

FORMAL LABOR MARKETS. Ecuador's formal labor markets were (and are still) highly regulated. Job-tenure and severance-payment rules were especially so, contributing to the large size of the informal sector. In addition, until full dollarization commenced in 2000, Ecuador maintained an unusual formal-sector wage regime. Wages came to be set every six months by special sectoral commissions, with labor-union, employer, and government representatives. A central commission sets the minimum wage, which guides many of the sectoral wage commissions. At the outset of the crisis, formal-sector wages comprised a large number of components, including thirteenth, fourteenth, fifteenth, and sixteenth wage payments made in different months of the year, cost-ofliving adjustments, and a remarkably extensive array of other allowances and benefits. The dollarization legislation (see chapter 3) included provisions introducing gradual change. One would gradually "unify" all these wage components in both the private and public sectors; the other introduces temporary hourly employment contracts. Full unification, further "flexibilization," and gradual extension of "formality" to the labor market as a whole are essential to making labor markets work efficiently.

THE TRADE REGIME. During the 1950s, 1960s and 1970s, like many developing economies, Ecuador constructed a restrictive trade regime. In the late 1980s and early 1990s, however, it liberalized and modernized it to a considerable degree. Formally, Ecuador's external tariff is the Common External Tariff of the Andean Group, as liberalized in the late 1980s, although its basic tariff rate is somewhat lower than the Common External Tariff. During 1998 this afforded Ecuador some scope to set tariff surcharges ranging between 2 and 10 percent-mainly as a revenue measure, but partly (as their differentiation reveals) as a protection measure. These surcharges remained in place until sometime after dollarization commenced. The present tariff system has an anachronistic structure favoring raw materials over final products. Raw and intermediate goods pay tariffs ranging between 5 and 15 percent, capital goods pay 15 percent, and consumer goods pay tariffs of 20 percent (new automobiles remain subject to a 35 percent rate). Although Ecuador eliminated most nontariff and restrictive barriers, several remain. Some agricultural imports are subject to levies based on reference prices, and certain imports (including used automobiles) are banned. Although the trade regime is not at present the most pressing structural-reform priority, completion of the reform process-in particular, movement toward a uniform external tariff--would encourage development of industrialized exports, and to this extent reduce the economy's reliance on commodity exports.

4. Ecuador's Predollarization Crisis

A. The Onset of the Crisis, 1998

Ecuador's predollarization crisis commenced at the end of 1997, about halfway through the interim government (February 1997 to August 1998) of Fabián Alarcón, appointed by the Congress after it deposed Abdalá Bucaram's government. The shocks that produced the crisis included (a) declining crude-oil export prices (see figure 2.7 above); (b) severe damage from the 1997–98 El Niño rains, affecting coastal populations, agriculture, and infrastructure;²¹ and then, during 1998, (c) the effects of the financial crises involving East Asia, the Russian Federation, and Brazil. These last included recession in export markets (Ecuador temporarily lost a new Russian flower-export market, for example), intensified competition from economies with depreciated exchange rates, and the retraction of financial flows to developing economies generally.

The public deficit surged in 1998 as a consequence of the shocks. Public-sector oil-export revenue fell to 1.3 percent of GDP in 1998 from 4.9 and 3.2 percent in 1996 and 1997, respectively. The El Niño damage reduced tax revenue and forced heavy emergency and reconstruction expenditure. The crisis stiffened political resistance to tax increases. Even before the severity of the crisis became clear, it was generally recognized that the tax system needed to be modernized to increase yields and improve efficiency. In early 1998, however, Congress considered but rejected several integral tax-reform proposals. Meanwhile, as explained in Part 3, section A above, the interim government's policymakers had little scope to limit public expenditure. An additional problem was that the government removed from office in February 1997 had stopped the automatic adjustment system for motor-fuel prices in effect since 1994. Electricity rates and the price of cooking gas were tending to lag behind their production costs as well, effectively creating large subsidy flows. As a consequence, the government found itself in a tight cash squeeze. Presidential elections held in mid-1998 made it politically harder to tighten fiscal policy. The 1998 nonfinancial public deficit reached 5.6 percent of GDP,²² compared with 2.9 and 2.5 percent in 1996 and 1997, respectively (see figure 2.12).

As oil-export earnings declined and the trade accounts deteriorated, importers concluded that the authorities would be forced to end the preannounced crawling-peg exchange-rate policy in effect since 1993, and began advancing orders for inventory. In late March and mid-September



Figure 2.12 Ecuador: Indicators of Macroeconomic Imbalance, 1988–2000

Source: International Monetary Fund, World Bank.

1998 the authorities carried out devaluations beyond the pre-announced crawling-peg band. Despite these devaluations, the 1998 current-account deficit surged to 11 percent of GDP, compared with 3.6 percent in 1997 (see figure 2.12). A large proportion of the financing came through private capital transfers, including withdrawals from offshore deposit holdings, as well as some international-reserve loss.

The shocks affected commercial banks particularly seriously. They had lent heavily in affected sectors, including coastal agriculture, oil-sector services, and exports generally, and their nonperforming loans began rising. In addition, the emerging-markets crises and the country's worsening prospects persuaded foreign banks to retract credit lines to Ecuadoran banks, intensifying liquidity pressure and forcing banks to reduce credit to companies that depended on these lines for working capital. Given the developments on the external and fiscal accounts, however, the Central Bank took the view that it had to tighten credit and raise interest rates to limit exchange-rate depreciation and inflation. During the first half of 1998 several commercial banks underwent episodes of illiquidity and heavy deposit withdrawals.

In August 1998, following a two-round election in May and July, a new government headed by President Jamil Mahuad began what was to have been a five-year term, under a constitution revised by a constitutional assembly earlier in the year. The revisions were an ambitious attempt to overcome Ecuador's long-standing governance problems. They included measures to strengthen the president's authority, limit the Congress' powers to increase taxes and public expenditure, make it harder to impeach cabinet members and judges on purely political grounds, set minimum electoral support requirements for political parties to be represented in the Congress, make the Central Bank fully independent, eliminate mid-term congressional elections (which tended to weaken the president), decentralize fiscal responsibilities, and make the judiciary more independent. Unfortunately, however, the predollarization crisis commenced even before the new constitution went into effect in August 1998. As this part shows, the crisis subjected the new constitution to severe stress: Much of what happened over the next two years violated the spirit and letter of the constitution-not least, of course, the Mahuad government's forced departure and the move to dollarization (see Arteta and Hurtado 2002). Nevertheless, the 1998 constitution remains in effect, and, now that dollarization has brought about more normal circumstances, it is fair to hope that it will not be subjected to such severe stress.

A month after taking office in August 1998, the Mahuad government carried out an essential reform of the long-standing cooking-gas and electricity subsidies, raising the prices and introducing a new direct cashtransfer mechanism (called the Bono Solidario) targeted to poorer households. These subsidies had been expensive, amounting at some times-depending on the current exchange rate and prices-to several percentage points of GDP. The Mahuad Government also began considering ambitious proposals to advance longer-term structural reform. Its attention was focused, however, on negotiations with Peru to settle a long-standing border dispute (which led to an historic peace accord in November 1998). Over the latter part of 1998, however, the banking crisis deepened. An important bank failed in August 1998, and virtually all banks experienced intensified portfolio and liquidity problems. A September 1998 World Bank mission, noting that the authorities had no way to intervene in problem banks short of the traumatic procedure of liquidation, recommended that the authorities institute a universal deposit guarantee and establish an agency capable of taking over and restructuring banks in crisis. In December 1998, the president approved emergency legislation extending a virtually unlimited Treasury guarantee to all deposits, even to the trade-credit lines owed to foreign banks. This legislation established Ecuador's first Deposit Insurance Agency and established modalities through which the authorities could intervene in

troubled banks. The Congress had taken a month to debate the emergency legislation, partly because legislators from coastal areas feared that their region's banks would be unfairly affected, and partly because it was combined with the unusual tax reform that substituted a financial-transactions tax while suspending the income tax (see below) The guarantee raised the stakes for the authorities and inevitably created doubts. It was credible as such only for deposits in smaller institutions. It was clear that if large banks failed, the authorities would either have to keep them open or honor the guarantee in some sense less than fully. While the guarantee may have limited deposit withdrawals for a time, in retrospect its inherent lack of credibility undermined its effectiveness.

On December 1, 1998, the day it began operating, the Deposit Insurance Agency took over Ecuador's largest bank (Guayaquil-based Filanbanco), which had been foundering for several months. In a pattern to be followed during 1999 for larger failing banks, the authorities kept it open, recapitalizing it with special 10-year dollar-denominated Treasury bonds paying 12 percent annual interest. The bank used these bonds as collateral for Central Bank liquidity loans to help meet withdrawal demand. In the first weeks of 1999 several smaller banks failed and eventually liqui. dated. The Treasury paid their deposits (after several months' delay) through the Deposit Insurance Agency.

The same legislation also replaced the poorly performing personal and company income taxes with a 1 percent tax on all financial transactions, including checks. The government needed to raise revenue, but the transactions levy was the only tax measure for which a legislative majority could be formed. The president's Democracia Popular Party, although the largest in the Congress, had far less than a majority of the seats in the Congress and relied for support on other parties. The next largest party, the Partido Social Cristiano, opposed tax reform generally but was willing to substitute the transactions tax for the income tax. Although it proved an effective revenue source during 1999 and 2000, the transactions tax encouraged financial disintermediation and set an added incentive for deposit withdrawals at a moment when the banks were already in severe crisis.

B. The Deepening Crisis, 1999

In February 1999 the Central Bank floated the exchange rate to limit international-reserve loss.²³ Because the 1999 budget incorporated an exchange-rate assumption that the float would have made implausible, the Central Bank delayed the float, at a substantial cost in reserve loss, until the moment the Congress approved the budget. Over the following four weeks the exchange rate lost 30 percent of its U.S.-dollar value. Bank loan portfolios deteriorated accordingly. Consumer prices were 13.5 percent higher in March than in February (see figure 2.13), and there were intensifying fears of hyperinflation. Several large banks were now in acute danger, notably the large Guayaquil-based bank (Banco del Progreso) that had operated with a high-interest-rate policy and a heavily dollarized loan portfolio.²⁴ Ecuador's regional politics were deeply involved here: The bank's principal shareholder claimed that authorities were seeking to close the bank in order to damage coastal interests, and for a time secured broad regional political support on this basis.

In mid-March in an attempt to limit inflation pressure and prevent further bank failures, President Mahuad first announced a bank holiday and then, after several days, a deposit freeze: All checking and savings deposits were frozen for one year and time deposits were frozen for one year from the original maturity date.²⁵ He also announced that international firms would be contracted to audit the banks to determine their true capital adequacy. In response to the freeze, the Central Bank's president and several board members tendered their resignations. The freeze temporarily reversed the exchange-rate depreciation and slowed the inflation—by mid-April the exchange rate had appreciated to nearly its prefloat value. Inevitably, however, it severely damaged depositor confidence. Banking-system credit operations, already shrinking, nearly





Source: International Monetary Fund.

ceased, and this largely explains why the economy slid into such a deep recession in 1999.

This recession aggravated Ecuador's deepening poverty (see chapter 4) and worsened most social indicators. Ecuador had gone into the crisis with some of Latin America's most unfavorable indicators of poverty incidence and income inequality. In 1998, at the outset of the crisis, 46 percent of the population was poor, compared with 34 percent in 1994. During the same years, extreme poverty (insufficient income for a minimum food basket) had worsened from 15 to 17 percent. In 1998 69 percent of the rural population was impoverished, compared with 56 percent in 1994. Worsening inequality accompanied this trend of deepening poverty: The overall income Gini ratio worsened from 0.54 in 1994 to 0.58 in 1998. During 1999 poverty worsened even further. Health and nutrition standards plunged. Another indication of the social devastation the crisis caused is the measured urban unemployment rate, which roughly doubled between June 1998 and June 1999 and remained at a high level into 2000. Family structures throughout the society came under intensified pressure, and by the middle of 1999 this in itself had become a crisis of overwhelming proportions (see chapter 5). Ecuador's public sector lacked the institutional means, let alone the resources, to cope directly with its population's immiserization. Apart from the reviving energy subsidies (resulting from lagging adjustment of the relevant prices), the Bono Solidario introduced in September 1998 constituted the nation's social safety net, and its real value was deteriorating rapidly as prices surged. Ecuador had essentially no emergency employment program, no emergency nutrition programs for vulnerable children, and no means to encourage students from impoverished families to remain in school.

On July 30, 1999, on the basis of the bank audit results, the Banking Superintendent affirmed that 19 of the 32 banks examined (including 3 closed earlier) were sound, but closed 6 banks (including the Banco del Progreso) and took 4 relatively large banks into enhanced monitoring, recapitalization, and restructuring programs under the Deposit Insurance Agency. Three of these four banks failed within two months. The authorities nevertheless kept these banks in operation, merging them with other banks previously taken over. In all, by the end of September 1999, commercial banks accounting for roughly 60 to 70 percent of total banking assets were under public stewardship.

Within weeks of the freeze, the authorities began accelerating the unfreezing schedules for checking and savings deposits, hoping in this way to restore normal banking operations more rapidly. They also set up a scheme under which time deposits could be converted into marketable "Reprogrammable Certificates of Deposit," which could be negotiated, held, or used to service bank loans at par. Unfreezing led to deposit withdrawals, however. Between April and December, some US\$465 million (about 3.1 percent of 1999 GDP and about 16 percent of the end-June broad money supply) in checking and savings deposits (in both on- and offshore offices of the banks) was unfrozen. About one-third was withdrawn from the banking system. These withdrawals contributed to capital flight and renewed pressure on the exchange rate. In November 1999, the Constitutional Tribunal ruled that the freeze had been unconstitutional and that the authorities must undo it expeditiously, increasing the pressure on the government to accelerate the unfreezing process.

The Central Bank found it had little choice but to provide the banks liquidity credit to help cope with withdrawals. From December 1998 through 1999, the Treasury issued some US\$1.6 billion (about 11 percent of 1999 GDP) in bonds to recapitalize banks kept open and to finance payment of guaranteed deposits in banks that had been closed. Banks receiving this support used a large proportion of the bonds for rediscount or repurchase operations with the Central Bank. As a consequence, the Central Bank acquired some US\$1.2 billion of these bonds. The monetary base grew 136 percent over 1999 (growing at annual rates of 101 and 522 percent, respectively, in the third and fourth quarters). The liquidity operations amounted to more than the full amount of this growth. Indeed, the monetary expansion would have been even larger had it not been for significant absorption operations by the Central Bank, carried out using issues of its own interest-bearing liabilities. A handful of banks purchased these liabilities: These banks benefited from an internal "flight to quality" by depositors. In effect, these banks lent the deposit proceeds to the Central Bank to help finance its liquidity lending.

Oil-export prices and earnings recovered during 1999, and, although non-oil exports then began to decline,²⁶ recession, exchange-rate depreciation, and unavailability of bank credit combined to cut merchandise imports by half. As a result, the current account swung from an 11 percentof-GDP deficit in 1998 to a surplus of about 6 percent of GDP in 1999 (see figure 2.12), a massive adjustment-achieved, as noted above, at a massive human and social cost. The overall 1999 nonfinancial public deficit reached 6 percent of GDP, about the same as in 1998: Higher oil-export revenue was offset by lower non-oil tax receipts, rising interest charges, and diminished revenue from domestic motor-fuel sales. The main reason domestic motor-fuel receipts had declined was that in July 1999 the president had agreed to freeze motor-fuel prices for a period of one year to settle a national transport strike. The primary surplus rose to 3.2 percent of GDP from a 0.7 percent deficit in 1998. As noted in Part 3, section A above, except for 1998, the nonfinancial public sector has run substantial primary surpluses in every year since 1994. Despite the contractionary consequences and the pressure on real social expenditure (which has undergone a secular decline in real terms over the past decade), the government had to do so in order to pay the massive debt service.

Ecuador's crisis took on an additional dimension in late August 1999 when the government, under intense fiscal pressure despite rising oil prices; decided to miss an interest payment due then on Brady bonds and called on holders to discuss relief. (The IMF supported the authorities, in keeping with its policy of "bailing in" private external creditors.) Over the month-long period before the bond contracts permitted legal action to commence, the government tried unsuccessfully to persuade bondholders to open discussions. At the end of September, the government announced that it would pay interest only to holders of uncollateralized bonds, and invited holders of collateralized bonds to seek payment from the collateral. Holders of the collateralized bonds took the view that it was wrong in principle to treat uncollateralized bondholders preferentially, however, and elected to accelerate the principal. This activated cross-default clauses that thrust Ecuador effectively into default on all its public external bond issues (US\$6.5 billion, about half the total public external debt). Later in the year, the authorities succeeded in opening a dialogue with a group of bondholder representatives, but discussions failed to achieve significant progress (although bondholders did refrain from litigation). Since their own reputations would be on the line if they recommended any deal to other bondholders, it was difficult for the bondholder representatives to agree to a deal.²⁷

Even before the onset of the crisis, Ecuadoran governments had sought multilateral support, including an IMF program and coordinated World Bank, IDB, and Andean Development Corporation (Corporación Andina de Fomento, CAF) support. The Mahuad Government had initiated discussions with the IMF almost immediately after taking office in August 1998. These discussions were interrupted in the latter part of 1998 when the government suspended the corporate and personal income tax, but then resumed in early 1999 and became increasingly urgent as the crisis deepened. In April 1999 the four institutions promised publicly to help develop and support a banking-sector strategy built around the audit results. Throughout the remainder of 1999, the IMF, World Bank, IDB, and CAF worked closely with the authorities, focusing on the banking sector. The government and the IMF failed to conclude an agreement during 1999, however. They came close several times, even signing a Letter of Intent for a stand-by program in September 1999. Tax legislation the Congress approved the following month fell short of what was called for in the Letter.²⁸

By the end of 1999 virtually all checking and savings deposits had been unfrozen. Time deposits were due to be unfrozen beginning in March 2000, but by the end of 1999 the authorities concluded that they would have to prolong the freeze in some way, because the time deposit
stock was simply too large. Although the banks had made a determined effort to build up liquid-asset stocks, it was clear they would have only a fraction of what they expected to need to meet withdrawal demand. The banks' on- and offshore branches had some US\$2.2 billion in time deposits, due to be unfrozen over the months of March to June 2000. Large-scale withdrawals, the authorities reasoned, would either thrust banks into failure, producing contagion effects throughout the system, or else oblige the Central Bank to create money, intensifying exchange-rate depreciation, inflation, and capital flight. They accordingly began considering schemes under which deposits could be partially paid out in Treasury bonds or in bank certificates of deposit with extended terms.

By November 1999, the monetary expansion together with intensifying withdrawal demand generated heavy pressure on the exchange rate and prices. In late November, a new Central Bank administration announced that it would tighten monetary policy, saying it would no longer automatically inject liquidity to prevent bank failures, and driving interbank interest rates to three-digit levels. Unfortunately, this policy proved unworkable. In its efforts during the year to absorb liquidity, the Central Bank had built up a massive stock of short-term remunerated liabilities at high interest rates. This meant that the Central Bank's policy approach had perverse consequences: As interest rates rose, the Central Bank itself had to pay higher interest charges and had to create money to do so-so that monetary tightening actually led to money creation. This was symptomatic of the reality that, by this advanced stage in the crisis, the monetary authorities had lost the capacity to control the money supply, exchange rate, and price level. With the sucre now depreciating significantly every day, the only alternative to dollarizing was clearly hyperinflation, which would have ended with dollarization in any case. In retrospect, Ecuador did not so much "choose" dollarization as slide into it.

5. Conclusion: Underlying Causes of Ecuador's Predollarization Crisis

From the account of events in the preceding section, it is clear that the "causes" of the crisis were far deeper than the immediate shocks that triggered it. Structural problems that clearly affected the evolution of the crisis included (a) the dependence of public revenue on volatile oil earnings, (b) the banking system's exposure to volatile and risky activities, (c) bank borrowers' exposure to exchange-rate depreciation, (d) inadequate banking supervision, (e) the massive public debt, (f) political fragmentation, (g) weak public administration, and (h) the government's tendency to revert to energy subsidization. The public debt and many other public sector structural distortions originated, in turn, with the rise of the oil economy in the 1970s.

In retrospect, there were four broad, interrelated reasons why the 1998 shocks caused such heavy damage to the banking system and to the economy generally. First, the external accounts, the public sector, and the banking system were exceedingly sensitive to the shocks. Second, the public sector had accumulated a massive external debt stock, and, during the 1980s and 1990s, policymakers' efforts to cope with it and prevent it from growing thrust the economy into a lower growth mode, leaving the economy debilitated. Continual exchange-rate depreciation had induced the partial dollarization of the economy, which was the third main reason why the shocks were so devastating. Partial dollarization meant that exchange-rate depreciation forced money-supply growth and damaged the balance sheets of borrowers in dollars who lacked dollar earningsand, perforce, the balance sheets of their creditors. Finally, Ecuador's systems of governance---its political structure and public administration--lacked essential means of coping with the crisis. The political system is set up more to reconcile interests-in particular, regional interests-than to act decisively in the broad national interest. The main institutions of public administration were too weak, both legally and technically, to deal forcefully with the crisis as it unfolded. In this context, the shocks set off a dynamic process that could not stop until it produced incipient hyperinflation.

The deeper reasons why the economy and governance systems had taken on these characteristics must be sought in Ecuador's history and geography. The regional rivalry helps explain why government and administration has remained so weak and so heavily focused on and restricted by the reconciliation of interests. Many nations have competing regional interests, to be sure. What is different, perhaps, about Ecuador is that it has two dominant regions, more or less evenly balanced. If Ecuador had a larger number of regions (say, like Colombia), or if one of its regions had achieved dominance (say, as Lima has in Peru), it might have been able to develop a more forceful central government. The weakness of the central political and administrative systems helps explain many characteristics of governmental decisions in the crisis. The central government did not have an adequate political base to secure essential legislation; it did not have the executive authority to act on its own decisions; administrative institutions lacked the authority and capacity to fulfill their roles; and the need to reconcile interests and compromise repeatedly affected the consistency and effectiveness of political andcrucially-administrative decisionmaking.

At the same time, Ecuador's geography has crucial consequences for its economic vulnerability. The country is exposed, among other things, to earthquakes, volcanoes, El Niño rains, and drought. In addition, it is a textbook case of primary commodity dependence, having undergone cycles involving cacao, bananas, and most recently oil. The oil cycle has proved particularly disappointing, since oil earnings were widely expected to raise living standards significantly. In the end, oil earnings seem only to have saddled the country with a massive debt burden and led to a prolonged period of low growth.

An important lesson of Ecuador's experience concerns the dangers of repeated exchange-rate depreciation. All too obviously, repeated depreciation makes the currency undesirable to hold. Once they could, people understandably moved their wealth into dollars, shrinking the "sucre base" on which monetary and exchange-rate policy could operate. Offering high interest rates on sucre holdings to offset the currency's undesirability was ultimately futile, amounting only to rewarding sucre holders by creating more sucres. Once the crisis commenced, and depreciation intensified, monetary and exchange-rate policy finally became impotent. Dollarization, from this perspective, was simply the formal recognition of this reality.

The crisis experience also offers lessons about central bank independence. The revised constitution that took effect in August 1998 made the Central Bank independent. In March 1999, however, the government overrode the Central Bank's views and carried out the banking holiday and deposit freeze, leading to the resignations of the institution's president and some directors. The Central Bank remained without a president in mid-1999, during the crucial months following the freeze. In November 1999, when a new Central Bank administration tightened monetary policy, some government officials questioned this approach, but respected the Central Bank's independence. In January 2000, however, with the exchange rate depreciating sharply, the government announced dollarization despite the Central Bank's opposition. The Central Bank president and several directors resigned. One lesson of these events is that central bank independence is difficult to maintain under the pressures of acute crisis.²⁹ No less important, as a practical matter, central bank independence involves more than directors being able to ignore ministerial wishes. Because of the economy's advancing spontaneous dollarization, and because the attempt to sterilize the monetary expansion over the course of 1999 led the institution heavily into short-term debt-indeed, decapitalized the institution-the Central Bank had simply lost the power to carry out exchange-rate and monetary policy. Once this happened, of course, its directors' "independence" ceased to matter in a practical sense.

				Historical			Estin	nate
	1991/4 avg.	1995	1996	1997	1998	1999	2000	2001
Growth rates (percent)								
GDP at market prices	3.7	2.4	1.8	3.6	0.5	-7.3	2.3	3.4
Population	2.3	2.1	2.1	2.1	1.9	2.0	1.9	1.9
Per-capita GDP	1.5	0.2	-0.3	1.6	-1.4	-9.1	0.4	1.4
Consumer prices	43.9	22.9	24.4	30.6	43.4	60.7	91.0	23.0
Real-effective exch. rate (1990 = 1	.00							
+ = depreciation)	86.9	80.0	75.9	74.5	102.4	116.2	84.1	0.0
National accounts (percentage of current GDP)								
Gross fixed-capital formation	19.5	18.6	17.8	19.0	21.0	14.8	16.2	18.5
National saving	16.9	14.6	17.7	16.6	13.7	22.6	24.0	14.3
Foreign saving (current-account	t	•						
deficit)	4.0	4.1	-0.4	3.6	11.0	-7.0	0.7	4.2
Resource gap	2.3	1.1	7.1	1.0	-6.7	8.6	5.1	-0.1
Real per-capita nongovt.								
consumption (1998 = 100)	96.1	102.5	90.7	96.9	100.0	84.6	80.5	94.6
Nonfinancial public surplus								
(percentage of GDP	-0.3	-1.5	-3.2	-2.7	-5.7	-3.3	0.4	3.5
Total revenue:	21.7	29.3	23.3	23.1	20.3	17.2	27.8	44.2
Petroleum	8.4	9.6	8.8	6.7	4.6	5.3	9.6	8.4
Nonpetroleum	13.3	19.6	14.5	16.5	15.7	11.8	18.2	35.7
Public enterprises' operating su	rplus 2.9	4.0	2.6	1.6	0.1	0.7	1.1	0.5
Total expenditure:	-25.0	-34.7	-29.1	-27.4	-26.0	-21.1	28.5	-41.1
Current expenditure:	-18.1	-26.1	-21.0	-20.8	-20.2	-16.0	-22.8	-30.1
Staff remuneration	-7.1	-10.3	-8.3	-8.1	-8.6	-5.0	-5.6	-9.5
Interest	-4.7	5.7	-4.6	-5.2	-5.0	-6.0	-7.7	-6.9
External	-4.2	-4.8	-3.7	-3.9	-3.8	-4.2	-6.2	-4.8
Domestic	0.5	-0.8	-1.0	-1.3	-1.2	-1.8	-1.5	-2.2

 Table 2A.1 Ecuador: Selected Annual Macroeconomic Indicators, 1991–2000

Other current expenditure	-6.3	10.2	8.1	-7.5	-6.6	-5.0	-9.5	-13.7
Capital expenditure:	-6.9	-8.6	-8.1	-6.6	-5.8	-5.1	-5.7	-11.0
of which, capital formation	-6.4	-7.2	-7.1	6.5	-5.8	-5.0	-5.7	-7.2
Primary balance (surplus plus								
interest due)	4.4	4.2	1.5	2.6	-0.7	2.7	8.1	10.4
Saving (total revenue less								
current expenditure)	6.6	7.1	4.9	3.9	0.2	1.8	6.1	14.5
External accounts (US\$ million)								
Current-account surplus	546.8	-735.0	84.0	-714.0	-2,166.0	959.0	90.4	822.6
Merchandise trade	704.0	354.0	1,193.0	598.0	-990.0	1,667.0	1,525.7	1,163.6
Merchandise exports	3,215.3	4,411.0	4,873.0	5,264.0	4,208.0	4,453.0	4,926.6	4,673.1
Merchandise imports (FOB)	-2,511.3	-4,057.0	-3,680.0	-4,666.0	-5,198.0	-2,786.0	-3,401.0	-3,509.5
Net factor payments	-1,225.0	-1,191.0	-1,043.0	-1,070.0.	-1,227.0	-1,317.0	-1,725.0	-1,931.8
Other current account	-25.8	102.0	-66.0	-242.0	51.0	609.0	289.7	-54.4
Capital-account surplus	1,369.3	-82.0	-1,762.0	-55.2	2,464.6	-2,973.4	795.1	-1,347.5
Net errors and omissions	29.3	1,336.0	1,343.0	477.0	353.0	2,024.0	0.0	0.0
Change in net international								
reserves (+=incr.)	851.8	519.0	-335.0	-292.2	651.6	9.6	885.5	-2,170.1
Total external debt (US\$ million)	13,493.3	13,992.0	14,615.0	14,984.7	15,951.5	15,716.4	13,692.4	16,730.5
Public and publicly guaranteed								
(US\$ million)	10,077.3	12,067.0	12,444.0	12,376.0	13,089.0	13,555.7	11,366.3	14,116.5
(percentage of GDP)	73.9	87.3	69.4	65.0	66.2	68.7	83.0	103.7
Service on public-sector term de	ebt							
(US\$ million)	843.3	1,286.0	1,065.0	1,718.0	1,398.0	2,042.1	1,557.3	1,680.3
(percent of exports of goods,								
nonfactor services)	22.1	16.0	22.5	17.5	34.3	26.6	34.5	28.0
Interest paid (US\$ million):	380.8	574.0	572.0	712.0	755.0	917.4	627.5	727.4
Interest paid on external bond	i s 0.0	147.0	24 1.0	250.0	349.0	390.8	140.0	150.2
Repayment (US\$ million)	462.5	712.0	493.0	1,006.0	643.0	1,124.7	929.8	952.9
Gross domestic product								
(US\$ million)	13,829.6	17,939.4	19,039.8	19,768.5	19,722.6	13,689.0	13,607.0	19,764.0

Sources: Central Bank of Ecuador, International Monetary Fund, World Bank.

	97						98						
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Exchange rate													
(pd. avg.; sucres/													
U.S. dollar)	4,393.1	4,498.0	4,537.2	4,661.6	4,961.9	5,152.0	5,236.5	5,300.4	5,431.4	5,899.4	6,642.2	6,442.4	6,595.9
Real-effective exchange rate													
(1990 = 100;													
+ = depreciation)	75.0	73.3	70.9	70.8	72.2	73.9	72.5	72.8	73.2	76.3	82.0	77.6	79.0
Annualized growth													
rate of consumer													
prices (percent)	25.1	60.7	70.0	38.1	67.9	22.8	41.4	9.8	17.0	80.2	112.9	27.5	9.3
Reference interest rates													
(annual percentage ra	te):												
Sucre-denominated													
commercial-bank													
liabilities	31.5	33.6	34.4	34.8	36.8	39.8	40.8	43.0	43.4	43.9	46.7	49.1	49.2
Sucre-denominated													
commercial-bank asse	ets 39.0	41.3	40.6	42.0	43.7	44.1	48.6	52.0	53.0	54.3	60.3	61.8	61.4
Dollar-denominated commercial bank													
liabilities	8.7	8.6	9.2	9.3	9.2	9.6	10.1	9.8	10.1	9.8	10.7	11.4	10.9
Dollar-denominated													
commercial-bank asse	ets 12.1	12.7	12.0	12.7	14.2	12.0	12.6	12.9	11.0	13.2	16.3	15.1	15.9
Avg. interbank sucre													
interest rates (annual													
percentage rate)	25.1	60.7	70.0	38.1	67.9	22.8	41.4	9.8	17.0	80.2	112.9	27.5	9.3

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 Table 2A.2a
 Ecuador: Selected Monthly Macroeconomic Indicators, 1998

Annualized growth ra	te												
of the monetary base	!												
(percent)	107.3	-53.2	8.3	-2.5	179.9	-14.7	-38.2	53.0	-26.1	-22.6	325.3	13.0	1 94 8.9
Annualized growth ra	te												
of the broad money													
supply (percent)	52,037.7	133.0	146.8	77.6	60.5	167.0	124.3	108.5	94.4	131.8	189.7	137.4	142.1
BCE Index of current													
economic activity													
(1990 = 100)	225.5	152.8	168.7	198.6	153.9	224.4	220.6	205.0	170.2	180.9	160.2	177.6	146.1
National stock-market													
index ECUINDEX;													
month-end)	3,121.6	3,111.2	3,137.7	3,102.9	3,127.2	3,083.1	3,054.4	3,087.8	3,118.0	3,082.7	3,072.0	3,046.2	3,059.6
Trade balance													
(US\$ million):	20.0	-20.0	53.7	-78.6	-42.4	-67.0	-109.3	-185.9	86.8	-147.6	-123.8	-22.5	-76.7
Merchandise export	s												
(US\$ million)	416.5	386.7	381.6	391.2	384.3	373.8	338.6	311.2	321.7	332.1	338.5	318.5	324.7
Merchandise imports	S												
FOB (US\$ million)	-396.5	-406.7	327.8	469.8	-426.7	-440.8	-447.9	-497.1	-408.5	479.7	-462.3	-341.0	-401.4
Average crude-oil													
export price (US\$)	13.6	12.0	10.6	9.5	9.4	8.8	8.3	8.6	8.2	10.2	9.8	8.2	7.0
Gross international													
reserves less gold													
(US\$ million)	2,092.8	1,941.3	1,980.8	1,960.8	2,058.2	1,879.7	1,828.7	2,037.9	1,816.9	1,567.8	1,598.1	1,664.6	1,619.7
Brady bonds (par)	55.5	54.3	55.3	55.0	53.3	54.3	54.1	54.4	41.0	42.5	45.0	50.5	44.5

Sources: Central Bank of Ecuador, International Monetary Fund.

	98						9	9					
1	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Exchange rate (pd. avg.; sucres/ U.S. dollar) 6,	595.9	7,133.1	7,807.3	10,754.3	9,430.0	8,969.0	1,0923.2	11,723.0	11,197.2	12,116.5	15,656.8	17,525.5	18,205.8
Real-effective exchange rate (1990 = 100;													
+ = depreciation)	79.0	82.5	86.4	104.4	87.5	82.3	98.0	101.9	97.9	104.7	130.4	137.1	135.2
Annualized growth rate of consumer													
prices (percent)	9.3	45.7	37.2	356.5	91.0	11.0	23.7	43.4	6.6	23.2	63.3	110.1	91.8
Reference interest rates (annual percentage rate) Sucre-denominated commercial-bank):												
liabilities	49.2	50.0	53.4	53.9	50.2	49.2	47.8	48.4	47.6	45.5	43.8	43.6	46.5
Sucre-denominated commercial-bank assets Dollar-denominated commercial bank	61.4	61.7	67.5	66.7	63.2	67.9	68.2	60.8	64.8	62.5	61.7	61.6	68.3
liabilities	10.9	10.9	11.6	11.6	11.8	10.5	10.0	9.6	10.2	9.1	8.3	8.5	9.0
Dollar-denominated commercial-bank assets Avg. interbank sucre	15.9	16.4	15.9	16.3	16.4	16.1	17.2	<u>.</u> 16.5	15.6	15.9	16.4	16.3	16.6
percentage rate)	9.3	45.7	. 37.2	356.5	91.0	11.0	23.7	43.4	6.6	23.2	63.3	110.1	91.8

 Table 2A.2b
 Ecuador: Selected Monthly Macroeconomic Indicators, 1999

Annualized growth ra	te												
of the monetary													
base (percent)	1,948.9	-20.3	22.1	656.7	48.1	65.2	-16.2	285.4	-68.3	562.4	259.4	34.9	4863.5
Annualized growth ra	te												
of the broad money													
supply (percent)	142.1	21.2	174.5	162.0	152.5	123.2	96.4	114.2	155.8	100.5	110.7	108.9	93.4
BCE Index of current economic activity													
(1990 = 100)	146.1	188.2	150.0	193.5	191.3	191.2	168.4	215.5	189.0	179.9	177.1	167.0	183.6
National stock-market													
index ECUINDEX;													
month-end)	3,059.6	3,037.5	3,048.8	3,072.9	3,010.2	2,973.6	2,975.6	2,983.5	2,985.6	2,988.9	3,091.1	3,088.0	3,132.9
Trade balance													
(US\$ million):	-76.7	-30.4	39.0	130.4	180.5	200.9	181.7	165.2	173.5	175.4	184.5	154.9	158.5
Merchandise exports	5												
(US\$ million)	324.7	312.4	301.7	386.7	370.8	382.1	364.1	385.0	369.8	392.1	411.2	381.6	393.5
Merchandise imports	5												
FOB (US\$ million)	-401.4	-342.8	-–262.7	-256.3	-190.3	-181.2	-182.4	-219.7	-196.3	-216.7	-226.8	-226.7	-235.0
Average crude-oil													
export price (US\$)	7.0	7.8	7.4	10.4	13.4	13.7	14.0	15.8	17.0	19.6	19.0	21.9	22.3
Gross international reserves less gold													
(US\$ million)	1,619.7	1,723.7	1,557.2	1,481.9	1,527.7	1,622.2	1,580.3	1,565.9	1,648.2	1,824.3	1,694.5	1,591.9	1,642.4
Brady bonds (par)	44.5	42.5	40.5	40.5	43.0	39.5	39.3	37.5	32.0	30.5	32.1	35.1	34.3

Sources: Central Bank of Ecuador, International Monetary Fund.

			Fiv	e-year av								
	1966/	1971/	1976/	1981/	1986/	·1991/	1996/					
	1970	1975	1980	1985	1990	1995	2000	1996	1997	1998	1999	2000
Annual growth rates												
GDP at 1975 prices	4.4	11.6	6.5	2.2	2.2	3.5	0.2	2.0	3.4	0.4	-7.3	2.3
Population	3.0	3.0	2.9	2.7	2.4	2.3	1.9	2.0	2.0	1.9	1.9	1.9
Per-capita real GDP	1.4	8.4	3.5	-0.5	-0.2	1.2	-1.7	0.0	1.4	-1.5	-9.0	0.4
GDP deflator	6.4	13.2	14.8	28.2	47.2	36.9	51.7	29.4	25.9	35.4	62.0	105.9
National expenditure (percentage of												
GDP at current prices)												
Expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Consumption	87.2	79.9	75.9	76.7	80.3	77.5	76.8	75.6	78.8	82.0	75.8	71.6
Nongovernment	77.8	68.3	61.9	63.8	69.4	8.9	11.0	11.8	11.6	11.7	10.4	9.5
Government	9.5	11.5	14.0	12.9	10.9	68.6	65.8	63.9	67.2	70.4	65.5	62.1
Investment	17.3	22.4	26.0	20.3	20.6	20.4	18.4	17.3	20.2	24.7	12.9	16.8
Gross fixed capital formation	14.5	19.7	23.9	18.6	20.4	19.3	17.8	17.8	19.0	21.0	14.8	16.2
Nongovernment	9.6	14.4	17.8	13.0	15.1	15.7	14.9	14.5	15.8	17.1	8.0	19.0
Government	4.8	5.4	6.1	5.6	5.3	3.6	2.9	3.2	3.3	3.9	6.9	-2.8
Increase in stocks	2.8	2.7	2.2	1.7	0.3	1.2	0.6	-0.5	1.1	3.7	-1.9	0.6
Resource balance	-4.5	-2.2	-1.9	3.0	-0.9	2.0	4.8	7.1	1.0	-6.7	11.2	11.6
Exports of goods and nonfactor												
services	14.7	24.2	24.6 [°]	23.8	27.5	29.1	33.1	30.5	30.0	25.3	37.1	42.4
Imports of goods and nonfactor												
services	-19.2	-26.5	-26.5	-20.8	-28.4	-27.1	-28.2	-23.4	-29.0	-32.0	-25.8	-30.8
Saving flows (percentage of GDP)												
Gross national saving	13.1	23.4	27.3	30.3	26.2	27.3	29.2	29.9	26.1	22.2	28.4	39.4

Table 2A.3 Ecuador: National-Income Accounts

Gross domestic saving	12.8	20.1	24.1	23.3	19.7	22.5	23.2	24.4	21.2	18.0	24.2	28.4
Net external factor and												
transfer receipts	-0.3	-3.2	-3.2	7.0	-6.5	-4.8	-6.0	-5.5	-4.9	-4.3	-4.2	-11.0
Foreign saving (current-account												
deficit)	4.8	5.5	5.2	4.0	7.4	2.8	1.1	-1.5	4.0	11.0	-7.0	0.7
Resource gap (imports less export	s) 4.5	2.2	1.9	-3.0	0.9	-2.0	-4.8	-7.1	-1.0	6.7	-11.2	-11.6
Net external factor and												
transfer payments	0.3	3.2	3.2	7.0	6.5	4.8	6.0	5.5	4.9	4.3	4.2	11.0
Gross domestic product:												
US\$ million	1,505.8	2,797.1	8,143.5	13,888.8	10,462.9	14,651.5	17,342.5	19,039.8	19,768.6	19,722.6	14,580.9	13,600.9

Source: Central Bank of Ecuador.

						0					
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Consolidated nonfinancial											
public-sector accounts	0.9	0.9	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.7	0.9
Total revenue (excl. operations of											
public enterprises)	24.6	22.4	22.7	22.3	21.2	22.4	21.9	22.2	20.2	24.1	26.5
Oil revenue:	11.6	8.8	9.6	8.7	7.2	7.4	8.2	6.4	4.6	7.5	10.1
Export revenue	9.7	7.1	7.9	5.7	3.9	3.8	4.9	3.2	1.3	5.3	9.3
Domestic derivatives sales	1.9	1.7	1.7	2.9	3.3	3.6	3.3	3.2	3.3	2.2	0.9
Non-oil revenue:	13.0	13.6	13.1	13.6	14.0	15.1	13.6	15.8	15.6	16.6	16.4
Tax and other domestic-source revenue	10.6	11.5	11.4	11.9	12.2	13.2	12.3	13.5	12.4	14.1	13.7
Tariff and other external-source revenue	2.4	2.1	1.7	1.7	1.8	1.8	1.4	2.3	3.1	2.5	2.8
Operating surplus of public enterprises	2.5	3.0	3.1	2.7	3.2	3.1	2.5	1.6	0.1	0.9	0.9
Total expenditure	26.6	26.0	26.9	25.0	23.8	26.6	27.3	26.3	25.9	30.5	31.2
Current expenditure	19.4	18.6	19.6	18.2	17.3	20.1	19.7	20.0	20.0	23.6	23.4
Interest (accrued)	6.4	5.8	4.8	4.5	4.0	4.4	4.3	5.0	4.9	9.5	10.0
External	5.9	5.3	4.3	4.0	3.5	3.7	3.4	3.8	3.8	6.2	6.8
Domestic	0.5	0.5	0.5	0.5	0.5	0.6	0.9	1.2	1.2	3.3	3.2
Noninterest current expenditure	13.1	12.8	14.8	13.7	13.3	15.7	15.4	15.0	15.1	14.1	13.4
Personnel remuneration	7.3	7.0	7.2	7.3	7.4	7.9	7.8	7.8	8.5	7.1	5.9
Current expenditure on											
goods and services	2.9	2.5	2.9	3.0	2.2	1.7	2.8	3.0	2.9	2.8	2.8
Severance payments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1
Other current expenditure	2.9	3.3	4.7	3.4	3.7	6.1	4.8	4.2	3.7	3.9	4.7
Capital expenditure	7.1	7.4	7.3	6.8	6.5	6.6	7.6	6.3	5.8	6.9	7.7
Fixed capital formation	6.7	6.9	7.0	6.3	5.9	5.5	6.6	6.3	5.7	6.8	7.5
Other capital expenditure	0.5	0.4	0.3	0.5	0.6	1.1	1.0	0.0	0.1	0.1	0.2
Overall nonfinancial-sector balance	-2.8	-3.0	-3.5	-1.7	0.3	-1.5	-3.3	-3.0	-6.0	-5.6	-3.7

Table 2A.4 Ecuador: Nonfinancial Public-Sector Accounts (Percentage of GDP)

Financing	2.8	3.0	7.6	3.7	1.5	2.5	3.3	3.0	6.0	5.6	3.7
External financing (net)	0.0	0.0	0.0	0.0	3.1	0.7	3.1	4.4	0.4	2.1	0.1
Net domestic financing	2.8	3.0	7.6	3.7	-1.6	1.7	0.2	-1.4	5.7	3.5	3.6
Nonfinancial public-sector saving	7.2	6.4	5.9	6.3	6.5	4.4	3.7	3.8	0.1	1.4	3.8
Nonfinancial public-sector surplus	0.5	-0.6	-1.2	0.0	0.6	-1.1	-2.9	-2.5	-5.6	-5.4	-3.7
Primary (overall surplus plus interest due)	6.9	5.2	3.7	4.5	4.6	3.2	1.4	2.5	0.7	4.2	6.3
Primary excluding oil-export revenue	-2.8	-1.9	-4.2	-1.3	0.7	0.6	-3.5	-0.7	-1.9	-1.2	-3.0
Oil-export revenue	9.7	7.1	7.9	5.7	3.9	3.8	4.9	3.2	1.3	5.3	9.3
Interest due	6.4	5.8	4.8	4.5	4.0	4.4	4.3	5.0	4.9	9.5	10.0
Nonfinancial public-sector fixed											
capital formation	6.7	6.9	7.0	6.3	5.9	5.5	6.6	6.3	5.7	6.8	7.5

Source: Central Bank of Ecuador.

	1976/	1981/	1986/	1991/					
	1980	1985	1990	1995	1996	1997	1998	1999	2000
Current-account surplus	-465.6	-498.4	-704.8	-584.4	84.0	-714.0	-2,166.0	959.0	90.4
Goods and nonfactor									
services surplus	-174.1	430.5	395.0	486.6	837.0	-35.0	-1,715.0	1,175.0	697.9
Merchandise trade	91.3	717.8	563.4	634.0	1,193.0	598.0	-990.0	1,667.0	1,525.7
Merchandise exports	1,781.5	2,545.6	2,300.8	3,454.4	4,873.0	5,264.0	4,208.0	4,453.0	4,926.6
Merchandise imports	-1,690.2	-1,827.8	-1,737.4	-2,820.4	-3,680.0	-4,666.0	-5,198.0	-2,786.0	-3,401.0
Nonfactor services	-265.4	-287.3	-168.4	-147.4	-356.0	-633.0	-725.0	-492.0	-827.8
Factor services	-324.5	-962.7	-1,195.4	-1,218.2	-1,043.0	-1,070.0	-1,227.0	-1,317.0	-1,725.0
Income	44.4	41.3	22.4	43.8	77.0	102.0	82.0	49.0	75.0
Payments	-368.9	-1,003.9	-1,217.8	-1,262.0	-1,120.0	-1,172.0	-1,309.0	-1,366.0	-1,800.0
Current transfers	33.0	33.8	95.6	147.2	290.0	391.0	776.0	1,101.0	1,117.5
Capital-account surplus	607.0	-1,774.0	-2,132.8	-867.8	1,242.0	1,288.2	1,706.4	1,055.6	-913.7
Investment accounts	607.0	-723.4	-680.0	89.8	491.0	625.0	814.0	690.0	722.0
Other net financial inflows	0.0	-1,050.6	-1,452.8	-957.6	751.0	663.2	892.4	365.6	-1,635.7
Net errors and omissions	-15.0	33.6	-70.2	-290.7	-1,343.0	-477.0	-353.0	-2,024.0	0.0
Overall balance	126.4	-2,238.9	-2,907.8	-1,742.9	-17.0	97.2	-812.6	-9.4	823.3
Total reserves less gold	694.2	582.1	582.4	1,328.9	1,858.5	2,092.8	1,619.7	1,642.4	946.9

 Table 2A.5 Ecuador: Balance-of-Payments Accounts (US\$ Million)

Source: International Monetary Fund.

	1975	1980	1985	1990	1995	1996	1997	1998	1999	2000
External debt outstanding	N/A	5,998	9,082	12,110	13,992	14,495	14,918	15,668	15,175	12,482
Term debt	710	4,423	7,713	10,296	12,680	12,909	12,849	13,369	13,690	11,059
Term debt excluding IMF	710	4,423	7,353	10,031	12,507	12,764	12,716	13,299	13,690	10,912
Public and publicly guarantee	ed 436	3,301	7,198	9,867	12,067	12,444	12,376	13,089	13,616	10,846
Official creditors	236	1,325	1,800	4,065	5,260	5,116	4,842	5,234	5,439	5,210
Multilateral	103	323	823	2,127	2,999	2,911	2,809	3,164	3,257	3,030
Concessional	N/A	114	288	451	647	654	639	634	0	0
Nonconcessional	N/A	209	535	1,676	2,352	2,257	2,170	2,530	3,257	3,030
Bilateral	133	1,002	977	1,938	2,261	2,205	2,033	2,070	2,181	2,180
Concessional	N/A	188	172	468	1,159	1,214	1,145	1,300	0	0
Nonconcessional	N/A	814	805	1,470	1,102	9 91	888	770	2,181	2,180
Private creditors	200	1,976	5,398	5,802	6,807	7,328	7,534	7,855	8,177	5,636
Bonds	0	55	0	0	5,999	6,013	5,834	6,325	6,363	3,920
Commercial banks and										
other private sources	200	1,921	5,398	5,802	808	1,315	1,700	1,530	1,814	1,716
Private nonguaranteed	274	1,122	155	164	440	320	340	210	74	66
Use of IMF credit	0	. 0	360	265	173	145	133	70	- 0	148
Short-term debt	N/A	1,575	1,369	1,814	1,312	1,586	2,069	2,299	1,486	1,423
Interest arrears on term debt	0	0	56	1,523	12	77	84	85	0	0
Other short-term debt	N/A	1,575	1,313	291	1,300	1,509	1,985	2,214	1,486	1,423
Gross domestic product										
(US\$ million)	4,310	11,733	15 <i>,</i> 957	10,686	17,939	19,040	19,769	19,723	13,689	13,607

 Table 2A.6 Ecuador: Year-End External Debt Outstanding and Disbursed (US\$ Million)

Source: World Debt Tables (World Bank).

						D	ecember 3	31					
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Monetary aggregates													
Broad money supply (M2)	23.5	20.7	17.6	18.2	19.2	19.1	20.6	24.3	27.3	29.8	30.9	33.0	40.7
Means of payment (M1)	12.2	11.2	9.0	8.7	8.5	7.7	8.2	8.3	7.5	7.7	7.6	7.6	9.5
Currency in circulation	4.1	4.1	3.4	3.3	3.1	3.0	3.1	3.0	3.0	3.1	3.0	3.2	5.6
Monetary deposits in													
local currency	8.1	7.1	5.6	5.4	5.4	4.7	5.1	5.3	4.5	4.6	4.6	4.3	3.9
Monetary base (M0)	7.5	7.3	6.1	6.2	6.0	6.0	5.9	5.1	5.2	5.0	5.1	5.3	8.3
Monetary issue of the													
Central Bank	4.5	4.4	3.7	3.6	3.5	3.4	3.4	3.5	3.5	3.8	3.7	3.9	6.5
Monetary issue by													
other entities	3.1	2.9	2.4	2.6	2.6	2.6	2.5	1.6	1.7	1.2	1.4	1.4	1.8
Quasi money	11.3	9.5	8.6	9.5	10.7	11.3	12.4	16.0	19.9	22.1	23.3	25.4	31.3
Quasi money in													
local currency	10.6	8.7	7.7	8.8	9.9	10.1	10.9	13.5	15.1	15.9	14.7	14.0	12.0
Quasi money in													
foreign exchange	0.7	0.8	0.8	0.7	0.8	1.2	1.6	2.5	4.8	6.2	8.6	11.4	19.3
Commercial banks (onshore	1												
offices only)													
Deposits	20.4	25.0	38.3	66.7	58.4	38.1							
Domestic currency	18.0	15.1	12.9	13.8	14.5	14.1	15.0	17.9	18.4	19.7	18.3	16.6	14.1
Foreign currency	2.5	6.6	18.6	48.4	41.8	24.0							
Credit	18.0	12.3	10.1	9.2	10.5	11.1	15.5	23.4	36.0	39.0	83.4	73.4	35.1
Domestic currency	18.0	12.2	9.8	9.0	9.9	9.8	11.8	15.5	17.5	15.6	14.7	10.9	3.4
of which, in arrears	1.6	1.2	0.6	0.5	0.5	0.5	0.5	0.6	1.0	1.7	1.4	1.4	3.8

Table 2A.7 Ecuador: Year-End Monetary and Commercial-Bank Aggregates (Percentage of GDP),1987–1999

Foreign currency	0.0	0.1	0.4	0.3	0.6	1.4	3.7	7.9	18.5	23.4	68.7	62.4	31.7
of which, in arrears	0.0	0.0	0.1	0.1	0.2	0.6	1.7	3.8	9.3	1.4	3.1	4.9	17.1
Gross domestic product													
In billions of sucres	1 <i>,</i> 795	3,020	5,170	8,204	12,296	19,414	27,451	36,478	46,005	60,727	79,040	107,421	162,184
In millions of U.S.													
dollars	10,527	10,012	9,823	10,686	11,752	12,656	14,304	16,606	17,939	19,040	19,770	19,723	14,656
Percentage in foreign													
currency													
Quasi money	6.6	8.2	9.8	7.5	7.6	10.9	12.6	. 15.7	24.3	28.1	36.9	·44.9	61.7
Commercial-bank													
deposits	12.3	26.4	48.7	72.6	71.5	62.9							
Commercial-bank													
credit	0.2	0.4	3.7	3.2	5.5	12.2	23.7	33.6	51.5	60.0	82.4	85.1	90.2

Source: Central Bank of Ecuador.

Notes

1. The order in which these topics are discussed allows these sections to summarize Ecuador's history in chronological sequence up to the mid-1990s.

2. This section draws on Dobronski and Segarra, 1999, and Library of Congress, 1989.

3. The penultimate Inca resided mainly in Quito in the decade before the Spanish conquest, making the city a second capital of the Empire. What is now the Sierra was the main battleground in the Inca war of succession, just before the Spanish arrived.

4. One crucial event in the struggle for independence from Spain, the Battle of Pichincha, took place on the mountain slopes near Quito.

5. Even after Independence, Ecuador's indigenous peoples—who have constituted, depending on the criteria applied, half or more of the country's population—were mostly prevented from participating in national political processes. In the Sierra, some were tied to large landholdings through more or less feudal relationships that persisted well into the 20th century. Some indigenous groups have lived in self-governing village communities. Over the 20th century, however, after revised constitutions afforded them political rights, Ecuador's indigenous peoples gradually increased their political participation, more and more through specifically indigenous organizations and parties.

6. The center-right parties are the Sierra-based Democracia Popular and the Costa-based Partido Social Cristiano; the more center-left parties are the Sierrabased Izquierda Democrática and the populist Costa-based Partido Roldosista Ecuatoriana. It is only fair to note that the "right, center, and left" labels can often be highly misleading.

7. The group came to be known as *la argolla*, literally, a large iron ring, but best translated as "coterie."

8. The first of these presidents, Galo Plaza, promoted an explicitly developmental approach to economic management, and although his government had to cope with widespread flood damage from earthquakes and heavy rainfall in 1949–50, it succeeded in reducing inflation from double to single digits.

9. In taking power for an indefinite period with the stated objective of fostering development, Ecuador's military were following a continental trend in the 1970s: Brazil, Peru, and Bolivia already had such governments, and Chile, Uruguay, and Argentina would soon follow.

10. To underscore their nationalist, reforming purpose, the military authorities placed several people on trial for corruption associated with the negotiations of the contracts with the foreign oil companies.

11. This growth had favorable consequences for social indicators. For example, infant mortality rates declined from about 100 in 1970 to about 74 in 1980.

12. Although the *sucretización* policy constituted a substantial transfer of public resources to the private sector, it was insufficient to resolve the private-sector crisis.

By 1986 a large proportion of the private sector's *sucre* obligations to the Central Bank were in arrears. The government authorized commercial banks to use external debt valued at par to service obligations to the Central Bank arising from the "sucretized" debt, although this debt was circulating at substantial discounts. In 1992, as part of a thoroughgoing Central Bank reform, the residual "*sucretized*" debt, about 8 percent of GDP, was transferred from the Central Bank to the Treasury.

13. The sharp decline in real GDP and massive real-effective exchange-rate depreciation during 1999 lifted the end-1999 public debt-GDP ratio above 90 percent. This reflected the unusually depreciated real-effective exchange rate, however, and has diminished as the real-effective exchange rate has appreciated to more normal levels.

14. Banco Continental; the Guayaquil-based Filanbanco purchased the other, Banco de los Andes.

15. An unusual feature of Ecuador's oil-revenue system is that gross export and domestic-sales proceeds are received and shared out among the various earmarked public-sector entities. The central government turns over a negotiated amount each month to the oil company, PetroEcuador, to cover production and transport costs.

16. Revenue figures are reflated to 1998 using the GDP deflator series, and then converted to U.S. dollars at the average exchange rate for that year.

17. In recent years, several laws have been approved creating what were called stabilization funds, but which were in fact only rules for earmarking oil-export revenues deriving from prices exceeding those set in the current annual budget. The "funds" were no more than the deposit accounts in which proceeds were accumulated and then transferred to the earmarked beneficiaries. The March 2000 dollarization legislation, for example, established a stabilization fund that transferred oil revenues exceeding those budgeted to certain priority investment programs and to "management of government liabilities."

18. Recipients have been further vetted to ensure that they have no bank loans and possess no motor vehicles.

19. This meant, in effect, that a holder of a Miami deposit could legally withdraw in Miami but not in Quito.

20. Larger banks had asset-liability committees that came to focus on the matching problem.

21. Floods and landslides damaged houses and infrastructure and damaged production. Some 300 people died and about 30,000 lost their homes. The incidence of infectious disease increased on account of problems with water and sanitation systems.

22. The recorded 1998 deficit would have been larger but for a dividend amounting to 0.6 percent of GDP that the Central Bank paid the Treasury (which would be counted as financing under standard IMF methodology).

23. Brazil's January 1999 devaluation intensified the pressure on Ecuador's exchange rate.

24. Later in March, the Banco del Progreso's principal shareholder closed the bank unilaterally. He attempted later to recapitalize it by various means (including an invitation to convert deposits into shares). In July the authorities closed the bank definitively after finding its net capital position to be deeply negative.

25. The freeze applied within Ecuador to off-shore deposits, although banking authorities in some other jurisdictions—notably Miami and Panama—refused to allow it to take effect there.

26. The reasons varied by commodity. Shrimp production was affected by disease, while other commodities, notably cacao, were affected by lower prices.

27. In July 2000 Ecuador offered new 12- and 30-year bonds in exchange for the bonds outstanding at what amounted to a 40 percent discount. The offer was made directly to bondholders, with a Comfort Letter signed by the IMF Managing Director. Bondholders accepted it. When executed on August 23, it reduced Ecuador's outstanding debt in bonds from US\$6.5 billion to about US\$3.9 billion.

28. In April 2000 Ecuador secured a 12-month, US\$304 million stand-by arrangement with the IMF. The first of six scheduled tranches was released immediately. The IDB disbursed tranches of several sectoral adjustment loans originally approved in 1994 but delayed since then for various reasons. In June 2000 the World Bank approved a US\$150 million structural-adjustment loan with conditionality covering comprehensive tax reform, public-sector financial management, financial-sector reform, and social-sector expenditure protection. It also approved a US\$10 million Financial Sector Technical Assistance Loan.

29. The decision to make the Central Bank independent in 1998 came at a bad moment, because the crisis conditions implied that financial markets were uncertain about whether the Central Bank would maintain its independence.

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3 Ecuador under Dollarization: Opportunities and Risks

Paul Beckerman* and Hernán Cortés Douglas**

1. Introduction

Ecuador had no alternative to full dollarization in January 2000. Had it not dollarized when it did, it would assuredly have slid into hyperinflation. Dollarization ended the "dual-currency" system, which had become a fundamental obstacle to macroeconomic stability and growth (see chapter 2). Ecuador implemented dollarization during 2000 more smoothly than many observers had anticipated. In 2001, with oil-export prices relatively high, real GDP began recovering, and inflation abated. The fiscal accounts remained in balance. Dollarization, however, is only one of the economic reforms necessary to ensure sustained growth. Ecuador's external and public accounts remain vulnerable to a wide range of exogenous hazards, including natural catastrophes, export-price volatility, and external financial-flow volatility. They are also sensitive to political and social pressures. Much needs to be done to complete Ecuador's public- and financial-sector structural-reform agendas. In addition, Ecuador's public external debt stock and interest bill remain debilitatingly large, even after the August 2000 "bond exchange" and the September 2000 Paris Club agreement.

Many observers regarded Ecuador's move to dollarization as the bellwether of a Latin American trend. Within a year, El Salvador decided on full dollarization, and Guatemala authorized the use of dollar operations in its financial system. Argentina's crisis in late 2001

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raised inevitable questions, however, about "hard" fixed-exchange rates. Economists continue to vigorously debate the criteria that policymakers should apply in deciding on their economies' exchange-rate regime. The so-called "bi-polar view"-that exchange rates should either float freely or be "hard" fixed through a currency board or dollarization-has gained many adherents (see Fischer 2001). The common feature of the two "polar" approaches is that; at least in principle, they fully endogenize the real-effective exchange rate. Many economists still believe, however, that in many economies policymakers must retain a handle on the real-effective exchange rate, at least for short-term policy-maintaining exchange-rate flexibility but not allowing a fully free float. Hard fixed-exchange rates should ensure exchange-rate and pricelevel stability, at least after domestic prices have moved to parity. This has been a weighty argument for economies emerging from severe instability. As Argentina's experience shows, the key policy challenge is to make the real-effective exchange rate established by the hard fix compatible with a sustainable flow of financing.

Any decision to adopt hard exchange rates must look beyond the benefits of price-level stability. The real-effective exchange rate likely to result, the price-level and relative-price convergence processes, the public-sector financing needs implied by the real-effective exchange rate, and the structural reforms necessary to make the new system sustainable and consistent with adequate growth are important issues for decisionmakers to consider. Unfortunately, when they dollarized, Ecuador's policymakers were no longer in a position to choose: Ecuador's residents had already decided, in effect, that they no longer wished to hold the national currency.

This chapter discusses some of the arguments for and against hard fixed-exchange rates in general and dollarization in particular. It describes Ecuador's implementation of dollarization, and considers some of the challenges and opportunities the economy will now face. Section 2 reviews some of the recent economics literature on the benefits of dollarization. Sections 3 and 4 review the applicable lessons from Panama's and Argentina's respective experiences. Section 5 describes the specific way that Ecuador has implemented dollarization, focusing on the changes made to the Central Bank and the financial system. Section 6 reviews the main transition issues during 2000, including the unfreezing of time deposits (frozen in March 1999), the price-level increase resulting from the extreme exchange-rate depreciation at which dollarization commenced, and the problem of adjusting domestic prices. Section 7 discusses Ecuador's macroeconomic policies during 2000 and 2001. Section 8 deals with longer-term issues, including the need for structural reform to help deal with Ecuador's exposure to contingency. Finally, Section 9 summarizes the conclusions.

2. Evidence and Theory from the Literature on Dollarization

To paraphrase Milton Friedman, "There is no such thing as a free float," since any government or central-bank policy action amounts to intervention. In practice, active intervention in foreign exchange markets is the norm in emerging-market countries. For this reason, the benefits and costs of hard fixed-exchange rates must be compared with the benefits and costs of flexible systems with continuing central-bank intervention. Furthermore, low policy credibility obliges emerging-market countries with variable exchange-rate systems to maintain large foreign-exchange reserves. Doing so has a high opportunity cost, which must be offset against the benefits of seigniorage. Furthermore, a hard fixed-exchange rate becomes more attractive as spontaneous dollarization becomes widespread and policy credibility becomes weaker. This was the case for Ecuador, where the relative merits of dollarization must be compared with the previously existing dual-currency system under which currency depreciation set off unmanageable macroeconomic and financial dynamics (as discussed in chapter 2).

The basic arguments in favor of flexible rate systems with significant central-bank intervention center on their allowing policymakers to realign the real-effective exchange rate more rapidly, at least for the short term. Some recent literature casts doubt on whether this is really true in practice. The existence of many nontradable goods with "sticky" prices means that variable exchange-rate systems will systematically introduce misalignments among nontradables prices (Calvo and Reinhart 2000). The theoretical claim that variable exchange rate-systems can maintain appropriate alignment (with adequate international reserves and no indexation) is based on the assumption that there is just a single flexibly priced nontradable good.

Hausmann and others (1999) examined the response of central banks to the international crisis of 1997–98 and found that in practice most countries with flexible exchange-rate systems allow only limited exchange-rate variability. They found that central banks aim to prevent depreciation by aggressively raising interest rates. So-called variable exchange rates tend therefore to be managed as if they were fixed, but without the benefits of precommitment. Interest rates tended to be higher in countries with variable exchange rates and lower in countries where exchange rates are credibly fixed. Furthermore, Hausmann and others hypothesize that credible fixed exchange-rate systems promote deeper financial markets. Countries exposed to severe terms-of-trade shocks require deeper financial markets to cope with them. People hold dollars because they fear that depreciation following a terms-of-trade shock will, all other things being equal, reduce the real value of their assets, compounding the negative effects of the shock on incomes. In such circumstances, people will seek higher interest rates to persuade them to hold depreciable domestic-currency obligations, to compensate not only for expected depreciation but also for the risk that the depreciation will be even deeper than expected. This is one basic reason why flexible exchange-rate regimes in developing economies tend to have relatively high interest-rate levels.

Countries in which terms of trade were more volatile were more likely to adopt a fixed exchange rate (for a sample of 110 countries for the 1982–91 period, see Lane, forthcoming, and for the 1960–94 period, see Frieden, Ghezzi, and Stein 2001). These results appear counterintuitive from the perspective of policymakers, since one of the presumable purposes of exchange-rate flexibility is to offset terms-of-trade movements.

One might expect flexible exchange-rate regimes to allow better control over dollar wages and the real-effective exchange rate than fixed rates, but empirical evidence points to the contrary. Nominal wages tend to react more swiftly to price shocks under flexible regimes than under fixed regimes, leading to more de-facto devaluation. Evidence for Argentina and Brazil suggests that de-facto indexation has functioned as an insurance mechanism against the possibility of sudden price-level movements, which are more likely under flexible exchange-rate regimes. That is, employers and workers anticipate the likelihood that exchangerate depreciation will reduce real wages and take this into account in the wage-negotiation process. This effect reduces the effectiveness of exchange-rate flexibility as an instrument to improve competitiveness (Hausmann and others 1999).

In practical terms, the disruptive effects of exchange-rate depreciation often overwhelm the positive effects on output and exports. Depreciation increases the local-currency value of dollar debt, damaging the credit system and increasing the likelihood of debt default, encouraging capital flight and discouraging capital inflows. In contrast, the deeper financial markets associated with fixed exchange-rate regimes allow for smoother, lengthier adjustments compared with the abrupt relative price changes generated by devaluation.¹

Eichengreen and Hausmann contend that fixed exchange-rate regimes are more prone to banking crises than flexible regimes. If markets anticipate that the supply of "last-resort" lending to the private sector will rapidly expand the monetary base, they will expect rapid currency depreciation, and this expectation may itself be destabilizing. In flexible exchange-rate regimes, ex-ante interest rates may seem reasonable enough in view of likely exchange-rate depreciation, but ex-post interest rates may turn out very high if the expected depreciation fails to take place. In such circumstances debt stocks could grow more rapidly than anticipated, for the dubious reason that anticipated depreciation failed to occur.

Dollarization has several important advantages over conventional fixed exchange rates. Unless the permanence of the pegged exchange rate is extremely credible, residual fears of depreciation could affect financial intermediation. This is one reason why Latin American economies have generally been unable to place longer-term domestic-currency debt: Latin America's longer-term financial markets are all dollar-denominated or index-linked, often leading to serious mismatches in corporations' and individuals' balance sheets.

Dollarization reduces the scope for sharp relative price changes, of the kind that often accompany inflationary processes. Such changes are often a key reason for the vulnerability of emerging-market economies to external shocks (see Calvo 2000).

Dollarization implies giving up independent monetary policy, and many people argue that this is a disadvantage. In several emerging-market economies, however, active monetary policy has proved ineffective or even disruptive. For these countries, externally dictated monetary policy would be advantageous. Ecuador is now effectively subject to the monetary policy of the United States. Could flexible exchange rates do the job of delinking Ecuador from the United States? A study covering six decades of Chilean recessions, including all of the period during which the economy was largely "closed" by high barriers to foreign trade, concludes that all Chilean recessions in the period followed U.S. recessions, through the link of the price of copper exports (Cortés Douglas 1983). This was so in spite of the fact that Chile attempted just about every imaginable exchange-rate system (including the gold standard) during the period. Furthermore, for a large group of emerging economies, a study found that emerging markets are highly vulnerable to external shocks, regardless of their exchange-rate systems. U.S. interest rates and U.S. business cycles explain half the variance of real exchange-rate changes and accumulation of international reserves (Calvo and Reinhart 2000). It seems reasonable enough to conclude that U.S. economic influence operates under any exchange-rate regime.

Another presumable disadvantage of dollarization is the loss of seigniorage. Having a local currency allows the central bank to secure seigniorage gains, whereas full dollarization leaves the seigniorage gains in the hands of the U.S. Federal Reserve.² The appropriate comparison, however, would be not with an alternative theoretical system where the central bank holds no international reserves, but with a more realistic system in which the central bank maintains a large international-reserve stock. As noted earlier, weak credibility and flexible exchange-rate arrangements in developing economies oblige their central banks to

maintain large international-reserve balances. The interest these central banks earn on these reserves are typically low. Moreno Villalaz (1997, 1999a) has estimated that an undollarized Panama would have had to hold international reserves amounting to some five percentage points of GDP Moreover, Panama saves the cost of operating a central bank, which would be significant for a small developing economy.

3. Lessons from Panama's Dollarization

Panama adopted the dollar following its independence in 1904.³ Unlike many other Latin American economies, where debilitating cycles of inflation, exchange-rate depreciation, adjustment, and recession have hampered growth and intensified social conflict, Panama has maintained monetary and price stability and steady growth. Panamanian business has never experienced or ever had to cope with the fear of exchange-rate depreciation. In recent years, inflation rates in Panama have actually been below those of the United States. Although Panama has coped with external-debt problems and exogenous shocks, it has avoided traumatic balance-of-payments crises, as well as systemic banking or financial crises. It has adeptly handled financial capital flows, surfing through the cycles of inflows and outflows characterizing many other economies. Interest rates in Panama's banking system have generally been in line with international rates, with insignificant risk premia. Both public and private sectors in Panama have been able to issue international bonds, generally favorably rated.

Table 3.1 shows various aspects of Panama's macroeconomic performance during the past three decades. Apart from the debt-crisis years of the early 1980s and the period of confrontation with the United States in the late 1980s, real GDP growth has been relatively strong. Inflation has been remarkably low since the mid-1980s, and even in the 1970s was generally lower than world inflation. The monetization rate is high and growing, as indicated by the solid and steady increase in bank deposits and quasi money (currency in circulation cannot, of course, be measured). Interest rates on deposits have been fairly close to LIBOR. Apart from the troubled 1980s, during which Panama at one point was at war with the United States, Panama's capital-formation and national-saving rates have been strikingly high by comparison with other Latin American economies. This result derives at least in part from the absence of exchange-rate uncertainty and the low level of price-level uncertainty.

The adoption of the dollar enabled Panama to develop a valuable and stabilizing service activity. In 1970, a new banking law established Panama as an international financial center. More than 120 banks now operate within the country. The liberalized legal structure, free entry, and the absence of capital controls enabled the banking sector to operate at a

Period	1970-	- 1975-	- 1980-	- 1985-	- 1990	- 1995-
averages	74	79	84		94	99
Growth rates (percent)						
Gross domestic product	t					
(GDP) at market prices	5.8	6.9	2.6	-1.0	6.8	3.3
Per-capita GDP	2.6	4.1	-0.3	-2.9	4.8	1.5
Consumer prices						
(year-average)	6.7	5.3	5.8	0.5	0.9	1.3
Per-capita U.S. dollars at						
prices and exchange						
rate of 1998						
Gross domestic						
product (GDP) \$2	2,382.9	\$2,511.2	\$2,922 .0	\$2,771.9	\$2,916.4	\$3,230.3
Nongovernment						
consumption \$1	,359.0	\$1,462.2	\$1 <i>,</i> 566.6	\$1,546.1	\$1,644.1	\$1,769.0
National accounts						
(percentage of GDP)						
Gross fixed-capital						
formation	28.1	25.9	21.7	13.4	17.8	27.2
National saving	34.9	34.8	32.4	6.3	18.3	35.0
Domestic saving	33.2	32.2	25.7	2.9	12.8	29.2
Net imports of						
goods and non-						
factor services						
(resource gap)	-5.1	-6.3	-4.0	10.5	5.0	-1.9
External accounts						
(percentage of GDP)		(1977–79	9)			
Current-account surplu	S	-9 .0	-5.0	5.3	-1.1	8.5
Merchandise trade		-20.2	-7.8	-2.8	-4.7	-10.6
Merchandise exports	5	17.0	51.8	47.7	72.9	69.8
Merchandise import	5	37.2	59.7	~50.5	-77.5	-80.4
Other current account		11.2	2.8	8.1	3.6	2.1
Capital-acct., net err.						
and omissions		9.7	3.9	-15.2	-2.9	7.8
Gross foreign-exchange						
reserves (mos. of impor	ts					
of goods, nonfactor						
services)		1.1	0.6	0.4	1.0	1.3
N 1 . 1 . 1		(1975–79	9			
Bilateral real-effective						
exchange rate vis à vis						
the U.S. (year average)	89.9	89.7	84.0	90.9	100.6	101.4
(based on GDP deflator	s;					
1995 = 100,						

 Table 3.1. Panama: Selected Macroeconomic Indicators, 1970–99

(77)

+ = depreciation)

(Table continues on the following page.)

Period	1970– 74	1975– 79	1980– 84	1985 89	1990– 94	1995– 99
Broad manay suppl-	· ±					
demosit money supply						
(deposit money plus						
quasi money;	20.0	20 E	25.0	27.2	52.0	70 7
A new al interest notes	29.0	32.5	55.9	57.5	52.9	75.7
Annual interest rates					(0	70
Deposit rate					0.0	7.0
Civ month					10.9	10.0
(SIX-MORIN					E 4	57
U.Sdollar LIBOR)					5.4	5.7
Gross domestic	1202 2	2222.17	4577.0	5000.0	6556 7	0602 0
Product (US\$ million)	1302.3	1.0	45/7.2	3283.2	0000./	0003.0
Population (million)	1.5	1.8	2.0	2.3	2.5	2./
Tetal systems all dallat					(19	90–1998)
Iotal external debt						
(world bank world	407.4		0000.0	550(0	(010.4	(102.0
Debt lables; US\$ million)	427.4	1775.5	3803.3	5526.5	0010.4	0192.9
Publ., publ.						
Guaranteed yrend	0(1.0	1 400 E	0700 5	27760	2000 1	4005 0
Stock	361.0	1428.5	2/88.5	3/30.8	3900.1	4885.3
Percentage of GDP	26.8	62.3	60.7	/1.0	60.7	57.6
Service on public						
and publicly	<i>(</i> 0 4		510.0	0 40 4		
guaranteed term debt	69.1	257.4	519.2	248.6	294.9	776.1
Percentage of						
exports of goods,						
nonfactor services			15.7	7.0	4.8	9.8
Interest payments	20.8	98.0	293.2	171.9	129.9	271.1
Repayment	48.3	159.4	226.0	76.7	165.0	505.1

Table 3.1. (continued)

Sources: International Monetary Fund, World Bank.

cost advantage compared with other countries. Financial integration has turned out to be essential to enable Panama to absorb manageable capital inflows. Free capital movement has largely freed Panama from concerns about excessive inflows, since excess funds can simply be "exported" into foreign placements. In economies where capital outflows are restricted, excess funds are likely to be placed within the economy in low-yielding activities, leading in this way to excessive, inefficient domestic investment or financing of public deficits.

The international banking system based in Panama acts as an automatic stabilizer in two other ways. If the government borrows abroad, banks can offset the resulting dollar inflows by reducing their net foreign liabilities. This stabilizing role of banks contrasts with the chain of events typical in other economies, where capital inflows raise fiscal revenue and international reserves, encouraging excessive public expenditure and destabilizing fiscal and current-account deficits, inducing foreign capital to depart. A second, more important way in which international banks operating within Panama act as stabilizers is by having their overseas headquarters serve as their lenders of last resort. Large shocks to the Panamanian economy—such as the confrontation with the United States in the late 1980s, which led to sanctions and invasion—have induced banks to borrow abroad, receive support from their home offices, or reduce their liquid assets to compensate for loss of local deposits. Banks responded in similar ways to the disruptions caused by surging oil prices in 1973 and 1979. In effect, Panama possesses what amounts to a private lender of last resort. The international banking system can operate as a lender of last resort without creating money.⁴

Latin America's recent experience has encouraged a view that capital flows are dangerous, producing excess demand for goods (and assets) and real-effective exchange-rate appreciation, but then ending in sudden reversal. These effects of capital flows are unheard of in Panama, as the adoption of the dollar and the internationalized banking system made possible by the adoption of the dollar has led to capital movements being absorbed within or exported out of the banking system without serious cyclical disruptions. Any excess of expenditure over income at the macroeconomic level is accompanied by an increase in the banks' net foreign liability position. To stay within their funding constraints, banks slow their local lending, reducing domestic expenditure and eliminating the disequilibrium. Panama has thus avoided having bank credit finance excess domestic expenditure, which would lead to disequilibrating real exchange-rate appreciation and asset overvaluation.

An additional beneficial consequence has been that Panama has largely avoided capital flight. Calvo and Reinhart (2000) have shown that Latin American banking crises in the 1980s and 1990s have generally been associated with negative capital-flow reversals. Panama is an exception. No capital flight has resulted from macroeconomic imbalances or policy errors. The only time significant capital flight took place was in 1987–89, as a consequence of political crisis.

The success of Panama's monetary system is centered in financial integration. It is doubtful that such integration would have been possible without full dollarization. A country with a currency board or full dollarization but incomplete financial integration would be at a disadvantage in its ability to absorb external shocks compared with Panama. On this point, Moreno Villalaz (1999a) compares Hong Kong (China) and Panama. Although Hong Kong uses a currency board and has a high degree of capital mobility, it still maintains high interest rate differentials. Barriers to entry into the banking business and the requirement that banks balance their Hong Kong dollar and U.S. dollar accounts separately largely explain its relatively low degree of financial integration. For countries without currency-board arrangements or dollarization, financial integration is even more distant. Banking systems based heavily on purely local banks, capital-flow restrictions, segmented credit markets in local and foreign currency, and central banks relying on their own interest-bearing instruments to carry out policy (with quasi-fiscal implications) have often constituted formulas for catastrophe. Systems of this kind encourage excessive risk taking, excessive spending and borrowing, and real exchange-rate appreciation, leading in turn to financial-market fragility and asset-price bubbles.

Panama's successful experience suggests that dollarization could potentially bring important benefits for Ecuador. Enhanced policy credibility largely explains Ecuador's success in unfreezing time deposits after March 2000 (see section 6 below). Eliminating the possibility of exchangerate depreciation appears to have enhanced credibility and confidence in the banking system, among other things, by eliminating the exchange risk inherent in bank balance sheets. The difficulty of reversing dollarization enhances its credibility even compared with currency boards (see Berg and Borensztein 2000). Over time, it is likely to enhance the value of collateral, such as real estate, held against external lending within Ecuador. In addition, removal of the possibility of exchange-rate depreciation should reduce domestic interest rates by ending the currency premium, that is, the component of the interest rate compensating for the uncertainty associated with the exchange rate. This in itself would encourage capital inflows. Ecuador has eliminated the possibility of speculative attack on its exchange rate by definition.

4. Lessons from Argentina's Currency-board Experience

In contrast with Panama's successful experience, the collapse of Argentina's "convertibility" system in December 2001 would appear to be a dramatic instance of a failure of a hard fixed-exchange rate. Argentina requires a closer look. Argentina's convertibility system began in April 1991. Under legislation approved that month, the Central Bank would henceforth sell pesos for dollars on demand at an immutably fixed exchange rate—fixed by law. The Central Bank would publish financial statements showing that it maintained full foreign-exchange backing for all pesos it issued (the legislation allowed part of the backing to be in dollar-denominated government bonds). The objective was to put an end to nearly two decades of chronic, often severe exchange-rate and price-level

instability, which had culminated in several hyperinflation episodes during 1989 and 1990. Argentina maintained its convertibility system for about 10 years, before it collapsed under public anger over a recession sustained for 4 years by excessive public debt accumulation and by real-effective exchange-rate appreciation.

Table 3.2 shows some of Argentina's recent macroeconomic performance indicators. Inflation declined sharply from the hyperinflation years 1989–90, but the 1990s were characterized by a strikingly high variability of real GDP growth. The economy grew rapidly in the years immediately following the institution of convertibility in 1991. In 1995, however, the Argentine financial system was badly affected by Mexico's "Tequila" crisis (Baliño and others 1997 describe how the Argentine authorities coped with heavy deposit withdrawals while maintaining convertibility). After a recovery in 1996 and 1997, Argentina's economy went into a protracted recession in 1998. Heavy external debt was a major contributor and the onset of the East Asian, Russian, and Brazilian financial crises compounded Argentina's difficulties. Per-capita real GDP and nongovernment consumption both declined sharply after 1997.

In one sense, Argentina's convertibility and Ecuador's dollarization are actually quite similar exchange-rate regimes, because Ecuador has maintained its Central Bank in operation (see section 5 below). In both systems, the exchange rate is rigorously fixed by law. Both central banks' ability to create new money is sharply restricted. The essential difference is that adopting the dollar amounts to a stronger promise never to devalue. While Argentina retained a domestic currency that could be devalued against the dollar if the law were changed, Ecuador would have to introduce a new currency in order to devalue. In this sense, dollarization in its inception is more credible than a currency board could be.

The reasons why Argentina slid into protracted recession and finally had to abandon its currency-board regime in an overwhelming crisis will be debated for years to come. In particular, the role of the currency board and its hard fixed-exchange rate will be examined and debated closely. The debate is likely to center on the relative importance of the restrictions imposed by the currency-board system and Argentina's long-standing fiscal deficits. The real-effective exchange rate appreciated steadily during the 1990s (see table 3.2), largely as a consequence of the appreciation of the U.S. dollar and, beginning in 1999, the depreciation of the currency of Brazil, Argentina's MERCOSUR partner. This realeffective appreciation undoubtedly contributed to the recession. With the nominal exchange rate hard-fixed and external prices exogenous, only wage and price-level reductions could bring about real-effective depreciation. Like most modern economies, however, Argentina's was structurally incapable of undergoing significant deflation in this way.

U												
	1989	1990	1991	1992	1993	1994		1996	199/	1998	1999	2000
Growth rates (percent)												
Real gross domestic												
product (GDP) at												
market prices	-7.0	-2.4	10.9	10.0	5.3	8.1	-4.6	4.5	9.7	2.8	-2.4	-0.4
Consumer prices												
(December/December)	4923.3	1343.9	84.0	17.5	7.3	3.9	1.6	0.0	0.4	0.6	-1.8	-0.5
Per-capita U.S. dollars at												
prices and exchange												
rate of 1999												
Gross domestic												
product (GDP)	\$5,774	\$5,559	\$6,081	\$6,602	\$6,862	\$7,322	\$6,892	\$7,111	\$7,700	\$7,813	\$7,527	\$7,403
Nongovernment												
consumption	\$4,720	\$4,524	\$5,157	\$5,659	\$4,849	\$5,191	\$4,847	\$5 <i>,</i> 291	\$5,561	\$5,664	\$5,399	\$5,123
National accounts												
(percentage of GDP)												
Gross fixed capital												
formation	16.2	14.2	14.8	16.8	19.3	20.2	18.3	18.4	19.8	20.4	19.6	17.6
National saving	14.2	9.8	14.4	19.4	22.9	24.7	20.4	21.1	25.0	25.5	24.2	20.9
Domestic saving	9.5	8.3	13.2	18.5	21.7	23.3	18.6	19.0	22.8	23.0	21.3	18.3
Net imports of goods												
nonfactor services												
(resource gap)	6.7	5.9	1.7	-1.7	-2.4	-3.1	-0.4	-0.6	-3.1	-2.6	-1.7	-0.6
External accounts												
(percentage of GDP)												
Balance-of-payments												
current-account surplus	-1.8	3.3	-0.3	-2.4	-3.4	-4.3	-2.0	-2.4	-4.2	-4.9	-4.4	-3.1
Merchandise trade	7.8	6.2	2.4	-0.6	-1.0	-1.6	0.9	0.7	-0.7	-1.1	-0.3	0.9

 Table 3.2. Argentina: Selected Macroeconomic Indicators, 1989–2000

		~ ~										
Merchandise exports	13.1	8.9	6.4	5.5	5.7	6.3	8.3	9.0	9.2	9.1	8.5	9.3
Merchandise imports	-5.3	-2.7	-4.0	-6.1	-6.7	-7.9	-7.4	8.3	-9.9	-10.1	-8.8	8.4
Other current account	-9.6	-2.9	-2.7	-1.8	-2.4	-2.7	-2.9	-3.1	-3.4	-3.8	-4.1	-4.0
Capital-account surplus,												
net errors, and omissions	-11.4	-3.7	-0.1	3.3	8.2	4.0	1.1	3.7	5.3	6.3	5.1	2.7
Gross foreign-exchange												
reserves (mos. of imports of												
goods, nonfactor services)	2.6	7.5	6.0	6.0	7.3	6.1	6.3	7.1	7.1	7.6	9.6	9.7
Real-effective exchange rate												
(year avg.,					-							
1995 = 100, + = depreciation)	131.0	100.0	76.2	71.2	67.6	69.0	71.0	70.1	67.8	67.6	66.7	65.5
Nonfinancial public sector												
(percentage of GDP)												
Nonfinancial public-sector												
consolidated surplus					1.2	-0.1	-0.5	-2.0	-1.5	-1.4	-1.7	-2.4
Current revenue					21.4	19.8	19.3	17.6	19.1	19.3	20.3	19.7
Capital revenue, incl.												
privatization proceeds					0.3	0.3	0.5	0.3	0.3	0.2	1.0	0.1
Total expenditure					20.5	20.2	20.4	19.8	20.8	20.9	23.0	22.2
Current expenditure					18.9	18.7	19.1	18.5	19.5	19.6	21.8	21.2
Staff remuneration					3.3	3.0	2.9	2.7	2.6	2.4	2.7	2.4
Interest due					1.2	1.2	1.6	1.7	2.0	2.3	3.0	3.4
External interest					1.1	1.1	1.5	1.7	1.9	2.2	2.9	3.3
Domestic interest					0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Capital expenditure					1.6	1.5	1.3	1.3	1.3	1.3	1.2	1.0
of which, capital forma	tion				0.7	0.5	0.3	0.3	0.3	0.3	0.2	0.1
Primary balance (surplus												
plus interest due)					2.4	1.1	1.1	-0.2	0.5	0.9	1.3	1.0
•												

(Table continues on the following page.)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Saving (total revenue	•											
less current expenditure)					2.5	1.1	0.2	-0.9	-0.4	-0.3	-1.6	-1.5
Broad money supply												
(percentage of GDP)	21.0	11.6	10.7	13.8	19.5	21.1	20.5	23.1	27.0	29.5	31.9	31.7
Deposit rate (pesos; annual												
percentage rate)	172.4	15.2	62.0	17.0	11.0	8.0	12.0	7.0	7.0	8.0	8.0	8.3
(Six-month U.Sdollar												
LIBOR)	9.3	8.4	6.1	3.9	3.4	5.1	6.1	5.6	5.9	5.6	5.5	6.7
Total external debt (year end,												
US\$ billion)	65.3	62.2	65.4	68.3	64.7	75.1	98.8	111.4	128.4	141.5	147.9	N/A
Public and publicly												
guaranteed year-end stock	51.8	46.9	47.6	47.6	46.2	50.6	55.2	62.6	67.1	77.3	84.6	N/A
Percentage of GDP	70.8	33.7	25.4	21.0	19.7	19.9	21.8	23.4	23.4	26.5	30.7	N/A
Service on public and												
publicly guaranteed												
term debt	2.8	4.8	3.7	3.2	4.4	3.6	5.3	7.0	11.4	11.7	12.2	N/A
Percentage of exports												
of goods, nonfactor												
services	23.5	32.5	26.0	20.7	27.0	18.5	21.0	24.6	37.0	37.7	43.8	N/A
Interest payments	1.3	2.1	2.2	2.3	2.3	2.6	3.5	3.7	4.5	5.4	6.3	N/A
Repayment	1.4	2.7	1.5	0.9	2.2	1.0	1.8	3.3	6.9	6.3	5. 9	N/A
Short-term debt (excl.												
arrears)/gross foreign-												
exchange reserves (percent)	582.7	243.9	233.1	168.2	64.9	52.1	155.3	132.7	144.4	126.4	120.7	N/A
Gross domestic product												
(US\$ billion)	73.2	139.3	187.3	226.9	233.8	254.1	253.6	266.9	287.2	291.2 [•]	275.3	285.4
Population (million)	32.1	32.5	33.0	33.4	33.9	34.3	34.8	35.2	35.7	36.1	36.6	37.0

Table 3.2. (continued)

Sources: International Monetary Fund, World Bank, Ministry of Economy of Argentina.
Many observers ascribe at least equal importance to Argentina's inability to control its fiscal accounts, particularly after the recession commenced in 1998. Under the currency board, continuing public-sector deficits led to a growing debt stock at relatively high interest rates (see table 3.2). Moreover, these interest rates incorporated risk premia, reflecting Argentina's history of fiscal mismanagement and risk of future default. The need to maintain the service on this debt placed the public accounts under intensifying pressure, particularly as recession persisted and simultaneously reduced public revenue and forced increased social expenditure. The reality that a large proportion of Argentina's public spending is carried out by provincial governments not subject to economic management by the central government complicated policymakers' efforts at fiscal management.

A balanced explanation of Argentina's macroeconomic collapse would assign blame both to the failure of fiscal management and the exchangerate appreciation. Once the recession began, it is fair to say that fiscal adjustment became far more difficult, since the recession itself widened the deficit and the deficit then increased the debt stock and the interest bill. At the same time, however, it is also fair to conjecture that, if Argentina had carried out a stronger fiscal adjustment in the early 1990s, before the recession, the authorities would have had more scope to cope with the recession once it began, since they would then have been better able to limit public-debt accumulation. For Ecuador, Argentina's clear lesson is that disciplined management of public finances is crucial to ensure the continued viability of the hard fixed-exchange rate.

5. Ecuador's Dollarization System

Under "pure" dollarization, after repurchasing all its outstanding sucre liabilities for dollars, the central bank would have liquidated itself, returning its residual net assets to its owner (that is, the government). Dollars would then circulate freely, as they do, for example, in Puerto Rico. Ecuador chose, instead, to keep its Central Bank in operation. Using allocated and borrowed foreign-exchange resources, the Central Bank of Ecuador would be able to carry out a degree of liquidity management and to provide limited amounts of credit to banks undergoing liquidity stress.

Dollarization was implemented during 2000 according to the Economic Transformation Law, which the president signed into law in early March 2000 following approval by the Congress.⁵ The law provided that the Central Bank would repurchase the outstanding sucre money stock using its foreign-exchange holdings, and Ecuador would adopt the dollar as an official monetary unit, and for practical purposes *the* official monetary unit.⁶ The law made the U.S. dollar the legal unit of account and medium of exchange, stipulating that all legal public and private accounting records would henceforth be maintained in dollars. Dollars or sucres could be used to settle contracts, but all foreign-trade transactions and taxes deriving from them would have to be settled in dollars. Over the course of 2000, the Central Bank repurchased almost the entire outstanding stock of sucres. In September 2000, six months after the law was approved, all bank accounts and other contractual relations were converted.

The law reorganized the Central Bank into four "systems" with segregated balance sheets. In the first, foreign-exchange holdings back an equal amount of old sucres still outstanding and new small-value coins to be introduced during 2000. (This first system amounts to a mini-currency board, with a size on the order of several dollars' worth of small coins per resident.) In the second, foreign-exchange holdings stand behind a precisely equal stock of bank deposits and Central Bank stabilization bonds. In the third, the Central Bank's remaining foreignexchange holdings, its stock of Treasury bonds, and its holdings of repurchase agreements back the Central Bank's external obligations (including those to the IMF), the public sector's deposit accounts, and interest-bearing Central Bank obligations to be used in open-market operations. The foreign exchange held in this third account would henceforth be Ecuador's operating gross international-reserve position, since the amounts held in reserve against coins and against the Central Bank's obligations to commercial banks would be unavailable for external transactions. The fourth balance sheet comprises all other Central Bank assets, liabilities, and net worth. That is, the law provides, in effect, that the Central Bank will apply its foreign-exchange holdings to back its various obligations by priority-first, its small-coin issue and the commercial banks' reserve-account deposits, and then all its other obligations, including its own external obligations and the Treasury's deposit account.

This structure closely resembles that of a currency board (see Baliño and others 1997, and also Gulde 1999). The first two systems are essentially the same as a currency board's "issue department," in which foreign-exchange holdings stand behind specific monetary obligations (that is, currency issues and commercial-bank deposits at the central bank). In Ecuador, such obligations can only be created as the Central Bank receives foreign exchange and can be extinguished only as the Central Bank pays out foreign exchange. Unlike a currency board, which retains a monopoly on domestic currency issue, Ecuador's Central Bank cannot know the full amount of the economy's actual monetary base, since it has no way of knowing the stock of dollars in circulation.⁷ The third balance sheet is similar to a currency board's "banking department": the Central Bank can lend foreign exchange to eligible borrowers—that is, commercial banks—as long as it maintains sufficient foreign exchange to back its monetary obligations for liquidity support and other operations.

Table 3.3 shows the Central Bank's account structure and its evolution following dollarization. As explained in section 7 below, overall international reserves increased, and freely available reserves rose from just US\$141 million on March 10 to US\$919 million on December 31, 2000, as a consequence of the relatively strong external-accounts performance. Nonfinancial public-sector deposits at the Central Bank rose from just over US\$500 million to just over US\$1 billion, reflecting improving fiscal performance (and some external borrowing). The sucre "monetary base" declined over the period, since the Central Bank largely completed the repurchase of sucres by September 2000. The new coin issue was far smaller in magnitude than the repurchased sucre issue; and commercialbank deposits at the Central Bank remained essentially unchanged, since their deposit base remained essentially unchanged.

Table 3.3. Ecuador: The Central Bank's Four Balance Sheets, March 10, 2000–December 31, 2001

	-					
us	5 million	10–Mar 2000	30–Jun 2000	31–Dec 2000	30–Jun 2001	31–Dec 2001
(1)	Exchange system (net	:) 0	0	0	0	0
	Assets	425	153	35	35	27
	International					
	reserves (A)	425	153	35	35	27
	Liabilities	-425	-153	-35	-35	-27
	Monetary					
	emission ^a	-425	-153	-35	-35	-27
	Sucres	-425	-153	-28	-28	0
	Small-denomina-					
	tion coins	0	0	8	8	-27
(2)	Financial reserve					
	system (net)	0	0	0	0	0
	Assets	299	215	226	144	261
	International					
	reserves (B)	299	215	144	144	261
	Liabilities	-299	-215	-226	-144	-261
	Reserve deposits	-287	-212	-144	-144	-261
	Monetary					
	stabilization bonds	-12	-3	0	0	0

(Table continues on the following page.)

110	* '11'	10–Mar	30–Jun	31–Dec	30–Jun	31Dec
US\$ million		2000	2000	2000	2001	2001
(3)	Main operations					
	system (net)	0	0	0	0	0
	Assets	821	1,203	1,579	1,651	1,454
	International					
	reserves (C)	141	523	1,025	1,025	785
	Repurchase					
	operations	38	1	0.	0	50
	Treasury					
	obligations	642	679	625	625	618
	Liabilities	-821	-1,203	-1,579	-1,651	-1,454
	Nonfinancial					
	public-sector					
	deposits	-512	-661	-1,144	-1,144	-988
	Private deposits	-26	9	-14	-14	-16
	Central Bank terr	n				
	obligations	-283	-533	-492	-492	-450
(4)	Other operations					
	system (net)	0	0	0	0	0
,	Assets ^b	1,627	1,712	1,576	1,571	1,653
	Liabilities and					
	capital ^b	-1,627	-1,712	-1,576	-1,571	-1,653
	Other liabilities ^c		497	270	180	438
	Capital and					
	reserves		-2,291	-1,883	-1,804	-2,091
	of which,					
	accumulated					
	profit		83	0	53	0
Me	morandum					
Inte	ernational reserves					
(A+B+C)		865	891	1,180	1,204	1,074
Monetary base		712	365	261	179	289

Table 3.3. (continued)

a. Small coins and sucres still outstanding.

b. Includes capital positions in international and Andean organizations and collateral for interest on Brady bonds.

c. Includes exchange adjustment and provisions.

Source: Central Bank of Ecuador.

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As in a currency board's banking department, all other things being equal, the scope of operations allowable under the third balance sheet is determined, among other things, by the exchange rate at conversion. The more depreciated the domestic currency, the smaller the proportion of the

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foreign-exchange stock that would have to be dedicated to the issue department, and consequently the larger the scope for banking-department operations. In Ecuador's case, the sharply depreciated exchange rate on conversion effectively enabled Ecuador's Central Bank to have a larger foreign-exchange stock relative to liabilities under its third system.⁸

The role the Central Bank will play in dollarized Ecuador will, of course, be far more limited than that of a conventional monetary authority. It will be able to carry out liquidity-management and lender-of-lastresort *functions*, but since it cannot create money, its capacity to manage the economy's liquidity will be limited, and so it cannot be a lender of last resort in the full sense of the term.

The Economic Transformation Law incorporated several other provisions relating to the dollarization process. Several controversial provisions dealt with interest rates. As in any currency transition, the authorities provided for conversion of contracts that had been formulated under the assumption of a depreciating currency into contracts in a more stable currency.⁹ The law also provided for a one-time transitory reduction in interest rates on all existing sucre and dollar-denominated financial assets.¹⁰ More controversially, it introduced a usury ceiling, to be set periodically as a "risk" spread over LIBOR by the Central Bank, up to 1.5 times the banking system's prevailing weighted average lending rate, as calculated by the Central Bank from its surveys of banks. Politically, this usury ceiling was a response to the perception that, after the banking system was liberalized in the first half of the 1990s, certain banks had made abusive and unsafe use of high-interest-rate operations, taking deposits at high rates and lending at high rates to risky borrowers. Many observers argued that the mere existence of a usury ceiling would discourage future would-be entrants to Ecuador's financial system. (It is preferable to rely on bank regulators to prevent unsafe high-interest operations through supervision activities.)

To supplement the Central Bank's capacity to deal with short-term liquidity crises, the authorities announced they would establish a separate Liquidity Support Fund, outside the Central Bank. This Fund was capitalized through an initial US\$70 million loan provided by the CAF. Banks would be required to place deposits with this Fund amounting to 1 percent of their deposit base, a supplemental reserve requirement on top of their 8 percent conventional reserve requirement.

The Economic Transformation Law incorporated a large number of provisions going well beyond dollarization per se. The government argued that, since the ultimate success of dollarization would hinge on resolution of the banking crisis and implementation of long-overdue structural reform, it was therefore appropriate that dollarization legislation address these issues. Thus, the law tightened bank-regulation standards. Commercial banks would henceforth be held to a 9 percent capitaladequacy standard, to be closely monitored by the Banking Superintendency. Banks falling short would be required to bring in new capital within a short period of time or face intervention and perhaps liquidation. The law provided that accounting systems would be brought more closely into line with international standards.

The law and subsequent regulations also provided for reprogramming of private debt to financial institutions. The 800,000-odd debtors who each owed US\$50,000 or less in all to the financial system would be permitted to reprogram their debt, according to standardized formulas applicable to different categories of debt (credit cards, mortgages, and so on) for up to seven years. The several hundred debtors owing more than US\$50,000 were afforded a legal basis and institutional framework within which to renegotiate their loans. Although the government subsequently came under political pressure to make the debt reprogramming compulsory and generalized, for larger as well as for smaller debtors, it resisted doing so. One practical reason was the need to avoid reprogramming loans that were still viable, to ensure that banks maintained adequate cash flows.

Structural-reform provisions incorporated in the law addressed the public finances; the banks' regulatory agencies; privatization of the public telecommunications, electricity, and hydrocarbon monopolies; private-sector entry into these sectors; and labor legislation (chapter 2 discusses the issues involved). These provisions implicitly recognized that dollar-ization by itself was insufficient to improve growth prospects.¹¹ In September 2000, the government approved a follow-up law to the Economic Transformation Law.¹² This law consisted almost entirely of structural-adjustment measures, aiming mainly to increase private-sector participation in several key sectors. Notwithstanding the extraordinary circumstances, the structural-reform measures incorporated in the dollarization legislation were relatively limited (see section 8 below).

6. Transition Issues: Deposit Unfreezing and Price Adjustment

Several specific financial and economic circumstances complicated Ecuador's transition to dollarization. The first was the release of time deposits frozen in March 1999 (see chapter 2). The second was the pricelevel increase resulting from the sucre's severe undervaluation when the exchange rate was fixed. Yet another was the need to adjust lagging motor-fuel, cooking-gas, and electricity prices and wages. Finally, there were several practical issues, including problems of counterfeiting, coin shortages, and public information. TIME-DEPOSIT UNFREEZING. In January 2000, when dollarization was announced, many observers argued that Ecuador could dollarize only when there was no immediate need for inflationary financing.¹³ They pointed in particular to the time-deposit unfreezing process set to commence in mid-March 2000. Heavy deposit withdrawals, they noted, were likely to ensue after unfreezing. Under dollarization, however, the monetary authority would be unable to provide a large amount of liquidity credit to banks if that proved necessary. Many observers reasoned that Ecuador would have to endure further inflation to enable the banking system to honor its obligations.

To cope with the unfreezing problem, at the same time dollarization was announced the banking authorities announced that larger timedeposit balances would be unfrozen only partially. One year after each time deposit's original maturity date, no more than US\$4,000 from the balance would be made available in cash. The rest would be provided in Treasury bonds, which the banks would purchase against their own promissory notes to the Treasury. That is, the Treasury would take private depositors' place, becoming the largest holder of the banks' liabilities. Bonds received by depositors would assuredly take deep discounts—this would be the form in which depositors would take losses. Their value might be buttressed somewhat by allowing them to be used at par to service debt due to banks or for tax payments. Over the weeks leading up to the start of the unfreezing process, however, the state prosecutor raised legal objections to this use of Treasury bonds.¹⁴ The authorities then concluded they had no choice but to apply an alternative scheme, under which depositors would receive deposit balances in excess of US\$4,000 in the form of longer-term bank obligations rather than Treasury bonds.

The time-deposit unfreezing process commenced on this basis in mid-March. Despite widespread concern that the banks would be unable to meet even the limited withdrawal demand, the unfreezing worked well. Banks persuaded many depositors to open new accounts instead of withdrawing cash, and, during the three months of the unfreezing process, banks' aggregate overall deposit stock actually increased. There are several possible explanations for this success. Dollarization is one. Many depositors concluded that elimination of the possibility of exchange-rate depreciation would enhance the banks' safety. Depositors may also have reasoned collectively that the withdrawal limitation made it likely enough that banks would have sufficient liquidity to meet withdrawal demand, and that there was no need to panic. Also, a few days before the unfreezing process began, the IMF, World Bank, IDB, and CAF announced plans to provide US\$2 billion in financial support to Ecuador during 2000, 2001, and 2002, in a joint statement timed to persuade depositors not to withdraw. In addition, various rulings by the Constitutional Tribunal to the effect that the deposit

freeze had been illegal and the state prosecutor's position on the use of Treasury bonds may have persuaded depositors that the authorities could never again carry out such a freeze. Finally, the banks' own energetic marketing efforts undoubtedly deserve some share of the credit.

THE PRICE-LEVEL INCREASE. The most serious transition problems derived from the severely depreciated exchange rate at which dollarization commenced (see figure 3.1 and table 3.4). Attainment of parity with external dollar prices would require a large increase in domestic prices, and this is precisely what happened. Consumer prices rose 96.1 percent during 2000, one of the highest annual rates in Ecuador's history, and continued rising into 2001 as well. In January 2000 many observers calculated, assuming 2 to 3 percent world inflation, that Ecuador's prices would have to rise 120 to 140 percent from the December 1999 base in order to bring Ecuador's real-effective exchange rate into line with the 1997-99 average within 12 months (see figure 3.1). It was fair to project this as the order of magnitude of the price-level adjustment that would take place. Strictly speaking, what was taking place was not "inflation," but rather a once-and-for-all price-level adjustment. To be sure, there was no way to guess how long the price-level increase would take to complete, although the fact that the economy was in recession suggested that it would take longer than otherwise. Figure 3.2 shows the evolution of consumer prices and trade-weighted external prices at the current exchange rate.) Once the real-effective exchange rate reached its appropriate level, however, domestic inflation would presumably slow to the world inflation rate.

Although anticipated, the price-level rise had several troubling consequences. First, relative-price adjustment was uneven over the price array. In theory, only tradables prices could be expected to move rapidly to parity: Nontradables prices would rise as the depreciated real-effective exchange rate increased net exports and generated an increase in the money supply. Except for oil derivatives, however, Ecuador's particular exportables-agricultural commodities, some manufactures-are a limited part of consumers' consumption bundles. In the case of oil and oilderivative prices, the public sector maintains a monopoly on sales, and since the authorities set the relevant domestic prices, domestic and world prices are not directly linked. Importables prices figure more in consumption bundles, directly or indirectly, but recession, exchange-rate depreciation, and the banking crisis preceding dollarization sharply reduced merchandise imports, turning many of the relevant goods at least temporarily nontradable.¹⁵ In addition, formal-sector wages remained under public-sector control. (Sectoral commissions still set Ecuador's formal-sector wage levels, relying heavily on a central commission that sets the minimum wage.)

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Figure 3.1. Ecuador: Monthly Trade-weighted Exchange-rate Competitiveness, December 1994–December 2001

Source: Central Bank of Ecuador.

Figure 3.2. Ecuador: Monthly Increases in Consumer Prices, January 1999–December 2001



Source: Central Bank of Ecuador.



Figure 3.3. Ecuador: Consumer Prices and Weighted Trading-partner Prices at the Current Exchange Rate, December 1997–December 2001

The price-level increase after dollarization in Ecuador was not a unique experience. Many former Soviet republics had similar experiences when they established new currencies upon leaving the ruble area. Estonia, for example, set up a currency board in the early 1990s with its new national currency pegged to the German mark. The authorities found it difficult to determine the "right" exchange rate, especially since the ruble had depreciated sharply in the previous months, and the new currency turned out substantially undervalued at the rate chosen. Although Estonia's currency board complied closely with textbook rules, the initial undervaluation led to annual price-level increases on the order of 15 percent for several years until parity was reached.

By mid-2001, the price-level increase had moderated significantly. There are grounds to hope that price increases will continue to be moderate and inflation will tend toward world rates. This is essential if Ecuador is to forestall further decline in its international competitiveness.

PUBLIC-SECTOR ENERGY PRICE ADJUSTMENT. Public-sector energy prices, including electricity, motor-fuel, and cooking-gas prices, were politically contentious, as they had been before January 2000. The government had

Source: International Monetary Fund.

frozen motor-fuel prices for 12 months in July 1999 to meet striking transport workers' demands, and had held the sucre price of household cooking gas fixed since September 1998. Continuing exchange-rate depreciation and inflation meant that these fixed prices generated rising subsidies amounting to several percentage points of GDP.¹⁶ Adjustment would inevitably require compensating adjustment of wages, which had been declining in real terms under the pressure of recession and unemployment. In adjusting energy prices and formal-sector wages, the authorities had to take account of the implications for (a) private-sector costs and competitiveness; (b) resource allocation-among other considerations, cross-border oil derivative price differences give rise to distorted border trade; (c) income distribution; (d) public finances, since energy prices determined revenue while wages determined expenditure; (e) the finances of the public enterprises; and (f) political constraints, since energy prices had figured heavily in social protest. The "inflationfeedback" consequences of price and wage increases were an additional complicating issue.

Table 3.4.	Ecuador: Exchange Rate (Sucres per U.S. Dollar),
Consumer	Prices, and Real-effective Exchange Rate,
December	1998–December 2001

	Average value			P	ercentage change er preceding month			
	Exchange rate	Real- effective exchange rate (1990 = 100) ¹⁷	Consumer prices	Exchange rate	Real- effective exchange rate (1990 = 100)	Consumer prices		
Dec-98	6,595.9	79.0	279.2	2.4	1.9	0.7		
Jan-99	7,133.1	82.5	288.1	8.1	4.4	3.2		
Feb-99	7,807.3	86.4	295.8	9.5	4.8	2.7		
Mar-99	10,754.3	104.4	335.7	37.7	20.8	13.5		
Apr-99	9,430.0	87.5	354.3	-12.3	-16.2	5.5		
May-99	8,969.0	82.3	357.4	-4.9	-5.8	0.9		
Jun-99	10,923.2	98.0	363.8	21.8	19.0	1.8		
Jul-99	11,723.0	101.9	374.9	7.3	4.0	3.1		
Aug-99	11,197.2	97.9	376.9	-4.5	-3.9	0.5		
Sep-99	12,116.5	104.7	383.5	8.2	6.9	1.8		
Oct-99	15,656.8	130.4	399.5	29.2	24.5	4.2		
Nov-99	17,525.5	137.1	425.0	11.9	5.2	6.4		

(Table continues on the following page.)

	Average value			P ove	Percentage change over preceding month			
	Exchange	Real- effective exchange rate	Consumer	Exchange	Real- effective exchange rate	Consumer		
	rate	$(1990 = 100)^{17}$	prices	rate	(1990 = 100)	prices		
Dec-99	18,205.8	135.2	448.7	3.9	-1.4	5.6		
Jan-00	24,761.0	161.2	513.0	36.0	19.3	14.3		
Feb-00	25,000.0	147.8	564.4	1.0	-8.3	10.0		
Mar-00	25,000.0	138.3	607.2	0.0	-6.4	7.6		
Apr-00	25,000.0	125.2	669.2	0.0	-9.5	10.2		
May-00	25,000.0	117.8	703.6	0.0	-5.9	5.1		
Jun-00	25,000.0	113.4	741.0	0.0	-3.8	5.3		
Jul-00	25,000.0	110.6	758.6	0.0	-2.4	2.4		
Aug-00	25,000.0	108.4	768.9	0.0	-2.0	1.4		
Sep-00	25,000.0	104.6	797.2	0.0	-3.5	3.7		
Oct-00	25,000.0	101.7	818.7	0.0	-2.8	2.7		
Nov-00	25,000.0	99.7	836.4	0.0	-1.9	2.2		
Dec-00	25,000.0	97.6	857.0	0.0	-2.1	2.5		
Jan-01	25,000.0	92.4	916.7	0.0	-5.3	7.0		
Feb-01	25,000.0	89.3	943.4	0.0	-3.4	2.9		
Mar-01	25,000.0	87.5	964.1	0.0	-2.0	2.2		
Apr-01	25,000.0	86.1	980.7	0.0	-1.6	1.7		
May-01	25,000.0	86.1	982.3	0.0	-0.1	0.2		
Jun-01	25,000.0	85.8	987.0	0.0	-0.3	0.5		
Jul-01	25,000.0	85.6	989.4	0.0	-0.1	0.2		
Aug-01	25,000.0	85.4	993.7	·0.0	-0.3	0.4		
Sep-01	25,000.0	84.0	1014.0	0.0	-1.6	2.0		
Oct-01	25,000.0	82.8	1025.9	0.0	-1.3	1.2		
Nov-01	25,000.0	81.6	1042.3	0.0	-1.5	1.6		
Dec-01	25,000.0	80.6	1049.6	0.0	-1.2	0.7		

Table 3.4. (continued)

Source: International Monetary Fund.

For the April 2000 IMF stand-by program, the authorities indicated that they would raise motor-fuel and cooking-gas prices and wages in two steps, in May and October. In May 2000, however, reasoning that it would be best to avoid two periods of social protest, authorities carried out what they hoped would be the full increase, sharply increasing motor-fuel and other oil-derivatives prices as well as public-sector wages.¹⁸ They decided not to increase the politically sensitive price of cooking gas. Toward the end of May, they also raised electricity rates. The continuing price-level increases over the remainder of 2000 reduced the

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real value of adjusted prices, however. Accordingly, in January 2001 the authorities carried out another round of price increases, this time increasing motor-fuel prices by 20 to 30 percent and cooking-gas prices by 100 percent. Although the government also increased the cash transfer (the *Bono Solidario*) to poorer people and authorized public-sector wage increases on the order of 12 to 15 percent, widespread protests ensued. The authorities negotiated an agreement with demonstration leaders, under which they rolled back the cooking-gas price increase to 60 percent, promised that motor-fuel prices would not rise for at least 12 months, and committed themselves to maintain dialogue with representatives of protesting groups.¹⁹

One reason this relative-price problem arose was that energy prices and wages could be adjusted only in large steps at infrequent intervals as of February 1997, when Ecuador abandoned a monthly adjustment system because the adjustments were so large they set off street demonstrations that forced the Bucaram Government from office. More frequent adjustment would presumably have relieved the problem.²⁰

The evolution of interest rates during the transition process has presented an additional set of concerns. Many observers have noted that interest rates remained well below the rate of price-level increase prevailing during 2000. In this sense, real rates have been "negative." Even so, deposit rates remained well above rates available outside Ecuador. With the economy still in recession, and banks circumspect about lending, it was only to be expected that banks would want to attract no more than a limited stock of additional deposits. For this purpose, relatively low deposit rates would be appropriate. As growth prospects improved, interest rates would likely edge higher as commercial banks received attractive lending propositions. Bank-deposit rates could be expected to remain above international levels, however, as long as Ecuador and its banks continued to be perceived as risky. The risk premium can be expected to remain large until the banking system becomes more "internationalized" (see section 8 below).

COIN SHORTAGES, COUNTERFEITING, AND OTHER "PRACTICAL" ISSUES. The dollarization transition brought some practical inconveniences. Counterfeiting has been a problem—by its nature it is impossible to know how significant. The introduction of small coins only began in September 2000, although a large part of the sucre stock, including smaller-value bills, had already been withdrawn from circulation. The shortage of small-denomination coins caused inconvenience at that time for small transactions. Fiscal and time constraints made it impossible for the authorities to carry out an adequate public information campaign, and some confusion and scams involving conversion rates took place. Dollar currency caused difficulties for illiterate people, who had relied on bill colors to distinguish currency of different denominations. By the end of 2000, however, dollar currency was well on its way to being a normal, accepted fact of life, much as in Panama.

7. Ecuador's Macroeconomic Performance under Dollarization in 2000 and 2001

In 1998 and 1999 Ecuador had slid into one of the deepest economic crises in its history, encompassing deep recession, a severe banking crisis, and incipient hyperinflation (see chapter 2). During 2000, the economy continued to perform below potential and living standards were severely affected, but macroeconomic developments were generally helpful for the transition to dollarization. The immediate danger of the transition was that the banking, fiscal, and external accounts would require more financing than allowed by the constraints of the dollarization regime and external credit availability. The banking sector was especially endangered because of the deposit unfreezing, but, as explained in section 6, unmanageable deposit withdrawals were successfully prevented. High oilexport prices, sharply reduced imports, the authorities' success in securing external-debt relief, and public-sector wage compression limited the fiscal and external financing needs. During the first two quarters of 2001 real GDP began to recover. The price-level rise moderated during 2001, as domestic prices moved toward parity levels: Consumer prices rose 37.7 percent during 2001, compared with 96.1 percent during 2000. The favorable conditions enabled Ecuador to successfully complete the IMF program it began in April 2000: The final tranche of the program was disbursed in December 2001.

Ecuador cannot rely on favorable external circumstances in the future, of course. Indeed, several worrisome developments took place toward the end of 2001. World recession and declining world oil prices began reducing merchandise exports, while the appreciating exchange rate and the economy's recovery stimulated imports. Declining world oil prices began affecting public finances, which still depend excessively on oil earnings.²¹

Figure 3.4 shows the quarterly evolution of real GDP over the course of the crisis, notably the sharp drop in 1999 and the subsequent slow recovery. Real GDP grew 1.9 percent in 2000, with an uneven sectoral distribution. Agriculture and fishing declined by more than 5 percent, while oil, manufacturing, commerce, and transport all grew around 5 percent. Activity levels were still significantly below their 1998 averages in the fourth quarter of 2000, with the exception of the oil, electricity, and construction sectors. Economic recovery began in the second quarter of 2000



Figure 3.4. Ecuador: Quarterly Real GDP (1998 average =100), 1997.4–2001.4

and continued through the first half of 2001. By the second half of 2001 real GDP had risen above its 1998 level. The overall real growth rate for 2001 was 5.4 percent.

The fiscal accounts improved significantly in 2000. Following deficits of about 6 percent of GDP in 1998 and 1999, the overall 2000 public surplus was about 0.5 percent of GDP.²² (The IMF program as approved in April 2000 called for an overall nonfinancial public deficit of 3.9 percent of GDP for the year.) Figures 3.5 and 3.6 show the basic sources of the improved fiscal performance during 2000 and the first half of 2001. Oilexport revenue exceeded US\$1.1 billion in 2000, compared with just under US\$250 million in 1998 and US\$673 million in 1999. Measured in U.S. dollars, overall staff remuneration was 56 percent lower in 2000 than in 1998, essentially because of the sharply depreciated exchange rate at which dollarization commenced. Oil-export earnings accounted for 29 percent of total 2000 revenue, compared with just over 6 percent in 1998. The overall nonfinancial public-sector quarterly surplus averaged just under US\$15 million in 2000, compared with deficits of US\$300 million in 1998. During the first two quarters of 2001, oil-export revenues remained steady, while domestic tax revenues strengthened impressively, as a consequence of recovering output and improved administration. Figure 3.6



Figure 3.5. Ecuador: Quarterly Nonfinancial Public-sector Revenue (US\$ million), 1998.2-2001.4



Figure 3.6. Ecuador: Quarterly Nonfinancial Public-sector Expenditure (US\$ million), 1998.2–2001.4

US\$ million

shows the striking decline in public-sector staff remuneration during 1999 and 2000, and the partial recovery beginning in the second half of 2000 as the price-level increase moderated. Government staff remuneration was nearly 27 percent lower in U.S.-dollar terms during 2000 than in 1999. Capital expenditure, already insufficient for Ecuador's needs, was 35 percent lower in 2000 than in 1999.

Figure 3.7 shows the quarterly performance of the main components of the current account of the balance of payments over the three years 1998, 1999, and 2000 (foreign-exchange inflow accounts are above and outflow accounts are below the horizontal axis). The quarterly current-account surpluses averaged US\$239 million and US\$348 million in 1999 and 2000, respectively, compared with quarterly deficits averaging US\$543 million in 1998. Oil exports were 164 percent higher in 2000 than in 1998. Despite the competitive exchange rate, non-oil merchandise exports were 27 percent lower in 2000. This was partly the consequence of sector-specific difficulties, including disease in the shrimp sector and market-access problems for bananas. The sharply reduced availability of export credit also played a role. Merchandise imports were 46 and 33 percent lower in 1999 and 2000, respectively, than in 1998, as a consequence of recession, lack of bank credit, and exchange-rate depreciation (see chapter 2). In 2001, however, the current-account surplus diminished and actually slid into deficit in the second quarter. Merchandise imports were 61 percent higher in the first half of 2001 than in the corresponding period of 2000. Capital imports were particularly strong as capital formation revived. One striking positive contributor to the current-account performance was private transfer receipts. Recession induced many Ecuadorans to seek work abroad, and their remittances were substantial: Private transfer receipts were 1.9 and 2.2 percent of GDP in 1996 and 1997, but rose to 4.3 percent in 1998 and then 8.4 and 8.6 percent, respectively, in 1999 and 2000.

After the deposit unfreezing, the banking system settled into rough stability during the latter half of 2000. Total deposits rose about 25 percent over the course of the year, although bank credit remained essentially dormant. The banks implemented the program to restructure "small" (under US\$50,000) nonperforming loans to households, but made little progress on restructuring of larger loans. In February 2001 the banks launched a new version of the loan-restructuring program for larger borrowers, with better results. The banks continued to lose external credit lines: In April 2001 the amounts available were only US\$645 million, compared with about US\$2.5 billion in mid-1998. The authorities took several steps toward the end of 2000 to encourage commercial-bank credit operations. Legislation approved in September 2000 amended the calculation of the usury interest rate ceiling, setting it at, rather than "up to," 1.5 times the Central Bank's "reference rate" (an average of rates on

Figure 3.7. Ecuador: Quarterly Performance of the Main Components of the Current Account of the Balance of Payments (US\$ million), 1998.1–2001.4



new commercial-bank loans). Moreover, in November 2000 the banking authorities eliminated a ceiling on fees that banks could change borrowers in lieu of interest, and removed a requirement that banks make provisions on loans carrying interest rates higher than 18 percent. In December 2000 the government transferred US\$137 million to the Deposit Insurance Agency to enable it to make payments to insured depositors. In January 2001 the Central Government on-lent funds from the CAF to augment the resources of the bank liquidity fund, and made the Central Bank's liquidity recycling facility fully operational. These changes persuaded the banks to increase lending in early 2001, contributing to the recovery. The banking authorities found it difficult, however, to progress on the processes of reorganizing the banks that had failed and of selling the banks' assets they had acquired. In mid-2001 Ecuador's largest bank (Guayaquil-based Filanbanco), which had been under public stewardship since December 1998, failed, despite the lengthy and expensive effort to keep it going.

During 2000, the government secured external loans to help build up the Central Bank's foreign-exchange base.²³ Dollarization and the passage of the Economic Transformation Law helped secure support from multilateral institutions.²⁴ As noted above, in March 2000 the IMF, World Bank, IDB, and CAF issued a joint statement promising support amounting to just over US\$2 billion through 2002. In April 2000, Ecuador secured a 12-month, US\$304 million stand-by arrangement with the IMF, with the first of six scheduled tranches released immediately. The IDB disbursed tranches of several sectoral adjustment loans originally approved in 1994 but delayed for various reasons. In June the World Bank approved a US\$150 million structural-adjustment loan covering a broad range of structural reform, including comprehensive tax reform, public-sector financial management, financial-sector reform, and social-sector expenditure protection (although the initial disbursement was delayed by nearly one year by delays in meeting the conditionality).

The strong external-accounts performance enabled Ecuador to accumulate foreign exchange over 2000. The IMF program internationalreserve targets were set on the basis of "excess freely disposable net international reserves," that is, foreign-exchange holdings net of amounts backing coin issue and bank reserves—namely, foreign-exchange holdings under the Central Bank's third account. At the end of December 2000 these amounted to US\$919 million, an increase from US\$141 million as of March 10, 2000 (see table 3.3). Together with the positive effects of oil earnings on public finances, this enabled Ecuador to meet its program performance targets easily enough. Nevertheless, in the second half of 2000, the IMF held up disbursements because strained relations between the government and the Congress delayed structural-reform efforts. In September the president approved an Investment Promotion and Citizen Participation Law, follow-up legislation to the Economic Transformation Law, incorporating provisions to advance the privatization process and eliminating the financial transactions tax in effect since January 1999. Because this legislation had been submitted on an emergency basis, the president was able to approve it even though the Congress, closed by a dispute among its parties, never even debated it. In October, the reopened Congress approved legislation adjusting several aspects of the legislation, but introduced so many changes that the president felt compelled to veto it. Because of the frayed relations with the Congress, the government delayed submitting tax-reform legislation to the Congress. When it finally did so, early in 2001, the Congress rejected key aspects of the proposed changes. The legislation approved in May 2001 did, however, approve elimination of many nuisance taxes, an increase in the income tax thresholds, and an increase in the VAT rate from 12 to 14 percent. The Constitutional Tribunal subsequently struck down the VAT tax increase, however.

During 2000, the government took two important actions to help relieve the external-debt burden. The first was the bond exchange concluded in August 2000 with holders of Brady and Euro bonds. Just after September 1999, when Ecuador defaulted on interest payments; government officials held several meetings with selected bondholder representatives. These meetings made little progress, however, essentially because bondholder representatives believed no agreement was possible that they could endorse as credible. In July 2000, however, Ecuador made a direct offer to its bondholders to exchange new 12- and 30-year bonds for the Brady and Euro bonds at 60 cents on the dollar. Although concerned about the precedent (eventual Argentine default seemed quite possible even then), bondholders accounting for 97 percent of the bonds accepted, and as a consequence the debt in bonds fell from US\$6.5 billion to US\$3.9 billion. The government's second action was a new Paris Club agreement, reached in September 2000. Although it included no debt reduction, it did provide for rescheduling of US\$800 million in principal and interest arrears accumulated since 1995 and capital and interest falling due through April 2001. With overall public debt at about US\$11.5 billion following the bond exchange, compared with a GDP of approximately US\$13.6 billion, Ecuador's public debt remains debilitatingly high. The US\$2.2 billion in new lending during 2000, 2001, and 2002 promised by multilateral institutions in March 2000 is only slightly smaller than the US\$2.6 billion debt reduction achieved through the bond exchange.

Ecuador's macroeconomic performance improved significantly in 2001. The January 2001 energy-price adjustments contributed to inflation of about 7 percent for that month, but thereafter monthly inflation rates

were below 2 percent. For the year as a whole the inflation rate was 37.7 percent, suggesting that convergence to parity, hence low inflation, was imminent. Moreover, real GDP recovered fairly vigorously, especially in the first half of the year. Reviving real growth brought about an increase in bank deposits, and this permitted commercial banks to resume lending. Capital-goods imports rose significantly as capital formation began to revive, and unemployment moderated. Construction commenced on a second Trans-Andean pipeline, which will allow for a doubling of oil exports beginning sometime in 2003. Reviving real activity helped sustain public revenue, even though oil-export revenue declined somewhat. For 2001, real growth was about 5.4 percent (one of Latin America's highest growth rates that year), while consumer prices rose only 22.5 percent.

In May 2001, after several months' delay, the IMF approved disbursement under the April 2000 stand-by arrangement, following the progress on tax reform and banking-sector restructuring. In December 2001 the IMF approved the final disbursement. During the second half of 2001, however, as noted above, there were some worrisome developments. After steadying in the first half of the year, world oil prices began falling as industrial economies slid into recession. Ecuador's other commodity exports, including bananas and shrimp, continued to perform sluggishly. At the same time, Ecuador's recovering real GDP and the steady real-effective exchange-rate appreciation encouraged imports. As a consequence, the trade surplus prevailing since the start of 1999 narrowed, and went into deficit in the middle of 2001 (see figure 3.8). The import surge partly reflected construction of the new Trans-Andean pipeline. Furthermore, declining world interest rates can be expected to relieve the debt service on floating-rate debt. (Each percentage-point change in LIBOR amounted to about US\$80 million per year, or about 0.5 percent of GDP, in the current-account balance. Each dollar per barrel in the price of crude oil amounted to about US\$100 million per year, or about 0.6 percent of GDP.) The declining oil prices showed nevertheless, once again, that Ecuador remained vulnerable. It now had an appreciated exchange rate over which policymakers could exercise very little control.

In summary, in 2000 Ecuador's real economy continued to perform poorly and the price-level increase resulting from the severely undervalued exchange rate was a major problem; macroeconomic conditions, on the other hand, were relatively favorable to the transition to dollarization. The high oil-export price and low growth rate helped reduce the amounts needed to close the fiscal and external accounts, enabling the Central Bank to build up its foreign-exchange holdings. On the other hand, in 2001 domestic prices decelerated sharply, while real GDP recovered from



Figure 3.8. Ecuador: Monthly Merchandise Trade and Realeffective Exchange Rate (December 1996–October 2001)

Source: International Monetary Fund, Central Bank of Ecuador.

its deep recession. Toward the end of the year, however, declining oil prices, the appreciating real-effective exchange rate, and the widening current-account deficit brought back some uncertainties about the longer term, particularly in the context of Argentina's collapse.²⁵

8. The Longer Term under Dollarization

Ecuadorans and foreign observers are inevitably asking whether Ecuador's economy is likely to evolve more like Panama's or Argentina's in the coming years. Section 3 analyzed Panama's dollarized systems, which enabled it to maintain stable prices and to grow through commercial and financial development and integration. In contrast, in section 4, we see that convertibility—a hard fixed-exchange rate quite similar to Ecuador's—helped bring Argentina to disaster.

At this writing (early 2002), with Argentina in acute crisis, it is not unreasonable to be pessimistic where Ecuador is concerned, since its economy appears to have strong parallels with Argentina's and striking contrasts with Panama's. Ecuador's real-effective exchange rate could well continue appreciating, even after its inflation rate converges to world rates, just as Argentina's did. Ecuador's exchange rate is even more firmly tethered to the U.S. dollar than Argentina's was. As in Argentina, recession could result. Moreover, despite the substantial relief secured in 2000, Ecuador's public-debt burden remains huge, and its $?\pm$

external borrowing capacity will now be restricted. As in Argentina, policymakers will be under intense pressure to maintain a tight fiscal stance, to limit the growth of the public debt.

Unlike Panama, whose financial system is strong and well-integrated with world financial markets, Ecuador's financial system is still troubled, and largely cut off from world financial markets. Ecuador remains vulnerable to the world's volatile primary commodity export markets, unlike Panama, whose service exports are far more stable. This is a crucial distinction between the two economies.

Nevertheless, it is by no means certain that Ecuador will simply repeat Argentina's history. Argentina's real-effective exchange rate appreciated sharply because it was tied to the appreciating U.S. dollar, and was especially hard hit by the depreciation of Brazil's currency in 1999. A favorable scenario for Ecuador would include a further international depreciation of the dollar and a rise in world oil prices over the medium term. In any case, investment in various export sectors should enable Ecuador to increase exports in various sectors, and the crude-oil export volume could roughly double in 2003 or 2004, when the new pipeline now under construction comes on line.²⁶

Dollarization does not change the reality that Ecuador's economy depends heavily on circumstances beyond its control. Even so, the stronger the quality of government policy-both day-to-day fiscal management and structural reform-the more Ecuador will benefit from good times and the less vulnerable it will be to bad times. Further progress on liberalizing structural reform is crucial to reduce the economy's vulnerability, particularly its exposure to world oil uncertainties. Structural reforms that would address this objective include (a) integral tax reform, both to reduce the dependency of public revenue on oil and to stabilize non-oil revenue; (b) full implementation of an oil-revenue stabilization mechanism; and (c) resumption of frequent adjustment of prices of domestic oil derivatives-with "capping," as appropriate. In addition-since anything that improves the economy's efficiency improves the likelihood that dollarization will succeed-policymakers must still see to (d) improved management and organization of publicsector staff and expenditure programs; (e) modernization of legal and technical systems for budget planning and execution; (f) improvement of public capital formation and maintenance; (g) completion of the privatization processes in telecommunications, electric power, and hydrocarbons; (h) modernization of the social-security system; and (i) development of politically, administratively, and fiscally viable decentralization structures.

Outside the nonfinancial public sector per se, the financial system remains the most urgent sector for structural reform. In broad terms, Ecuador must accomplish three objectives in this sector. One is to complete the banking-system "workout" process, to divest the nonperforming assets and restore the financial system to soundness in the wake of the banking crisis. The second is to strengthen banking supervision, to ensure that banks henceforth operate safely or, at least, that problems are rapidly detected and resolved.

The third is to find ways to deal with the reality that banks working in Ecuador are, perforce, exposed to Ecuador's high risks. Because most of Ecuador's economic sectors present significant risks, commercial-bank loan portfolios, hence banks themselves, are riskier than those of other economies. Depositors can be expected therefore to seek risk premia on deposit rates. They will also seek banks with relatively high capitalization levels, obliging them to operate with high intermediation costs on top of high funding costs. Borrowers will then face relatively high funding costs, which could place limits on longer-term economic growth. Even the best kind of structural reform in the financial sector—and, in particular, vigorous, high-quality banking supervision—can help relieve, but not entirely solve, this problem. Banking can be expected to remain a higher-risk, higher-cost business in Ecuador than elsewhere for some time to come.

One approach would be to find ways to "dilute" the risk of loan portfolios concentrated in Ecuador into larger, "world-dimension" capital bases. There are several possible means. One would be to persuade Ecuadoran financial institutions to purchase explicit or implicit "insurance" from foreign entities to cover the risks to which their portfolios are exposed. Alternatively, by acquiring shares in Ecuadoran banks, foreign banks would effectively place their large capital bases behind Ecuadoran risk. The added safety should persuade depositors to accept lower interest rates, and banks' Ecuadoran funding costs should diminish. In return, the foreign banks would seek relatively high intermediation spreads, to generate profits to compensate them for bearing Ecuadoran risk and to help fund their capital bases in readiness for Ecuadoran contingencies. This is consistent with the argument discussed above that dollarization will help financial integration over time, and that this integration should in itself provide significant benefits.

Finally, there are at least two additional sectors in which a significant structural-reform agenda remains. Ecuador has maintained a highly inflexible system of labor legislation and an anachronistic, centralized system of formal-sector wage determination. The dollarization legislation allows for hourly work contracts within the formal labor system, and also provides for the "unification" of wages, relieving the long-standing problem caused by requirements that public and formal private wage payments comprise a large number of closely regulated components. Lastly, the common Andean tariff retains an anchronistic structure favoring inputs over final goods, reducing the favorable impact of the substantial trade reform and domestic price liberalization implemented in the late 1980s and early 1990.

9. Conclusions

Since the early 1990s, many macroeconomists have been persuaded that certain countries would be best advised to implement currency-board arrangements and even dollarization. The experiences of Panama as well as Estonia and some Eastern European economies suggest that these can be effective reforms, not only for exchange-rate and price-level stabilization, but also for establishing confidence in central banks and in macroeconomic policymaking institutions more generally.

All the same, currency-board arrangements and dollarization should never induce complacency. As Argentina's recent experience shows, a real-effective exchange rate stuck at a highly appreciated value can contribute to rapid debt accumulation, possibly to the point of leading to severe fiscal or balance-of-payments crises. Precisely because the exchange rate can no longer be adjusted and the central bank's capacity to create money is severely curtailed, there is a heightened danger that adverse exogenous events could push the fiscal and external accounts into deepening deficit, and to this extent require more new debt than they otherwise would. This is a troubling concern for any economy that is already heavily indebted, such as Ecuador.

During 2000, high oil-export prices and external support helped Ecuador make a fairly smooth transition to dollarization. The most worrisome transition concern-the unfreezing of time deposits-came off far better than many observers feared. The undervalued exchange rate at which dollarization was launched, however, induced a sharp rise in the price level during the year, raising concerns about the adjustment of the cost and price structure. Once the price-level increase has run its course to parity, the inflation rate should stabilize at world levels. The realeffective exchange rate may then no longer be as competitive as Ecuador needs. As in Argentina, that would become a problem. It is important to stress, in any case, that the fiscal and external accounts will still be as dependent as ever on volatile world oil prices. Price stability should encourage investment, but it can by no means be regarded as sufficient. Ecuador's external-debt burden remains high. The economy remains highly vulnerable to contingencies and further structural reform in the public sector and the financial system is essential.

Notes

1. During the 1994–95 "Tequila" episode, interest rates were lower and credit was more abundant in Argentina, which had been operating under a convertibility system since April 1991, than in Mexico. Unlike Mexican banks, Argentine banks were not weakened by exchange-rate depreciation. As a consequence, despite its relatively rigid labor laws, Argentina recovered more rapidly than Mexico, which had devalued heavily.

2. U.S. Senator Connie Mack has argued that the United States should share seigniorage with countries adopting the dollar.

3. This section draws on Moreno Villalaz' analyses of the Panamanian monetary system (1997, 1999a, 1999b.

4. Argentina's recent banking crisis illustrates the point in a different way. Under its convertibility rules, Argentina's Central Bank's money-creation capacity was restricted, but it could and did borrow dollars abroad and used the proceeds as a lender of last resort.

5. From the time it was drafted, the Ecuadoran media have referred to this law as the "Trolleybus Law," that is, more all-encompassing than an "omnibus" law.

6. The sucre retains a de jure legal status under the Constitution, partly because amending the Constitution would have been too contentious and lengthy a process.

7. This difference may not matter much in practical terms, however. For example, Argentina's Central Bank knows the full amount of the peso monetary base, but a significant stock of dollar currency circulates in Argentina, and the Central Bank can only guess the magnitude at any moment.

8. This was because the more depreciated conversion rate meant that any sucredenominated Central Bank liability became a smaller dollar amount.

9. The problem may be understood as follows. Suppose two parties negotiate a contract under which one is to pay the other 200 pesos after one month, on the assumption that the price level will double over the month. Suppose that the following day a currency reform takes place that makes it more appropriate to assume that prices would remain stable over the month. It would then be appropriate to revise the contract, reducing the amount to be paid from 200 to 100 pesos. Under the stability assumption 100 pesos would have the same purchasing power as 200 pesos under the inflation assumption. In reality, of course, assumptions about future inflation rates are never formulated so explicitly nor held with so high a degree of certainty. Contract revisions accompanying currency reforms tend, accordingly, to be complex, and often produce confusion and resentment, since people affected may feel that they lost significantly.

10. For all such contracts extant on or after January 11, rates were reduced to 16.82 percent for assets and 9.35 percent for liabilities (contracts already at lower rates retained their original rates).

Government officials argued, in effect, that unless Congress approved politically unpopular structural-reform measures, dollarization ran a high risk of failure.
This new law was called the "second Trolleybus Law."

13. In late 1996 and 1997, when the Bucaram Government announced plans to move to full convertibility, many observers made a similar argument, that the continuing need for inflationary finance would make it impossible. This argument carried considerable weight at that time. It carried less weight in January 2000 because by that time, regardless of the *need* for inflationary finance, the demand for money was plunging.

14. This may have been for the best, because the Treasury bond issue would have amounted to 3 to 5 percentage points of GDP, a substantial increase in domestic Treasury debt outstanding. Some observers noted that the authorities would come under pressure to forgive the banks' obligations to the Treasury, in which case the Treasury would take losses, since it would still have to service the bonds.

15. The main categories of the consumer price index (and their respective percentage weights) are food, beverages, and tobacco products (32.1); apparel (11.2); rent, water, and electricity (11.7); furniture and house maintenance (6.8); health (3.4); transport (9.8); recreation and culture (3.7); education (4.8); hotels and cafeterias (11.9); and miscellany (4.6).

 These subsidies were financed through forgone government tax revenues and decapitalization of the state-owned hydrocarbons monopoly and electricity firms.
Higher values indicate real-effective *depreciation*. Real-effective values are estimated by the writers from Ecuadoran and trading-partner exchange-rate and price-index data.

18. Motor-fuel prices rose 60 to 80 percent and prices of jet fuel and oil derivatives used in industrial applications rose 300 percent. Public-sector wages rose between 48 and 70 percent and the *Bono Solidario* (the monthly stipend provided to mothers of poorer families since September 1998) rose 75 percent.

19. Once domestic prices reached the parity level, another kind of relative-price problem could be anticipated: Costs and wages could overshoot. Wages might overshoot because it is impossible to know for sure when price-level parity has been reached. Even when this actually happened, people might still anticipate prices would continue rising. Labor unions might argue, for example, that their pay must reflect a likelihood of further price-level increases at rates recently experienced. To the extent such overshooting took place in the public sector, it could lead to increased demand for public-sector and external financing. To the extent this took place in the private sector, exports would become less competitive, and the current account of the balance of payments would slide into deeper deficit. In addition, the disincentive effects of the appreciating exchange rate would dampen economic recovery.

20. Under any adjustment system aiming to maintain parity of world and domestic oil-derivative prices, with exchange-rate variation eliminated, world oil-price volatility would be the largest cause of domestic price volatility. The best, or least bad, solution to this problem would probably be to return to monthly adjustments, but with "capping," to smooth the disrupting effects of very large increases (and decreases). For example, if export prices surged, the domestic-price increase could be spaced over several months. Symmetrically, however, if export prices plunged, the domestic-price reduction could be spaced over several months.

21. One favorable development, however, has been declining world interest rates, which will reduce the interest due on Ecuador's floating-rate debt.

22. Higher oil-export revenue in 2000 more than offset reductions in other revenue categories, including earnings from domestic sales of oil derivatives, which were affected by the 12-month price freeze that began in July 1999, and externaltrade revenues, which were affected by the sharp reduction in imports. The overall primary (noninterest) 2000 public surplus was approximately 9 percent of GDP (compared with a programming target of 5.5 percent in the IMF program), one of the highest levels Ecuador had ever recorded.

23. Funds borrowed by the Central Bank from the IMF increase both the Central Bank's foreign-exchange reserves and its liabilities to the IMF. Funds borrowed by the government from multilateral institutions are deposited by the government in its Central Bank account, and so also increase the Central Bank's foreign-exchange balances, but increase the government's—not the Central Bank's—foreign-exchange liabilities.

24. The IMF had been criticized within and outside Ecuador for its presumable failure to provide support to the Mahuad Government when it was under intense political pressure.

25. Ecuador's macroeconomic performance has come under some pressure since the beginning of 2002. Although the economy has continued recovering from its recession and inflation is still low (although still above world levels), the public accounts have come under stress, particularly since the government decided against raising politically sensitive public energy and communications prices. The government has been discussing a new program with the IMF, but has not yet secured agreement.

26. The new pipeline will have a capacity of 450,000 barrels per day, compared with the present pipeline's 385,000 barrels per day. When complete, it is expected to add about 1.5 percent of GDP to public-sector earnings.

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4 Ecuador: Crisis, Poverty, and Social Protection

Suhas Parandekar, Rob Vos, and Donald Winkler

1. Introduction

Ecuador's economic crisis of 1998–99 and its move to full dollarization in early 2000 took place in a context of high poverty and income inequality—exposing the poor to the risk of irreversible losses. The constraints on public expenditure have set tight limits on the ability of the Ecuadoran government to protect the poor and have threatened the delivery of basic social services. This chapter updates our understanding of Ecuador's poverty, especially as it concerns the human capital of the poor; evaluates the government's policy framework for protecting the poor in times of crisis; and discusses policy options for improving that framework.

Poverty and inequality had already been intensifying before Ecuador entered its predollarization crisis in early 1998. An armed border conflict with Peru and the resignation of the vice president in 1995 marked the beginning of a period of political instability and slippage in the macroeconomic stabilization efforts (Vos 2000a). While in the early 1990s stabilization policies helped generate important reductions in urban income poverty, the subsequent fiscal expansion led to mounting inflationary pressures and purchasing power losses for many Ecuadorans. The El Niño weather shock in 1997–98 and falling oil prices (the country's major export item) in 1998 brought the economy down. The ensuing currency and full-blown banking crisis led to an economic collapse, with GDP per capita falling by more than 9 percent in 1999. Poverty and inequality increased substantially during the crisis. The poverty headcount

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increased by 12 percentage points between 1995 and 1998 and by another 9 percentage points during 1999. The Gini coefficient of income inequality increased from 0.52 to 0.54 during the same period.¹ The bottom quintile's share of total consumption decreased from 5.3 percent in 1995 to 5.0 percent in 1999.² Using a consumption-based poverty measure for 1999, the extreme poor—those who fall below the food poverty line accounted for 20 percent of the total population, or 2.2 million people, and the poor accounted for 55 percent of the population, or 5.9 million people.

The effects of the crisis on human development, especially that of pregnant women and young children, may be permanent. One-quarter of all preschool children in Ecuador have stunted growth, defined as the height-for-age ratio being two or more standard deviations below the reference median defined by the World Health Organization (WHO)/National Center for Health Studies (NCHS)/Centers for Disease Control (CDC). Of children in the bottom consumption quintile, 44 percent are stunted. Less than 10 percent of children of poor households complete secondary schooling. Also, children of the poor are more likely to drop out of school to work: 30 percent of children aged 10 to 14 in the bottom quintile do so.

Interviews with the poor show how they respond to crisis and loss of income (CEPLAES 1999). Households are often broken up, with some adult members migrating to find employment, or rural parents sending children to live with relatives in urban areas to enable them to attend school. Assets, including working tools, are sold when it is no longer possible to borrow money or to obtain credit from small storeowners. The poor substitute food high in carbohydrates and low in nutritional value for protein sources and fresh vegetables.

Since the government has had limited fiscal and political room to maneuver in setting its policies, its response to the most recent macroeconomic crisis was financially constrained and not highly effective in offsetting the consequences of the macroeconomic deterioration. The existing social safety net was not designed to provide additional social security in the face of natural disasters or economic crises. Rather, social programs have been targeted with limited coverage of prefixed population groups. Practically no flexibility exists, budget-wise or in program design, to expand these programs in scope or degree of protection when they are needed more. Furthermore, during the first part of 1999 the government incurred salary arrears, leading to serious disruptions in the public delivery of basic social services. Work stoppages prevented schools and health facilities from functioning one-quarter of the time in the first six months of 1999. Amidst all this, an innovative cash-transfer system (the *Bono Solidario*) targeted to poorer households, introduced at

the end of 1998, became the backbone of Ecuador's social-protection system during the crisis. It was not designed this way. It was introduced to provide compensation to the poor for the elimination of the expensive, regressive, and untargeted subsidies on cooking gas and electricity. Mothers of poor households with young children were the main beneficiaries, and by early 1999 the program reached 1.3 million households or a bit less than half the population. Because of targeting errors and the limited size of the transfers, the program has not had a major impact on overall poverty rates, but evaluations suggest that beneficiary households have kept more children in school than they would have without the cash-transfer benefit. The purchasing power of the cash transfer eroded during 2000 and 2001 as a consequence of inflationary shock created by the dollarization process. Other early responses to the crisis took the form of an expansion of in-kind transfer programs, specifically the school meals program and the provision of integrated early childhood care and expanded prenatal and neonatal care. The envisaged expanded coverage of these programs has progressed slowly, however. Various new socialprogram initiatives were discussed during early stages of the crisis, but budget restrictions and, more importantly, political indecisiveness impeded their progress. Some, such as employment programs, never materialized at all and others, such as an education voucher program, were only implemented as of late 2001.

By that time, the economy was showing signs of recovery, with GDP growing at 2.3 and 4.5 percent in 2000 and 2001, respectively, and with open unemployment down from a peak level of 14 percent in 1999 to around 10 percent in 2000 and 2001. Economic recovery was helped by rising oil prices (in 2000), migration abroad of large numbers of Ecuadorans, and several rounds of real-wage adjustments. In addition, many deposit holders managed to recover some of their assets from banks that went bankrupt during the crisis. None of these, however, are elements of a sustainable recovery. Rising revenues allowed for expansion of fiscal spending, but with volatile oil prices fiscal tightening was back on the agenda in 2001-02. Workers' remittances have increased substantially to become the second-highest single source of foreign-exchange earnings and to provide private protection to some households. The global recession that set in during the second half of 2001 has reduced employment opportunities of Ecuadorans abroad, however. Consequently, emigration may slow and remittances may not be as great a source of permanent income as many Ecuadorans currently enjoy. Real minimum wages increased by 15 percent in 2000 and stabilized during 2001, recovering an important part-but not all-of the purchasing power lost during the crisis. At the end of 2001, the real wage was 12 percent below the level reached in late 1997. Finally, the lack of confidence in the financial system

led many households to "reinvest" their recovered bank assets in durable consumer goods and real estate, rather than in productive or financial assets. All these factors helped spur a small consumption boom, but signs of a more sustainable recovery are less visible. The aggregate demand growth did help, though, to reduce income poverty during 2000 and 2001, as urban survey data suggest (Vos and de Jong 2001).

Ecuador's vulnerability to external shocks did not disappear with the dollarization of the economy. More likely, the real economy has become more sensitive to the effects of such shocks without the short-term cushion—albeit imperfect—that used to be provided by exchange-rate and monetary adjustment. The need for an adequate social-protection system remains. In the aftermath of the crisis, the Ecuadoran government has taken measures to allow for a recovery of real social spending after severe declines during the crisis, and it has introduced new programs, including the educational voucher program, targeted to the poor. Overall, however, the social safety net in many ways still suffers from the deficiencies it had at the start of the crisis. Much more is needed to provide effective protection to the vulnerable.

This chapter aims to analyze the effects of the crisis on poverty and human development during the crisis and the response capacity of Ecuador's social safety net. The remainder of the chapter is organized as follows. Section 2 reviews the recent trends in inequality and poverty. Section 3 discusses the identifiable groups of people that are particularly vulnerable. Section 4 discusses Ecuador's conditions of human development. Section 5 describes Ecuador's existing government programs intended to address poverty and vulnerability in the short and long term. Section 6 discusses Ecuador's capacity in future years to help the poor to manage crises and to deepen their human-capital formation. Section 7 discusses some of the strategic policy options available to policymakers.

2. Inequality and Poverty

Ecuador's recent crises have come in a context of high poverty and income inequality. Although Latin America as a whole has extremely high income inequality compared with other regions of the world, especially Europe and East Asia, Ecuador's record is unenviable even within Latin America. Moreover, unlike some other Latin American countries, which combine high inequality with relatively high per-capita income, Ecuador's inequality is accompanied by low per-capita income. As noted above, Ecuador's Gini coefficient has worsened in recent years.

Table 4.1 indicates that the headcount index of extreme poverty increased from 12 percent in 1995 to 17 percent in 1998, peaking at 21 per-
cent in 1999. A household was classified as being extremely poor if the total consumption expenditure of the household was lower than the food poverty line. Although the headcount index is not sensitive to changes in the distribution of expenditures below the food poverty line, measures of the poverty gap and poverty severity, which overcome this shortcoming, show the same trends.³ Table 4.1 shows that the poverty gap increased between 1995 and 1999, as did the severity of poverty. The increase in the poverty gap and severity measures indicates a worsening distribution of consumption even within the extremely poor households below the food poverty line.

Table 4.1 also shows that extreme poverty is much worse in rural areas than in urban areas, across the three regions of the country. The crisis of 1998–99 seems to have hit the poorest of the poor in the rural Sierra hardest. More than half of the population in the Andean highlands had consumption levels below the food poverty line in 1999, up from 31 and 34 percent in 1995 and 1998, respectively. The 1998 survey was conducted amidst the El Niño phenomenon and reflects the impact on agricultural incomes and employment in the flood-prone areas of the coastal lowlands (see Vos, Velasco, and de Labastida 2000). The table shows that extreme poverty in the rural areas of the Costa region rose by 11 percentage points between 1995 and 1998. Recovery of agricultural production in those areas during the latter half of 1998 and 1999 allowed for a slight reduction in the extreme poverty rate in that area between 1998 and 1999.

Table 4.2 indicates that the headcount index of poverty increased from 34 percent in 1995 to 46 percent in 1998 and further to 56 percent toward the third quarter of 1999. The index implies that the number of poor grew by 2 million people between 1995 and 1999. The patterns reported in table 4.2 are similar to those reported in table 4.1 for extreme poverty. The largest increase in poverty was among the urban poor in the Costa region, which contributed more than half (or 11 percentage points) to the overall poverty increase of 21 percentage points between 1995 and 1999, followed by the rural poor of the Andean highlands, which contributed onethird of the total increase. The urban Sierra experienced relatively little increase in poverty between 1995 and 1998, but then experienced a 9 percentage-point rise during 1999. The rise in poverty in the urban Sierra contributed about 10 percent to the overall poverty increase. The rural Costa also contributed a share of about 10 percent to the overall poverty increase in 1995–99, while it contributed nearly one-third of the increase between 1995 and 1998 as a result of the impact of the El Niño weather shock.

Most of these trends seem to have reverted from the second half of 2000 onward. As indicated in the introduction, the dollarization process initiated in January 2000 initially created a large inflation shock. This

			2						
	Н	eadcour	ıt (P0)	Poverty gap (P1)			Severity (P2)		
	1995	1998	1999 ^b	1995	1998	1999 ^b	1995	1998	1999 ^b
National	12	17	21	3	5	6	1	2	3
Urban	4	7	9	1	2	2	0	1	1
Rural	23	30	38	6	9	13	3	4	6
Costa region	7	14	16	2	4	4	1	1	2
Urban	3	8	11	1	2	3	0	1	1
Rural	15	26	24	4	7	6	1	3	2
Sierra region	17	20	26	5	6	9	2	3	4
Urban	6	5	5	2	1	1	1	0	0
Rural	31	34	51	10	12	19	4	6	9
Oriente ^c	15	21		4	5		1	2	
Urban	9	5		2	1		0	0	
Rural	1 7	25		4	6		2	2	

 Table 4.1 Extreme Poverty^a in Ecuador

a. Population below extreme poverty line (cost of minimum food basket) based on consumption data.

b. Data for 1999 refer to the (representative) sample for the second semester of the survey (April - September). ECV 1999 is a year-round survey conducted between October 1998 and September 1999.

c. ECV 1999 does not have a representative sample for the Amazon region (Oriente).

Source: Calculations from the *Encuesta Condiciones de Vida* (ECV) 1995, 1998, and 1999.

shock was caused by the large devaluation implied by the high conversion rate at which the U.S. dollar was introduced as means of exchange, by the lack of coins for small change, and by an upward adjustment of domestically controlled prices (see Vos 2000b). This situation initially caused a tremendous drop in real wages. Subsequent rounds of real-wage adjustments allowed for a recovery of real wages in the second half of the year, despite the fact that the year 2000 closed with a record 100 percent inflation rate. The trend in the real minimum wage has been a good predictor of the urban (income) poverty trend, as shown by figure 4.1 and analyzed in more detail in León and Vos (2000) and Vos (2000a). The urban open unemployment rate also started to fall with the first signs of economic recovery in the second half of 2000, dropping from 14.4 percent in 1999 to 9 percent in November 2000, and then stabilizing at around that level during 2001.

	Hea	dcount	ount (P0) Poverty gap (P1) Severity		Poverty gap (P1)		verity (F	(P2)	
	1995	1998	1999 ^a	1995	1998	1999 ^a	1995	1998	1999 ^a
National	34	46	56	11	18	21	5	9	11
Urban	19	30	42	5	9	13	2	4	6
Rural	56	69	77	20	29	35	10	16	20
Costa region	29	47	56	8	16	19	3	8	9
Urban	18	35	50	4	11	16	1	5	7
Rural	49	70	69	15	27	26	7	13	13
Sierra region	39	46	56	15	19	24	7	10	14
Urban	21	22	31	6	6	8	3	3	3
Rural	63	69	83	26	32	42	13	18	26
Oriente ^b	46	53		15 .	20		7	10	
Urban	31	28		9	7		4	3	
Rural	49	59		17	23		8	12	

Table 4.2 Consumption-based Comparison of Poverty inEcuador

a. Data for 1999 refer to the (representative) sample of the second semester of the survey (April - September). ECV 1999 is a year-round survey conducted between October 1998 and September 1999.

b. ECV 1999 does not have representative sample for the Amazon region (Oriente).

Source: Calculations from the ECV 1995, 1998, and 1999.

Migration abroad has been one exhaust valve. Between 1998 and 2000 about 200,000 Ecuadorans left the country in search of better economic prospects. This number represents about 2 percent of the labor force. Some see the outward migratory flow as the major cause of the decline in unemployment, but urban labor force survey data indicate it could explain at best a decrease between 1 and 2 percentage points, that is, around one-third of the observed reduction (León 2001a). Workers' remittances have increased substantially and, according to Central Bank data, contributed one-third of total foreign-exchange earnings in 2001. This growing source of household income helped spur private demand growth. Remittances have helped 'reduce poverty, even though the impact should not be overstated. Again using urban labor force survey data, remittances may explain 0.6 percentage point of an observed drop of 3.3 points in the urban poverty incidence (based on income data).⁴





Source: Vos and de Jong, 2001, based on data from the INEC urban labor force household surveys for 1988–2000 and minimum wage data from the Central Bank. Index for the poverty incidence is based on per-capita household incomes and a poverty line of US\$60 PPP (from León and Vos 2000).

3. Vulnerable Groups

Consumption expenditures and incomes represent only one facet of living conditions of the poor in Ecuador. Table 4.3 shows how household characteristics vary across consumption quintiles. It shows that household size and the dependency ratio (the ratio of those below the age of 15 and above the age of 65 expressed as a ratio to the number of household members between the ages of 15 and 65) are both larger in lower than in higher quintiles. The percentage of households headed by women does not vary greatly across quintiles, but-if anything-increases with the average welfare of the household. The share of female-headed households has been increasing over time, most starkly when defining headship by who is the main income earner of the household. Defined this way, de-facto female-headed households increased from 24 to 30 percent during the crisis (1998–99) and was most pronounced among rural households (from 20 to 28 percent), which could be a reflection in part of migratory trends. Female-headed households are, on average, smaller in size (with the spouse often absent), but have higher average consumption levels (SIISE 2000).

The high incidence of poor sanitary conditions, lack of clean water, dirt floors, and overcrowding are factors conducive to health problems, especially for young children. Table 4.3 provides evidence of significant differences in living conditions across the income distribution: 22 percent of households from the poorest quintile lack electricity, while only a negligible proportion in the richest quintile is without electricity. Three out of four people in the lowest quintile have no access to piped water supply, compared with about 12 percent without piped water in the richest quintile.

PREGNANT WOMEN AND YOUNG CHILDREN. Some demographic groups among the poor—especially pregnant women and young children—are especially vulnerable. Poor households in Ecuador adjust to low incomes by reducing food consumption and delaying medical attention, especially for women and children. This household adjustment poses many risks for women and children. Since women are usually the major care providers in households, their health is particularly important for the welfare of the household. The effects of maternal mortality on surviving children are large and negative. Malnutrition and lack of medical attention cause children to suffer reduced mental and physical development, including higher risks of childbirth complications for women who were

Q1	Q2	Q3	Q4	Q5
5.9	5.1	4.4	3.9	3.2
16.2	17.9	17.6	18.6	21.3
23.1	24.0	25.6	25.9	29.9
3.5	2.6	2.3	2.0	1.6
3.6	5.2	6.4	8.3	10.9
6.3	7.1	8.9	10.0	12.4
3.4	4.9	6.1	8.0	11.2
22.3	10.3	4.4	1.4	0.6
34.1	14.6	7.5	3.7	1.5
75.4	58.6	41.0	31.3	12.1
0.4	0.5	0.6	0.7	1.1
2.0	1.6	0.6	1.3	4.6
h				
17.4	26.1	29.2	38.4	51.2
25.9	27.2	33.9	37.9	50.5
	Q1 5.9 16.2 23.1 3.5 3.6 6.3 3.4 22.3 34.1 75.4 0.4 2.0 1 17.4 25.9	$\begin{array}{c cccc} Q1 & Q2 \\ \hline 5.9 & 5.1 \\ 16.2 & 17.9 \\ 23.1 & 24.0 \\ 3.5 & 2.6 \\ \hline 3.6 & 5.2 \\ 6.3 & 7.1 \\ 3.4 & 4.9 \\ 22.3 & 10.3 \\ 34.1 & 14.6 \\ 75.4 & 58.6 \\ 0.4 & 0.5 \\ \hline 2.0 & 1.6 \\ \hline 17.4 & 26.1 \\ 25.9 & 27.2 \\ \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Table 4.3. Ecuador: Household Characteristics by ConsumptionQuintile

Source: ECV (1998).

malnourished as girls. All these effects lower the chances that poor children will ever be able to escape poverty as adults. In Ecuador, households with pregnant women and mothers with children under two years of age in the first consumption quintile have worse living conditions, a higher incidence of stunting, and significantly lower health expenditures than the average for the entire population.

SCHOOL-AGE CHILDREN. One particular response of poor households to low income is to reduce their educational spending. The high private cost of public schooling and the income foregone in order for children to attend school combine to create strong incentives for poor families to take their children out of school. Unfortunately, high rates of school nonattendance contribute to high rates of grade repetition and premature school dropout. Reduced enrollments reduce the human capital of children, resulting in lower earned income and an increased probability that children themselves eventually will be heads of impoverished households.

Analysis of household survey data confirms that school-age children in the first quintile are at educational risk. The educational level of mothers is an especially important determinant of whether children enroll in school and how much they learn. Mothers of children ages 6 to 15 years in the first consumption quintile are, on average, functionally illiterate (defined as having less than four years' schooling), especially in rural areas. Poor households also spend less on books and other supplies that children are expected to use in school. The consequences include lower educational quality, lower school attendance, higher child labor rates, and a lower probability that children will complete primary school.

THE ELDERLY. The elderly are vulnerable because they are almost entirely dependent on small amounts of pension income and on the support of other members of the household or extended family. They also are vulnerable because they are more frequently ill and more frequently require the attention of health professionals, not just home remedies. The elderly in the bottom quintile are much more likely to live in an extended family than are the elderly in other quintiles, but this is much more a rural than an urban phenomenon. Within the first quintile, the health expenditures of the elderly are considerably higher than those of the nonelderly, but the elderly poor spend less than one-quarter of the national average for the elderly, suggesting that the quality of their care is far less than that of the nonpoor.

The elderly with pension incomes also were hit directly by the financial crisis. Retiring pensioners receive a capital transfer based on past salaries and the number of years contributing to social security. Most would deposit this sum in a bank to complement the typically low pension with interest revenue. Because of the financial crisis deposits were frozen for almost a year. Some pensioners were unfortunate enough to have deposited funds in banks that failed. After the dollarization of the economy, the nominal dollar value of those financial assets was cut into less than half because of the exchange rate effect, and the real dollar value dropped further because of the high inflation during 2000 and 2001. The Deposit Insurance Agency (AGD) started paying deposit holders affected by bankruptcies of financial institutions in 2000 and more in 2001. Many people, including pensioners, reinvested the recovered resources largely in durable consumer goods (including cars) as a lack of confidence in the financial system continued well into 2001. Capitalized pension income thus was converted into depreciable commodities. In terms of current income and consumption, pensioners—once belonging to a relatively protected social class—have become part of the new poor.

The vulnerable groups identified above also are more likely to be poor. Table 4.4 reports the proportion of poor households among those households that have (a) pregnant women; (b) children in the age groups 0–2, 3–5, and 6–15 years; and (c) the elderly. Comparison of the poverty rate between households that *do* possess such members with households that do *not* provides one indication of the relationship between poverty and membership in these vulnerable groups. Table 4.4 shows that early into the crisis (1998), membership in these groups was indeed correlated with poverty. For instance, the poverty rate is 53 percent for households with at least one child below the age of two years compared with a rate of 37 percent for households that did not have a child below age two years.

Differences in household composition are especially sharp between the poorest and richest consumption quintiles. More than half (51.3 percent) of households in the poorest quintile have pregnant women or children under age two years, compared with only 18.8 percent in the richest quintile. Among households in the poorest quintile, 57.7 percent have children ages three to five years, compared with only 22 percent in the richest quintile.

<i>Characteristic</i> Have infant below 2 years of age Have child 3 to 5 years of age	Poverty rate (headcount index)				
Characteristic	Household does not possess characteristic	Household does possess characteristic			
Have infant below 2 years of age	37%	53%			
Have child 3 to 5 years of age	35%	56%			
Have child 6 to 15 years of age	33%	48%			
Have elderly person at home	39%	49%			
Have pregnant woman	41%	45%			

Table 4.4	Ecuador:	Correlates	of	Poverty
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Source: ECV 1998.

4. Human Development

In any country, the fate of the children of the poor is closely tied to provision of health, nutrition, and educational services of high quality and broad coverage. Since the poor have so little material wealth, future incomes of children of the poor depend very much on their human capital, and that in turn is strongly influenced by their access to basic social services of adequate quality.

In general, Ecuador's human-development indicators correspond to its income level within Latin America. Malnutrition, infant mortality, and maternal mortality indicators, for example, are not significantly better than Bolivia's or Peru's and are substantially worse than Colombia's and most of the rest of South America.

NUTRITION AND HEALTH. Ecuador has had considerable success since the mid-1980s in reducing the incidence of malnutrition. The incidence of stunting (height for age) declined from 49.4 percent among preschool children in 1986 to 26.7 percent in 1998. Despite this progress, malnutrition in Ecuador is still considerably higher than it is in several other countries in Latin America, including Colombia and Paraguay and is not less that of Bolivia, which has a lower per-capita income (see figure 4.2).

Glaring differences remain in the malnutrition, infant mortality, and maternal mortality rates across household expenditure quintiles, as indicated by the incidence of stunting among small children in figure 4.3. In 1999, 44 percent of children in the bottom quintile had stunted growth, compared with 6 percent in the upper quintile. Malnutrition measured this way deteriorated significantly among the poorest households during the crisis, as the share of children with stunted growth seems to have increased (from 39 to 44 percent).⁵ Households with more resources managed to keep the trend declining despite the crisis. Consistent with poverty trends, the highest incidence of stunting is in the rural Sierra, where it increased most dramatically during the crisis from 41 to 51 percent between 1998 and 1999. The incidence of stunting is lowest in the urban lowlands (Costa region), where it actually fell from 22 to 17 percent. As shown in figure 4.4, nutrition status improved somewhat on average with the recovery in 2000.

The very limited coverage of programs that provide nutritional supplements to children under age two years in poor families contributes to malnutrition. The precise coverage is unknown, but the single largest program targeted to these children [the Maternal-Infant Nutrition Program (*Programa de Alimentación Complementaria Materno-Infantil, PACMI*), which in 2000 converted to a new Food and Nutrition Program (*Programa Nacional de Alimentación y Nutrición, PANN*)] covers only 15,000 children,

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Figure 4.2 Malnutrition Rates in Latin America



Sources: WHO and ECV 1999.

Figure 4.3 Malnutrition in Ecuador: Stunting (%) by Consumption Quintiles, 1998 and 1999



Source: ECV 1998, 1999. Data processed by SIISE project.

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Figure 4.4 Malnutrition in Ecuador: Stunting (%) by Area and Region, 1998–2000

Sources: INEC, ECV 1998, 1999; and INEC, EMEDINHO survey of 2000.

while the number of children (a substantial portion of whom are at risk of malnutrition) under age two years in the first quintile is 209,000. This program did not expand during the crisis.

Access to health care is limited for many Ecuadorans. The Health Ministry covers about 45 percent of the population, and other public and charitable organizations provide care to another 5 percent. In addition, in 1999 about 10 percent of the population was covered by the IESS and 7 percent by the Farmers' Health Insurance (*Seguro Campesino*), which is part of the IESS. More than 80 percent of the population has no health insurance coverage whatsoever, and about one-third of the population is covered neither by Health Ministry facilities nor private health insurance. When ill, the poor are less likely than the nonpoor to seek professional care (32 percent self-medicate), face longer travel and waiting times to receive medical attention, and are less likely to be covered by social security insurance.⁶ The poor are more likely to be covered by the Farmers' Health Insurance. Seventy percent of the people with access to the *Seguro Campesino* belong to the poorest 40 percent. (Also see table 4.6 below.)

Large differences are observed in reproductive health practices and family planning information across socioeconomic levels. In the poorest population quintile, only one out of five women of reproductive age have ever had a Pap smear, while half of those in the richest two population quintiles have been given the test. The responses to the question, "Have you ever received family planning information?" indicate that only half the poorest females have such information. Among women age 15 to 20 years, only one-third have any information on family planning. These differences partially reflect the reproductive health care practices in rural areas as well as the different access to information as a function of socioeconomic status.

EDUCATION. Education indicators repeat the story found in nutrition and health. Ecuador has shown considerable progress in raising the educational attainment of its population, as have other countries in the Latin America and Caribbean region. Figure 4.5 uses data from the 1999 Ecuador LSMS household survey to show the average educational attainment of the population by age cohort. While those 65 and older (born in 1934 or earlier) are on average functionally illiterate (less than 4 years of schooling), those in age group 40–45 (born between 1954 and 1959) aver-

Figure 4.5 Ecuador, Jamaica, Honduras: Years of Educational Attainment by Age Cohort



Source: ECV 1999 for Ecuador, and World Bank data for Jamaica and Honduras.

age more than 7 years of schooling, and those in age group 25–30 (born between 1974 and 1979) average more than 9 years of schooling. The growth of educational attainment over time closely tracks that in Jamaica and Honduras.

Educational inequities begin at birth. The single most important determinant of a child's education prospects (as well as nutritional and health status) is the educational level of the mother. Mothers of young children in the first consumption quintile are, on average, functionally illiterate, while mothers in the highest quintile are, on average, secondary school graduates. Unfortunately, disparities in access to preschool increase, rather than decrease, the educational risks facing poor children. Children in the first quintile have one-third the preschool enrollment rate of children in the fifth quintile.

Figure 4.6 and figure 4.7 show such disparities in educational attainment across socioeconomic groups and between rural and urban populations. For example, on average the extreme poor (consumption quintile 1) in rural areas have completed less than 4 years of education whereas the rich (quintile 5) in urban areas have completed almost 12 years of education (figure 4.6). Men appear to have more access to education than do women; and this gap is somewhat larger among the poorest households, particularly in rural areas. Such disparities persist, and the gap has not been closing very much over the past decade.⁷

Figure 4.8 shows the differences in educational attainment of recent cohorts of the population by quintile. Most children now complete primary school, but educational attainment beyond the primary level is highly unequal. Only 12 percent of children in the bottom quintile complete lower secondary school, compared with 78 percent in the top quintile. In addition, there are striking differences between children in rural areas, where 29 percent complete lower secondary school, and urban areas, where the figure is 62 percent. The indigenous population also has lower educational attainment than the nonindigenous population.

There are several reasons for low enrollment rates at the secondary level. The single most important explanation is cost. According to respondents to the 1995 LSMS survey, cost was the major factor for 32 percent of nonenrollment, equally for males and females. By 1998, cost was seen to be the major factor limiting access to education for 29 percent of males not attending and 36 percent of females of secondary school age. Further into the crisis, in 1999, the education cost factor appeared to determine nonenrollment for 48 percent of males and 53 percent of females. That this factor appears to have grown in importance more for females suggests that the economic crisis has been a source of a (renewed) widening of the gender gap in education. Direct education cost also is seen as the major single factor limiting access in primary education (more than 50 percent in 1999).



Figure 4.6 Ecuador: Educational Attainment by Rural and Urban Areas (persons over 24 years old)

Source: ECV 1999.

The average monthly expenditure per child in primary education for households in the bottom quintile is about US\$2.50, or about 1.5 percent of average total household income. For secondary education the average direct cost of education (fees, uniforms, transport, and so on) for the poorest is about US\$5 per student or about 3 percent of total household consumption. Although not discussed in the survey, the quality of schooling and the expected income gains from attending school also affect school attendance decisions.

Child labor adversely affects the education of the poor, and the percentage of children participating in the labor force is very high in Ecuador (see figure 4.9). Most children in Ecuador work and attend school, and the large number of hours they work must adversely affect learning. Children age 12 to 14 years in the bottom quintile who work and attend school report working 26 hours per week; children age 15 to 17 years who work and attend school report working 36 hours per week. Of all children age 12 to 14 years in the bottom quintile, 34 percent work and attend



Figure 4.7 Ecuador: Gender Gap in Education

Note: Refers to years of school attainment of population 24 years and older. *Source:* ECV 1999.

school, and another 26 percent only work, resulting in an overall labor force participation rate of 60 percent (as shown in figure 4.9), up from 54 percent in 1998. Child labor undoubtedly contributes to the high rate of school absenteeism for children in the bottom quintile. Even before the most recent crisis, children age 12 to 14 years reported missing classes more than half the time, and even children age 6 to 11 years reported missing classes about one-third of the time. Learning is inevitably affected by such high absenteeism rates.

Reducing child labor will have opportunity costs in the short run for households in the form of less income earned and greater schooling costs. The estimated average income of children working in the 10–14 age group of the poorer households is about US\$6.50 per month. This would bring the total cost (direct and indirect) of primary and secondary education to between US\$8.50 and US\$11.50 per student, per month, which in turn would be indicative for the value of a transfer, which might help keep children in school as discussed further below.





Figure 4.8 Ecuador: Percentage of 18-Year-Olds Completing School

Expected income gains from education, next to the quality of the services, may further influence educational performance. Contributing to the problem of primary school dropouts and low secondary school enrollments and also to income inequality are recent changes in the (private) economic returns to educational investments by households. Since 1994, the wage premiums associated with completing primary school (vs. not doing so) or completing secondary school (vs. completing primary school) have both decreased. Meanwhile, however, the premium associated with completing secondary school (vs. completing secondary school) have both decreased. Meanwhile, however, the premium associated with completing university education (vs. completing secondary school) have both decreased.

Source: ECV 1999.



Figure 4.9 Ecuador: Percent of Children Working, 1999

education) has increased considerably, from 48 percent in 1994 to 73 percent in 1998 and further to 85 percent in 1999. It should be noted that educational returns for females in urban areas were consistently and substantially higher than for males throughout the 1990s (see León and Vos 2000). All this should underpin measures helping to increase access to the educational system and improve retention rates.

The inadequate availability of educational services is foremost a problem in rural areas. Important parts of the rural population have no primary schools that go beyond third grade in their vicinity. Low attendance of teachers is another problem limiting school access of the rural population (World Bank 2000).

5. Targeted Poverty Programs

The deficiencies of Ecuador's social-protection system became painfully manifest during the crisis. Employment and labor incomes deteriorated substantially during the crisis and likely will remain subject to high

Source: ECV 1999.

volatility in years to come. Access to social security, basic social services, and targeted social-protection programs therefore are critical to prevent those with the least resources from falling (deeper) into poverty and suffering irreversible losses in terms of human development.

As mentioned, only a small proportion of the population has access to the social-security system. But those benefiting from the system did not get much protection during the crisis. Pensioners suffered huge losses in the purchasing power of their monthly benefits, and the value of their financial assets was cut in half or less. The social-security health system faced a financial crisis from which it has not yet recovered. Health services declined during the crisis as medicines and supplies ran short, and medical personnel have been on strike on numerous occasions because salary payment is frequently delayed. A reform of the pay-as-you-go pension system has been subject to debate for years, and by the end of 2001 the Congress still had not approved a proposal for reform. The heavily underfinanced health service system of IESS has yet to be reformed into a more proper social health insurance. A system that could provide coverage to a major part of Ecuador's poor, however, is still beyond reach.

Ecuador continues to face several challenges in the provision of basic social services (World Bank 2000): (a) ensuring that the poor, especially pregnant women and children under age two years, have adequate nutrition; (b) improving access by the poor to regular, preventive health care and to expanded educational opportunities, especially at the lower secondary level; and (c) raising the quality and equity of service delivery by, among other things, ensuring adequate material inputs such as drugs, medicines, and textbooks. In the context of overall fiscal austerity, meeting these challenges will require improved efficiency in social service delivery to leverage the greatest output from existing resource levels. Such efficiency gains require institutional reforms, which take time and face many political obstacles. During the crisis not much progress could be made in this area.

What is more, social spending decreased by more than one third, as public spending on social services and social programs fell from US\$78 to US\$51 per inhabitant between 1995 and 2000.⁸ Budget projections suggest that this trend could only be reversed by 2001 (see figure 4.10). Social expenditures also fell as a percentage of GDP. Not including social-security benefits, they fell from 5.0 to 4.6 between 1995 and 2000, but with the 2001 budget expenditures are back up at 5.8 percent. Also, after inclusion of social-security benefits (which brings expenditures to around 8 percent of GDP in 2001), Ecuador's level of social spending is well below the average for Latin America and that of countries such as Bolivia, Chile, Colombia, Argentina, Costa Rica, and Panama, which have sustained levels well above 10 percent of GDP.



Figure 4.10 Ecuador: Social Spending per Capita, 1995–2001 (in US\$)

Source: Ministry of Economy–UNICEF and León 2001b. Data for 2001 refer to approved budget. Data for 1995–2000 refer to executed budget.

It is not only the level of spending that counts, but even more its composition and effectiveness. During the crisis, the composition of social spending shifted away from universal services such as education and health to more targeted and specific social programs, including a cashtransfer program (Bono Solidario) and various small programs run by the Ministry of Social Affairs and associated institutions. Table 4.5 shows the shift in the composition of social spending. Part of the shift should also be explained by the level of wages in dollar terms (falling during most of 1998-2000 and recovering somewhat from the second half of 2000 onward), which has a stronger impact on the education and health budget than on other components of social spending. As mentioned, the wage decline for teachers and medical personnel affected the functioning of education and health services during the crisis. At the same time, the shift in composition was influenced by the introduction of the targeted cash-transfer program, which turned out to be the government's principal response to the crisis. At first glance, the larger share of the related benefits accrues to the poorer households.

Table 4.6 shows the direct public expenditure incidence of major components of social spending using the 1999 LSMS survey information on access to and use of related services and programs. Social spending generally tends to be more equally distributed than per-capita household

					-		
	1995	1996	1997!	1998	1999	2000	2001
Education	63%	63%	65%	67%	51%	45%	46%
Social welfare	8%	12%	7%	6%	10%	12%	19%
Labor	1%	1%	1%	1%	0%	1%	1%
Health	22%	20%	21%່	21%	15%	17%	15%
Housing	7%	4%	6%	6%	1%	5%	5%
Cash transfer							
(Bono Solidario)					23%	20%	14%
Total	100%	100%	100%	100%	100%	100%	100%
Total in millions							
of US\$	894	974	877	940	706	646	996
Total social spending p.c.							
(US\$)	78	83	73 ¹	77	57	51	77
Total social spending							
(% of GDP)	5.0%	5.1%	4.4%	4.8%	5.1%	4.6%	5.8%

 Table 4.5 Ecuador: Composition of Social Spending, 1995–2001

Source: Ministry of Economy-UNICEF. Data for 2001 refer to approved budget. Data for 1995–2000 refer to executed budget of central government; local governments and social security are not included.

consumption. This more equal distribution holds most strongly for some of the targeted social-protection programs, such as the *Bono Solidario* and the school breakfast program, as well as for primary education and the Farmers' Insurance system (*Seguro Campesino*). Equity effects of public spending on health, secondary and higher education, and general social security are much weaker.

The objectives of targeted poverty reduction (or social protection) programs include: (a) providing a temporary safety net for the transient poor (new poor) to prevent their physical and human-capital investment from depreciating (which would affect both future productivity growth and the probability that transient poverty might become permanent); and (b) providing a safety net for the chronically poor, whose living conditions have further deteriorated as a result of the economic crisis. The idea is to maintain the poor above a critical subsistence income level and to provide conditions conducive to poverty reduction.

Ecuador's existing social programs cannot be regarded as a unified "system" of social protection. Even though the emphasis in social spending shifted in that direction during 1998–2000, existing programs are not designed to respond to the social consequences of crisis and income insecurity. Although each program may fulfill its specific function of provid-

		Cash				
	Household	t transfers	Schoo	ol breakfast	Socia	l security
	consump-	(Bono		Pre-		General
	tion ^a	Solidario)	Primary	primary	"Campesino	o" (IESS)
Poorest 20%	8.8%	23.3%	49.1%	41.2%	40.3%	5.0%
2nd Quintile	13.5%	26.5%	26.6%	29.0%	29.0%	10.9%
3rd Quintile	16.7%	23.0%	13.7%	16.3%	13.6%	19.0%
4th Quintile	22.4%	19.2%	7.6%	8.1%	13.8%	26.7%
Richest 20%	38.6%	7.9%	3.0%	5.4%	3.3%	38.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
				Public edu	cation	
		Health				Total
	-	services	Primary	Secondary	Higher	education
Poorest 20%		19.7%	. 36.7%	15.0%	5.9%	27.4%
2nd Quintile		25.6%	29.6%	26.5%	12.6%	27.2%
3rd Quintile		20.8%	17.3%	27.1%	21.0%	20.6%
4th Quintile		20.8%	11.6%	22.8%	31.7%	16.7%
Richest 20%		13.1%	4.9%	8.6%	28.8%	8.1%
Total		100.0%	100.0%	100.0%	100.0%	100.0%

Table 4.6 Public Expenditure Incidence of Social Spending byType of Program and Per-capita Expenditure Quintiles, 1999

a. Refers to distribution of total household consumption. Also expenditure benefit distribution is per household.

Sources: INEC, ECV 1999 (taken from Vos, León, and Brborich 2001).

ing social services and other benefits to vulnerable groups, there is no coordination and integration of these programs into a unified system. One consequence is that it is impossible to assess the actual amount of protection each group of beneficiaries receives from various programs. Under the tightened fiscal constraints, it is imperative that the government evaluate the social programs implemented by various ministries and agencies, with the objective of rationalizing them and developing a coherent social-protection system. As we shall see below, postcrisis measures to strengthen the social-protection system have not brought Ecuador much closer to these objectives.

The quality of any social-protection system is proven in times of crisis. An important test is whether the programs in question can be quickly expanded (in benefits or coverage) or redirected to alleviate the social costs of the crisis. Social programs in some countries, such as unemployment insurance or public employment programs, have triggering mechanisms that automatically increase coverage when unemployment increases. Another automatic adjustment device is the increase in the number of households eligible for social benefits as a result of loss of employment and family income. Ecuador's social-protection program, summarized below in table 4.7, does not have these characteristics.

In the following paragraphs, the major programs targeted toward the groups identified in table 4.7 are evaluated in terms of their targeting efficiency and their coverage. Except for the *Bono Solidario*, which benefits almost all age and ethnic groups, this evaluation is organized by target group. As noted in table 4.7, the elderly poor and indigenous poor receive assistance mainly through the *Bono Solidario*, and there is no government program to assist those who slip temporarily below the poverty line.

ECUADOR'S FLAGSHIP POVERTY PROGRAM, THE BONO SOLIDARIO. As the first important action under its social agenda in September 1998, the Mahuad Government eliminated the indiscriminately targeted cooking-gas subsidy (for the moment), targeted the electricity subsidy to poorer consumers (instituting a cross-subsidization structure under which wealthier consumers subsidized poorer consumers), and instituted a cash-transfer program for poor families and elderly people known as the *Bono Solidario* (Presidential Decree, September 14, 1998). The *Bono Solidario* was not originally thought of as a safety net for the structurally and chronically poor but, rather, as a mechanism to compensate the poor for reductions in the subsidies. With the rapid deterioration of the economy, however, the *Bono Solidario* has become the backbone of the government's safety-net strategy. When it was introduced, the program provided the equivalent of US\$15 per month to female household heads and about half that amount to elderly people. The dollar equivalent and its purchasing power deterio-

Table 4.7 Vulnerable Groups Among the Poor and Ecuador'sSocial-Protection Programs

			Area		
Group	Nutrition	Health	Education	Cash transfers	Social infra- structure
Pregnant women and mothers	X	х		x	
The very young (0–2)	Х	Х		Х	
Preschoolers (3–5)	Х	,X	х	Х	
School-age children (6-15)	Х		х	Х	х
The elderly				Х	
Indigenous poor				Х	х
The new poor					

rated rapidly, however, on account of exchange-rate depreciation and inflation. Following various adjustments in the nominal value of the cashtransfer, the program provided US\$11.50 per month to mothers from poor families and about US\$7.00 per month to poor elderly people by early 2002.⁹ The amount provided to individual households is small. Even at the inception of the program, it cost a family double the amount they were provided just to meet the minimum caloric needs of one person for a month. Notwithstanding the small unit benefit amount, the *Bono Solidario* program rapidly became Ecuador's flagship social-protection program. With an annual expenditure of about US\$164 million for 1999, the program amounted to about 1.2 percent of Ecuador's GDP. The overall budget for the program declined slightly in 2000 and 2001 to around US\$140 million or 0.8 percent of GDP. The administrative costs of the program are relatively low, representing about 4 percent of the total annual transfers.

In early 1999 the *Bono Solidario* reached coverage of approximately 1.3 million beneficiaries, adding to the income of about 45 percent of Ecuadoran households. Of the total of beneficiaries, 80.7 percent are mothers, 18.7 percent are elderly people, and 0.6 percent are disabled.¹⁰ These beneficiary percentages remained the same throughout 1999–2001.

The targeting efficiency of the program is not very high. Using the 1999 LSMS household survey and grouping the population according to the eligibility criteria of the program, we find substantial errors of exclusion (Type I) and inclusion (Type II). The Type I error rate is 17 percent, and the Type II error rate is 33 percent of the total population of mothers and elderly (table 4.8). Expressing these targeting errors somewhat differently, the degree of undercoverage of the eligible population is 48 percent and the leakage of benefits to noneligibles is 63 percent. In fact, there are more actual recipients of the *Bono Solidario* than there are eligible, potential beneficiaries. The degree of "overcoverage" in this sense is particularly large in urban areas, where there are almost twice as many recipients as eligible beneficiaries (see table 4.9).

Targeting errors are less severe when looking at the distribution of benefits among the poor and nonpoor (defined in terms of consumption shortfall). Leakage of benefits to the nonpoor is about 35 percent, while the degree of undercoverage of the poor is 38 percent (see Vos, León, and Brborich 2001).

Despite these targeting errors, the cash transfers of the *Bono Solidario* seem strongly redistributive because they constitute 10 percent of the total income of the poorest 20 percent and barely 0.1 percent of the income of the richest segment of the population. For the extreme poor, receiving the *Bono Solidario* thus makes a difference. The *Bono Solidario* amount of US\$15 per household per month in mid-1999 covered 29 percent of the gap for the extreme poor and represented 8.4 percent of

0	······		
		Type I and II errors	
	Eligible	Noneligible	Total
Recipients	19.3%	33.4%	52.7%
-		(Inclusion error)	
Nonrecipients	1 7 .9%	29.5%	47.3%
•	(Exclusion error)		
Total	37.1%	62.9%	100.0%
		Undercoverage	
	Eligible	Noneligible	Total
Recipients	51.9%	53.1%	52.7%
Nonrecipients	48.1%		
(undercoverage)	46.9%	47.3%	
Total	100.0%	100.0%	100.0%
		Leakage	
	Eligible	Noneligible	Total
Recipients	36.6%	63.4%	<u> </u>
(leakage)	100.0%		
Nonrecipients	37.7%	62.3%	100.0%
Total	37.1%	62.9%	100.0%

Table 4.8 Ecuador: Targeting Errors of the Bono Solidario byEligibility Criteria, 1999

Sources: INEC, ECV (LSMS) 1999.

Table 4.9 Ecuador: Eligible Population and Actual Recipients of the Bono Solidario, 1999

	Eligible population	Actual recipients
Rural	434,648	506,809
Urban	353,118	610,108
Total ^a	787,766	1,116,918
Rural	55.2%	45.4%
Urban	44.8%	54.6%
Total	100.0%	100.0%

a. Total number of actual recipients as measured by the survey is less than the officially registered number in the BANRED database (1.3 million), probably because of sampling error and possibly because of the time period of the collection of survey data that were used for these estimates (January to September 1999).

Source: Vos, León, and Brborich 2001 based on data from ECV 1999.

needed food expenditures. The gap is larger now, although data are not available to estimate its magnitude with confidence.

The *Bono Solidario* is the only social-protection program directly targeted to the elderly. Because most elderly people have such low income, 68 percent of all the elderly are eligible to receive it. Nevertheless, only 28 percent actually do. The percentage of those eligible who are not covered—71 percent—is very high, far exceeding the 25 percent of elderly *Bono Solidario* beneficiaries who are in fact ineligible (that is, leakage). The program does not provide protection for the elderly with regular pension receipts who are ineligible. As discussed above, many of these elderly have become part of the new poor, but with the inadequate functioning of the social-security system and ineligibility for the *Bono Solidario* program, these elderly are left without any social protection.

An impact-evaluation study using a matching comparison method of beneficiaries and a comparable group of nonbeneficiaries of the program showed that the estimated impact on poverty reduction is negligible (Vos, León, and Brborich 2001). The cash-transfer benefits appear to be offset by negative labor supply responses of beneficiary households (particularly those closer to the poverty line). A more positive impact has been that school enrollment among beneficiaries is higher than in the comparison group (again more strongly among the moderate poor). Hence, without the program, educational outcomes would have deteriorated. This finding is important in light of the ongoing policy debate in Ecuador about the effectiveness of the *Bono Solidario* and whether it would be better complemented, or even replaced by, cash transfers that are directly conditioned on investment in human capital. In fact, as discussed below, a new cash-transfer program conditioned to school attendance—the *Beca Escolar*—was introduced in 2001.

In sum, Ecuador's cash-transfer program does not comply well with its eligibility and targeting criteria. However, on the whole the program reaches the poor reasonably well. The program reaches a large share of Ecuadoran households, but is not very responsive to crisis situations. It has a fixed budget constraint, which does not allow enhanced coverage during worsening economic conditions, and there have been difficulties in maintaining the purchasing power of the transfer. The program's impact on poverty has been negligible, but it appears to give some protection to human development for the moderate poor because it keeps children in school longer and some protection for the extreme poor in the form of avoiding stronger declines in food consumption.

PROGRAMS TARGETED TO PREGNANT WOMEN AND CHILDREN UNDER AGE TWO YEARS. The target group of pregnant women and young children benefits mainly from programs providing health and nutrition services. The Solidarity Health Service program (*Atención Solidaria en Salud*) is offered to those receiving the *Bono Solidario* and includes maternal and infant health care. This program helps cover charges for medicines and other costs; medical services for poor mothers are otherwise provided free. In a similar fashion, the Free Maternity program (*Maternidad Gratuita*), established by law during the crisis, provides universal coverage for pregnant women who use Health Ministry facilities. This program covers prenatal care, nonstandard birth procedures, treatment for sexually transmitted diseases and family violence, and cancer-detection tests. This program was only initiated in 1999, with funding from the public Solidarity Fund (a public fund fed by proceeds of privatization and several other sources), and it still lacks adequate operating procedures that are clearly understood by providers (hospitals or health centers).

In addition to these programs, three others provide important benefits to the poor. The Health Ministry's National Micronutrient Program (*Programa Nacional de Micronutrientes*) aims to reduce anemia by providing iron and vitamin A supplements for children under age five years, pregnant women, and breast-feeding mothers. A second program is the PACMI. The objective of the PACMI is to satisfy the caloric requirements of the poor by providing a monthly food ration to families with underweight pregnant mothers or malnourished children. With support from the World Food Program, PACMI was phased out in 2000 and substituted with a new nutritional program, PANN, aimed at the same target group as PACMI. A third program is the immunization program, which aims to provide universal immunization coverage of pregnant women and children under 12 years old. This program has been operating for 33 years and was recently expanded to include such immunizations as Hepatitis B, rubella, and parotiditis.

These programs can be improved in terms of targeting (especially *Maternidad Gratuita*), but the largest constraint on the effectiveness of health-care delivery to the poor is low coverage (for example, the PACMI/PANN covers only 5 percent of the needs of the targeted beneficiaries) and inadequate funding. Programs that exist in principle—such as the Solidarity Health Service—have not yet been implemented because of inadequate funding. Indeed, poor people claim in interviews that the quality of services provided them, especially provision of medicines, has deteriorated during the crisis (CEPLAES 1999). Lack of access to health-care centers, especially in rural areas, and the lack of technical health personnel further constrain effectiveness.

The Micronutrient Program is directed to the population that is serviced by the Health Ministry, and so covers a large target population (about 500,000 individuals), but it fails to reach the 40 percent of the poor who report that they do not use public-health facilities. When this pro-

gram began to receive funding via a World Bank-financed project, targeting criteria were added on the basis of morbidity, mortality, and poverty rates using canton-level information. On the other hand, the PACMI is directed to population groups with nutritional deficiencies, which reduces the target population (to 300,000 individuals), but has very modest results in coverage (about 5 percent, or 15,000 individuals). Targeting is geographic, with criteria for inclusion of a canton being the incidence of poverty and availability of transportation. This program is well-targeted, providing 73 percent of all benefits to the bottom two quintiles and 61 percent to the bottom quintile alone. In its new reincarnation as PANN, the program will reach the same target group and will use a similar targeting mechanism.

PROGRAMS FOR CHILDREN UNDER AGE SIX YEARS. Ecuador targets nutritional supplements and a variety of other early childhood development (ECD) services to children under age six years. In addition, several public-health programs—immunizations, malaria control, and tuberculosis treatment—benefit this age group, although only the immunization program is particularly targeted to young children.

In addition to nutrition, these ECD services include day care, preschool education, parental childcare training, and health services. These services are typically delivered jointly (for example, nutrition supplements with parental childcare education) by several agencies—the Ministry of Health, the Ministry of Social Welfare, and the *Instituto Nacional del Niño y la Familia* (National Institute of the Child and Family, INNFA), in addition to municipalities, nongovernmental organizations (NGOs), and the private sector. The largest programs are listed in table 4.10. The multiplicity of agencies providing overlapping services, combined with the relatively small scale of the programs, translates into excessive administrative costs, inadequate planning, and weak management controls. Unit costs of the two largest programs are high, yet the delivery centers themselves are underfunded and often depend in part on community financing. No evaluations have been carried out to compare the impacts of the various programs.

A new program (as of 1999), *Nuestro Niños*, financed by the IDB, offers the potential both to increase ECD coverage rapidly and to improve coordination and management. Rather than provide services directly, *Nuestros Niños* provides financing on a competitive basis to fund proposed improvements and expansions from all providers—governments, NGOs, and private entities. The cost-effectiveness and targeting selection criteria used to evaluate proposals, combined with improved monitoring of those programs financed through this mechanism, provide strong incentives for increased efficiency and better coordination of the sector.

Program	Coverage ^a 1999	Coverage ^a 2000	Targeting mechanism	Targeting	Unit cost
Child Development Program (PDI)	38,002 (4%)	43,586 (4%)	Geographic—high inci- dence of poverty and children under six years	65% of beneficiaries in 1st and 2nd quintiles	US\$211 per year
Child Rescue Operation (ORI)	50,296 (5%)	53,469 (4%)	Proportional by province; poverty map by cantons	41% of beneficiaries in 1st and 2nd quintiles	US\$140 per year
Alternative Preschool (PRONEPE)	18,027 (5%)	18,027 (5%)	None	NA	US\$39 per year
Maternal-Infant Program (PACMI); Food and Nutrition program (PANN) from 2000 ^b	14,930 (5%)	14,930 (5%)	Family Poverty Index (SISVAN) and self- selection (those who use Public Health Centers)	74% of beneficiaries in 1st and 2nd quintiles	US\$25 per year
Immunizations	NAc	NAc	None (universal)	78–100% of universe depending on province	US\$2.30 per beneficiary

Table 4.10	Ecuador:	Coverage and	Targeting:	Programs f	or Children	under Six	Years

a. Coverage in absolute number of beneficiaries. Coverage as percentage of target population is in parentheses.

b. Coverage for 2000 still refers to the PACMI program. Data for PANN not available. Targeting mechanism for PANN is similar to that of PACMI.

c. Health Ministry estimates suggest that coverage is around 90 percent on average. Data from the LSMS surveys suggest much lower coverage. For children in age group 6–12 months, 95 percent received complete vaccination dose of BCG, 65 percent of DPT, 55 percent of polio, and 53 percent of measles. Overall coverage would be only 65 percent. At this level of detail, however, the LSMS data are subject to possibly substantial sampling error.

Source: World Bank 2000, Vos and others 2000, and SIISE estimates.

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Through *Nuestros Niños*, ECD coverage should increase rapidly, but as of the end of 2000, such a result was not yet visible.

Table 4.10 shows that the major programs for children under age six years are reasonably well targeted, with most beneficiaries being in the bottom two consumption quintiles. Coverage is a more important concern than targeting. With statistics showing that 39 percent of children in the bottom consumption quintile are malnourished, this group has considerably greater need for programs that meet their basic developmental needs than do children in the top quintile, but the coverage rate of thse programs is only one-third that of the top quintile.

PROGRAMS FOR SCHOOL-AGE CHILDREN. The Ecuadoran government provides nutritional supplements, educational improvements, scholarships to reduce child labor, and health services targeted to the school-age population. Since the school is the most effective means of reaching schoolage children, at least for children of primary school age, the Ministry of Education is the most important program provider. The coverage and targeting of these programs is reported in table 4.11. The only program with high coverage and good targeting is the school-snack program. This program was successfully expanded during the crisis to cover 83 percent of school-age children in 2000, up from only 45 percent in 1998/99. More than three-quarters of beneficiaries come from the poorest 40 percent of the quintile distribution. The program initially consisted of a breakfast snack, but beneficiaries now either receive nutritional complements at breakfast or at lunchtime, or both in some cases. The program expansion has been made possible with support of the World Food Program. There has been no formal impact evaluation of the program. The breakfast snack provides 272 Kcal per day and the lunch snack 600 Kcal per day, respectively, about 15 and 33 percent of daily nutritional requirements. The program is rated to positively influence school attendance and nutritional intake, but its precise impact is unclear. It is also not known whether school meals have acted as actual nutritional supplements for most beneficiaries or replaced meals at home.

Both the large projects intended to improve education quality— PROMECEB in rural areas and EB/PRODEC in urban areas—have also been well targeted, but their coverage has been limited and their benefits have chiefly been in the improvement of infrastructure and quality of education, rather than nutrition. The educational reform program for urban areas is financed in part with World Bank loans, but was being phased out in 2000/2001. A second phase, under the new name MOD-ERISE, was to start with Japanese aid resources in 2002. The rural program is funded with loans from the IDB, and has operated from 2000 onwards under the name *Redes Amigas*. Both programs are of utmost

Program	Coverage ^a 1999	Coverage ^a 2000	Targeting mechanism	Targeting	Unit cost
School Meals	648,600 (45% of school- age children)	128,469 (16% of rural students)	School map and poverty map (SISVAN) to iden- tify <i>parroquias</i> with high malnutrition	76% of beneficiaries in 1st and 2nd quintile	US\$0.13 per snack day; US\$0.25 per lunch/day
Rural education PROMECEB/ Redes Amigas)	128,469 (16% of rural students)	NA	School map (PROMECEB); self- selection (<i>Redes Amigas</i>)	58% of beneficiaries in poorest cantons	US\$145/student per year
Urban Education (EB/PRODEC and, from 2002, MODERISE)	198,065 (17% of urban marginal students)	NA	School map	Low inclusion error	US\$108 per student per year
Child Labor (Niños Trabajadores)	12,335 (8% of target group)	NA	Geographic — largest urban centers; census of working children	NA	US\$45/child per year; US\$200 per child per year for children in dangerous occupations
Cash transfer (<i>Beca Escolar</i>)	-	_	SELBEN poverty map (geographic) and means testing in selected <i>parroquías</i> with highest basic needs shortfall.	In principle to poorest (pilot started second half of 2001)	US\$5 per child per month with max. of two beneficiaries per household

Table 4.11	Ecuador:	Coverage and	Targeting	: Programs	for So	chool-Age	Children
AND AVAA					-0. 0.		CALLS OLD OAL

a. Coverage in absolute number of beneficiaries. Coverage as percentage of target population is in parentheses. *Sources:* World Bank 2000, Vos and others 2000, and SIISE estimates.

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importance to reduce dropout rates and improve educational quality. Qualitative, internal evaluations suggest that the impact of these programs has been moderately positive. Yet, their limited coverage, principal focus on improving the quality of school *inputs*, and large turnover of program staff, imply that the impact overall probably has been rather limited. Also, for the same reasons, the programs are not designed as a response to crisis situations and also do not address the problem of access to and demand for education services that were exacerbated as a consequence of the economic crisis. Finally, the child-labor program run by INNFA appears to be well targeted and relatively inexpensive, but its impact has not yet been evaluated.

In 2001, the government introduced a new cash-transfer program conditioned to school attendance, the Beca Escolar. The program is modeled after experiences elsewhere, such as similar programs in Brazil, Honduras, and Mexico. The program was the subject of policy discussions in early 1999, but disagreement within the Ecuadoran government and with multilateral agencies (World Bank, IDB) about the pertinence and appropriate design of the program led to its delayed introduction. Hence, the program did not constitute an immediate safety net during the crisis. The program started in 2001 with a pilot of around 22,000 beneficiaries (children between 6 and 14 years old) and should reach about 250,000 beneficiaries in primary school by the end of 2002. This target population is about 50 percent of the extremely poor and 20 percent of the poor children in the 6-14 age group. The targeting mechanism is a combination of geographical targeting based on composite poverty characteristics and individual means testing in (extreme) poor areas selected through the geographical targeting mechanism. The targeting therefore differs from that used for the other cash-transfer program, the Bono Solidario. A new information system called SELBEN is being set up to optimize targeting efficiency and allow for impact assessment and monitoring of beneficiaries over time. Beneficiaries are selected with preidentified poor parroquías (communities, the lowest administrative unit of Ecuador's political system) based on an extreme poverty (destitution) index (SELBEN index). Each beneficiary household receives a cash transfer of US\$5 per month, per child, subject to a proof of school attendance (at least 90 percent of regular class time). The school director provides the transfers, and households may receive transfers for up to two children per family.

The impact evaluation of the *Bono Solidario* suggests that the size of transfer could be sufficient to ensure permanence in the educational system of children of poor families, despite the fact that the size of the transfer is below the direct and indirect costs of schooling in the first two quintiles (see above). That evaluation also suggested, however, that the

positive impact on school attendance of the Bono Solidario is more significant for the moderately poor than for the extremely poor. If this conclusion is correct, the Beca Escolar could become a useful complement to the Bono Solidario program, because the extreme poor form the main target group of the scholarship program. Nonetheless, it is likely to be difficult to probe this in practice, since the targeting mechanisms between the two programs differ, and matching of relevant information for both groups of beneficiaries may turn out to be difficult. Hence, it may be difficult in practice to fully assess the joint impact of both programs. The same problem applies to combining information on these programs with that of the school meals program. The Beca Escolar thus adds a new instrument, which can help increase school attendance and reduce human-development losses during crisis periods. At the same time, one cannot but observe that the introduction of the new program is typical of Ecuador's overall design of its social safety net: a large set of large and small programs that are not well coordinated, with both gaps and duplications, and whose joint impact is difficult to assess and monitor.

SOCIAL INFRASTRUCTURE. The Ecuadoran government runs several programs that simultaneously generate temporary employment and provide social benefits to the poor, including the indigenous poor. The FISE finances community social-infrastructure projects. Special entities, COPEFEN and CORPECUADOR, have been created for the reconstruction and rehabilitation of infrastructure affected by the 1998 El Niño. There are also infrastructure components within the programs of the Ministries of Education, Health, and Social Welfare that could contribute to employment generation. Another obvious source of public infrastructure investment is the Ministry of Public Works, although its work tends to be large-scale and more physical rather than human-capital-intensive. The Ministry of Urban Development and Housing also invests significant amounts in public-housing construction. Finally, municipal governments carry out infrastructure projects that improve water, sanitation, local roads, and other facilities that may benefit (but are rarely targeted to) the poor.

Although these programs have potential for generating employment for the poor, by 2001 the government only had the beginning of a more comprehensive strategy to organize these programs to explicitly address the objective of public employment generation. The Employment Plan 2001–2006 envisages a broad range of actions, partly building on the institutional infrastructure of existing programs to be used for expanding public employment in the short run (CIE 2001). A special interministerial committee was set up in early 2001 to coordinate actions to enhance employment creation through existing public investment plans in infrastructure (roads, housing, FISE), as well as through several new schemes of microcredits and vocational training.

6. Future Prospects

A government strategy to offset the effects of the crisis would need three basic components: (a) protection of basic and targeted public services, (b) income or consumption support for vulnerable groups, and (c) new or expanded programs to prevent the crisis from doing permanent and irreparable harm to the poor. Elements of a social-protection strategy already exist in Ecuador. Ecuador's record to date on expenditure protection is mixed, however. Some targeted programs have been protected, while basic health and education services have not.

The Bono Solidario should be converted into an efficient income-assistance program with higher benefit levels targeted on the very poor, with mechanisms to increase coverage rapidly in times of crisis. However, the large number of beneficiaries in the program, the depth and length of the crisis, and the high costs of raising benefit levels have made it fiscally and politically difficult to make the required adjustments in the short term. In practice, the budget of the program has declined since the first year of its introduction (from 1.3 to 0.8 percent of GDP between 1999 and 2001) and further cuts were announced for the 2002 budget. An alternative would be to improve the targeting of the program and to introduce tightly targeted programs that complement and build on the Bono Solidario. These complementary programs would provide cash transfers tied to changes in household behaviors to enhance protection of poor children. The programs could be implemented during the current crisis and downsized or eliminated afterwards, depending on evaluations of their effects on the welfare of the poor.

The *Beca Escolar* has been introduced as a cash transfer tied to enhanced protection of school-age children. As analyzed earlier, its targeting is not closely tied to the *Bono Solidario*, although its intended effects could in part duplicate the observed positive impact of the *Bono Solidario* in terms of raising school attendance. Another complement to the *Bono Solidario* is a microcredit program to be introduced in 2002. This program is targeted at beneficiaries of the *Bono Solidario* and other extremely poor beneficiaries to be selected through the SELBEN information system. These credits should support the development of household firms and thus the income-earning capacity of the poor. Credits are to be supplied through a new network of financial intermediaries. It is hoped the microcredit scheme will induce increases in productive investment and, over time, reduce dependence of beneficiary families on the *Bono Solidario*. The projected program size (84,000 beneficiary households by 2004), is relatively small, however, and will provide access to credits to less than 10 percent of *Bono Solidario* beneficiaries. Another complement to the *Bono Solidario* could be an additional cash transfer conditional on routine health clinic visits to protect the health of the most vulnerable of the poor—pregnant and lactating women and children under two years of age. This option, however, has not been pursued.

Another option for providing income support would be to introduce a temporary public-employment program. This type of program would be difficult to design and implement quickly, especially given the fragile financial conditions of the municipal governments and NGOs that would be expected to provide counterpart financing. For the medium term, however, a temporary public-employment program could be designed "to be taken from the shelf" in the event of a new crisis. For the short term, a practical strategy for generating employment would be to enhance activities of the existing FISE and several existing social infrastructure projects to prioritize labor-intensive projects, increase the share of costs financed by the central government, and modify procurement and other regulations to facilitate implementation.

Several policy options could be considered to provide income support, prevent irreversible physical and mental losses among children under two years of age, and to limit losses in human capital. These policy options would be targeted to especially vulnerable groups. In addition, short- and medium-term strategies could be developed to improve social protection.

In developing strategies to respond to crises, governments have several options. One option is simply to protect public spending on basic services and on services targeted to the poor, to ensure that the coverage and quality of these services does not deteriorate and thereby exacerbate the adverse effects of the crisis on the poor. Another option is to provide a safety net for those most affected by the crisis to ensure that their consumption does not fall below some minimum level. Safety nets should be easily and quickly implementable, able to provide benefits quickly, and be temporary and counter-cyclical, phasing out as the crisis recedes. Argentina's temporary public-employment program, Trabajar, is an example of a safety-net program that meets these standards. A third option is to respond to the crisis by expanding existing programs or introducing new ones to prevent irreparable harm to the poor. These programs may also address structural causes of poverty and thus be part of a longer-term overall poverty-alleviation strategy as well. Increasing efforts at poverty alleviation also serve to ameliorate the effects of the crisis on the poor. An example of this third option would be introduction of a new or expanded school-lunch program, which would be expected to continue past the crisis.

Few programs are pure safety-net or pure poverty-alleviation in practice. Temporary employment programs may include training to improve employability of unskilled laborers. Poverty-alleviation efforts, such as new nutrition programs, also provide crisis relief in the form of increased consumption. In recent years, many countries have implemented new hybrid programs combining crisis relief and poverty alleviation, including Mexico's *Progresa*, Honduras's PRAF, and Brazil's *Bolsa Escolar*. These programs provide cash transfers or vouchers conditional on families enrolling children in school or regularly taking children to health-care clinics.

Options for Ecuador's crisis-response strategy include initiatives that (a) ensure that basic and targeted services continue to function, (b) improve income support for vulnerable groups, (c) prevent irreversible losses in physical and mental development, and (d) prevent irreversible losses in human capital. The strategy should also comprise macroeconomic policy considerations (including wage policies) and reforms to the social-security system.

PROTECT SPENDING AND REDUCE POORLY TARGETED PROGRAMS. Ensuring that basic and targeted services continue to function typically means protecting precrisis expenditure levels. For a country such as Ecuador, which has a fiscal crisis, high debt service, and-with dollarization-diminished availability of discretionary resources, it is difficult to protect all programs that benefit the poor. Top priority should be given to programs that provide benefits targeted to the poor, especially the most vulnerable groups, and to those programs that provide important public goods to society at large (for example, malaria control). Secondary priority should go to programs providing untargeted basic services, and lowest priority should go to nonbasic services that disproportionately benefit the nonpoor. In the case of Ecuador, such a strategy would imply prioritizing protection of expenditure on ECD programs (Operación Rescate Infantil, ORI, of the Ministry of Social Affairs, Programa de Desarrollo Infantil, PDI, of INNFA, and Nuestros Niños) targeted to pregnant mothers and young children and programs targeted to poor families with school-age children (Bono Solidario, Beca Escolar, school meals, child labor), as well as on programs with large externalities (immunizations, malaria control). To a large extent, since 1998 Ecuador has set its priorities in just this way. The speed of response, however, has been rather slow for political and institutional reasons, and the coherence among the programs does not seem to have been strengthened.

Ecuador has adequately protected those programs providing basic, untargeted services, such as basic education and basic health. Although the government is no longer deferring the pay of civil servants, rising salary arrears in much of 1999 resulted in major disruptions in the delivery of basic services to the poor and nonpoor alike. Furthermore, at the same time that delivery of basic social services was being cut, untargeted subsidies (reemergence of energy price subsidies) were rising to a significant percentage of GDP. Ecuador's experience has provided convincing evidence of the need to protect the earnings of civil servants who provide basic social services.

IMPROVE INCOME SUPPORT FOR VULNERABLE GROUPS. Although the Bono Solidario was not originally designed as an income-maintenance program, the crisis has led beneficiaries to view it as such. The analysis above revealed several deficiencies in the Bono Solidario as an income-maintenance program: (a) a high percentage of the eligible poor do not receive it, especially the elderly and rural poor; (b) a somewhat smaller percentage of the ineligible population do in fact receive it; and (c) its value is small relative to the extreme poverty line and relative to the needs of the extreme poor. Table 4.12 below shows estimates for the costs of three options to improve the Bono Solidario's targeting and impact. Option 1 would extend coverage to all the eligible poor without making any changes in targeting. Option 2 would not change the overall expenditure but would target it to the subindigent poor (that is, households with no more than half the maximum eligible income level of US\$100). The result of Option 2 would be an increase in the monthly payment to \$36 per household. Option 3 would increase the amount of the Bono Solidario stipend to \$36 for the subindigent poor and, also, retain all current beneficiaries at the monthly benefit levels that existed as of April 1999.

The size of the *Bono Solidario* program in terms of number of beneficiaries means that any significant changes in coverage, targeting, or ben-

 Table 4.12 Ecuador: The Annual Cost of Alternative Coverage,

 Level, and Targeting Changes in the Bono Solidario (in US\$)

Option	Description	Total
1	Extend coverage to all eligible poor	\$333m
2	Target Bono Solidario only to the subindigent poor ^a	\$212m
3	More than double benefit levels to eligible subindigent poor and retain existing benefit levels for the	
	nonsubindigent	\$377m

a. Increase Bono Solidario level to 36/month for mothers and to US18/month for the elderly.

Source: World Bank 2000.

efit levels yield large changes in the annual expenditure of the program. Improving targeting and dropping large numbers of ineligible beneficiaries from the program in a time of economic crisis is politically difficult. On the other hand, simply increasing coverage and benefit levels is very costly. The described options are all well above the actual budget for the *Bono Solidario* in 2001 and 2002.

Given the time and political capital required to adjust the targeting of the *Bono Solidario*, the best short-term option may be simply to maintain its real value, while designing the changes that should occur in the medium term. Although the preferred medium-term option depends on what other changes are made in government programs benefiting and protecting the poor, serious consideration should be given to restricting coverage to the subindigent poor, raising their benefit levels, and improving targeting to reduce leakage of benefits to the ineligible. Given the conclusions regarding the impact of the *Bono Solidario* on school enrollment among the moderate poor, however, such re-targeting should only be considered in conjunction with the envisaged target population of the *Beca Escolar*.

IMPLEMENT WORKFARE. An alternative to cash transfers would be a publicemployment program that pays below market wages and targets through self-selection. One model of such a program is Argentina's aforementioned Trabajar program, introduced in 1997 after the national rate of unemployment reached 17 percent and the unemployment rate of the bottom decile reached 40 percent, a situation not dissimilar from that in Ecuador. The Trabajar program invites local community groups (municipalities and/or NGOs) to submit project proposals, which are evaluated by the program in terms of location (priority is given to poorer geographic areas), public benefits resulting from the project, and the capacity of the sponsoring agency to implement the proposed project.¹¹ Argentina's federal government finances all labor costs, while sponsoring agencies finance all other project costs. To use self-targeting, the program set the wage rate at two-thirds of the average wage rate for the poorest decile in the Buenos Aires metropolitan region. The project was under implementation six months after the beginning of planning. Eighty percent of the participating workers in *Trabajar* came from the bottom quintile.

A workfare program for Ecuador could have a design similar to *Trabajar*, with the central government financing all labor costs, municipalities and NGOs financing nonlabor costs, and targeting done via self-selection with a wage rate set at half the minimum wage rate (US\$120 as of 2002) for the lowest quintile. Assuming the program would pay a wage of US\$60 per month and would cover enough workers (100,000) to reduce the urban unemployment rate by 1 percentage point, its annual cost
would be approximately US\$ 362 million (2.0 percent of 2001 GDP), with US\$72 million paid in salaries to workers.

Although the cost of workfare is an important deterrent to its adoption, two other factors may be even more important constraints. First, unlike Argentina, Ecuador has no prior experience implementing a national program of this scope and has a proportionally much larger informal sector. It will take time to build up capacity to run such programs, and the typical self-targeting nature of the program could be less effective in the presence of a large number of people in underemployment and insecure self-employment activities. Second, partly because of accumulated arrears in central-government transfers owed them, municipalities lack the capacity to finance nonlabor costs. Therefore, in the short term at least, the central government would need to pay a very high percentage of the total costs of the program. Third, aside from the large, urban centers of Cuenca, Guayaquil, and Quito, municipal governments have limited experience in managing social projects.

IMPROVE SOCIAL INFRASTRUCTURE PROGRAMS. A short-term option available to the government to generate employment is to provide financing and regulatory changes to permit more rapid execution of existing social infrastructure programs managed by the FISE, CORPECUADOR, and various ministries. The government also could reduce arrears in transfers to the municipalities, which are required to spend a significant share (about one-third) of their revenues on capital formation. If implemented, these various programs could generate as many as 28,000 temporary new jobs annually. Ecuador's experience to date with the FISE, however, indicates that reaching this target might be difficult (Vos and others 2000)

The government opted in 2001 for a more comprehensive approach to employment generation through public investment programs, social housing projects, the FISE, as well as through microcredits to small enterprises and the enhancement of vocational training programs. Much of this Employment Plan (see section 5) will be embedded in existing or planned actions, but will be coordinated by an Interministerial Commission for Employment with the involvement of local governments and NGOs. The plan envisages generating a total of 2 million new and improved jobs between 2001 and 2006 at a total budget of US\$524 million. This employment target seems rather optimistic and ambitious given experiences elsewhere and the institutional constraints indicated above. Yet the broader framework could be a meaningful start. The Employment Plan's responsiveness to short-term employment problems caused by shocks and crises is less clear. Greater incentives for employment generation through the FISE, road construction and maintenance, and so on, could constitute elements for short-term employment creation.

PREVENT IRREVERSIBLE LOSSES IN PHYSICAL AND MENTAL DEVELOPMENT. Ecuador's current programs to address the nutritional and health needs of poor pregnant women and mothers—mainly PACMI (now PANN) are woefully inadequate, addressing only about 5 percent of the malnourished target group and only 4 percent of women and mothers in the bottom quintile. Although the guarantee of free maternity care may improve this situation for some, in and of itself it does not ensure that the poor will use public health-care facilities, which are sometimes costly to access; nor does it provide additional income that could be used to purchase nutritional supplements.

One proposal, early on in the crisis, was to address this unmet critical need by providing a financial incentive in the form of a nutritional voucher or cash transfer for pregnant women and women with children aged 0 to 24 months to enable them to regularly visit public or private health-care facilities (Vos and others 2000, World Bank 2000). Patterned loosely after Honduras's PRAF program, the financial incentive would take the form of a cash transfer to eligible mothers who visit public health posts for regular checkups and well-baby care. Evidence from surveys of how mothers use the *Bono Solidario* suggests that a high percentage of the transfer would go to food (León 1999). This evidence could suggest as well, however, that the existing cash-transfer program, if targeted better to the extreme poor, might achieve an impact similar to that of a nutritional voucher and avoid the proliferation of a large number of cash-transfer programs. In any case, the idea of a nutritional voucher never received much political support and is no longer on the social policy agenda.

ENSURE SCHOOL ATTENDANCE AND ENROLLMENT. Like Brazil, Honduras, and Mexico, Ecuador introduced a cash-transfer program to poor families to keep their children enrolled in schools. The Beca Escolar was introduced in late 2001 when the economy was back in recovery and some of the crisis-induced poverty increase had been reversed. In the meantime, the unconditional cash-transfer program (the Bono Solidario) apparently served, unintentionally, to protect school attendance among the poor. The Beca Escolar could take over this role, possibly with greater effectiveness and targeting efficiency. However, as the evaluation of the impact of the Bono Solidario suggested, it may well be that in the short run, the role of the Beca Escolar should be complementary to the Bono Solidario in order to protect the extreme poor. If, however, the targeting of the Bono Solidario were improved and focused more on reaching the poorest people, it could result in reduced protection of school attendance among the moderate poor. Consequently, there is a need for much closer coordination of the targeting mechanisms of both programs. The Beca Escolar is targeted at the poor population in primary schooling age (6–14 years). If it proves successful, expansion of the coverage of the program to also protect secondary school attendance could be considered. As with the *Bono Solidario*, however, fiscal constraints could impede sufficient expansion of the *Beca Escolar*, particularly in times of crisis when coverage and benefit levels may need to be increased. Financial mechanisms, such as a fiscal revenue stabilization fund (including oil revenues), should be put in place that could protect (and expand) targeted social spending during economic downswings.

ENSURE QUALITY OF INSTRUCTION. One hypothesis as to why parents fail to send their children to school is that they do not perceive that schooling has a high payoff. One contributing factor to this perception is the low quality of schooling itself. Teachers who have to travel to rural schools from urban areas are frequently absent on Mondays and Fridays. Teachers have inadequate teaching materials, and children often lack the basic required textbooks. In short, both the effective quantity of instructional time and the quality of that instructional time are often lacking, resulting in children not learning adequately. A school scholarship program that ensures that children attend school will do them little service if issues of instructional time and the quality of instruction are not also addressed.

The *Beca Escolar* should help to increase school attendance (presuming any design would require students to attend as well as to enroll in schools). According to the 1998 ECV, children age 6 to 11 years and 12 to 14 years in the bottom two consumption quintiles fail to attend schools a total of 4.6 and 5.8 days, respectively, per month. However, only 1.3 and 1.6 days, respectively, are missed for reasons under household control. The two most important reasons for nonattendance that lie outside the control of the household are weather and nonattendance by the teacher. While little can be done about the weather, reduced teacher absenteeism could significantly increase school attendance and, thus, learning by children.

Financial incentives to ensure teacher attendance in difficult areas (either rural areas where commuting is difficult or marginal urban areas where teaching conditions are difficult) could reduce the number of school days missed by students and, as a result, raise learning and school productivity. Evidence from other countries (for example, Mexico, El Salvador) suggests that communities can effectively monitor teacher attendance, and teachers respond strongly to a financial incentive. The design of the *Beca Escolar* does not explicitly consider such supply-side considerations. Also, no explicit link has been made with the programs of educational reform (*Redes Amigas* and MODERISE).

In short, school scholarships can improve attendance, but they cannot ensure the quality of schooling. Coordination with educational reform programs needs to be pursued to ensure that the demand subsidy does not lose effectiveness because of a supply-side failure.

7. Strategic Options

Like many other developing countries, Ecuador faces an uncertain future. Crises of different origins—external economic shocks, natural disasters, policy mistakes—will continue to occur. With fewer degrees of freedom for cushioning shocks through stabilization policies in a dollarized economy, shocks will have a stronger impact on production, employment, and welfare of the population than before. Thus, it is imperative that the government have a coherent strategy to protect the most vulnerable groups in society and to prevent permanent harm to those likely to be most affected. This strategy should establish clear priorities for expenditure protection and also should include programs that could be quickly introduced or expanded. Important elements of that strategy already exist in Ecuador; however, it still lacks adequate coverage, coordination between the components, and adequate flexibility to respond to crisis conditions.

Table 4.13 below summarizes (a) the elements of the government's current strategy, (b) changes that might be introduced in the short term to improve protection, and (c) changes that might be introduced in the medium term to improve protection against future crises and to sustain current efforts.

Short-term improvements to social protection could include implementing a geographically targeted Bono Materno-Infantil, introducing a Beca Escolar and a minimum package of school supplies, and providing financing to implement and enhance existing civil-works programs. In the medium term, coverage of the Bono Materno-Infantil would be increased using proxy means tests for targeting, the Beca Escolar program would be expanded to include lower-secondary students, and the coverage of the elderly by the Bono Solidario would be significantly improved. In addition, the Bono Solidario itself would be adjusted to allow higher benefit levels to be paid to a smaller number of beneficiaries, at no net increase in total spending. The Employment Plan provides useful starting points for greater stimulus for remunerative employment generation in the short and medium run. The plan is unlikely to reach its ambitious employment targets given existing institutional weaknesses. Moreover, overall economic growth is not yet strong enough to lead to the booming small-scale enterprise activity anticipated to result from the credit scheme. Nonetheless, if properly funded, the envisaged enhancement of public investment in physical and social infrastructure and the new criteria for employment generation through such programs could provide a basis for greater responsiveness to cushion the social effects of job losses during crises.

Target group	Current strategy as implemented	Short-term additions to the current strategy	Medium-term improvements
Pregnant women, mothers, Children < 2 years	Basic package of health services including key public health interventions (immunizations, micronutrients) and basic clinical services in poorest parroquías.	Improve access to and quality of health of basic clinical services in poorest parroquías; introduce Bono Materno- Infantil (BMI), targeted to poorest parroquías.	Improve public health organi- zation and financing to sus- tain improved services to poor; increase coverage of BMI using proxy means test.
Children 3–5 years	Increase coverage of ECD programs, basic package of health services.	Increase rate of growth of coverage of ECD; improve access to basic clinical health services.	Ensure ECD coverage reaches rural poor.
School-age children	Maintain very small child labor scholarship program and high coverage of school meals; implement quality improvements in primary schools in poor areas. Introduction of broader primary school fellowships program (<i>Beca</i> <i>Escolar</i>) targeted at the extreme poor in 2001.	Ensure improvements in supply and quality of educational services, giving initial priority to areas with concen- tration of beneficiaries of <i>Beca Escolar</i> . Seek coordination with existing programs for educational reform.	Expand Beca Escolar to sec- ondary level: provide school materials_to primary and sec- ondary schools in areas with a high incidence of extreme poverty; improve education organization and financing to broaden and sustain quality improvements.
Elderly	Maintain eligibility for Bono Solidario.	Increase real value of <i>Bono Solidario</i> to elderly. Consider expansion of eligibility to elderly with regular pension incomes, but below poverty line (new poor).	Reduce targeting errors of <i>Bono Solidario</i> to elderly. Reform social-security system.

 Table 4.13 Strategies for Social Protection

(Table continues on the following page.)

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Target group	Current strategy as implemented	Short-term additions to the current strategy	Medium-term improvements
New poor	None.	Create public employment by implementing existing civil-works programs. Reduce vulnerability through vocational training and targeted credit supplies to labor-intensive production activities. Employment Plan 2001-2006 provides framework.	Improve criteria and ensure funding mechanisms for (enhanced) civil works invest- ment for short-term employ- ment generation during crisis periods. Reform social- security system.
All poor	Bono Solidario.	Maintain real value of the Bono Solidario.	Re-target <i>Bono Solidario</i> using proxy means test; reduce coverage and increase benefit level.
Expenditure protection for broad-based social services.	None; permits serious erosion in service quality.	Ensure timely pay of essential civil servants and ensure minimum level of nonteacher inputs.	Protect key nonpersonnel expenditures. Develop macro- strategy of fiscal stabilization fund to smooth and protect social expenditures over time.

Table 4.13 (continued)

Improvements in social-protection programs, several of which could receive external financing, would almost assuredly prove unsustainable in the medium to long term in the absence of reforms in the organization, financing, and delivery of social services. In general, these reforms would entail changing the way public expenditures are managed, delegating decisionmaking and granting more managerial discretion over personnel and budgets at the point of service delivery; developing alternative service delivery arrangements, such as contracts with NGOs and the private sector; and developing the capacity to monitor and evaluate programs and policies.

Institutional stability is another prerequisite of more effective social policies and social protection. Since 1988, successive governments in Ecuador have tried to establish a coordination platform within the cabinet and with associated entities, the Secretaría Técnica del Frente Social (STFS). This entity has been created and recreated in many incarnations since then. During the crisis in 1999 it was first abolished, then recreated as a new body, and subsequently made part of a super-ministry of Human Development, integrating all major social-sector ministries. This new institutional structure was abandoned again within a year, and the STFS was reinstated in August of 2000. While some technical capacity to support policy design has been built up, the institutional setting is still too weakly defined to play an effective role in strengthening the greatly needed coordination of social policies and monitoring of their impact. In July 2000, the government created the Social Protection Program as a new semiautonomous institution linked to the Ministry of Social Affairs. This program is to administer all types of social-protection programs and currently manages the Bono Solidario, the Beca Escolar, and the microcredit program. It is unclear how this new institution will coordinate with other areas of social protection and broader social policies, nor does it seem to strengthen the role of the STFS. More pervasive, but sustainable institutional reforms seem to be required.

Finally, the effectiveness of a social safety net as described cannot be separated from other areas of economic and social policy. Poor macroeconomic policies leading to collapses in domestic demand or inflationary pressures may cause more damage to living standards through job losses and real income declines than any safety net could "repair." With the dollarization of the economy, Ecuador has fewer degrees of freedom for anticyclical macro policies and will have to rely on foreign borrowing and assistance to be able to pursue such policies in the face of adverse external shocks. Those resources are obviously limited. Domestically, mechanisms need to be designed to facilitate consumption smoothing over time for the economy as a whole. A stabilization fund for oil and other government revenue could help achieve greater stability in public spending and provide a basis for sustaining adequate expenditure levels for basic social-service systems and targeted socialprotection programs, and even allow for their expansion in times when needed most. Social-security reform still has a long way to go in Ecuador, but a properly funded expansion of the system should eventually enable it to become the backbone of the social-safety net. In the short run, however, further reliance on essentially tax-based cash and in-kind transfer programs targeted to the vulnerable population will be needed. The major challenge is to bring greater coherence to that system and greater flexibility to respond to the inevitable economic volatility Ecuador will face in the future.

Notes

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1. Based on Living Standards Measurement Study (LSMS) survey data for population as a whole. The name of the Ecuadoran LSMS survey as referred to in the text is *Encuesta de Condiciones de Vida* (ECV). When using data from labor force surveys (for urban areas only), income inequality increased even more steeply between 1995 and 1999 (from 0.50 to 0.54)

2. The Gini for per-capita consumption increased from 0.43 to 0.47 between 1995 and 1999

3. These are the Foster-Greer-Thorbecke (FGT) measures with $\alpha = 1$ and $\alpha = 2$, respectively.

4. The estimates are based on a simple estimation of per-capita household incomes with and without remittances, ignoring possible household responses to receipt of these private transfers (such as reduced labor supply or reduced reliance on other transfers or safety nets). See Vos and de Jong (2001).

5. The changes in malnutrition should be regarded with some caution given the sampling error margin for this variable in the LSMS surveys.

6. Only 5 percent of the population with access to general social health insurance belong to the poorest 20 percent. Two-thirds belong to the upper 40 percent of welfare distribution.

7. Data from the labor force surveys show that in urban areas the difference in terms of years of schooling attainment in urban areas has stabilized around 0.7 years more education on average for men. (See SIISE 2000 and León and Vos 2000).

8. Social public spending includes central government spending on education, health, social welfare, housing and urban development, labor and employment programs and, from 1999, the cash-transfer program (*Bono Solidario*). It does not include social security benefits, or special social funds such as FISE and solidarity fund. It also does not cover social spending by local governments. Except for social security, none of the excluded spending items are very important in size relative to the central government budget.

9. The program also supports handicapped individuals, but the main focus is on poor mothers and the elderly. The benefit for disabled people is the same as that for the elderly. As analyzed in Vos, León, and Brborich (2001), the purchasing power of the cash transfer dropped by almost 50 percent between early 1999 (when the program coverage reached completion) and June 2000. Adjustment thereafter allowed for a recovery, and by February 2001 it was back at the purchasing power of March 1999, but some 15 percent below the initial value at the introduction of the program. By the end of 2001, the purchasing power was almost one-quarter below its initial value.

The analysis of the paragraphs below draws on Vos, León, and Brborich (2001).
 World Bank reviews of workfare programs show they typically spend about US\$4 to transfer US\$1 to the poor through employment; hence, the projects have to create assets with large public benefits to be economically feasible.

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5

Gender Dimensions of Vulnerability to Exogenous Shocks: The Case of Ecuador

Maria Correia

1. Introduction

While Ecuador has experienced economic deterioration for most of the past two decades, the country's macroeconomic and financial situation has been further aggravated by the extensive damage caused by El Niño rains in the first months of 1998; external shocks in East Asia, the Russian Federation, and neighboring Brazil; sharply declining petroleum export prices; and the collapse of Ecuador's banks (see chapter 2). Ecuador's real GDP declined sharply in 1999 and recovered only marginally in 2000.

Ecuador's crisis has had a prolonged and massive human cost. Damage caused by El Niño, for example, had devastating consequences for the poor living in affected coastal areas, destroying homes and agricultural property and causing large-scale unemployment. Large segments of the population suffered significant income losses, and unemployment and underemployment increased. Unemployment has fallen heavily on the poorest groups: Among the poorest 20 percent of the population, the unemployment rate in November 1998 was 21 percent, which was almost double the then national average. In real terms, the income of a typical worker earning the minimum wage in the formal sector declined 10 percent from March 1998 to March 1999. Inequality also increased in a country that already had one of the highest levels of inequality in Latin America. The Gini coefficient increased more than 4 percentage points from 0.42 in 1994–95 to 0.47 in 1998 (Coraggio, Larrea, and Sánchez

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2000). And poverty—based on the headcount of people unable to buy a basket of basic goods—increased from 34 percent in 1995 to 46 percent in 1998, 55 percent in 1999, and 66 percent in 2000.¹ Poverty in Ecuador is highest among the indigenous and among those living in rural areas: the rates were 76 and 73 percent, respectively, in 1995.

Macroeconomic and financial crises of the type Ecuador has experienced can affect men and women in different ways, primarily as a result of their distinct biological and societal-based gender roles. The literature on this topic, however, is weak empirically. It also focuses almost solely on women to the exclusion of men. Much of the literature points to the unequal burden of crises on women that result from the intensification of their work in the household and labor market (Moser 1992; Benería 1992, 1996; Elson 1992. For its part, the World Bank's 2000 World Development Report on poverty refers to the retrenchment of female public-sector workers and the increased incidence of domestic violence during economic downturns (World Bank 2000d). But more recent studies on gender and the household effects of crises in Latin America point to the household as the only refuge during periods of adjustment and cuts in social services, with men and women playing distinct household roles during these periods (Cunningham 2001; World Bank 2001).

This chapter examines men and women's socioeconomic conditions in Ecuador with a view to understanding vulnerability and declines in wellbeing by gender during exogenous shocks and structural adjustment. The chapter is based largely on a 1999 World Bank report on gender issues by sector in Ecuador—issues that to a large degree have been aggravated or worsened by Ecuador's economic stagnation during 1980–2000.² The discussion here is framed around the concept of gender and household vulnerability to shocks, given data limitations on actual impacts by gender. Section 2 defines the concept of vulnerability and establishes a framework for examining gender and household vulnerabilities. Section 3 uses the framework to explore the differentiated effects of Ecuador's crises on women and men, and section 4 provides some examples of how Ecuador's institutional framework affects vulnerability by gender. Finally, section 5 summarizes findings and discusses broad policy implications.

This analysis suggests important gender and household effects of crises. Women's and men's human capital has eroded in different ways during the crisis. For example, boys have been forced to enter the labor market to compensate for declining household incomes. In addition, increased unemployment among men and their inability to meet the societal expectations of being the family provider have, among other things, been linked to increased crime and insecurity and have had negative consequences on men's health. At the household level, as families have restructured or disintegrated and domestic violence has worsened, household capital has eroded during Ecuador's crisis. On the other hand, households have also acted as insurance mechanisms during shocks, for example, by taking on other family members and by mobilizing the labor of wives and children. In terms of the effects of Ecuador's institutional framework, such government programs as the *Bono Solidario*, the Rural Development Program, and public childcare programs have had important gender dimensions and have affected vulnerabilities and well-being. This chapter offers three broad sets of policy recommendations to reduce gender vulnerabilities to exogenous shocks: (a) strengthen family and household capital; (b) address the distinct labor-market needs of household members; and (c) strengthen social capital.

2. Assessing Vulnerability to Exogenous Shocks: A Framework

Vulnerability to exogenous shocks is not synonymous with poverty. Glewwe and Hall (1998) make the distinction between poverty and vulnerability by giving the example of market-induced shocks, which, while affecting many segments of the population, tend to have limited impact on remote rural communities because these are subsistence-based and not in the market economy. But while poverty and vulnerability may not be the same, it would be accurate to say that Ecuador's poor tend to be more vulnerable for a number of reasons. First, they tend to live in areas that are more prone to natural calamities. Second, they tend to have less access to assets with which to manage risks. Third, they tend to have less time to invest in social capital. And, fourth, they have less political capital and thus receive fewer social services after a disaster or during periods of crisis (Alwang and Siegel 2000).

Vulnerability depends on three factors: risk, exposure, and the ability to respond to a crisis (Alwang and Stiegel 2000). Risk, which is exogenous to the decisionmaker, is characterized by a probability distribution of events, which can vary on the basis of their magnitude (including size and spread), their frequency and duration, and their history. Exposure, in contrast to risk, is endogenous and is dependent, at least in part, on exante risk management at the individual, household, and higher levels. Lastly, vulnerability is dependent on the capacity to adapt or respond to the realization of a risky event that has a negative outcome.³

In recent years, an important body of literature about rural development has explored the processes by which people enter into and overcome poverty, as well as those factors determining people's vulnerability (Scoones 1998; Moser 1998). The framework sustaining this chapter is inspired in the theoretical constructions of Sen's (1993) capabilities approach and the Sustainable Rural Livelihoods Framework (Scoones 1998), but is modified to take better account of gender and urban (as well as rural) dynamics. According to this approach, an individual or household's level of risk, exposure, and ability to respond to a negative shock are influenced by the production inputs they possess or have use of and control over; the constraints and opportunities they face in acquiring production inputs; and the constraints and opportunities they confront in transforming these inputs into wellbeing (see figure 5.1). Production inputs include: (a) the labor provided by individuals and households; (b) land, natural resources, and raw materials; and (c) capital, defined as the inputs or investments made for future productivity and well-being. Capital can be further disaggregated into:

- *human capital*, which refers to the endowed abilities of an individual, for example, formal education, job experience, and health care;
- household capital, which comprises the human capital of its members, the physical capital of the household, and the household's social capital (intrahousehold trust, norms, and relations);
- social capital, which refers to "features of social organization such as trust, norms and networks, that can improve the efficiency of society by facilitating coordinated actions" (Putnam 1993);
- *political capital,* which refers to the accumulated influence of an individual or group that can be used to affect a political process; and
- *physical capital,* which refers to physical goods that have been produced and are used in a further production process.

Lastly, the labor market, credit institutions, government services, the political system, legal and regulatory systems, social systems (including socially ascribed gender roles), and so on provide the institutional framework that facilitates or constrains individuals and households as they transform production inputs into well-being.

Thus, by examining both gender differences in the ownership, use, and control over production inputs and the institutional framework required to transform inputs into outputs, vulnerability to shocks by gender and by the gender composition of the household can be assessed. Based on information availability, the rest of the chapter does just that but with a focus on the following production inputs: human, household, and political capital, labor, and land. To the extent that information permits, actual impacts of the crisis by gender are also cited and discussed.



Figure 5.1 Factors Affecting Vulnerability to Exogenous Shocks

3. Gender and Household Vulnerability in Ecuador

3.1 Human Capital

Education

Education not only increases labor market returns, but it also allows individuals to adapt more efficiently and effectively to crisis and uncertainty (Glewwe and Hall 1998). The better educated tend to use assets more efficiently; have greater capacity to obtain information, credit, and other productive resources; and are better able to exploit new income opportunities (Glewwe and Hall 1998). Thus, differences in educational attainment and literacy are important in determining men's and women's vulnerability and that of the households to which they belong.

Both men and women in Ecuador have low educational attainment rates, although on average men still have higher education levels than women: 7.4 years for men versus 7.0 years for women according to the latest LSMS 98 data (CONAMU/INEC 1999). Differences are more significant in rural areas (4.1 years for women compared with 4.7 years for men) according to LSMS 95.⁴ Regional differences in education are also significant. In the Sierra region, 58 percent of men and 48 percent of women do not complete primary education, and less than 10 percent of both men and women have access to secondary education. The gender education gap is particularly high in the Oriente, where on average women complete 3.5 years of schooling compared with 5.9 years for men. Among the indigenous, women in the Sierra have an educational attainment rate of 1.4 years compared with 2.4 years for men.⁵

Illiteracy, which increases vulnerability, also tends to be more common among women, the indigenous, and rural dwellers. National illiteracy rates are 12 and 8 percent for women and men, respectively, according to LSMS 98 data, and substantially higher in rural areas (21 percent for women and 15 percent for men). Indigenous populations overall are more likely to be uneducated, with the gender gap being greater among the indigenous: 53 percent of indigenous women are illiterate compared with 35 percent of men.⁶ Illiteracy also varies by region. The largest gaps are in the Sierra region, where more than a quarter of women---compared with 14 percent of men--cannot read or write. But the gender gap is not only to women's disadvantage. In the Costa region, men--who have one of the highest illiteracy rates in the country among identifiable region/gender groups---are at a disadvantage compared with women in both urban and rural areas.

But although male educational attainment is greater overall, boys have higher school repetition and dropout rates. At the national level, boys make up about 54 percent of students who have repeated a grade and 62 percent of school dropouts (CONAMU/INEC 1999). And in urban areas more than 75 percent of school dropouts at the primary level are male (CONAMU/INEC 1999). Variations exist, however, with female dropouts exceeding those of males in urban areas in the 25-and-over age category, presumably because of marriage. Also, girls outnumber boys who repeat at the primary level in urban areas (CONAMU/INEC 1999).

Gender roles, as well as poverty, affect girls' and boys' educational attainment in Ecuador. For girls, domestic work, a traditional female role, is the most important reason for not attending school. The need to perform (paid) work, a conventional male role, is the primary reason boys fail to enroll in school, followed by age and cost of education, according to LSMS 98 data. And anecdotal information indicates that in the Costa region, boys are being forced to abandon studies to enter the paid work force at a rapid rate because of the current economic crisis. Six case studies carried out in rural and urban areas of Ecuador confirm that, particularly in urban areas, women are improving their educational attainment vis-à-vis men because men need to start working at an early age (CEPLAES/EB-PRODEC 1999).

Health

Health status affects human capital, productivity, income-earning capacity, and thus vulnerability. Men and women are exposed to different health-related problems over their lifetimes. Distinctions emerge during adolescence, with women's health status affected mainly by childbirth and reproductive health-re; ated illnesses. Men are more likely to be injured and to die from accidents and violence. For both men and women, crises affect the quality and coverage of health-care services, with rural areas being more disadvantaged.

FEMALE HEALTH VULNERABILITIES. Maternal mortality has delcined steadily over the past few decades in Ecuador, but it remains relatively high. According to 1994 data, the maternal mortality rate fell from 302 per 100,000 live births during 1981–87 to 159 during 1988–94.⁷ But there are regional variations. From 1981 to 1994, for example, the maternal mortality rate was 250 per 100,000 for the Sierra compared with 197 per 100,000 for the Costa region. More recently, maternal mortality reportedly reached 310 per 100,000 in rural areas of Cuenca.⁸

The primary cause of maternal mortality and morbidity is inadequate quality and coverage of prenatal and natal care, which tends to deteriorate during periods of crises and macroeconomic adjustment. Social-sector expenditure for health was predicted to decline 5 percent in real terms from 1998 to 1999 (World Bank 2000a). Less-educated and rural women have the least access to maternal health care and thus are most susceptible to health-related problems. For example, 50 percent of rural women have fewer than five prenatal care visits during pregnancy, and 60 percent have not received an antitetanus vaccination, which can prevent serious infection and so reduce maternal mortality. Similarly, more than 60 percent of women with less than primary education make fewer than five visits to a medical facility per pregnancy, and half of these women have not been vaccinated.⁹

Maternal mortality and morbidity are also related to adolescent pregnancy, high fertility levels, and birth spacing, with women who have more than four children or who have spaced their pregnancies less than 24 months apart considered at-risk. For example, in 1998, out of 480 cases of maternal death, 230 were adolescent women.¹⁰ Given that teenage pregnancy and high fertility are more prevalent in rural areas and among women with little or no education, poorer, less-educated women would be at greater risk of maternal illness and death. Only 8 percent of maternal deaths occur because of complications resulting from abortion, and the majority of these are spontaneous.¹¹ And available information suggests that increased poverty and vulnerability is not associated with maternal mortality caused by induced abortion.¹²

Adolescent fertility, which is associated with maternal mortality and is higher among lower socioeconomic groups, continues to be widespread in Ecuador. About 32 percent of all Ecuadoran women age 18–19 have already been pregnant, according to the Demographic and Maternal and Child Health Survey (ENDEMAIN) for 1999. Level of education is a key determinant of early pregnancy. At the national level, 38 percent of women age 24 have been pregnant, but the proportion jumps to 59 percent for women with no education (compared with 19 percent with post-secondary education). According to data from the early 1990s, adolescent pregnancy in Ecuador is higher than the average for Latin America and the Caribbean (FLACSO 1992). During that period, Ecuador recorded 79 births per 1,000 adolescent women compared with an average of 68 births for the region.

Although it has increased, access to and use of contraceptives remains low in Ecuador among lower socioeconomic groups. In 1994, 57 percent of all women of reproductive age used some form of contraceptive (ENDEMAIN 94) compared with 66 percent in 1999 (CEPAR 2000 based on ENDEMAIN 99).¹³ Contraceptive use, however, varies by level of education and rural versus urban residence. In 1999, only 46 percent of women with no education used some form of contraception compared with 79 percent of women with a postgraduate education; in rural areas the proportion was 58 percent compared with 71 percent in urban zones. Overall in 1999, only 6 percent of women had problems accessing family planning, but the proportion was as high as 26 percent among women with no education and 18 percent among women from Amazonia.¹⁴ By level of activity, women who work in farming and natural resources have the highest need for family planning: the proportion is 20 percent compared with 4 percent for those women classified as "professionals, directors and administrators."

MALE HEALTH VULNERABILITIES. As previously noted, men are more susceptible to mortality and morbidity from precarious behavior, accidents, violence, substance abuse, and depression. In 1989, mortality rates from external factors-including traffic accidents, homicides, and suicideswere 92 per 100,000 for men and 22 per 100,000 for women (in the 15–24 year age group) and 145 and 17 (in the 25-44 year age group) for men and women, respectively. In 1996, men made up 73 percent of accident fatalities. Also noteworthy is the number of homicides among men, which rose from the fourth cause of death among men in 1994 to the second in 1996. According to Pan American Health Organization (PAHO) statistics, Ecuador's homicide rate was 10.3 per 100,000 people in the late 1980s and early 1990s, having increased over the previous decade from a rate of 6.4.¹⁵ Statistics confirm that 92 percent of all victims of 1992 homicides in Ecuador were men and that accidents and homicides were by far the most serious health risks for young men age 15–24 years (FLACSO 1992). Depression, according to PAHO (1998b), is on the rise in Ecuador and in 1996 was one of the primary reasons men sought medical care. In 1995,

9.2 per 100,000 male inhabitants were hospitalized for depression (PAHO 1998b). Studies on disasters and coping have found that while both men and women feel the psychological effects of crisis, women display their stress more openly, whereas men's anxiety is exhibited more indirectly through destructive behavior (for example, violence and alcoholism). This difference is probably the result of socialization processes, which inhibit men from expressing their feelings (Correia 2001).

The incidence of substance abuse and alcoholism-which predominantly affects men, particularly those in lower socioeconomic groupshas likely intensified during Ecuador's prolonged economic crisis. In addition to being important health issues, alcoholism and substance abuse are associated with low productivity, violence and homicides, family breakup, precarious behavior, traffic-related fatalities, and suicides. But despite concerns over their prevalence and consequences, alcoholism and substance abuse remain relatively unresearched problems. A Ministry of Public Health national survey conducted in 1985 indicated that just under 8 percent of the population over age 15 years were alcoholics-92 percent of whom were men-making it one of the primary causes of male morbidity (Aguilar 1986).¹⁶ And alcoholism is a poverty issue. According to the same study, risk factors associated with alcoholism included (a) being a small-scale worker (agriculture and nonagriculture), salaried, semisalaried, or underemployed; (b) belonging to a large family; (c) being from a lower-income group; (d) having no education, primary education, or partially completed education; (e) having a history of mental health problems; and (f) being from a family with high levels of conflict (Aguilar 1986). A similar survey carried out in urban Cuenca in 1979 indicated that 9 percent of the population over age 15 years was alcoholdependent, and of those, 90 percent were men. Twenty percent of respondents of a PAHO survey stated that they had been drinking in excess the month prior to being surveyed (PAHO 1998b). In terms of alcoholism among youth, a more recent 1998 study of 220 poor urban-based adolescents indicated that males were twice as likely to consume alcohol as females (61 percent versus 29 percent) (Programa del Muchacho Trabajador 1998).

According to the WHO, men often view alcohol consumption as a form of relaxation or stress management as well as a reaction to such negative external factors as job loss or hopelessness (Pyne, Claeson, and Correia 2002). A Costa Rica Demographic Association study on alcoholism indicates that a relationship exists between *machismo*, alcohol use, and dangerous behavior, including unsafe sex (Madrigal and Schiffer 1992, cited in Pyne, Claeson, and Correia 2002). As a sign of adulthood, young men are under great pressure to demonstrate courage and capacity for physical combat and pain. Drinking excessively, as well as getting drunk quickly, celebrates courage and solidarity among young men. Homicide, brutal fights, and suicide are not considered acceptable behavior among young men, but as outcomes of drinking they became more tolerable.

Dangerous behavior, violence, and substance abuse among men are likely to have increased during Ecuador's most recent crisis given the frustrations that unemployed and underemployed men face when unable to meet the societal expectations of being providers and protectors. In 1998, following flooding caused by El Niño and the influx of migrants from affected areas, the municipal government of Guayaquil was forced to impose an extended state of emergency because of increased delinquency and crime. Data collected between 1988 and 1992 in Cisne Dos, Guayaquil, indicated that women perceived that male drinking had increased because of deteriorating economic conditions (Moser 1997). Whereas drinking was identified as a problem among husbands, women identified drugs as a problem among sons. Moreover, data indicated that the community perceived a direct relationship between the growth in drug use and the increase in street gangs and robberies (Moser 1997).

Thus, people's human-capital endowments—and, as a corollary, wellbeing—are differentiated on the grounds of gender. In Ecuador, women's and men's access to schooling, and educational-attainment levels, dropout rates, and repetition rates are influenced, among other things, by societal-based gender roles and expectations. As for health status, biological and social factors affect women's exposure to health risks in the form of maternal mortality and teenage pregnancy and men's exposure to substance abuse, violence, and their consequences. Moreover, there is some evidence that men and women's human-capital accumulation has been negatively affected in different ways because of the crisis in Ecuador.

3.2 Household Capital

Household characteristics affect vulnerability and the capacity to cope with external shocks and uncertainty. For example, the ability to mobilize and transform labor into income and well-being often depends on household structure, composition, and decisionmaking (Moser 1997; Cunningham 2001). By taking on additional family members and by assigning members to the workforce, households act as insurance mechanisms and reduce vulnerability (Glewwe and Hall 1997). But if household members are not employable for any reason—for example, because of age or gender—they can increase dependency and, in turn, intensify vulnerability (Glewwe and Hall 1997). And the relationship between household capital and exogenous shocks is not unidirectional. Crises also have the effect of eroding household capital and coping capacity.

Household Headship and Structure

Households that declare female headship—while increasing in number are not necessarily poorer than male-headed households. Overall, households with female heads now constitute about 19 percent of all households (LSMS 98).¹⁷ At 21 percent, the proportion is greater in urban areas than rural areas, where the proportion is about 15 percent (LSMS 98). Contrary to conventional wisdom, however, female-headed households are not poorer than male-headed families. This finding is consistent with poverty findings in other countries (for example, in Nicaragua, El Salvador, and Panama). According to LSMS 95 data, households headed by middle-aged males in common-law marriages and households headed by widows are significantly more likely to be poorer than other types of household in both urban and rural areas (World Bank 1996). One explanation for this finding is that female-headed households have a lower dependency ratio than those headed by men.¹⁸ This is true in the case of Ecuador where, according to LSMS 98 data, only 45 percent of female-headed households have more than three children, compared with 70 percent of households declaring male headship. Also, poverty analysis demonstrates that the likelihood of being poor in Ecuador increases if the spouse or partner of a household head is not active in the labor force, which would be the case in many male-headed households (World Bank 1996).

But while female-headed households are not necessarily poorer than other types of households, they may be more vulnerable in a number of ways, for example:

- Female-headed families tend to be single-parented compared with male-headed households, which typically have two spouses. In the case of Ecuador, 89 percent of households that declare themselves male-headed have a spouse present, whereas the proportion is only 6 percent in the case of female-headed households (LSMS 98). As single parents, female-headed households thus often rely on only one adult salary.
- In households with single mothers, domestic responsibilities cannot be shared with other adult family members. Thus, households typically spend a greater proportion of resources to purchase goods and services (Geldstein 1997).
- Because of the double workload of productive and domestic responsibilities, single mothers dedicate fewer hours to remunerated work, and seek jobs offering greater flexibility but not necessarily the best salaries, benefits, and opportunities for promotion.
- The intergenerational transfer of poverty is more typical in families headed by women (Geldstein 1997).

• In the case of Ecuador, females heading households tend to be less educated than their male counterparts. According to LSMS 98, 16 percent of female heads and 7 percent of male heads have no education.

During periods of crisis, families are more apt to restructure as a coping strategy or as a direct consequence of the crisis. Factors giving rise to household restructuring include marital conflict; childcare and dependent parents; access to housing, employment, or job loss; changes in income; and access to education and health (Moser 1997). Types of households that can result include (a) households led by older divorced or separated women who take on other relatives because they are unable to survive alone; (b) extended households as a consequence of young, single mothers having failed in a union and returning to the home of their parents; (c) families who come together to share a house on a temporary basis because of economic hardship; and (d) split households resulting from urban-rural male migration, giving rise to female de-facto household heads (Moser 1997).

Household Size

Children and other dependents can reduce household financial security (Schiller 1995) and thus increase vulnerability. The effects of more children include an increased need for household income, constraints to women entering the labor force, and increases in childcare and other domestic work. In terms of the gender-differentiated effects for women, more children means fewer opportunities to participate in economic activities and generate income, with corollary implications for their negotiating power in the household. The presence of young children also affects the type of work that mothers can take on, for example, flexible or contract work in the informal sector (Cunningham 2001). Moreover, higher fertility, including reduced spacing, makes women more susceptible to illness related to maternity (see the section below on human capital). For men-who, as in other countries, are considered the main breadwinners-more children means greater pressure to increase productivity and income, which, in turn, can have negative consequences if men are unable to fulfill this role (for example, because of alcoholism, violence, delinquency, or depression).

Poorer households in Ecuador tend to have more children (World Bank 1996), which is consistent with findings for other countries in Latin America and the Caribbean.¹⁹ National statistics suggest progress in decreasing fertility. Overall rates dropped from 5.3 in 1982, to 4.0 in 1990 (PAHO 1998a) and to 3.4 between 1994 and 1999 (CEPAR 2000).²⁰ Global rates, however, mask a high variance that is strongly correlated with

years of education, rural/urban residence, and ethnicity. According to ENDEMAIN 99, women with university and postgraduate education had a fertility rate of only 1.9 compared with those with no education at all, who had a fertility rate of 5.5.²¹ And the urban fertility rate was only 2.8 compared with 4.4 for rural areas. As for regional differences, at an average fertility level of 5.5 children, Amazonia continues to have the highest rates, followed by the Sierra with 3.6. High fertility levels are associated, among other things, with problems in accessing family planning methods and information, in particular among lower socioeconomic groups and rural inhabitants.

Household Relations and Domestic Violence

Domestic violence can be a consequence of economic crisis and, by eroding household capital, can lead to increased vulnerability. The incidence of domestic violence is high in Ecuador compared with other countries in Latin America and the Caribbean. Vega and Gomez (1994, cited in World Bank 1996) estimated the rate of domestic violence to be 58 percent in Quito and an alarming 80 percent in Guayaquil. In contrast, sample surveys on domestic violence in the region found that the proportion of women who had experienced physical violence was 11 percent for Chile, 20 percent for Colombia, 10 percent for Costa Rica, and 9 percent for Paraguay (Heise, Pitanguy, and Germain 1994, as cited in Morrison and Biehl 1999).²² The most recent statistics on domestic violence in Ecuador are those compiled by ENDEMAIN 99, which indicate that at the national level, physical abuse is the most common form of domestic violence (24 percent), followed by threats (18 percent), and hurling of objects (16 percent) (CEPAR 2000). Irrespective of the type of violence, violence was found to be associated with lower levels of education (Morrison and Biehle 1999).

At the individual level, in addition to having experienced or witnessed violence as a child, determinants of violence include being a young male, belonging to a low socioeconomic group, being unemployed or underemployed, having low levels of education, and having abused alcohol or drugs (Buvinic, Morrison, and Shifter 1999). In terms of the gender dimensions of violence, aggression among men has been associated with male gender roles and expectations, and in particular the inability of men earning low incomes to live up to societal and familial expectations of being full income earners (Barker 1998). When these goals become difficult to achieve, men regularly assert their masculinity through violence (Barker 1998). Thus, as male unemployment and underemployment increase during periods of macroeconomic crisis and uncertainty, domestic and other forms of male violence are expected to increase. Moser (1997) observed these patterns in her community-based research in the barrio of Cisne Dos,

Guayaquil. She noted that escalating crime and violence is a result of increasing unemployment, particularly among young men. Women interviewed in Cisne Dos identified a direct relationship between declining male earnings, increasing domestic violence and, in many cases, alcohol abuse.

Household factors found to contribute to domestic violence include the degree of crowding, household per-capita income, and dynamics and norms (egalitarian or authoritarian) at the household level (Buvinic, Morrison, and Shifter 1999). For example, a cross-cultural study of 90 societies showed that societies with high levels of domestic violence were also societies with authoritarian household norms, where men are dominant, and where there is social acceptance of the use of physical violence (Levinson 1989, cited in Buvinic, Morrison, and Shifter 1999). Feminist writers and activists have long pointed to unequal gender relations as a key determinant of violence against women. In the United States, for example, a national family violence survey conducted in 1975 found that violence against wives was most likely to occur when wives were both economically and psychologically dependent on dominant spouses (Levinson, 1989, cited in Buvinic, Morrison, and Shifter 1999). Indeed, all other factors being held constant, domestic violence against women is more likely to occur in poorer households, which suggests (a) that poverty is a cause of violence or (b) that greater stress, uncertainty, and declining economic conditions lead to aggressive behavior among those predisposed to violence.

The practice of physical punishment of children by parents and relatives—both male and female—is widespread throughout Latin America and the Caribbean, and Ecuador is no exception. Physical punishment affects both boys and girls and, as previously noted, its long-term effects include acceptance of the use of violence (both in terms of inflicting and enduring violence) and the production of intergenerational cycles of violence. Child sexual abuse, on the other hand, mostly affects girls. Of sexual abuse reported in Quito and Guayaquil, 69 percent involved girls between the ages of 10 to 19 years and 80 percent of these girls were abused by a father, relative, friend, or someone known by the victim (Camacho 1996). Although sexual abuse is mostly directed at girls, boys are also victims. Less help is available for sexually violated boys or young men, however, because cultural norms surrounding manhood make it difficult for boys and young men to come forward and report sexual violence.

In terms of reducing household capital, domestic violence increases women's susceptibility to illness and reduces their productivity and income-generating capacity. Violence also has important multiplier effects. For example, women who are less productive earn less income, which, in turn, leads to lower consumption spending and lower levels of aggregate demand (Buvinic, Morrison, and Shifter 1999. Also, as previously noted, domestic violence has important intergenerational effects because children who are abused and observe chronic abuse have a greater propensity to behave violently or be involved in some form of interpersonal violence than children who do not experience violence (Buvinic, Morrison, and Shifter 1999).

On the whole, household size and composition influence people's ability to adapt to crisis. Moreover, intrahousehold gender dynamics, and its extreme manifestation in the form of domestic violence, deteriorate women's and children's assets with which to respond to exogenous shocks, thus making them more vulnerable to crisis. In parallel, some of the processes derived from the Ecuadoran crisis, such as unemployment, seem to pose stress on men's behavior and foster violence inside and outside the household—with negative consequences for women's and men's well-being.

3.3 Political Capital

Female political capital in Ecuador has increased. Four factors have contributed to women's greater influence over political processes. First, institutional and legal reforms have been significant. For example, the National Office for Women was established in the Ministry of Welfare in 1980; the National Office for Women became the National Directory for Women (DINAMU) in the Ministry of Social Welfare in 1986; women's police stations were created in 1994; the Law on Violence Against Women and the Family was passed in 1995; the Equal Opportunities Plan was approved in 1996; DINAMU became the autonomous National Council for Women (CONAMU) under the presidency of the Republic in 1997; the Free Maternity Law was approved in 1998; and also in 1998, a new constitution was approved that guarantees equal rights to women and men in areas such as education, health, work, and political participation. The latter also provides a legal framework that facilitates institutionalization of public policies on gender equity.

Second, female political representation in Ecuador, albeit still low, continues to grow.²³ In particular, the quota of at least 25 percent of women on electoral lists—which was the initiative of the Parliamentary Commission on Women, Children and the Family—has promoted and facilitated a greater gender balance in political participation. Despite this measure, the gender balance in positions of political leadership remains heavily skewed toward men, as the following statistics demonstrate:

• *Executive Branch:* The first woman minister in Ecuador was appointed in 1979 to head the Ministry of Social Welfare. In 1990, none of the 12

existing ministries was headed by a woman, but women filled five subsecretarial posts. In August 1998 women held 3 of the 15 cabinet posts; in February 1999, 4 out of 15 were women, including the minister of finance (*Fundación Mujer y Sociedad* – Woman and Society Foundation 1999, cited in CONAMU/INEC 1999).

- Legislative Branch: In 1998, 20 percent of national congressional representatives and 12 percent of provincial representatives were women. This represents an increase from 1996 when all national representatives were men and only 6 percent of provincial representatives were female (*Fundación Mujer Sociedad* – Woman and Society Foundation 1999, cited in CONAMU/INEC 1999).
- Local Government: Figures from 1996 indicate that the following percentages of women were elected as representatives at the local level: 1 out of 21 mayors (*Prefecto/a*), 6 percent of provincial council members (*Consejeros/as Provinciales*), 3 percent of council presidents (*Alcalde/sa Presidenta Consejo*), and 8 percent of local council members (*Concejal/a Municipal*) (*Fundación Mujer Sociedad* – Woman and Society Foundation 1999, cited in CONAMU/INEC 1999).
- Judiciary: Very few women are represented in the hierarchy of the courts. In 1999, 1 of 31 supreme court judges (*Ministros/as de la Corte Suprema de Justicia*) was a woman (CONAMU, personal communication). Women's representation at other levels varies. All fiscal judges, for example, are men and 14 percent of civil judges are women (*Consejo Nacional de la Judicatura, Dirección Nacional de Personal*, cited in CONAMU/INEC 1999). The largest proportion of female judges is *Juezas/es de Inquilinato*, of which 56 percent are female (CONAMU/INEC 1999).

Third, civil society women's organizations are strong in Ecuador. These organizations have played a central role in placing women's issues firmly on Ecuador's social and political agenda. For example, in 1995 these organizations were instrumental in lobbying Congress to approve a law on violence against women and the family. The creation of DINAMU (which later became CONAMU) under the auspices of the Ministry of Social Welfare is another example of the success of the women's movement in influencing public-sector policies for women's development and gender equity. And CONAMU's board of directors has strong civil society participation. In March 1996, the *Movimiento de las Mujeres* (Women's movement) presented *El Plan de Igualdad de Oportunidades 1996-2000* (Equal Opportunities Plan 1996–2000), which focused on citizenship, political participation, and representation; the feminization of poverty; the gender division of labor; labor-market issues; and gender issues in health and education.

And fourth, the Ecuadoran Government has made advances in mainstreaming gender into its programs. Land and agriculture programs, for example, have a long history of promoting women's participation. In the area of justice, gender initiatives have included contracting civil society organizations to manage the recently established women's police stations.²⁴ For its part, the Ministry of Education and Culture's program to eliminate gender stereotypes from books and teaching methods is one of the first in Latin America and the Caribbean. Water and sanitation is another sector that has made efforts to identify and address gender issues. Yet much remains to be done, which is a challenge in Ecuador's current economic crisis. Many rural development policies and programs, for example, have encountered difficulties in dealing with the constraints and backlash of women's participation efforts, which in some cases has led to domestic violence and resistance among community members. Moreover, despite progress, both government extension workers and rural development NGOs tend to treat men as the principal beneficiaries of technical assistance in the agriculture sector and tend to offer women training in health, nutrition, craft production, household gardens, and small animal production. This continues despite a growing recognition of women's increasingly important roles in subsistence and commercial agricultural production as well as the daily management of natural resources such as soil, water, and fuel wood.

By better defending women's rights and interests, the evolution of Ecuadoran women's roles in politics, in principle, suggests lower relative vulnerability of women as a group. The existence of CONAMU, strong civil society groups representing women, and a new domestic violence law are examples of the institutional and political structures in place. Still, female political representation in Ecuador, although it has increased, is still much lower than that of men, thus increasing the vulnerability of women as a group.

3.4 Labor

Labor is one of the most important productive inputs of the poor everywhere, given that the poor tend to have less access to human and other types of capital as well as to production inputs such as land. And in many countries in the world, families still maintain a traditional division of labor in which women specialize in home production and men specialize in market production. Given the unpaid nature of home-based work, women as a group are thus more vulnerable vis-à-vis employed men. Also, an individual who, among other things, has obsolete skills, or lacks skills, experience, and education, or is more susceptible to discrimination, or has less mobility, and/or has constraints such as household responsibilities, is less employable, thereby also making the individual more vulnerable.

During periods of insecurity and uncertainty, important household coping strategies include increasing family members' labor-force participation either by working longer hours at the same job or by mobilizing new household members—mostly women and boys—to enter the paid labor force.

Economically Active Population

In Ecuador, women's participation in the labor force remains lower than that of men, even though female participation has increased over the decades. From 1970 to 1990, the female proportion of the economically active population (EAP) increased from 14 to 19 percent, whereas the male proportion decreased from 74 percent to 69 percent. Women's labor-force participation is greater in urban areas. By 1998, 46 percent of urban women were economically active, the proportion having increased from 44 percent in 1993 according to INEC. In the same period, the proportion of urban men who were economically active decreased from 74 to 72 percent.

Unemployment and Underemployment

The crisis has resulted in higher rates of unemployment and underemployment for women. This said, both male and female unemployment increased in the 1990s by about the same magnitude. The rate of unemployment for women increased from 12 to 16 percent from 1993 to 1998 (CONAMU/INEC 1999), and averaged 18 percent in urban areas of Quito, Guayaquil, and Cuenca from March 1998 to March 2000 (see table 5.1) (Larrea and Sánchez 2001). Male unemployment increased from 6 to 8 percent from 1993 to 1998 (CONAMU/INEC 1999) and to 10 percent in the three urban centers of Quito, Guayaquil, and Cuenca from 1998 to 2000 (Larrea and Sánchez 2001).

Underemployment rates also were greater among women than men from 1998 to 2000; these rates were 52 percent for women compared with 44 percent for men (Larrea and Sánchez 2001). This relatively unfavorable situation for women persists even though women have higher education levels in all employment categories (see table 5.2).

For both women and men, the highest proportion of the unemployed are those with secondary education; the figures are 60 percent and 59 percent, respectively (see table 5.3). Men with primary education have the second-highest level of unemployment, whereas, in the case of women, those with superior education have the second-highest unemployment rate.

Table 5.1 Structure of Employment by Sex and Status (Quito,Guayaquil, and Cuenca Averages from March 1998 to March2000)

Status	Men (percent)	Women (percent)	Total (percent)
Unemployed ^a	8.1	12.5	9.9
Newly unemployed ^b	2.2	5.3	3.5
Adequately employed ^c	43.1	28.9	37.3
Visible unemployment ^d	10.8	19.8	14.5
Invisible unemployment ^e	30.1	29.1	29.7
Employed, nonclassified	5.8	4.2	5.2
Total	100.0	100.0	100.0

a. Fired or laid off from work.

b. Never worked but looking for work.

c. Work as much as they would like to; earn at least a minimum wage.

d. Are unable to work the amount of time desired.

e. Work 40 hours a week or more but unable to earn the minimum wage.

Source: INFOPLAN based on Urban Employment Survey (Larrea and Sánchez 2001).

Table 5.2 Average Level of Education of the Labor Force by Sex and Labor Market/Unemployment Segment (Quito, Guayaquil, and Cuenca Averages from March 1998 to March 2000)

Labor Market Segment	Men (percent)	Women (percent)	Total (percent)
Modern sector	11.4	12.8	11.9
Informal sector	8.6	9.0	8.8
Agriculture	9.3	10.2	9.5
Domestic work	7.5	6.4	6.6
Nonclassified	9.9	11.6	10.4
Total	10.5	10.6	10.5
Unemployed	9.9	10.6	10.3
Newly employed	10.7	10.5	10.6
Visible unemployment	11.7	12.2	11.8
Invisible unemployment	9.9	9.4	9.6
Employed nonclassified	8.7	9.5	9.0
Total	12.3	12.8	12.5

Source: INFOPLAN based on Urban Employment Survey (Larrea and Sánchez 2001).

Table 5.3 Unemployed, According to Education and Sex (Quito,
Guayaquil, and Cuenca Averages from March 1998 to March
2000)

Level of Education	Men (percent)	Women (percent)	Total (percent)
None	0.8	1.3	1.1
Primary	23.0	18.1	20.3
Secondary	59.3	60.1	59.7
Postsecondary	0.4	0.7	0.6
Superior	16.1	19.6	18.0
Postgraduate	0.3	0.2	0.3
Total	100.0	100.0	100.0

Source: INFOPLAN based on Urban Employment Survey (Larrea and Sánchez 2001).

Informality of Workers

Compared with men, women are more heavily represented in the informal sector. About 36 percent of the female EAP in urban Quito, Guayaquil, and Cuenca are in the informal sector compared with 31 percent of men (see table 5.4). Another 12 percent of women are in domestic services. The proportion of women working in domestic services increased from 11 to 15 percent from 1998 to 2001, thus suggesting that women use domestic work as a survival strategy to confront crisis (Larrea and Sánchez 2001).

Table 5.4 Labor-market Segmentation by Sex (Quito, Guayaquil, and Cuenca Averages from March 1998 to March 2000)

Sector	Men (percent)	Women (percent)	Total (percent)
Modern sector	66.1	50.8	60.1
Informal sector	30.5	36.1	32.6
Agriculture	1.9	0.8	1.5
Domestic	1.4	12.4	5.7
Nonclassified	0.1	0.1	0.1
Total	100.0	100.0	100.0

Source: INFOPLAN based on Urban Employment Survey (cited in Coraggio et al 2000).

In urban areas of Ecuador, the informal sector absorbs a larger share of the poor than the nonpoor labor force (World Bank 1996). In contrast, informal-sector activity in rural areas is higher for the nonpoor than for the poor (World Bank 1996). Rural off-farm employment—proportionally a more important sector for women—plays an important role in supplementing income from agriculture, according to Lanjouw (1998). Just under 50 percent of all rural women in the nonwage labor force have either a primary or secondary occupation in the nonagricultural sector; the corresponding figure is 37 percent for men. But women are also significantly less likely to be employed in relatively higher-productivity occupations. According to Lanjouw's analysis, a man is twice as likely to be in a high-productivity activity than a woman.

The Entry of Wives into the Labor Force during Shocks

Evidence from Ecuador and other countries suggests that as economic need arises, households respond by sending women into the workforce to compensate for their husbands' unemployment or to supplement shrinking household income (Moser 1997; Cunningham 2001; World Bank 2001). This assertion is supported by the fact that more than twice as many women vis-à-vis men who have never worked are now seeking work, as shown in table 5.1. Women also make up about half of all workers with no education and, at the other extreme, constitute about half of those with superior and graduate level education.²⁵ Female participation is also lower among all workers with primary or secondary education.²⁶

Among unemployed women, wives or daughters predominate; in contrast, household heads or sons predominate among the male unemployed (see table 5.5). World Bank studies in Mexico and Argentina have shown that wives typically attempt to use their labor as insurance when the risk of a negative shock to income increases, such as during macroeconomic downturns, or in response to actual falls in household income (Cunningham 2001).

According to Cunningham's analysis of the Mexican labor force, single mothers begin to work in response to realized negative shocks to income, but their entry is less elastic than that of wives. On the other hand, similar to husbands, single women's labor-force entry is not subject to economic fluctuations. In the case of Argentina, Gill and Pessino (1998) used aggregate data to show that labor-force participation rates of Argentine women, especially young women, are counter-cyclical, that is, women are more likely to be in the labor market when male unemployment rates are higher (cited in World Bank 2000c).²⁷

Ecuadoran households unable to mobilize wives' labor tend to be poorer (World Bank 1996). According to the most recent poverty study in

Relation	Men (percent)	Women (percent)	Total (percent)
Household head	27.0	8.8	17.0
Spouse	1.2	33.1	18.7
Son/daughter	57.4	44.6	50.4
Son/daughter-in-law	2.3	3.6	3.0
Parents or in-laws	0.1	0.4	0.3
Grandson/daughter	3.5	1.2	2.3
Other relative	6.5	6.7	6.6
Not related	1.9	1.5	1.7
Total	100.0	100.0	100.0

Table 5.5 Unemployed Population by Relationship withHousehold Head (Quito, Guayaquil, and Cuenca Averagesfrom March 1998 to March 2000)

Source: INFOPLAN based on Urban Employment Survey (Larrea and Sánchez 2001).

Ecuador, the proportion of poor households in which the partner or spouse—usually a woman—of the declared household head does not work was calculated to be 32 percent, in contrast to 22 percent for those households in which the spouse or partner did contribute to household income through paid employment.

Gender-based Wage Disparities

As evidenced by a persistent wage gap, women as a group are at a disadvantage vis-à-vis men in terms of earnings, thereby increasing their vulnerability. Women's average salaries are about 68 percent of men's, according to the most recent LSMS 98 data (CONAMU/INEC 1999).28 The gender gap is considerably wider in rural areas, however, with a rate of 54 percent. The modern sector presents the smallest gap (89 percent) compared with the informal sector (73 percent) and the domestic service sector (64 percent). One explanation for the wage differential is that men and women bring different levels of education and skills to the labor market. An analysis carried out by Samaniego, Fernández, and Pinzón (1998) found, however, that even after accounting for as many of those differences as possible, differentials still remained between men and women.²⁹ More recent data using urban data from Quito, Guayaquil, and Cuenca show that women's salaries were 16 percent lower than that of men's even after controlling for education, work experience, labor market insertion, and position in the household (Larrea and Sánchez 2001).

Constraints to women's advancement on the job and greater pay are institutional, and range from discriminatory practices, to attitudes regarding the appropriateness of men and women holding positions of power, to women's own reluctance to pursue such positions. For example, a 1988 survey carried out in Quito and Guayaquil found that both men and women considered men more appropriate for supervisory positions than women (IECAIM 1991). Moreover, 80 percent of those interviewed judged the work of male supervisors to be good; whereas only 58 percent of men and 78 percent of women considered women supervisors to be performing well (IECAIM 1991). Given that women continue to bear the burden of care giving and domestic tasks, they are also likely to seek flexible job situations, making it less likely that they will advance to higher paying positions with greater responsibilities.

Child Labor

Child labor is both a result and a cause of poverty, to the extent that working reduces the time that children spend in school and affects accumulation of human capital. At the national level, 44 percent of boys and 17 percent of girls report work (excluding housework) to be the main reason for not enrolling in school, according to LSMS 95 data.³⁰ An additional 22 percent of girls mentioned the need to work at home, also according to LSMS 95. Based on data collected in Cisne Dos, Guayaquil, Moser (1997) found that poor households use children's labor to reduce vulnerability in periods of economic crisis. Boys are more likely to earn income directly, whereas girls tend to assist indirectly, taking on childcare responsibilities to free women to work (Moser 1997). Although work does not necessarily lead to school dropout, it has an obvious effect on educational performance.

Home Production

Housework and childcare—which are for the most part women's responsibility in Ecuador—are key constraints to labor-force participation and income generation. Only 0.5 percent of those who declare housework as their main occupation are men, compared with 48 percent of women, according to 1998 INEC data (World Bank 2000a). While this does not tell us anything about who carries out household activities on a part-time basis, sources in Ecuador indicate that domestic work and childcare continue to be mainly female roles, even though some regions of the country tend to be more egalitarian, for example the Sierra. Childcare facilities and early childhood education allow mothers and daughters, who have traditionally been the primary care providers, the chance

to participate in income-generating activities or go to school. Childcare facilities are especially important for single mothers who are poor. In a complementary way, the market for childcare provision creates additional employment opportunities, primarily for women. Childcare is particularly important during periods of crisis and uncertainty because of women's entry into the labor force as a household coping strategy. In two studies carried out in low-income barrios in Guayaquil, Moser (1997) found that women faced increasing pressures to earn an income which, in turn, resulted in less time to dedicate to childcare and domestic responsibilities. She also found that when women with young children went to work, they often resorted to locking their children in the house while they were away, or having older daughters miss school to care for younger siblings. These data suggest that the positive externalities of ECD programs justify their relatively modest costs.

Ecuador has three main public childcare programs, which are operated by the Ministry of Social Welfare and INNFA. Municipalities, civil society organizations, and the private sector also provide childcare. The public programs include: (a) the PDI, which is operated by INNFA and provides services in urban marginal neighborhoods; (b) the ORI, which is run by the Ministry of Social Welfare; and (c) the Ministry of Education's Alternate Preschool Program (PRONEPE), which comprises two urban-based schemes (community homes for children and community centers for children) and a rural-based community promoter scheme.³¹ According to a World Bank review of social programs, all three programs have the advantage of facilitating female labor-force participation; ORI and PDI also have the advantage of providing nutrition for children and PDI provides preschool education (World Bank 2000b). However, programs have low coverage. Also, overlapping services combined with the relatively small scale of programs translate into high administrative costs, poor planning, and weak management controls (World Bank 2000b). All three programs are continually threatened by budget cuts and, in the case of PRONEPE, elimination (World Bank 2000b). A new IDB program called Nuestros Niños (Our Children) offers the potential to increase coverage and improve the coordination and management of ECD services.³²

Social Security

Social-security coverage is extremely limited for the population as a whole but is even more limited for women, thereby increasing their vulnerability. In 1998, social security covered only 18 percent of Ecuador's population, of which 56 percent were men and 44 percent were women [*Fundación Mujer y Sociedad* (Woman and Society Foundation) 1999, cited

in CONAMU/INEC 1999].³³ The gender gap among those who do have coverage is most probably due to the fact that women are overrepresented in the informal sector or in part-time jobs, while men are more likely to be in the formal sector. In terms of urban/rural differences, the existence of farmers' insurance (*Seguro Campesino*) allows rural families from the Costa and the Sierra to resort to a minimum of social services, in contrast to those families in urban areas and in Amazonia who do not have access to this or other types of insurance.

In sum, women and particularly poor women find themselves in a more vulnerable position because of their lower participation in the labor sector. The high proportion of women working in the informal sector, their lower wages and social benefits, and their home workload also contribute to higher vulnerability. In parallel, the mobilization of women's labor has proved to be an effective coping mechanism in the event of crisis. Lastly, women have experienced higher levels of unemployment during the crisis, which is probably because of the greater number of women spouses looking for employment.

3.5 Land

Land can be a critical input for production; it can serve as collateral for loans or can be sold as an asset. Thus, all other things being equal, the more land owned, the less vulnerable the individual or household. Additionally, in terms of gender, land access and ownership determine an individual's ability to bargain over the allocation of labor, income, and other inputs into household well-being (Doss 1996)—that is, land is related to household capital. Finally, for elderly men and women, land is an important source of income security during old age, both directly (as the basis for agricultural production and/or rental income) and indirectly (insofar as adult children are more likely to assist their elderly parents if they can expect an inheritance transfer).

Gender patterns of land ownership in Ecuador vary by region, with land ownership being much more egalitarian in the Sierra than in the Costa (see table 5.6). In the case of the former, despite an initial male bias in land distribution, evidence suggests that traditional forms of equal male and female inheritance—especially among the indigenous Quichuaspeaking population—have begun to equalize ownership of land-reform properties, which are now being passed on to a second generation (Doss 1996).³⁴ A detailed study of Cantón Salcedo in the northern Sierra found that women were as likely as men to own land, either via inheritance or purchase. Moreover, men's and women's parcels were roughly equal in size (about two hectares on average) and deeds of purchase were generally jointly registered in the names of both husband and wife (Doss 1996).

Year	Sample	Women	Men	Couples/Joint	Total
1992-96	Titles issued by	1,596	2,135	8,685	12,416
	PRONADER	(13%)	(17%)	(70%)	(100%)
	Avg. size (ha)	1.19	0.81	1.21	1.15
1996	Sierra (n = 75)	23%	50%	57%	100%
	Coast $(n = 75)$	6%	66%	28%	100%

Table 5.6 Indicators of Land Ownership in Ecuador

Source: Constructed from Deere and León (2000).

A larger survey of more than 32 rural Sierra communities confirms the norm of equal inheritance to all children, regardless of age or gender: 90 percent of property owners claim that they intend to bequeath their land equally to sons and daughters. Data from the same set of households, however, indicate that inheritance *practices* may tend to favor male heirs: Of the 158 parcels acquired through inheritance, two-thirds came from men's families and only one-third from women's (Katz 1999).

Some evidence from the Sierra suggests that women's joint or independent land ownership positively influences women's participation in household decisionmaking, thereby reducing their vulnerability. Drawing on a small sample from rural Salcedo, an innovative multivariate analysis of the determinants of women's control of economic resources (land use, household financial management, selection of agricultural inputs, and the disposition of agricultural products for sale or consumption) suggests that this control increases significantly with women's ownership of land (Hamilton 1998).

Gender ownership patterns of the Costa, however, are substantially less egalitarian than those of the Sierra. Historically, coastal agriculture was dominated by cacao until the 1920s, after which rice, sugar, and bananas became important crops. Land rental (precarismo) and a relatively mobile, temporary agricultural labor force, with little direct female participation in crop production, characterized the region prior to agrarian reform. Land-reform legislation affecting the Costa was not enacted until 1973, and it took a different form than in the Sierra (Phillips 1987). Much larger properties (up to 2,500 hectares plus 1,000 hectares of pasture) were allowed to remain intact, and the emphasis was on formation of cooperatives as opposed to individual parcelization. Since the reform was geared toward former precaristas and precluded both spouses from becoming members of the same cooperative (as well as requiring husbands' permission for wives to become members), more than 90 percent of beneficiaries of coastal agrarian reform were men (Phillips 1987). Evidence suggests that even women socias
(cooperative members) rarely work cooperative land themselves, and that there is a preference for male hired labor over female family labor during peak seasons. Moreover, unlike the Sierra, it does not appear that gender egalitarian inheritance customs have reversed the male bias of the 1970s land distribution. An examination of the property registry in Cantón Vinces, Los Ríos Province, showed that only 26 percent of all agricultural production units were owned by women, and in the majority of these cases, brothers or spouses actually managed the land (Phillips 1989).

Thus, gender vulnerability based on access to land is not consistent across groups. Evidence indicates that women in the Sierra would be less vulnerable than those in the Costa. It also appears that the government has been making important steps to balance land ownership. The majority of titles granted by the government's Rural Development Program (PRONADER)—70 percent—went to joint title holders, compared with 17 percent that went to men and 13 percent that went to women (Deere and León 2000).

4. Institutional Context

Government-funded social programs aimed at assisting the poor and the vulnerable (see chapter 4) have important gender dimensions, with women (and children) being the stated target of many of these programs. Of the myriad of government-funded social programs, the most important is the Bono Solidario, which provides direct cash transfers to poor women and the elderly.³⁵ The government introduced the Bono Solidario in September 1998 in part to compensate for the elimination of a number of long-standing price subsidies (including cooking gas and electricity).³⁶ The Bono Solidario has provided a direct cash subsidy on the order of US\$15 per month for women and US\$7.50 for the elderly (it has varied on account of the exchange rate and adjustments).³⁷ Other social programs funded by the government can be categorized into the following groups: those targeting women and children under age two, those targeting children under age six, those targeting school-age children, and those targeting the elderly. Social infrastructure projects provide temporary employment as well as generate social benefits for the poor. The Bono Solidario is the largest program, reaching about 1.3 million people, followed by the School Meals program with about 650,000 beneficiaries. The four main ECD programs benefit about 120,000 children, of which ORI is the largest.³⁸ In March 1999, the government announced the Integrated Social Plan, which identified as its main targets, street children, child workers, adolescents, pregnant and nursing women, persons with disabilities, and victims of domestic violence.

5. Conclusions and Recommendations

Although Ecuadorans have experienced economic stagnation and deterioration for almost two decades, the sharp deterioration since 1998 has led to deeper levels of economic and social crisis and even greater income disparities in a country that already had one of the highest degrees of inequality in Latin America. In terms of vulnerability to the negative outcomes of a crisis as well as actual effects, the information presented here suggests some important gender differences.

First, in terms of human capital, the deteriorating education system means that both boys' and girls' human capital is jeopardized, thereby increasing their future vulnerability. But the current crisis has placed boys in particular at risk because of the expectation that they work and contribute to family income. The relationship between boys' education and vulnerability is noteworthy. On the one hand, boys' exit from school and entry into the labor market makes them more vulnerable to future shocks (by reducing their human capital). On the other hand, mobilizing sons to work in the labor market represents a key strategy for families to cope with negative welfare shocks. In terms of the health consequences of crisis, the incidence of teenage pregnancy, short birth spacing, and high fertility-which are related to inadequate health services-places women at risk of maternal mortality and morbidity. For men, precarious behavior, accidents, violence, substance abuse, and depression-which are linked to gender roles, male unemployment, and men's unmet societal expectations of being the economic provider-increases male morbidity and mortality. Homicides are now the second leading cause of death among men in Ecuador. And alcoholism and substance abuse, which are important male health issues in and of themselves, are linked to low productivity, violence and homicides, family instability and disintegration, and traffic fatalities.

Second, with respect to household capital, household structure and relations are both a result of the protracted economic crisis as well as a determinant of vulnerability. Households headed by women for example—which have been increasing in number as a result of the crisis and other factors—tend to be more vulnerable because they count on a single adult earner and caregiver. Households with more family members can represent a distinct threat to household financial security if these members do not contribute to household income. For women, more dependent children means fewer opportunities to participate in economic activities, to generate income, and to negotiate within the household. For men—who are considered the main breadwinners—more dependents means greater pressure to bring in higher levels income, which in turn, can lead to precarious behavior if men are unable to fulfill this role. Lastly, household violence—which erodes household capital, lowers productivity, contributes to health problems, creates psychological strain and instability in the family, and can lead to family disintegration—is higher among the least educated and has been linked to unemployment and economic instability.

Third, in terms of labor and vulnerability, women's labor-force participation over the decades has increased dramatically, thereby enhancing their economic independence and reducing their vulnerability. However, vis-à-vis men, women are overrepresented among nonremunerated family workers, informal workers, the unemployed, and the underemployed and on average, receive lower salaries than men. As in other countries, women's specialization in home-based work and the transient nature of their employment has contributed to these differences. During crisis, in particular, households respond to negative income shocks and male unemployment by mobilizing women's labor. For men, unemployment and underemployment during periods of crisis can lead to destructive behavior and depression.

Fourth, gender vulnerability based on access to land varies across groups and regions. Studies suggest, for example, that land access is more equitable in the Sierra than in the Costa, and thus women in the Costa are to this extent more vulnerable. But, overall, evidence points to important advances in gender equity in land programs in Ecuador. And lastly, women have witnessed an increase in their political capital—as evidenced by new institutional and legal reforms for women, greater female political representation, stronger women's civil society organizations, and an improved gender perspective in government policies and services—thus lowering their vulnerability as a group.

Information presented here also indicates that institutions—including government programs, the political system, legal and regulatory systems, and social systems and values—matter in terms of gender vulnerabilities, outcomes, and well-being. Examples include the government's *Bono Solidario*, which provides cash grants to women; the land component of the government's Rural Development project, which favored joint-title holders; and government funded childcare programs, which facilitate women's entry into the labor market and decrease the vulnerability of women and children.

Recommendations

In the long term, gender policies and programs should center on changing the current model of gender roles and relations, which limits men's and women's opportunities, results in power asymmetries between the sexes, leads to suboptimal economic and social development, and increases both women's and men's vulnerability, albeit in different ways. Changes in gender roles are best achieved through socialization processes that take place in the private and public spheres via, among others, the educational system, media, family, and peer groups. In the short term, as the crisis continues, however, interventions should focus on the following:

BUILDING FAMILY AND HOUSEHOLD CAPACITY. Households act as important insurance mechanisms and safety nets during periods of crisis. Thus, interventions should be designed and realigned to strengthen the family unit while at the same time tackling the negative gender roles and relations within the household that lead to power asymmetries, violence, inefficient resource allocation, and household instability. One possible model is that of Family Resource Centers that have been established in poor Latino communities in the United States to target mothers, fathers, adolescent boys, and adolescent girls in dealing with issues such as responsible fathering, male alcoholism, women's economic opportunities and empowerment, pregnancy among teenage girls, and gang violence and drug abuse among male adolescents. In particular, these centers have played an important role for men by broadening their roles as fathers.

ADDRESSING LABOR-MARKET NEEDS OF HOUSEHOLD MEMBERS. Short-run interventions should take account of the fact that wives will use their labor, where possible, as insurance when the risk of a negative shock to income increases, such as during macroeconomic downturns, or in response to actual falls in household income. Thus, in the short run, wives need unemployment insurance programs, job-matching services, and short-term, income-generating opportunities. On the other hand, like husbands, single women's labor-force entry is not subject to economic fluctuations. Thus, programs that aid household heads, whether male or female, should be directed toward employment that will last beyond the economic shock, for example, small enterprise technical assistance and credit programs. For both men and women, but in particular women, improving the coverage and quality of childcare programs is a key priority. Possibilities include re-establishing the hogares comunitarios (community households) model or putting in place after-school homework clubs where children can be cared for throughout the day (Moser 1997).

STRENGTHENING SOCIAL CAPITAL. Lack of data has made it impossible to carry out an in-depth analysis of the relationships between gender, social capital, and vulnerability in this chapter. However, on the basis of the results of other experiences to tackle vulnerability in the region, our recommendation is that in the short and long term, interventions should center on strengthening social capital at the community level. Experiences throughout the region indicate that social capital serves as a coping strategy during periods of crisis. A four-community study in Ecuador clearly demonstrates that, all other factors remaining equal, those communities that had stronger informal networks of solidarity and exchange also had better well-being and fewer social ills (such as child malnutrition, lack of childcare, teenage pregnancy, youth delinquency, and drug use) (Arboleda 1998). Social capital is also a key ingredient for sustainable development in the absence of a competent state efficiently able to provide services or resources to the public. A recent study carried out in Panama comparing rural communities with and without social capital, demonstrated that the former had better-maintained water systems, schools, and infrastructure; a better-integrated community life; and children who were more grounded and stable. Specifically, social-capital interventions should attempt to break the culture of dependency, strengthen community networks with both men and women, and work toward building trust in government and public institutions. The decentralized health program now operating in Cuenca and other municipali-

Notes

ties provides a model that could be applied by such government bodies as the Ministry of Education to build social capital at the local level.

1. Projection for the first trimester of 2000.

2. World Bank 2000a.

3. Risk, exposure, and response capacity can vary by gender. For example, risk of unemployment varies among men and women because they are in different sectors of the labor force. Depending on the sector hardest hit by an exogenous shock, therefore, either women or men as a group would suffer more. The likelihood of having insurance—which is a way of minimizing the negative effects of a risky event—can also differ by gender, with men tending to be concentrated in the formal labor market and thus having more access to insurance, and land ownership being biased toward men Examples of gender differences in exposure include the health risks to which women are exposed because of their maternal roles and the male-on-male violence to which men are exposed. Lastly, capacity to respond to crisis varies among men and women because of gender roles. For example, women specializing in housework and childcare are less marketable in the formal labor force because they have less job experience and skills, and therefore less capacity to respond to income losses.

4. About 70 percent of men and women have completed primary education, and only 25 percent have completed secondary education.

5. While gaps persist, gender appears to be less of a determinant of educational attainment than urban/rural residence, with dropout rates being significantly higher in rural areas than in urban zones. More than 70 percent of girls drop out of sixth grade in the Sierra and Oriente. For boys, rates are 64 percent and 62 percent in the Oriente and Sierra, respectively. In the Costa region, boys' dropout rates (70 percent) exceed those of girls' (64 percent).

6. The rates will probably decrease because younger generations have much lower illiteracy rates than their older counterparts. For example, the illiteracy rate for people between 15 and 24 years old is 3.2 percent compared with 17.2 percent for those over 40 years old.

7. Comparative figures in the region for the same period were 390 for Bolivia, 265 for Peru, 56 for the República Bolivariana de Venezuela, 87 for Colombia, and 114 for Brazil (PAHO 1998a).

8. Consejo de la Salud de Cuenca (personal communication).

9. Data for 1994 according to ENDEMAIN (Demographic and Maternal and Child Health Survey); data for 1999 were not yet available.

10. PAHO statistics, as cited in CONAMU/INEC 1999.

11. Spontaneous abortion (miscarriage) accounts for 85 percent of cases and induced abortion for 15 percent, according to ENDEMAIN 94.

12. Women from urban areas and the Costa region who are in their latter productive years, as well as more highly educated women, have the highest rate of induced abortions (ENDEMAIN 94). There is little difference between the abortion rates of teenagers and those of the general population.

13. Includes both modern methods and natural methods, the most common methods being female sterilization (23 percent), contraceptive pills (11 percent), IUDs (10 percent), the rhythm method (8 percent), withdrawal (7 percent), and condoms (3 percent), according to ENDEMAIN 99.

14. Defined as women who do not report problems of subfertility, are not pregnant, do not wish to be pregnant, are sexually active, and are not using any form of contraception.

15. Homicides rates are low in Ecuador compared with neighboring República Bolivariana de Venezuela and Colombia, and are about the same as Peru (rates in those countries were 15.2, 89.5, and 11.5, respectively, in the late 1980s) (Madrigal and Schiffer, 1992, cited in Pyne 2000).

16. According to the study, 7.04 percent of morbidity among men is a result of alcoholism compared with 0.64 percent for women. Thus, at the time of the study, one in every 13 Ecuadorans was an alcoholic.

17. According to Rosenhouse (1989), problems exist in the concept of headship because it assumes a hierarchical relationship between household members. It also implies that the head is the most important member in the household, is present in the household, has overriding authority in important household decisions, and provides consistent and central economic support. These commonly made assumptions between the head and the household can result in a biased portrayal of the internal dynamics of the household. 18. The dependency ratio is defined as the number of dependents divided by the number of workers.

19. For example, results of a six-country rural study in the Region (Chile, El Salvador, Colombia, Honduras, Paraguay, and Peru) indicated an inverse relationship between income and family size and dependency ratios (López and Valdés 2000). The dependency ratio for the lowest income quintile was about one-third larger than that of the total sample in each country (López and Valdés 2000). 20. This compares with 3.0 for Peru, 4.3 for Bolivia, 3.0 for República Boliviariana de Venezuela, and 2.7 for Colombia.

21. Fertility rates have decreased since 1994 for both groups, and are 2.1 for women with higher education and 6.2 for women with no education at all (ENDEMAIN 94).

22. Sample sizes were 1,000 women (Chile), 5,390 women (Colombia), 1,312 (Costa Rica), and a national representative sample (Paraguay).

23. Ecuador was the first Latin American country to grant women the right to vote, through the 1929 constitution. Women have been less likely than men, however, to exercise their voting privileges. Although voting was made compulsory in 1967, less than half of the voters were women in recent elections, even though there are more eligible women than men in the country as a whole.

24. Nationwide, 19 women's police stations have been established to date.

25. From the SIMUJER (Situation of Women and Gender Inequality Indicators) database compiled by the National Council for Women.

26. This pattern suggests that individuals enter the labor market if the marginal benefit exceeds the marginal cost. An educated woman has the ability to make high earnings in the labor market and to hire an inexpensive domestic worker, so her "cost" of working is low while her benefit is very high. An uneducated woman has low earnings ability but her economic need is so great (that is, the "benefit" of earning an income is very high) that even the benefits of earning a low income exceed the value of her leisure and some homecare (cost).

27. Also see World Bank 2001.

28. According to estimates for other countries, Ecuador presents a moderate salary gap. For instance, in 1994 women's average wage was 75 percent that of men's average wage; in Brazil, women's wages were 60 percent that of men's (FLACSO 1995).

29. These may be the result of unmeasurable productivity factors (for example, differential treatment in schooling, family expectations, "old boys' networks", and so on) that could not be statistically removed from the numbers, or from "market-induced" differences, that is, discrimination. When the researchers looked at industries that were typically female (food production, textiles, clothes, small commerce, restaurants, public sector, teachers, medical, and domestic labor), women actually earned more than men, with similar, observable characteristics in the food, textile, teaching, and domestic services industries. However,

these trends turned around such that by 1997, women were earning less than men in all the "female" industries. The increased disparity was most severe in the food, textiles, clothes production, medical, and domestic service industries, while the disparities, although still in favor of men, were lower in small commerce and the restaurant business.

30. From the SIMUJER database compiled by the National Council for Women. 31. The two urban models have important elements in common: a concern for incorporating families and the community and an emphasis on enhancing children's health, nutritional, and psychological development. One model provides care for children of working mothers within the community in the home of a female neighbor. Children stay at the care centers between eight and nine hours a day, five days a week. The childcare provider is a person selected by the community; she and an assistant are trained by the program. The children—generally 15 per home—range in age from three months to six years. The second model offers care for a maximum of 100 children. The community provides a community center, church, or sports club as a location. Children from three to six years of age attend these centers five days a week, from three to four hours a day, during the morning or afternoon. Children are cared for by young people who are selected by the community and trained by the program.

32. The program will fund improvements and expansion of public, private, and NGO programs on a competitive basis. The aim is to improve the existing services of childcare to 2000 centers, increase the number of children enrolled to 250,000, and improve community participation as well as the management of sector institutions. The program includes training 8,000 mothers to care for children (*madres cuidadoras*) and proposes integrated care for enrolled children. For example, it provides nutritional and medical care to children, carries out education programs at the family level, and gives special attention to children suffering from violence.

33. Based on IESS, Dirección Matemática actuarial data.

34. Ecuador's agrarian structure was fundamentally altered by the land reforms of the 1960s and 1970s, with important implications for gender-specific property rights and agricultural production. In the case of the Sierra, prior to the enactment of the Agrarian Reform Law of 1964, land and labor relations were dominated by the *huasipungo* system, in which large, privately owned farms retained semi-tied labor to engage in generally low-technology crop and livestock production. Under the 1964 law, *huasipungueros* who had occupied the same plot for at least 10 years became entitled to ownership, and haciendas larger than 800 hectares (plus 1,000 hectares of pasture) were subject to expropriation. Land was adjudicated to household heads only, and although gender-disaggregated data on land reform beneficiaries do not exist, it is clear that the vast majority who received land—in both individual (*parcela*) and collective (*comuna/cooperativa*) forms—were men.

35. Although not designed for this purpose, the *Bono Solidario* has become the backbone of the government's social-protection program. It is the only program

currently available to large numbers of the poor, but targeting problems and the low level of benefits limit its overall poverty impact (World Bank 2001).

36. Subsequent to the validation of this report in July 1999, these expensive and regressive price subsidies for cooking gas and electricity had re-emerged.

37. The *Bono Solidario* represents about half of the amount required to meet the caloric needs of one person per month (World Bank 2000b). The program represents nearly 8 percent of the central government's nondebt spending and about 1.3 percent of Ecuador's GDP (World Bank 2000b).

38. Other main programs include PRONEPE, the School Lunch program, and PACMI.

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