ECONOMIC LIBERALIZATION, ADJUSTMENT, DISTRIBUTION AND POVERTY IN ECUADOR, 1988-98[1]

Rob Vos

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Comments are welcome and should be addressed to the author:

ABSTRACT

As most of the rest of Latin America, Ecuador engaged in major economic reforms in the 1990s, involving a freeing of its external trade and capital account regime as well as drastic domestic financial reforms. The liberalization process in Ecuador took place in an environment of strong external shocks, declining oil prices and the El Niño events among them. Trade liberalization got underway in 1990-92 under the flag of the Andean Pact, with capital market liberalization and a privatization scheme following soon after. Fiscal policy was tight until 1996, and then relaxed.

The effects of the package involved some structural adjustment with productivity growth in the traded goods sector. Most efficiency gains are achieved though in the traditional export sectors (including oil). Nevertheless, the more eventful aspects of economic performance during the 1990s is linked to external shocks and macroeconomic policies. Greater price stabilization was achieved in the first half of the 1990s, with some demand expansion and employment growth after 1996 due to the fiscal stimulus. The real exchange rate appreciated steadily after 1990. Part of the fiscal imbalance was due to combined adverse effects of declining terms of trade and exchange appreciation on public receipts from the oil sector. In real terms, the fiscal balance was positive in the late 1990s, but negative in nominal terms because of the price shifts.

Effective demand was led by exports, with direct foreign investment helping build capacity in the oil sector. Despite liberalization and appreciation, the import share of GDP did not go up.

Productivity increased in sectors with relatively high output/labour ratios (oil, manufacturing) and fell elsewhere (especially other services. Informal employment rates rose in urban areas as the skill-intensity of production in traded goods went up. These changes were sharper in the early 1990s as intra-Andean group exports increased with Ecuador gaining competitive edge in particular manufactured intermediate goods and luxury consumption goods.

The share of wage earners in the labour force declined, while self-employment income as a proportion of value-added went up. Similar to patterns found elsewhere in Latin America, there was a trend toward greater wage inequality. Urban poverty, however, declined during the period 1992-97, perhaps because of changes in macro policy. Unfortunately, this trend was to be short-lived. By the end of 1998, external vulnerability and reduced fiscal discipline had pushed the external and public sector deficits to unprecedented heights. A currency crisis, a banking crisis, and a surge in inflation

followed in 1999 (in part because the financial sector was liberalized when it was virtually bankrupt and could only live off continued borrowing from the central bank). As this paper shows, the liberalization episode did not budge the Ecuadorian economy from its historical position of being an unstable raw material exporter.

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1. INTRODUCTION

Ecuador's economic reform process started late. Market-oriented reforms were implemented in earnest starting around 1992 with the liberalization of trade and capital flows. Adjustment policies in the 1980s in response to the debt crisis and falling oil prices had focused on short-term economic stabilization with only isolated and sometimes short-lived attempts at reforms of the protectionist trade regime. Historically, Ecuador's economy always seems to have survived difficult periods being 'bailed-out' by new primary export booms. High adjustment costs had to be paid in the 1980s, but cushions were found in the surge of shrimp farming, expansion of oil production and recovery of its position as the world's major banana exporter. This likely has been a factor in slowing the necessary policy reform process and has kept the economy highly vulnerable to shocks in world demand and commodity prices.

Major reforms to the policy regime were implemented in the 1990s. Nonetheless, a main conclusion of this paper is that at the turn of the century the Ecuadorian economy is still struggling to achieve macroeconomic stability, where volatile oil prices and the external debt overhang continue to be key determinants of the fiscal and external adjustment process. Plus ça change? Some important changes are observed including a significant growth of non-traditional exports. Further, substantial volume shifts are observed in the macroeconomic balance. The real trade balance has moved to large surplus positions, while the real primary fiscal balance has also moved into surplus as a consequence of large cuts in the volume of government services. Adverse relative price shifts (falling terms of trade, real exchange rate appreciation) have made this adjustment look much less impressive in value terms and left the economy with persistent internal and external deficits. Vulnerability to external shocks, particularly commodity price volatility, remains one of the main weaknesses of the economy.

Underlying the large volume adjustments are production shifts towards greater export orientation. On balance, there has been a shift towards more capital-intensive production (oil, manufacturing, traditional agriculture), with the exception of a few agricultural sub-sectors (flowers, vegetables). The low productivity growth that can be observed in the 1990s seems largely due to this sectoral shift, producing a relative decline in the overall demand for modern sector labour in the traded goods sector. The smaller demand for wage labour has become more skill-intensive, giving rise to larger wage inequality and income differential between wage and self-employed incomes. The weight of employment growth has been in informal and self-employed jobs. Together

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with dramatic decreases in the real wage it has shifted factor income distribution away from wages and towards self-employed incomes. This distributional pattern was already predominant in the 1980s when the recession and real wage declines pushed the wage share to very low levels. In the 1990s, the greater share of workers seems to have moved into the informal sector, but recovery of real wages allowed for a reversal in the downward trend of the wage share. Moreover, urban household incomes move closely with adjustments in the institutionally set modern-sector minimum wage. This correlation appears to be associated with two factors: most wages and salaries in the modern sector are linked to the minimum wage and urban self-employed incomes benefit from strong multiplier effects of real wage increases. The upshot has been declining urban poverty rates since 1992 with the wage adjustment likely being more important than structural economic change. In 1998-9, the economy was doubly hit by a steep decline in the oil price and the natural disaster provoked by the El Niño phenomenon. The ensuing fiscal and financial crisis revealed structural weaknesses of the economy and policy failures of the past. Rising inflation and falling employment undid the gains in urban poverty reduction in the preceding years.

The analytics of the apparent unorthodox outcome of adjustment in 1990-97 is complex. To simplify we could use the diagrammics of Figures 1a and b (derived from Taylor et al. 1998) as a starting point. The graphs provide a link between macroeconomic adjustment, sectoral productivity shifts and the labour market. The northwest quadrant assumes an increasing relationship between the output level and the trade deficit. Operating through reduced protection and appreciation of the real exchange rate, balance of payments opening may well have shifted this schedule outward. Current account liberalization led to a bigger trade deficit; the deterioration was made worse by real appreciation induced by increased capital inflows and stabilization policies using the exchange rate as a nominal anchor, beginning around 1992. In the northeast quadrant, liberalization may well have led to less demand for formal employment at a given level of output. Pressures toward cost reduction via enhanced labour productivity in tradable goods sectors along with growth of demand for relatively low-skilled jobs in non-traded sectors helped push this trend. As shown in the southeast quadrant, a reduction in formal employment is likely to be associated with an increase in informal jobs, greater self-employment, and, given wage rigidity in formal sectors, higher unemployment. In stylized fashion, liberalization coupled with capital inflows initially led to productivity growth and a reduction in formal employment in a move from A to B. At

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the same time, the trade deficit worsened, jumping from X to Y. To avoid further widening of the external disequilibrium and slash domestic inflation, authorities pushed toward fiscal austerity to cut back on aggregate demand and encourage further capital inflows. Output growth slowed, with formal employment decreasing during a policy-induced transition from B to C; at the same time, the trade deficit was contained in a move from Y to Z. We hypothesize that the story of Figure 1a, reflects in stylized fashion the events following the stabilization efforts and the trade and capital account opening of the Ecuadorian economy in the early 1990s.

After 1995 (till mid-1998), fiscal discipline slipped and new rounds of wage increases were allowed, pushing domestic demand and the external deficit back in the direction of Z' (in Figure 1b). Falling oil prices compounded the effect on the external balance. Demand expansion allowed for a recovery of formal employment (particularly in non-tradables) to B'.

The story could be formalized and elaborated further in an dependent-economy model framework with labour and commodity market imperfections (including, formal-sector wage rigidity, labour market segmentation and mark-up pricing in formal sectors), along lines developed in, for instance, Cox-Edwards and Edwards (1994) and Ros (1999). In these stories, if the non-tradables is the more labour-intensive sector (as is the case in Ecuador), then trade liberalization will reduce employment. Extending this to an intertemporal framework, Cox-Edwards and Edwards (1994), show that capital account liberalization in an economy with minimum wage setting in the formal sector will lead to an increase in non-tradables employment through a positive expenditure effect (along the lines of Figure 1b).

These theoretical notions emphasize the importance of the starting conditions of the liberalizing economy, particularly factor endowments (including human capital and natural resources) and labour market imperfections, in predicting the probable outcomes of balance of payments liberalization on output and employment. In this paper, we will not flesh out the theoretical notions in further detail, but rather keep the broader framework in mind when assessing trends in aggregate demand, employment and income distribution in Ecuador before and after the economic reforms.

This story is detailed in the next sections. First, in Section 2, the major policy changes and economic events since the early 1980s are summarized. In Section 3, the principal shifts in the macroeconomic balances and sectoral employment and productivity rates during the key period of economic reforms (1988-98) are analyzed follow-

ing the decomposition methodologies as suggested in Taylor et al. (1998). Section 4 analyzes the consequences of the employment shifts for earnings and factor distribution and develops some hypotheses as to how this has affected income distribution and poverty at the household level. Due to data limitations this analysis is mainly confined to urban areas. Conclusions are in Section 5.

Figure 1a

Output and employment responses to macroeconomic adjustment policies and balance of payments liberalization: opening and demand contraction
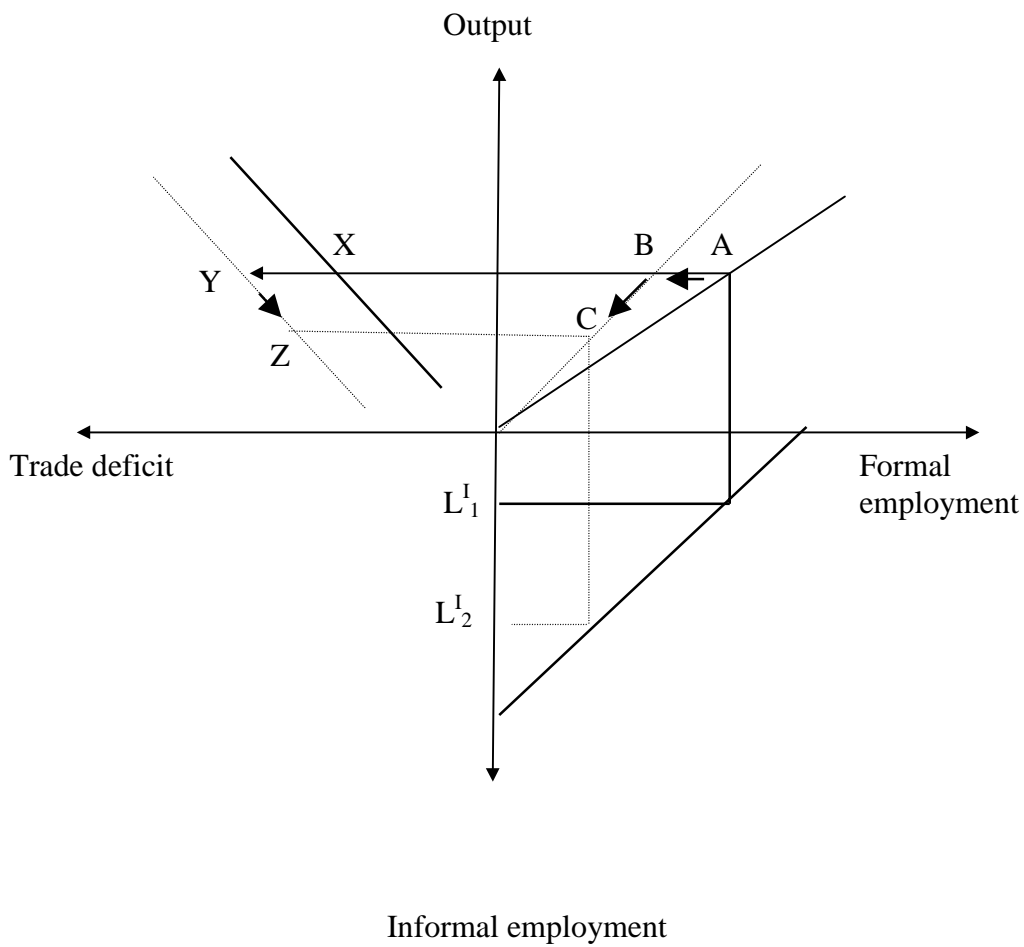
Figure 1b

Output and employment responses to macroeconomic adjustment policies and balance
of payments liberalization: opening and demand expansion
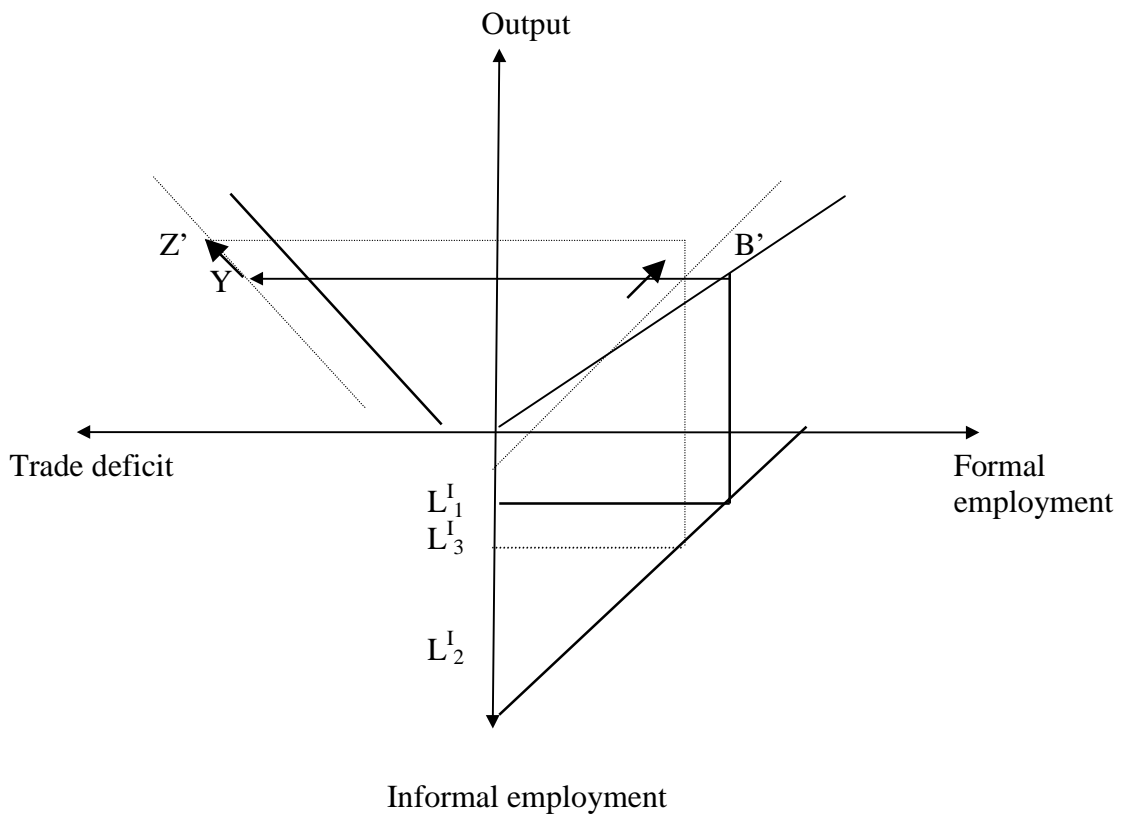
Table 1: Ecuador: Policy Regimes, 1982-98

	Stabilization programme 1982-3	Adjustment programme 1988-90	Stabilization Plan 1992	Economic Reactivation Program 1998-2000 (implementation in progress; major amendments during 1999)
Trade reforms	Increase in import restrictions	Tariff reductions and reduction of QR in context of Andean Pact. Average tariff at 13%.	Further tariff reductions, 5-25% tariff range (with exceptions for luxury consumption goods)	Reorganization and stricter control of customs
Exchange rate regime	Crawling peg introduced	Crawling peg and periodical devaluations to align real exchange rate	Managed floating within fixed upper and lower boundaries	Managed floating. Maxi-devaluation (15% in September 1998). *Flexible exchange rate introduced in February 1999 following effective 100% devaluation. During rest of 1999 another effective 100% nominal devaluation. Shift towards **dollarization** announced in January 2000.*
Capital account	Direct foreign investment and regulated through *Acuerdo 24* of Andean Pact. No foreign investment allowed in oil and mining.	In 1984 restrictions of DFI were abandoned and foreign investment in oil exploration permitted. Some controls on DFI re-established in 1988. Elimination of tax advantages for foreign investors. Strict tendering rules for DFI in oil sector.	*Ley Liberalización de Flujos de Capital e Inversión* of 1992: full capital account liberalization	Fully liberalized
External debt	Debt renegotiated with commercial banks and Paris Club. Private sector debt nationalized ("sucretización").	Cap on interest payments (30% of exports) set unilaterally (before, 1987, default on all debt obligations). New Paris Club agreement in 1990.	Agreement on Brady Plan terms and new Paris Club agreement	*Partial default on US T-bill guaranteed Brady Bonds in September 2000. Creditors declare Ecuador in full default.*

	Stabilization programme 1982-3	Adjustment programme 1988-90	Stabilization Plan 1992	Economic Reactivation Program 1998-2000 (implementation in progress; major amendments during 1999)
Financial sector reform	No reform. Fixed interest rates.	Interest-rate liberalization, maximum spread set	Further financial liberalization and reduction of financial repression. Modernization of banking legislation. Some, but slight improvement banking supervision.	Consolidation financial reforms. Introduction of deposit insurance system. Recapitalization and bad debt take over of range of ailing commercial banks. Creation of independent Central Bank. *Financial crisis of 1999 leads to freezing of bank deposits, bankruptcy and nationalization of major domestic banks by deposit insurance agency (AGD). Interest rates kept high in attempt to avoid capital flight.*
Fiscal policies and reforms	Spending cuts and rise state-controlled energy prices. No fiscal reform.	Spending cuts and rise of state-controlled energy prices. Elimination of wheat subsidy. Modest first steps towards tax reform.	Fiscal cuts. Elimination of gasoline price subsidy. Further, minor tax reforms (customs and tax collection).	Fiscal restraint. Freeze of public sector wages. Major tax reform: introduction 1% tax on financial transactions, (temporary) suspension of income and profit tax. *VAT increase (from 10 to 12%).*
Domestic prices	Domestic price controls and subsidies on basic commodities.	Gradual liberalization of some controlled prices.	Liberalization of most domestic prices.	Elimination of subsidy on natural gas and electricity. Compensation through (targeted) "poverty bonus".
Wage policies	Minimum wages. Incidental nominal wage increases due to social pressure.	Minimum wages. Incidental nominal wage increases due to social pressure.	Minimum wages. Negotiated wage adjustments with target to maintain or increase purchasing power.	Unchanged minimum wage legislation. Temporary wage freeze.

	Stabilization programme 1982-3	Adjustment programme 1988-90	Stabilization Plan 1992	Economic Reactivation Program 1998-2000 (implementation in progress; major amendments during 1999)
Labour market reform	No. Protective labour legislation enforced mainly in small segment of large-scale modern sector. Weak enforcement minimum wages.	No. Protective labour legislation enforced mainly in small segment of large-scale modern sector. Weak enforcement minimum wages. Attempts at reform fail. Dismissal of public employees but at high severance payments.	No. Protective labour legislation enforced mainly in small segment of large-scale modern sector. Weak enforcement minimum wages.	No. Protective labour legislation enforced mainly in small segment of large-scale modern sector. Weak enforcement minimum wages. *Flexibilization of labour laws announced as part of dollarization plan (January 2000)*
Privatizations	No	No	Initiation of privatization programme (airlines, cement, fertilizers)	Speeding up of privatization programme announced (telecommunications, oil and energy).

2. THE 'STOP-GO' PROCESS OF STABILIZATION AND OPENING OF THE ECONOMY

Ecuador has been a slow reformer. During the 1980s adjustment predominantly focused on short-term economic stabilization, despite 'stop-go' rhetoric to liberalize the economy along lines of the Washington consensus (see Table 1 for an overview of the major policy regime changes since 1982). As analyzed in Jácome, Larrea and Vos (1998), economic stability remained a main concern of policy makers due to a succession of external shocks and erratic macroeconomic policies. In fact, by the end of the decade the inflation rate reached in post-war high (75% in 1989) and substantial fiscal and current account deficits were main symptoms of overall economic instability. Both the fiscal balance and the external account have remained highly sensitive to oil price shocks and the external debt overhang. No major trade reform was undertaken to overhaul the 30-year old import substitution regime. Instead, import restrictions were the major response to the pressure of the debt overhang to produce trade surpluses. The fixed-exchange rate regime was abandoned in 1983 and replaced by a crawling peg with periodical maxi-devaluations to align the real exchange rate, but multiple exchange rates continued to exist until the early 1990s. In effect, the traditional components of stabilization policies – fiscal, monetary and exchange rate policies – made up the toolbox of policy instruments applied in a stop-go pattern by successive governments. Responses to external shocks, IMF pressure and ever-returning populist tendencies determined switches between sub-periods of fiscal and monetary restraint and of macroeconomic expansion. In all, the overall structure of the economy underwent little structural change. Primary income distribution moved against (urban) wage earners, while there was a strong increase in the share of self-employment income in the informal sector. This distributional shift is explained by the continued squeeze of modern sector wages, employment losses in modern urban sectors (both traded and non-traded) and the consequent push of workers into the residual informal sector employment (Jácome, Larrea & Vos 1998). Modern sector enterprise profits were also affected by the economic crisis and barely could maintain its share in value added, despite the steep fall in the wage share (see below).

Pressures towards more substantial reforms were resisted until the early 1990s. Also the regime of president Leon Febres Cordero (1984-88), which had entered government with a strong neo-liberal rhetoric, did not achieve major economic reforms.

The regime started on a note of severe fiscal and monetary restraint, but ended with a populist tune. Inflation accelerated to record heights towards the end of the decade.

The only major reform of the regime was the removal of restrictions on direct foreign investment as regulated through the Andean pact (*Acuerdo 24*) and the opening of oil and mining sector to foreign investors. The latter helped to boost oil production. Oil exports were the driving force behind the high growth in the 1970s, albeit with typical Dutch-disease effects (Vos 1989), and remained a cushion during the 1980s. Opening of the oil sector to foreign investors helped to expand production capacity and eased the adjustment cost of oil price fluctuations. The management of oil revenues as a macroeconomic stabilization device is shown by the pattern in Figure 2, where oil prices and production show inverse trends. The need to accommodate oil production and exports to meet fiscal targets eventually forced Ecuador to give up its membership of OPEC in 1992 (Sierra 1995). The policy secured a level of oil exports at US$ 1.2 billion per year and maintained fiscal dependence on oil revenues (Figure 3), but – as indicated – failed to ensure stability.

Figure 2:

Ecuador: Crude oil export production and the oil price, 1987-1998
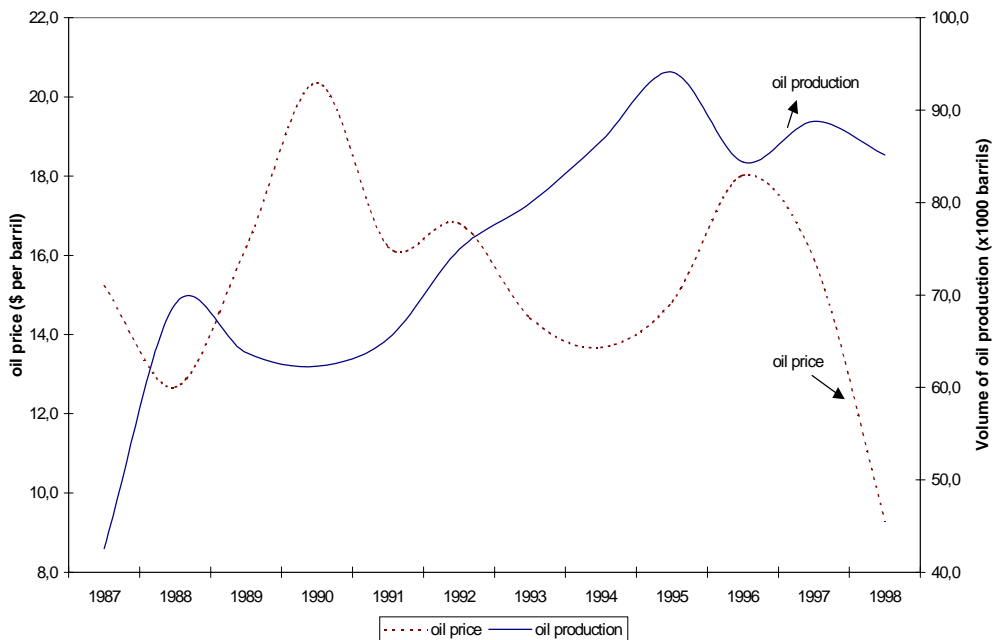
Source: Central Bank of Ecuador, monthly bulletins, various issues 1987-1998

The external debt overhang was a major source of fiscal problems. Successive debt rescheduling brought little relief. Instead, the Central Bank took over most of the private external debt (labeled as the '*sucretización*'), along with a number of bad debts of ailing private banks. The upshot was growing operational losses of the Central Bank. Izurieta (1999) has estimated these losses, also labeled as the quasi-fiscal deficit, at 1 or 2 % of GDP during the 1980s, adding to already large non-financial public sector deficits (see Figure 4). However, when estimated by changes in the full net worth, the 'hypothetical' quasi-deficit increased to over 20% of GDP in 1987-8 due to the dramatic increase in the net external liability position of the Central Bank valued in domestic currency.[2] This is labeled the hypothetical deficit here, as firstly the Central Bank did not show the appropriate asset revaluation in its balance sheets and, secondly, the government opted to default on all its external debt obligations in 1987 and only part of the gap was monetized.

Figure 3

Ecuador: Public sector revenue
(% of GDP)
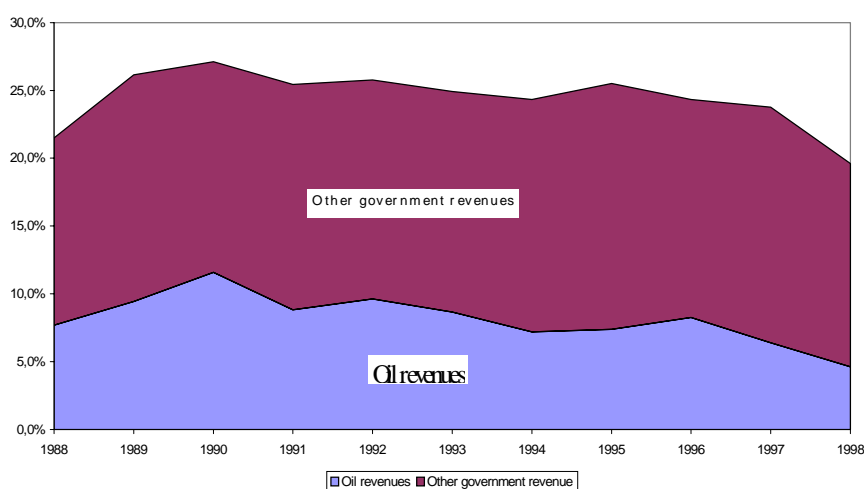
Source: Appendix Table A.1

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[2] The Central Bank losses are estimated here as the change in net worth. The quasi-deficit does not include changes in net worth due to revaluation of assets and liabilities. The 'hypothetical' quasi-deficit does include the revaluation. See Izurieta (1999) for the data and estimation methodology.

The centre-left government of Rodrigo Borja (1988-92) was left to deal with this enormous fiscal problem and record-high inflation, which reached a rate of over 80% at the end of 1988. It promised to tackle the problems through an adjustment program that would be neither 'orthodox' not 'heterodox' and in the end turned out to have a little bit of everything. Stabilization measures were very similar to the 1982-3 adjustment program which counted with the IMF's seal of approval. Fiscal policies were initially restrictive, but cuts were not enough to bring inflation below an annual rate of 50%. The crawling peg exchange rate regime was sustained with periodical maxidevaluations. Further orthodox measures included a (gradual) liberalization of (some) controlled domestic prices and a liberalization of interest rates (albeit subject to a maximum spread between deposit and lending rates). The regime of institutional wage setting in the modern sector (largely through minimum wage legislation) and a complex system of bonuses and cost-of-living compensation was maintained. Attempts to simplify the system for public sector employees failed because of resistance of trade unions and the government bureaucracy itself. Real wages continued their decline that began in the early 1980s, as nominal wage adjustments to inflation were partial and lagged.

With respect to the balance of payments, the Borja regime reinstated some of the controls on direct foreign investment with strict tendering rules for the oil and mining sector and elimination of tax advantages to foreign investors to put them at the same footing as domestic investors. Debt servicing payments were resumed after renegotiation of the Paris Club debt and restructuring of commercial debt.

Figure 4

Ecuador: Fiscal and Quasi-Fiscal Deficit, 1980-91
(% of GDP)
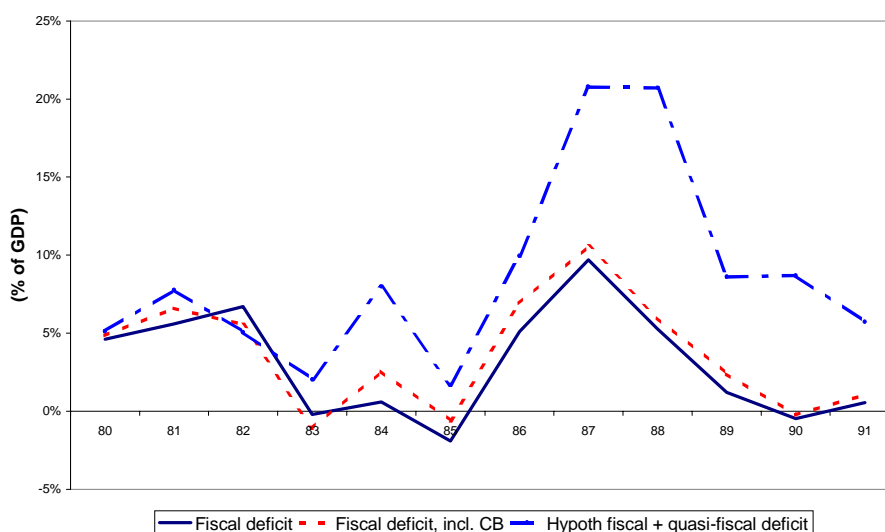
Source: Izurieta (1999).

Trade liberalization was the major reform measure and was implemented be-
tween 1990 and 1992. The push came largely from outside, as the Initiative for the
Americas pushed for greater integration and economic liberalization of the Western
Hemisphere. With the emergence of NAFTA and Mercosur, the countries of the An-
dean Pact tried to revive their free trade zone and average nominal import tariffs were
reduced from 39% to 15%.[3]

A more ambitious set of economic liberalization measures came with the gov-
ernment of Sixto Durán Ballén (1992-96). The trade reform was deepened and nominal
tariffs were reduced further to a 0-35% range and the weighted average tariff fell to
around 9% (see Table A.1). Fiscal policies were tightened more rigorously and the in-
flation rate could be halved to 25% in 1996. The exchange rate regime shifted to a sys-
tem of managed floating within a pre-established band. It was Ecuador's way of at-
tempting to use the exchange rate as a nominal anchor to cut inflationary expectations.
This succeeded only partially and as consequence the real exchange rate appreciated by

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[3] Tariff reduction also involved reduction of the dispersion in tariff rates across commodities. The tariff
reform included a reduction of the upper and lower limits of nominal tariffs from 0% and 290% to 0%
and 35%, respectively. This substantially reduced the difference between Ecuador's tariffs and those of
the rest of the world and eliminated the dissimilarity between Ecuador's tariff structure and that of the
other countries of the Andean region (Creamer, Kim and Reynolds 1997).

some 15% between 1992 and 1996 (see Figure 5). Besides the trade liberalization, a series of structural reforms in other areas were initiated.

Figure 5

Ecuador: External Prices and Real Exchange Rate
(Index, August 1992=100)
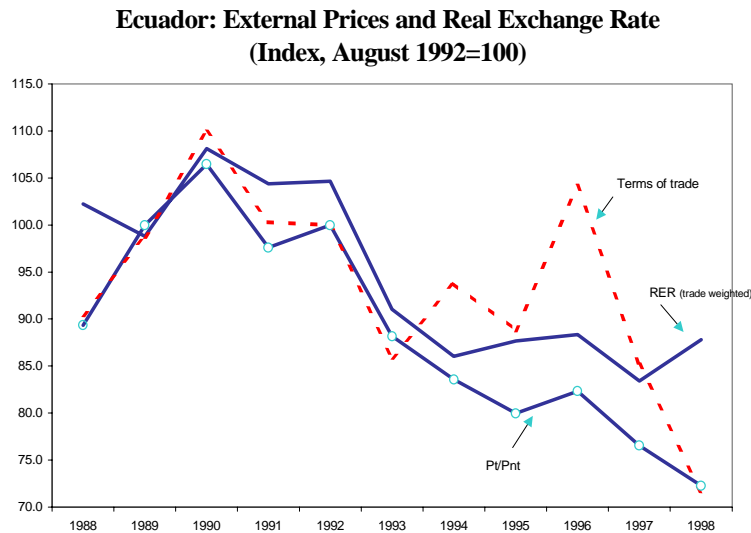
The capital account was now fully liberalized under the *Ley de Liberalización de Flujos de Capital e Inversión* of September 1992. Simultaneously, the domestic financial sector was liberalized and (modest) steps were taken to improve the system of bank supervision and regulation. The politically controversial subsidy on domestic fuel prices was eliminated, but those on other basic utilities (such as, electricity, cooking gas, water and housing) remained in tact. Although the benefits of these subsidies mainly accrue to the urban middle and higher income groups (World Bank 1996), attempts to liberalize these prices were successfully opposed by organized labour. A legal framework for the privatization of state enterprises was put in place, which led to the privatization of the national airline company (*Ecuatoriana*), one cement company, a fertilizer factory and a sugar refinery. In the aggregate, these only represent a small share of the public enterprise sector. Institutional reforms in other areas directed at a modernization of the state were formulated, but only very modest progress was made during the Duran government.

Most progress with the reforms was made during 1993 and 1994 with the new trade and exchange rate regimes being the central features. An important achievement in 1995 was a substantial debt-reduction negotiated with commercial creditors in the

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framework of the Brady plan. This helped reduce the external public debt burden from 88% of GDP in 1994 to 78% in 1995.

This positive event was counteracted by successive exogenous shocks, which affected the policy reform process as much at it hurt the economy between 1995 and 1997. Early 1995 there was an armed border conflict with Peru, which diverted attention from the economic adjustment process. Later that year, a corruption scandal led to the fled abroad of the main architect of the economic reforms and head of the economic team, Alberto Dahik, who also held the office of Vice-President of Ecuador. This brought political instability and with elections upcoming in 1996, economic populism returned leading to a more expansionary fiscal stance. The elections were won by the populist, former mayor of Guayaquil, Abdala Bucaram. The new regime was short lived. Bucaram was ousted from office in February 1997, barely six months after coming to power. While elected on a populist platform, Bucaram's main economic advisor was Domingo Cavallo who designed a stringent austerity program and proposed the introduction of a currency board following the Argentine model. Nothing of this actually converted to policies. Instead, widespread corruption and general chaos in the public administration provoked the mobilization of political forces early 1997 and Bucaram went into exile.

After a short period of enormous political confusion, the allied political forces installed the speaker of Congress, Fabian Alarcon, as interim president. The new regime initiated a process of constitutional reforms, but in the economic sphere essentially proved to be, at best, a care-taker government. It did re-establish better fiscal and monetary control which, however, would be frustrated by two new exogenous shocks: a steep fall in oil prices and the natural disaster caused by the El Niño phenomenon in 1997-8. The direct cost of the drop in oil prices amounted to 1.0% of GDP in 1997 and 2.7% in 1998. The estimated foregone earnings[4] in agriculture, transportation and commerce due to El Niño have been estimated to lie somewhere between 1.1% of 1998 GDP (Vos et al. 1998) and 10% of GDP (Cepal 1998). Obviously, even when taking the lower estimate, this gave a severe economic set back with the non-financial public

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[4] That is, only prospective value added losses are included in these numbers. Capital losses, reconstruction costs of damaged infrastructure, costs of evacuations, health care or lost lives, and so on are not considered here, but see Vos, Velasco and De Labastida (1998) for an analysis of the economic and social costs of the weather shock.

sector deficit climbing to 6.1% of GDP and the external deficit to 11.9% in 1998, up from a fiscal deficit of 3.0% and an external surplus of 0.6% of GDP in 1996.

The Economic Reactivation Program of president Jamil Mahuad (1998-2000) promised a resumption of the reform process initiated in 1992. Trade and capital account liberalization will be consolidated and complemented with further institutional reforms (such as a reform of the customs administration and a tax reform). Further, the Central Bank has been reformed to an independent monetary authority and a new law to regulate the ailing domestic financial sector is announced. The process of privatization of public enterprises is to be speeded up, in particular in the telecommunications and energy sectors. As has been the case with all previous programs, the overwhelming initial concern of the Reactivation Program is again with short-run economic instability. Oil prices have collapsed and most of the reconstruction costs of the damages caused by El Niño still have to be carried. The fiscal deficit for 1998 is back to the level of a decade ago when macroeconomic instability reached its most difficult point. Spending cuts and a nominal wage freeze have returned as the conventional adjustment measures. The politically sensitive subsidies on natural gas and electricity have been eliminated and a modest targeted income transfer program (the "*Bono Solidario*") was put in place to compensate low income groups for the implied income loss. The exchange rate system of managed floating is maintained, although a maxi-devaluation of 15% in September 1998 was required to realign the real exchange rate somewhat (see Figure 5). Brazil's economic problems early 1999 led monetary authorities to raise short-term interest rates to 190% in an attempt to stem capital flight and a speculative attack on the sucre. The effort had to fail because (a) Ecuador lacks a market for domestic and international portfolio capital that could respond to the interest rate adjustment; and (b) the interest-rate hike led to a domestic credit crush and put the long, latently insolvent banking sector into a state of panic.[5] The currency crisis thus became self-fulfilling and the exchange rate collapsed in February 1999, ensuing high inflation and a full-blown economic and financial crisis. The bank crisis revealed the high indebtedness in dollar-denominated liabilities of the financial system, as well as its exposure to dollar-denominated assets outstanding with borrowers earning in domestic currency. The de

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[5] See Izurieta (1998) for an in-depth analysis of the factors underlying the financial sector fragility built up already in the 1970s and 1980s, with virtually all commercial banks relying on subsidized Central Bank loans to maintain liquidity.

valuation and the reduced capacity of the Central Bank to act as a lender of last resort tilted an already fragile system over the edge. Eight banks were declared bankrupt in February-March and, to avoid bank runs, deposits of all banks were frozen for 6 to 12 months. During the year several major domestic banks failed and its deposits were taken over by the deposit insurance agency (AGD). Inflation accelerated to 65% by the end of 1999 and GDP would fall by 7.3% in 1999. As the first country ever, Ecuador defaulted on payments on its Brady bonds in September 1999. However, this step nor the recovery of oil prices could stem the process towards a deepening of the crisis. The urban unemployment rate doubled to 14.5% during 1999, real wages lost 25% of their purchasing power and the dollar value of the minimum wage dropped to US$ 40 per month. Negotiations with the IMF for a stand-by loan were delayed because of political obstructionism in the Ecuadorian congress halting for long the passing of a reform to the bank legislation and a reform of the VAT. In January 2000, with no agreement with the IMF yet signed, nervousness in the exchange market, leads to the bold step of announcing a dollarization of the economy in an attempt to provide more credibility to financial policies. Also president Mahuad required such a bold step in an attempt to regain political credibility. To no avail it soon proved. An Indian uprising mid-January 2000 received military support leading to the ousting of the president. US pressure prevented the odd alliance of the Indian popular movement and the armed forces to form an unconstitutional junta and Vice-President Noboa would be sworn in as president only a day after the uprising.

In sum, the 1990s witnessed important attempts at economic liberalization. Trade was close to fully liberalized by 1992 (with high tariffs only applying to a limited number of luxury consumption goods). At the same time, also the capital account and domestic financial sector were liberalized and a dirty floating exchange rate regime was established. Subsidies on domestic prices of basic commodities have now been eliminated, although successive governments only dared to take one or two at a time.

In other areas, reforms have been less far-reaching. In particular, the labour regime remained virtually unchanged throughout the 1980s and 1990s. Wage setting in the modern sector is governed by the minimum wage legislation. Base wages are set in reference to the minimum wage. In the modern sector, there is a large wedge between

the take-home wage and the base wage as a result of a complex system of mandated benefits, including thirteenth, fourteenth, fifteenth and sixteenth month salaries, a cost-of-living allowance, a complementary bonus and a transportation bonus. Some are a function of the minimum wage, some are lump-sum amounts, making administration and budget control a complex process. Some of the mandated benefits have been added over time as an alternative to an institutionalized wage-indexation system. This wedge, at the level of the minimum wage, has been increasing over time reaching 700% in 1998. Labour costs further include a 21.5% social security tax, which is calculated over the base wage, excluding mandated benefits. Job security provisions present another potential source of labour costs. Severance payments for 'unjustified' dismissal are 0.25 monthly salaries per year of service.

This cumbersome labour legislation has a potentially highly distortive effect on labour markets. Yet, enforcement of labour legislation is very weak and, as analyzed by Cox-Edwards (1996), the actual additional costs of compliance with labour laws are in effect the order of magnitude of 8 percent when comparing wage costs of complying and non-complying firms. Thus the cost created by labour market regulations is not as heavy as they may seem at first glance. This could explain why corporate enterprise managers do not see labour laws as a major concern for their firm's operations (Hachette & Franklin 1991). Compliance to labour legislation is mainly confined to the small segment of large companies. Moreover, as analyzed further below, the share of wages in total production costs has fallen substantially during 1982-1998 has fallen dramatically in nearly all economic sectors (except financial services). Hence, the employment effects (both in terms of creation and relocation) of a liberalization of the labour market are likely to be small.

All in all, starting 1992 Ecuador did make a serious move towards the type of economic reforms implemented elsewhere in the region. Yet it may be symptomatic that the names of the reform programs ever since the debt crisis of the early 1980s have been titled 'stabilization' or 'economic reactivation' plans, rather than structural reform programs (cf. Table 1). In effect, macroeconomic stabilization problems have remained on the forefront, not in the least because vulnerability to external shocks, in particular oil prices seems to have remained as strong as ever before. This could hint at the fact that little actual structural change has occurred. As we shall see in the following sections, some real change occurred, however without being able to cure the fundamentals that underpin the stabilization problems and persistent income inequality of Ecuador's

economy. Though the analysis stops in 1998, the events leading to the major economic crisis at the turn of the century merely reflect the prevailing fundamental weaknesses of Ecuador's economy nothwithstanding the attempts at liberalization.

3. ECONOMIC PERFORMANCE: LIBERALIZATION WITH LITTLE STRUCTURAL ADJUSTMENT?

What structural adjustment?: (I) Demand decomposition

Economic growth during 1988-98 averaged a dismal 2.7% per annum, with no notable difference between the pre- and post-liberalization periods (1988-91 and 1992-98). Hence the economic reforms so far have failed to enhance the overall growth rate. The drive towards liberalization has made the growth rate more dependent on exports. After accounting for multiplier effects, the contribution of exports to real aggregate demand increased from 48% in 1988 to 60% in the post-liberalization period (see Table 2). This export drive largely went at cost of government spending, which contribution fell from 30 to 20%. The contribution of private investment remained stable and failed to recover from its decline during the adjustment in the 1980s.

The above conclusion is derived from a simple decomposition methodology of effective demand (Taylor et al. 1998). Aggregate supply (X) can be defined as the sum of private incomes (Y_P), net taxes (T) and imports (M):

(1) $X = Y_P + T + M$

The aggregate supply and demand balance can be written as:

(2) $X = C_P + I_P + G + E$

i.e., the sum of private consumption, private investment, government spending and exports. Leakage parameters can be defined as a function of aggregate output, yielding the private savings rate as $s_P = (Y_P - C)/X$; the import propensity as $m = M/X$ and the tax rate as $t = T/X$. From this one gets the typical Keynesian income multiplier function:

(3) $$X = \frac{1}{s_P + t + m}(I_P + G + E)$$

which can also be written as:

$$(4) \qquad X = \frac{s_P}{(s_P + t + m)} \cdot \frac{I_P}{s_P} + \frac{t}{(s_P + t + m)} \cdot \frac{G}{t} + \frac{m}{(s_P + t + m)} \cdot \frac{E}{m}$$

and where I_P/s_P, G/t and E/m can be interpreted as the direct "own" multiplier effects on output of private investment, government spending and export injections with their overall impact via the corresponding "leakages" (respectively, savings, tax and import propensities). Results for the 1988-98 period are given in Table 2 and are estimated using national accounts data at constant prices.

The decomposition methodology also allows to analyze the direct "own" multiplier effects on aggregate demand of shifts in the volume of exports, government spending and private investment and shifts in, respectively, import, tax and savings leakages. Figures 6 and 7 confirm that growth of the export volume (E) has been the most significant effective demand shift in the period of economic liberalization. Unlike experiences in other Latin American countries (e.g. Mexico, Nicaragua) there was no substantial increase in the import coefficient: the external leakage parameter remained stable. Multipliers of government spending (G) and private investment demand (I_p) overall have been somewhat contractionary with some fluctuations. The tax parameter (t), strongly influenced by fluctuating oil revenues, increased early in the period (1988-90), but fell thereafter. However, spending cuts, particularly in public investment, which fell by almost 30% between 1988 and 1998, outweighed this expansionary effect of a reduced tax rate. The private investment volume (I_P) expanded at a rate of 4.5% per annum, but its overall impact on effective demand stagnated as the private savings rate (s_p) increased. By implication private consumption growth lagged behind income growth, which in turn is a consequence of further income distributional shifts against low-saving wage earners and in favor of higher saving profit earners and informal sector workers (see below).

These volume shifts only tell part of the macroeconomic adjustment story. Export volume growth did not commensurately lead to greater foreign exchange earnings, as terms of trade moved unfavorably. While the volume export share in GDP (E/Q) rose steadily from 26% to 35%, the value share showed greater volatility with an overall downward trend (Fig. 8a). The import volume also showed an upward trend but below export demand growth (Fig. 8b). Consequently, the reform period yielded a dou-

bling of the trade surplus in real terms (Figure 8c). However, this real domestic savings surplus did not translate into a comparable rise of dollar surpluses. Net foreign exchange earnings have been much more volatile, with the decline in oil and other commodity prices (partly due to the Asian crisis), moving the trade balance back into deficit in 1997-8.

Table 2
Ecuador: Decomposition of Aggregate Demand Growth by effective demand components

	Contribution [1] (%)			Total Aggregate Demand	Growth of aggregate demand (Δ%)
	Private Investment	Government Spending	Exports		
1988	21%	30%	49%	100%	
1989	23%	28%	48%	100%	0,9%
1990	20%	27%	53%	100%	1,9%
1991	24%	24%	52%	100%	6,9%
1992	22%	22%	55%	100%	3,0%
1993	21%	22%	57%	100%	2,1%
1994	21%	21%	58%	100%	4,5%
1995	22%	20%	58%	100%	3,5%
1996	20%	20%	60%	100%	0,8%
1997	22%	19%	60%	100%	4,1%
1998	23%	19%	58%	100%	2,2%

Source: Central Bank of Ecuador, National accounts.
Note: 1. Percentage shares correspond to the shares of the three right-hand side multiplier components of equation 4 in aggregate demand (X).

Figure 6

Direct "own" macroeconomic multipliers
(billions of sucres of 1975)

Figure 7

Leakages: Average spending propensities
(constant prices)

21

Figure 8a   **Figure 8b**

Export volume and value shares

Figure 8a

Import volume and value shares

Figure 8b

Figure 8c

Trade Balance (value and volume)
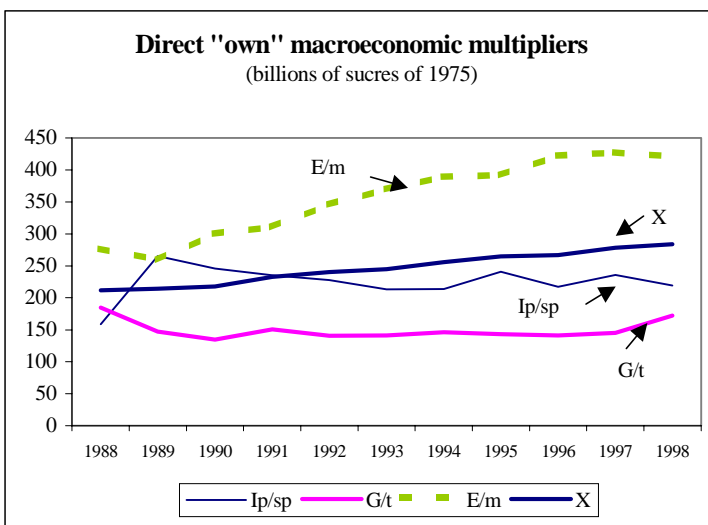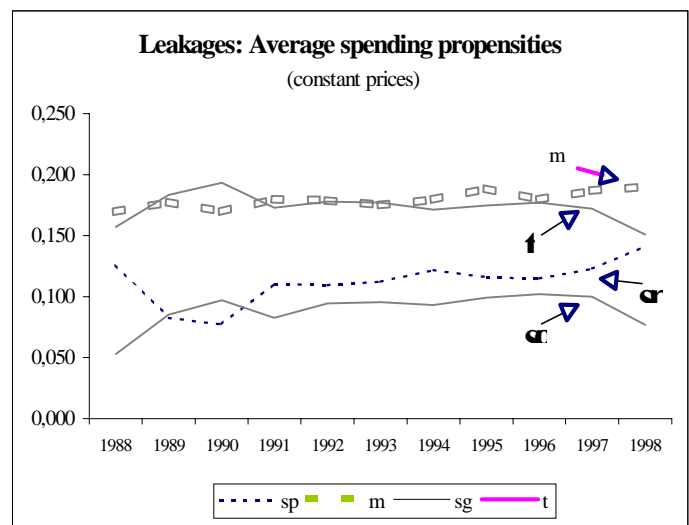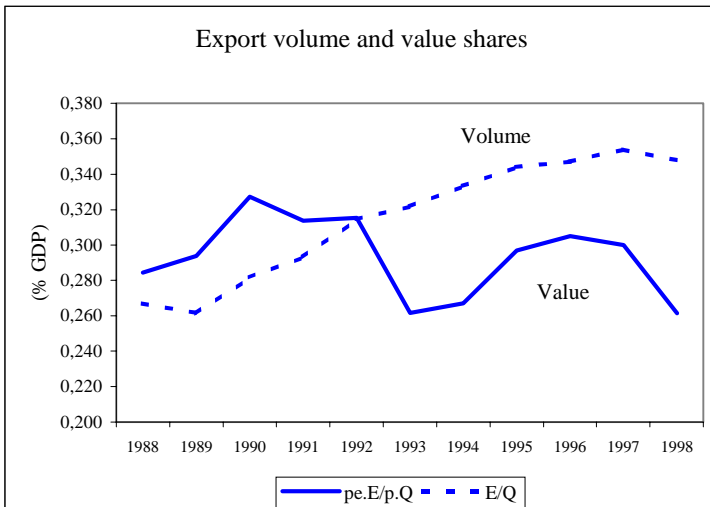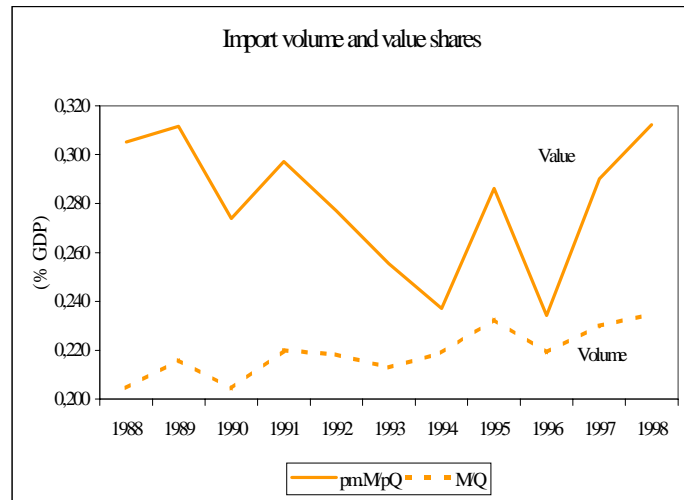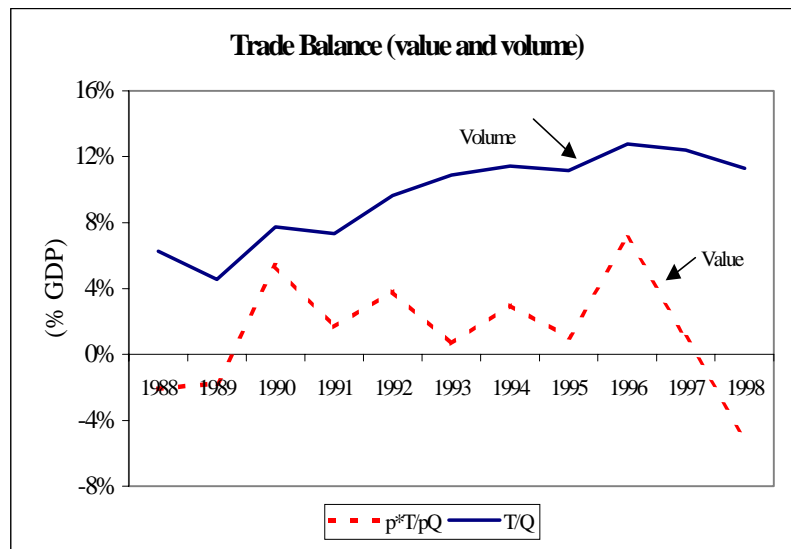
It should be noted that the export volume expanded despite the substantial ap-
preciation of the real exchange rate in the post-liberalization period (see Figure 5
above). Most of the volume growth comes from traditional exports, which typically
have been fairly insensitive to the real exchange rate, in particular oil and shrimps. The
second factor is related to the growth of intra-regional trade in the context of the An-
dean Pact, which was revived in 1990-91 with the harmonization of tariffs and culmi-
nated with the establishment of a common extra-regional tariff in 1995. Particularly
manufacturing trade with Colombia developed favorably, in part due to a for Ecuador

favorable bilateral real exchange rate. The role of the Andean Pact will be discussed in more detail below. Third, there was a modest surge of new export sectors in agriculture (flowers, vegetables) with much of the seed money coming in the form of DFI.

What structural adjustment?: (II) Financing of the shifts in demand composition

From the above equation system one can also derive the real financial balances as:

(5) $\quad \Delta P + \Delta Z + \Delta A = (I_P - s_P.X) + (G - t.X) + (E - m.X) = 0$

where ΔP, ΔZ and ΔA stand, respectively, for the net change in financial claims against the private sector, in government debt and in foreign assets. In the above, we looked at the volume changes in the composition of aggregate demand components. The above specification subsequently defines the "real" shifts in excess demand if expressed at constant prices. As became clear in the previous section, there is an important real-nominal twist to the adjustment process in Ecuador. Relative price shifts (domestic/external, consumption/investment goods) may imply large volume shifts are needed to achieve a small value adjustment in the finance required to accommodate the three spending gaps defined above. Moreover, costs associated with the accumulation of net lending over time may imply important income redistribution effects between private and public domestic agents and the rest of the world. When taking such asset related income transfers into account, we get the more familiar macroeconomic balances linked to expenditures and savings out of the disposable income of each institution, rather than from domestic product as implied by equation 5 above, i.e.:

(6) $\quad \Delta D_p + \Delta D_g - (\Delta F_p + \Delta F_g) = (I_P - s_P.X - i.D_g + e.i^*F_p) + (G - t.X + i.D_g + e.i^*F_g)$

$$+ (E - m.X - e.i^*F) = 0$$

where D_p, D_g and $F(=F_g+F_p)$ stand for, respectively, the stock of net private sector debt, net government debt and net external liabilities, as accumulated through the financing of the three gaps "after transfers" over time. We can also define $NFA = -F$ as the net foreign asset position to get the "after transfer" counterpart for A. The parameters i, i^* and e in equation 6 stand for the domestic interest rate, foreign interest rate and the nominal exchange rate.

Table 3 identifies the trends in the real and nominal financial gaps "before" and "after" the asset-related income transfers.[6] The results show once more the huge volume shift in the trade balance ($\Delta A'$) needed (i) to achieve a much more modest dollar (value) trade surplus and (ii) to meet the external debt-servicing needs. This is also reflected in the country's external transfer problem. While the dollar-denominated debt-service burden ($\Delta NFA' - \Delta A'$) remained high at around 6% of GDP, it fell considerably in commodity terms to mark the problems in converting production growth into foreign exchange earnings (Figure 9b). Private and public accumulation balances reflect the same pattern with the more noticeable adjustment in the fiscal balance. The private sector generated substantial savings *surpluses* in commodity terms ($-\Delta D_p'$), but remained net borrowers in money terms ($-\Delta D_p$) for most of 1988-98.

The government's primary surplus ($-\Delta Z = t.X - G$) increased substantially around 1990 thanks to the rise in oil prices in the wake of the Persian Gulf war and the spending cuts of the 1988-90 and 1992 economic adjustment programs. Various rounds of nominal wage increases and falling oil prices after 1993 (with a temporary recovery in 1995-6) led to a decline in the primary surplus in nominal terms, as well as a rise in the overall nominal fiscal deficit (ΔD_g). In commodity terms though, the fiscal balance shifted to a surplus reflecting both the impact of spending cuts in volume terms and the continued sensitivity of government finances to the oil price and exchange rate (debt burden) (see Figure 9a).

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[6] In the specification of equation 6, only asset and liability-related income transfers are highlighted. Other transfers (grants, workers remittances, etc.) are relatively small in the case of Ecuador and therefore are omitted to simplify notation. They are, though, included in the estimates of Table 2. The constant price values for the accumulation balances were obtained by applying the appropriate deflators to each aggregate demand category using national accounts implicit deflators.

Table 3: Ecuador: Net Financial Claims[1], before and after transfers
(% of GDP at current and constant prices)

	Before transfers			After transfers		
	$I\text{-}s_pX$	$G\text{-}tX$	$E\text{-}mX$	$I\text{-}s_pX - iD_g$ $+e.i^*F_p$	$G\text{-}tX+iD_g$ $+e.i^*F_g$	$E\text{-}mX\text{-}$ $e.i^*F$
	ΔP	ΔZ	ΔA	ΔD_p	ΔD_g	ΔNFA
	Current prices					
1988	5,6%	-3,5%	-2,1%	1,5%	5,3%	-6,8%
1989	11,9%	-10,1%	-1,8%	6,1%	1,2%	-7,3%
1990	6,7%	-12,0%	5,4%	3,8%	-0,5%	-3,4%
1991	9,3%	-11,0%	1,7%	5,5%	0,6%	-6,0%
1992	7,8%	-11,6%	3,8%	-0,2%	1,2%	-1,0%
1993	10,3%	-10,9%	0,6%	4,6%	0,1%	-4,7%
1994	5,4%	-8,4%	3,0%	4,7%	-0,6%	-4,1%
1995	5,5%	-6,6%	1,1%	3,0%	1,1%	-4,1%
1996	-0,2%	-6,9%	7,1%	-3,5%	3,0%	0,6%
1997	6,4%	-7,4%	1,0%	1,2%	2,6%	-3,8%
1998	9,1%	-4,0%	-5,1%	5,8%	6,1%	-11,9%
	Constant prices					
	$\Delta P'$	$\Delta Z'$	$\Delta A'$	$\Delta D_p'$	$\Delta D_g'$	$\Delta NFA'$
1988	-3,8%	-2,4%	6,3%	-12,0%	5,7%	6,3%
1989	2,4%	-7,0%	4,5%	-4,5%	4,8%	-0,4%
1990	1,2%	-8,9%	7,7%	-2,9%	4,1%	-1,2%
1991	0,1%	-7,5%	7,3%	-5,4%	6,5%	-1,1%
1992	-0,7%	-9,0%	9,6%	-9,5%	6,5%	3,0%
1993	-1,8%	-9,1%	10,9%	-7,1%	3,1%	4,0%
1994	-2,5%	-9,0%	11,4%	-4,4%	-2,2%	6,7%
1995	-1,3%	-9,9%	11,2%	-7,1%	-6,0%	13,1%
1996	-2,6%	-10,2%	12,8%	-6,9%	-3,7%	10,5%
1997	-2,3%	-10,1%	12,4%	-7,6%	-4,2%	11,8%
1998	-4,0%	-7,3%	11,3%	-6,5%	-1,2%	7,7%

Source: Banco Central del Ecuador, *Cuentas Nacionales*, various issues and *Boletín Mensual*, various issues.

Note: 1.If ΔP, ΔZ, ΔD_p, and $\Delta D_g > 0$, then they refer to an accumulation of domestic public and private debt, while if $\Delta NFA < 0$, it refers to an increase in foreign borrowing.

The opening of the capital account has allowed for a different pattern of financing of the external deficits. During the 1980s and in particular during 1987-91, Ecuador had little access to fresh sources of finance, despite large external deficits. In 1988-91 accumulation of arrears and refinancing of existing debt obligations were the main items on the capital account of the balance of payments (see Table 4). Most new disbursements came from the multilateral institutions (IDB, World Bank). The financial opening and lifting of restrictions on direct foreign investment allowed for a modest surge in private capital inflows. Direct foreign investment increased to around 2.5% of GDP, up from historic levels of about 1.5%. Also commercial bank credits towards the private sector resumed to around 3% of GDP, but this was offset for about two-thirds

by a resumption of capital flight as recorded in the balance of payments through the movements of short-term capital and errors and omissions. Most capital flight took place during 1995-7 (see Table A.1), years of political turbulence with the war with Peru, the voluntary exile of the Vice-President and the 'Bucaramata'. Such political instability, weak institutions, and the continued vulnerability of the economy to external shocks, explain why the surge in capital flows has been much weaker than elsewhere in the region.

Table 4
External Financing, 1988-98

	1988-91	1992-98
Foreign savings	**5,9%**	**4,1%**
Portfolio investment	0,0%	0,0%
Direct investment	1,4%	2,7%
External borrowing, net	1,9%	3,1%
by public sector	*1,8%*	*1,4%*
- new disbursements	*1,2%*	*0,8%*
- refinancing	*0,6%*	*0,6%*
by private sector	*0,1%*	*1,7%*
- new disbursements	*0,3%*	*3,1%*
- refinancing	*-0,2%*	*-1,5%*
Arrears on external debt	4,0%	0,9%
Other, short-term capital	0,7%	-1,9%
Change in reserves	-2,2%	-0,7%

Source: Table A.1

How much of the analyzed shifts in effective demand composition can be ascribed to the process of economic liberalization? This is not easy to quantify. Nevertheless, to this point we can infer from the analysis of the trends that:

- The external balance (nominal) remains strongly sensitive to shocks in the external terms of trade (particularly oil prices).

- There has been a strong growth in the export volume since 1992, while import demand has remained fairly stable. The export volume growth is partly due to increased oil production enabled in part by the opening to direct foreign investment in the sector, but oil export levels remain subject to macroeconomic policy considerations. As shown below, there has been some growth of non-traditional exports, which can be ascribed to the freeing of trade and capital. However, the growth of new export sectors has not been enough to reduce the economy's dependence on traditional primary exports.

- Unlike elsewhere in the region, trade liberalization has not produced an upward shift in the import demand curve.

- Fiscal adjustment equally is still heavily influenced by external factors, i.e. oil prices on the revenue side and the external debt overhang on the expenditure side. Tariff reduction has not produced a substantial loss of government revenue.

- Capital account liberalization has allowed for a modest increase in capital inflows which helped to support the relative stabilization of the value of the sucre (at least during 1992-6), consequently producing a real exchange rate appreciation.

In the next section the sectoral shifts underlying the macroeconomic adjustment pattern are analyzed to obtain a better view of the structural change produced by the liberalization process.

Figures 9a and 9b

Ecuador: Nominal and Real Fiscal Balance
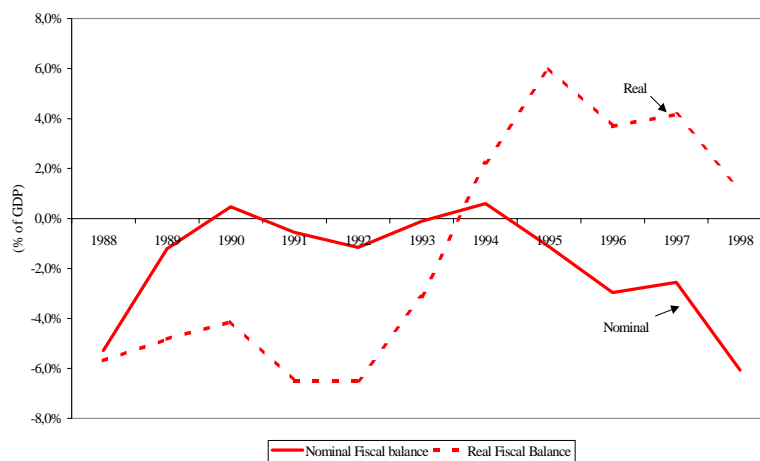
Ecuador: Implicit Nominal and Real Foreign Transfer Burden
(% of GDP)
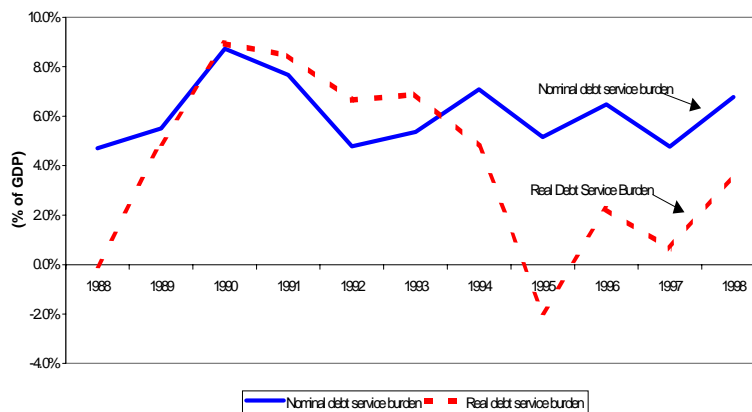
Sectoral performance and productivity change

The export drive following the economic liberalization is not reflected in major shifts in the sectoral composition of output. Non-oil traded goods sectors (agriculture, manufacturing) expanded at a similar pace as the non-traded goods sector (see Figure 10). Much of the export growth concentrated in the traditional agricultural sector (bananas and shrimp). Non-traditional exports increased five-fold, however from small initial levels. Traditional exports are all primary commodities (oil, bananas, shrimp, coffee, cocoa) and still make up about 80% of the total value of export earnings. The share of non-traditional exports did increase from 7 to 20% between 1990 and 1997.[7] Some of this increase is in new, labour-intensive agricultural products (flowers, vegetables), but an important share of the non-traditional export increase is in manufactured goods shipped to neighboring countries of the Andean Pact. The principal products include processed seafood, luxury consumption goods and vehicles, all characterized by capital-intensive production methods (see Vos 1987 and Creamer et al. 1997).

Figure 10

ECUADOR: TRADED, NON-TRADED AND OIL SECTOR GROWTH
(index, 1988=100)

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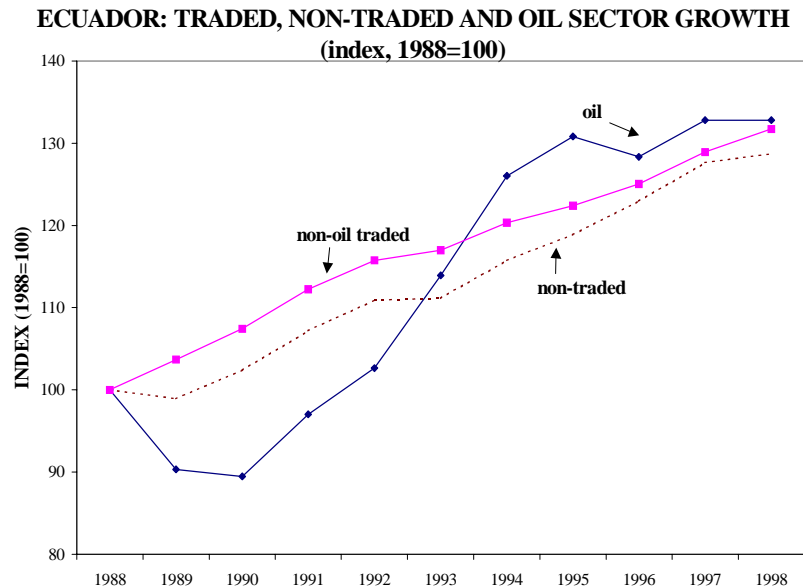
[7] In 1998 non-traditional exports even reached a quarter of total export earnings, but this outcome is heavily influenced by the decline in oil prices and the impact of El Niño on banana, coffee and cocoa production. Shrimp cultivation benefited from El Niño warmer water and a rise in productivity of about 25% (see Vos, et. al 1998).

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Table 5 shows the growth of exports from Ecuador to the other members of the Andean Community. The lowering of the tariffs and reduction of the dispersion in tariff rates by commodity type did reduce dispersion of effective protection rates across manufactured sectors, but non-basic consumption and capital goods sectors still benefit from greater protection.[8] Export growth has been substantially larger in the more protected sectors. This bias in output expansion in the high productivity, capital-intensive manufacturing sectors seems to have been part of a larger picture.

A decomposition analysis of productivity growth and sectoral employment reallocation confirms the pattern of adjustment following liberalization as sketched in the introduction (Figures 1a and 1b). In this story, liberalization may lead to (relatively) less demand for formal employment at a given level of output through pressures toward cost reduction via enhanced labour productivity in tradable goods sectors along with growth of demand for relatively low-skilled jobs in non-traded sectors. The reduction in formal employment then is likely associated with an increase in informal jobs and greater self-employment in sectors such as commerce and services. As we shall se below this explanation could apply to the early liberalization period (1990-95) – as depicted by Figure 1a –, but more expansionary macroeconomic policies led to a partial reversal thereafter (Figure 1b).

Measurement of productivity growth is hampered by a lack of consistent employment data. To analyze what happened during the 1990s only two sources provide nation-wide employment data, i.e. the 1990 population census and the 1995 living standards measurement survey. However, employment definitions are not strictly comparable, where the census data likely heavily underestimate participation and occupation rates of female labour. Using these sources would lead to implausibly high employment growth. The urban employment survey provides a more consistent source with data for 1988-1997. Hence we recur to this source with two drawbacks: it only covers the urban workforce and it requires using a proxy for "urban" production which we equate with the non-agricultural sector. The latter assumption probably leads to an overestimation of productivity levels in some sectors, which are also important as sources of rural em-

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[8] "Non-basic" consumer goods production, referred to in Table 4, are defined as commodities with income elasticities of demand of larger than one, while basic goods are those with elasticities smaller than one. EPR estimates are from Creamer (1998), but following the methodology and sector classification as in Vos (1987).

ployment (in particular, construction, commerce, and services). The trend over time, however, likely is not affected by this assumption.

Bearing these limitations in mind, non-agricultural productivity growth since 1992 has been dismal, averaging 0.1% per year.[9] As shown in Table 6, output growth in the traded goods sector outpaced employment growth leading to an annual 2.4% productivity increase. At the same time there was a productivity decline in the non-traded goods sector. Productivity fell in construction, transport and other services. The transport sector (also closely linked to informal trade and services) and, especially, other services absorbed a more than average employment growth, confirming the above hypothesis that the productivity growth in the traded goods sector may have pushed much of the labour force growth into informal employment.

Table 5: Ecuador: Total exports and exports to Andean community, 1990-1997

	EPR [1] 1991	1990	1995	1997	Annual growth 1990-97
Total exports to Andean Pact (US$ mln)		189	359	483	*14,4%*
of which (US$ mln fob):					
Basic consumption goods	**22,0%**	62	92	97	*6,6%*
Intermediate products	**30,2%**	60	40	51	*-2,2%*
Luxury consumption goods	**36,7%**	24	96	214	*36,9%*
Capital goods	**39,0%**	43	130	121	*15,9%*
Memo items:					
Total non-traditional exports (world)		186	855	1142	*29,6%*
of which: Manufactures		147	581	764	*26,5%*
Share of Andean pact exports in total (%)		*6,9%*	*8,1%*	*9,2%*	

Source: Banco Central del Ecuador, Boletín Mensual, various issues; Creamer (1998).
Note: 1. EPR is the effective protection rate. See Creamer et. al. (1997) for the estimation procedure. The EPR estimates consider the new tariff structure established by countries of the Andean Pact in 1990.

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[9] There is no major reason to assume that there have been strong productivity increases in agriculture as a whole either. Some export sectors (bananas, shrimp, flowers) likely showed productivity growth, but in other sectors (cocoa, livestock, domestic food crops) there has been little to no innovation. In fact, a "simulated" estimate of productivity growth for the economy as a whole using adjusted employment data for the 1990 census indicate overall productivity growth was 0.2% per year between 1990 and 1995, with agricultural productivity growing at 1.3%. For this exercise the employment data of the 1990 census were adjusted for the alleged underreporting of female participation rates and inclusion of unpaid family workers in the work force to make the data more comparable to the 1995 LSMS survey. These results are shown in Appendix table A.3 but because of the assumptions made may be subject to a margin of error. The main conclusions drawn in the text are consistent with these findings though.

Productivity growth in the traded goods sector is strongly influenced by the trend in the oil sector. As mentioned before, production in the oil sector has been influenced by two factors in the 1990s. Firstly, the policy, which targets oil revenues leading to, hastened depletion of the natural resource. Secondly, the lifting of controls on foreign investment in the oil sector has led to further productivity increases. The high volatility in the productivity levels suggests the former factor still predominates. Productivity in manufacturing increased at a rate of 1.3% between 1992-97 after strongly declining trends (due to the recession and falling capacity utilization) in the 1980s. This finding appears to be consistent with the increase in manufactured exports and the shift towards more capital-intensive sectors such as non-basic consumption goods and capital goods.

Table 6: Decomposition of Non-Agricultural Productivity Growth

	Employment share 1997	Output-labour ratio (sucres of 1975 x 10^3) 1997	Non-agricultural productivity growth 1992-97					
			Output growth	Employment growth	Productivity growth	Contribution to productivity growth	Weights of productivity change	Employment reallocation
	L_i/L	X_i/L_i	dX_i/X_i	dL_i/L_i	ρ_i^*	$\Sigma\rho_i^*$	$(X_i/X).\rho_i^*$	$(X_i/X - L_i/L).L_i^*$
Agriculture[1]			2,6%	3,4%				
Oil and mining	0,4%	2.795	5,3%	-3,0%	8,5%	1,0%	1,5%	-0,5%
Manufacturing	16,9%	68	3,2%	1,8%	1,3%	0,3%	0,3%	0,1%
Electricity, gas and water	0,3%	295	1,3%	-10,3%	13,0%	0,1%	0,2%	-0,1%
Construction	6,8%	27	0,9%	1,2%	-0,3%	-0,1%	0,0%	0,0%
Commerce	30,4%	37	3,0%	1,6%	1,4%	0,1%	0,3%	-0,2%
Transport and communications	6,1%	112	3,7%	3,8%	-0,1%	0,2%	0,0%	0,2%
Financial services	4,9%	114	1,8%	1,1%	0,8%	0,1%	0,1%	0,0%
Other services	34,1%	28	0,5%	5,1%	-4,4%	-1,6%	-0,7%	-0,9%
Total non-agricultural output	**100,0%**	**58**	**2,9%**	**2,8%**	**0,1%**	**0,1%**	**1,6%**	**-1,5%**
Traded goods	17,3%	128	4,2%	1,7%	2,4%	1,3%	1,8%	-0,5%
Non-oil, traded goods	*16,9%*	*68*	*3,2%*	*1,8%*	*1,3%*	*0,5%*	*0,3%*	*0,3%*
Non-traded goods	82,7%	44	2,1%	3,0%	-0,9%	-1,2%	-0,2%	-1,0%

Source: Banco Central del Ecuador, Cuentas Nacionales; INEC, Encuestas de Empleo Urbano.

Note: See text for estimation methodology and appendix tables for detailed estimates.

A decomposition analysis of the aggregate productivity growth[10] clearly shows that productivity increased in sectors with relatively high output/labour ratios (oil and manufactures), while it fell in sectors with low labour-intensity (especially other services). (See Table 6).

The shifts have been far from dramatic though. Productivity gains have been small and the largest productivity differentials have been where they have been where they have been ever since the 1970s: oil and manufacturing versus urban informal services (see Vos 1987, Jácome, Larrea & Vos 1998). Also during the 1970s and 1980s the incentive structure was biased towards the more capital-intensive, non-basic industrial sector. In the 1990s, the institutional setting has changed from a heavily protected inward-looking industry sector to a more export-oriented one, but the output dynamics remains concentrated where there is lesser employment creation, pushing excess labour into the urban informal services sector. From this perspective, the more recent sectoral reallocations seem like very little structural adjustment indeed.

Tables 7 and 8 further confirm the hypothesized restructurings in the labour market: a rising share in urban informal employment and an increasing skill-intensity in the production of tradables after the trade reform. The implications for the distribution of factor incomes, inequality of household incomes and poverty are discussed in the next section.

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[10] Following Taylor et al. (1998), one can also decompose growth of overall labour productivity as follows. Labour productivity is defined as: $\rho = X/L = \sum X_i / \sum L_i$, where X is output and L is labour. The first difference version is:

$\rho^* = \sum[(X_i/X)X_i^* - (L_i/L)L_i^*]$

$r \quad = \sum(L_i/L)\rho_i^* + \sum[(X_i/X) - (L_i/L)]X_i^*$

$\quad = \sum(X_i/X)\rho_i^* + \sum[(X_i/X) - (L_i/L)]L_i^*$

with the asterisks indicating growth rates. The first line decomposes overall productivity growth into movements in output and employment, weighted by sectoral shares of these two variables. The second and third lines show how overall productivity change can be written as a weighted average of sectoral productivity shifts plus a "correction" term involving weighted reallocations of output or employment across sectors. The reallocation weights $[(X_i/X) - (L_i/L)]$ reflect differing productivity levels in different sectors. An output or employment loss in a low productivity sector (agriculture, for example, with a negative value of $(X_i/X) - (L_i/L)$), will add to overall productivity growth, as will an employment or output gain in a sector with a relatively high output/labour ratio.

Table 7 Ecuador: Urban Informal Employment (share of EAP)

	1990	1992	1995
Total	**54.5%**	**58.1%**	**56.3%**
Micro-enterprises	27.4%	32.5%	31.6%
Domestic Employment	4.5%	4.3%	4.8%
Non-skilled Independent Workers and Relatives without Payment	34.5%	34.3%	32.6%

Source: INEC, Encuestas de Empleo Urbano

Table 8
Ecuador: Skilled-Unskilled labour demand by sector[1], 1990-5

	Ratio Skilled/unskilled	
	1990	**1995**
Agriculture	0,12	0,30
Oil and mining	0,78	1,48
Manufacturing	0,94	1,65
Electricity, gas and water	2,42	0,46
Construction	0,40	1,19
Commerce	1,11	2,27
Transport and communications	1,32	3,58
Financial services	10,50	10,82
Other services	1,93	0,77
Total	**0,76**	**0,83**
Traded goods	0,28	0,40
Non-oil, traded goods	*0,28*	*0,33*
Non-traded goods	1,42	1,34

Source: INEC, Censo de Población 1990; Encuesta de Condiciones de Vida 1995
Note: 1. "Unskilled" defined as workers with less than 9 achieved grades of formal education (primary plus two years of secondary education); "skilled" workers with 9 or more years (grades) of formal education.

Before turning to that discussion it should be pointed out that after a closer look at the data (Table 7), it appears that most of the shift to informal employment, in fact took place in the early phase of trade liberalization (1990-92), while thereafter formal sector (wage) employment regains some territory (see also Table A.4). Using the diagrams sketched in section 1, it can be hypothesized that this likely has been the outcome of a combination of (slight) productivity gains in the (formal) traded goods sector and macroeconomic stop-go policies. The liberalization process has yielded some productivity gains provoking a relative drop in the formal traded goods sector. The macroeconomic stabilization efforts in the early 1990s reinforced this by fiscal adjustment and demand deflation and more workers are pushed into informal activity. After 1995 the macro story prevails as political and external factors (see section 2) provoke a more expansionary fiscal stance. Aggregate demand expansion allows for expansion of formal employment.

4.   WAGES, DISTRIBUTION AND POVERTY

Real wage trends and labour market adjustment

The employment shift away from modern sector wage labour into informal sector and self-employed employment is a trend already found during the crisis of the 1980s. The share of wage earners in the urban labour force declined from 65.7% in 1982 to 55.1% in 1990 and further to 53.6% in 1995 (Table 9). In rural areas a similar trend is found. The trend is related to falling employment opportunities in particular in manufacturing, construction and government services; sectors with high shares of wage labour. However, it is likely as much associated with falling real wages which have witnessed a declining trend since 1980. By 1992 the real minimum wage had fallen to a third of the 1980 level (Figure 11). As the minimum wage is indicative for the institutional setting of most wages and salaries, this severe drop in the return to wage labour likely provided an incentive to find an income in other types of jobs. Various rounds of nominal wage increases decreed by the Sixto Duran government starting in 1992 supported a recovery of the real wage, however without being able to restore it to the level reached in the early 1980s.

Declines in the share of wage employment and in real wages are reflected in a steep fall in the share of the overall wage bill in total value added (see Figure 12). The wage share fell from around 33% of factor income to around 15% between 1980 and 1995. In contrast the share of self-employment income increased from 44 to around 70% in the same period.[11] The corporate profit share also fell in favor of self-employed income. Since 1992, both the wage and corporate profit shares have regained some ground. The available series are too short to conclude whether this is the beginning of a structural trend associated with the liberalization process or not.[12]

Table 9 Ecuador: Share of wage earners in labour force, 1982-95

	1982	1990	1995
Urban wage earners (% of urban EAP)	65.7	55.1	53.6
Rural wage earners (% of rural EAP)	38.5	33.7	32.2

Source: INEC, Population Censuses, 1982, 1990 and INEC, Encuesta de Condiciones de Vida, 1995

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[11] The data are derived from the Central Bank's national accounts, where the estimate of the share of self-employed income is obtained from the gross operating surplus of households and unincorporated businesses as reported in the household accounts. The usual caveats hold with regard to the residual nature of components of the income and outlays of households in the national accounts.

[12] Available national accounts data with detailed institutional accounts only run to 1995.

The decline of wage shares has been substantial across all sectors (except financial services where it increased) during the adjustment period of 1983-1992 (Table 10). The recovery of wage shares has been more differentiated. Much of the real wage increase accrued to public sector workers and is reflected in a rising wage share in the other services sector after 1992. Traded goods sectors show only a slight recovery in the very low wage shares, from 7.3 to 9.2% between 1992 and 1995. In agriculture the wage share increased from 8.4 to 11.3% of factor income in the same period, while in manufacturing it increased from 6.4 to 7.5%. For sure no revolutionary changes. In effect in manufacturing two partially offsetting tendencies were at work here: first, as analyzed above, the sectoral effects of liberalization pushed towards less labour-intensive activities putting a downward effect on the wage share. Second, the real wage hike pushed in the opposite direction and appears to have outweighed the former effect. In contrast in agriculture there was a (modest) shift towards more labour-intensive activities (flowers, vegetables, etc. for export production) which combined with the wage increase to a somewhat higher wage share.

On the whole, real wages in urban traded goods sectors declined by some 20% relative to those in the non-traded goods sector between 1988 and 1997 (see Figure 13). The finding is consistent with two earlier findings: the appreciation of the real exchange rate and the low wage share in the traded goods sector. The modest increase in the wage share in the non-traded sectors after 1992 is principally due to wage increases in the public administration. As can be inferred from Table 10, the wage share in the non-traded market sector continued to fall after the 1992 reforms and which seems consistent with the hypothesis that liberalization brought a continued growth of informal sector employment.

Average wages disguise trends towards a greater wage inequality. The shift towards a greater skill-intensity in traded goods sectors (see Table 8) is reflected in a rising dispersion in wage incomes in that sector. Recent data are only available for urban workers. Measuring wage inequality among private sector workers by the coefficient of variation (CV), shows a stronger widening in inequality in the traded goods sector until 1994, but afterwards the within-sector wage inequality fell, likely because of the equalizing effect of the minimum wage adjustment (Figure 13).

The wage differential between skilled and unskilled workers shows a more continuous inequalizing trend, however (Figure 14). This wage differential increased from 58% in 1988 to well over 100% in 1997. A more detailed analysis of these income gaps

shows that the within-group inequality fell for both skilled and unskilled workers (León and Vos 1999), such that the between-group, skilled-unskilled wage gap is the persistent determinant of wage inequality despite the minimum wage increases between 1994 and 1997. This points at a deepening of the existing segmentation of (urban) labour markets in Ecuador along human capital lines. Real wages fell significantly for both skilled and unskilled workers during the emerging economic crisis in 1998. As Figure 14 also shows, this did not lead to a reduction of the wage gap as both types of workers seem equally hit by the renewed acceleration of inflation and lagging nominal wage adjustments.

Table 10
Ecuador: Trends in Wage Shares[1] by Type of Industry, 1980-95

	1980	1988	1992	1995
Traded[2]	20,4%	10,4%	7,3%	9,2%
Traded, non-oil	*26,1%*	*9,9%*	*7,1%*	*8,9%*
Non-Traded	42,8%	27,0%	19,5%	21,4%
Non-traded, private[3]	*31,8%*	*16,2%*	*12,1%*	*11,4%*
Total	33,7%	19,9%	14,0%	16,5%

Source: Banco Central del Ecuador, Cuentas Nacionales.
Notes: 1. Wage shares are taken as a percentage of value added at factor prices.
              2. Includes agriculture, oil and mining, and manufacturing.
              3. Non-traded goods sectors excluding government services.

Figure 11
Ecuador: Real Minimum Wage, 1970-98 (sucres per month of 1990)
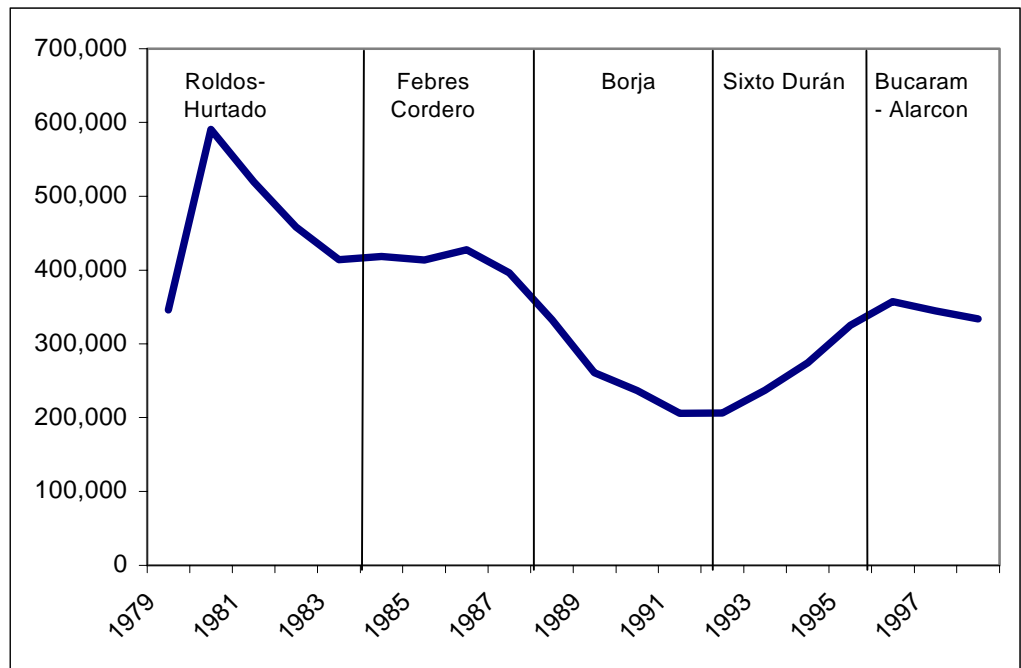
FIGURE 12
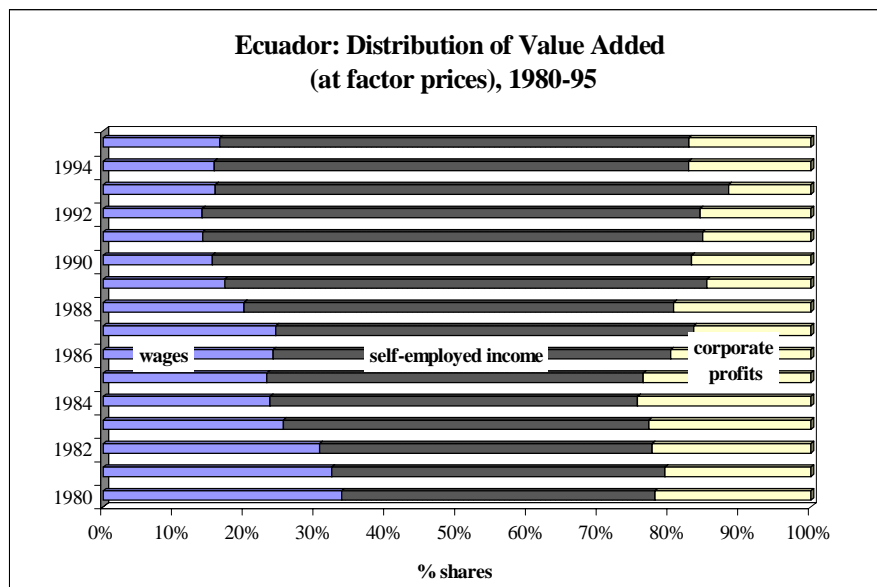
Source: Central Bank, National Accounts.

Figure 13
Wage inequality in urban traded and non-traded sectors
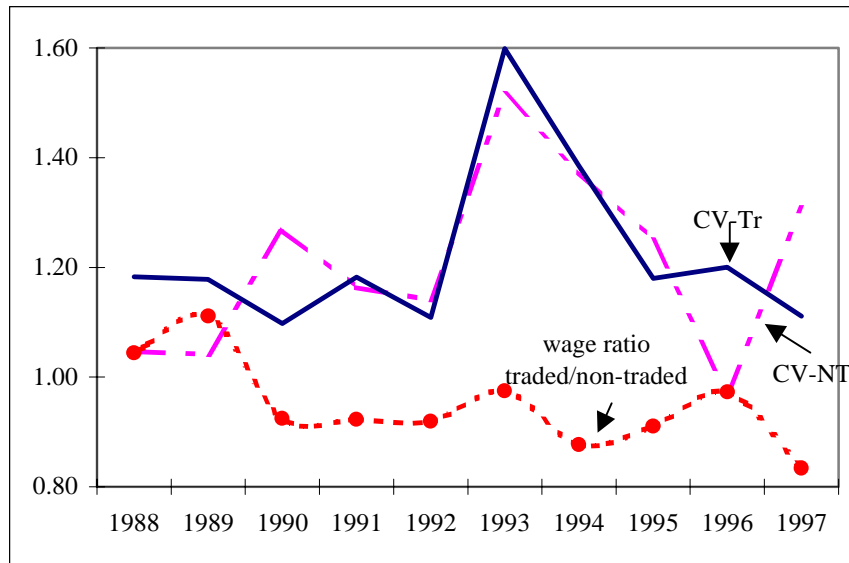
(private sector workers only)

Source: INEC, Encuestas de Empleo Urbano.
Note: CV = coefficient of variation of monthly wage per worker.

Figure 14
Ecuador: Trends in wages of skilled and unskilled urban wage earners and urban unemployment, 1988-95
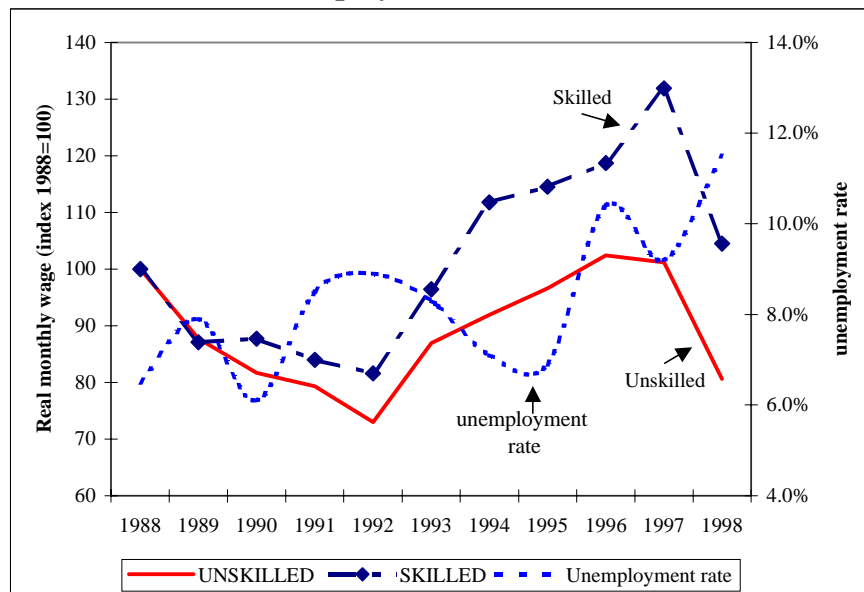
Source: INEC, *Encuestas de Empleo Urbano*

Figure 15

Urban formal-informal sector income gap[1], 1988-97
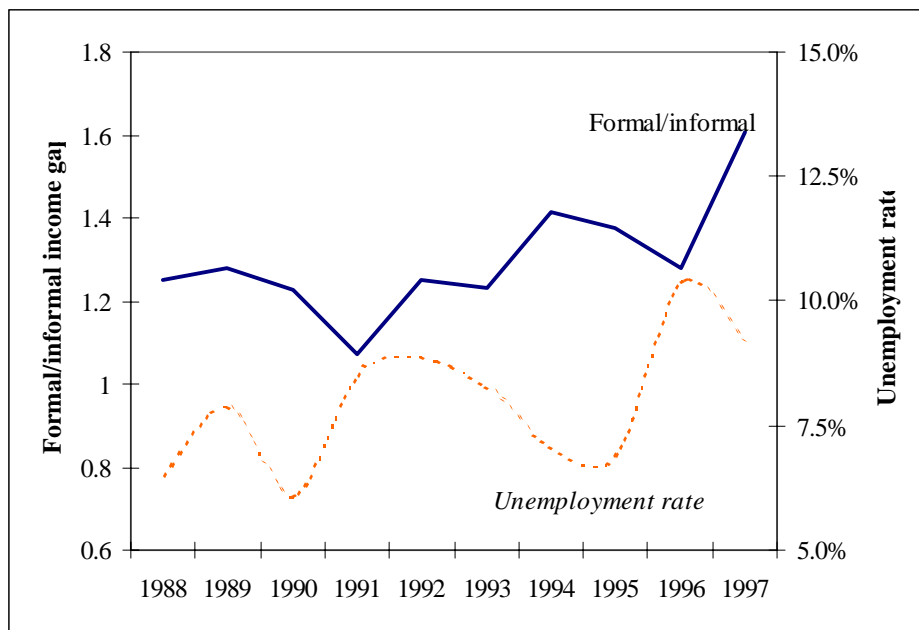
Source: INEC, *Encuestas de Empleo Urbano*

Note: 1. Refers to differential between mean private worker, modern sector wage and mean income of informal sector self-employed.

Similarly, the gap between formal and informal urban workers has maintained a rising tendency (Figure 15). This formal-informal income gap tends to move inversely with the open urban unemployment rate, which hints both at the residual character of the informal labour market segment and at the fact that the level of unemployment is a factor of influence in formal sector wage setting.

Returns to education and urban labour market segmentation

Results of an application of Mincerian earnings functions[13] for urban workers confirm that returns to education for wage earners increased after 1992, but also show that the beneficial effect has been for male labourers only (Table 11). Returns for female wage earners and for self-employed did not increase. The results also show that educational returns are higher for female workers than for male wage earners. This, together, with substantially lower female participation rates suggests the urban labour

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[13] The estimated functions reported here are quite standard: $\ln(W/hr) = f(S, E, E^2, x_i)$, where the dependent variable is the log of earnings per hour, S is years of completed schooling, E is work experience, E^2 is squared work experience and x_i is a vector of appropriate dummy variables, including location (Quito), sector (government in case of wage earners), etc.

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market poses barriers to entry to female workers. Returns to education are lower and declining for self-employed, as expected, and the standard Mincerian function has much less explanatory power for this group of workers. This confirms the earlier conclusion of a continued and deepening labour market segmentation along the divides of human capital endowment and firm type.

Table 11 Ecuador: Returns to education[1] for urban wage earners and self-employed workers, 1988-97

	1988	1990	1992	1995	1997
Wage earners					
Males	7.8	7.9	8.7	8.4	8.4
Females	11.3	11.0	11.2	11.2	11.0
Self-employed					
Males	7.4	6.5	8.0	7.9	6.9
Females	8.6	7.3	7.3	6.2	7.4

Source: León and Vos (1999) based on data from INEC, Encuestas de Empleo Urbano, 1988-97.
Note: 1. Returns to education refer to percentage increase in expected (hourly) income due to one additional year of schooling. Estimates obtained through Mincerian earnings functions. See León and Vos (1999) for details.

Labour market flexibilization, employment and distribution

Ecuador's cumbersome labour legislation could be expected to provide major distortions and cost-raising effects to the hiring of labour in the modern sector. At the same time, low and declining wage shares throughout the economy make it difficult to believe that labour market reform will have a major effect on overall economic performance. Moreover, as discussed in section 2, compliance to labour laws is low, even in the modern sector. In consequence, the labour cost-raising effect of the existing labour legislation is believed to be small and employers seem little worried about the existing labour regulation (see Cox-Edwards 1996). In a more stylized analysis, Rama (1996) does find some positive growth and employment effects following labour market reform, as it would shift workers from the informal sector to modern wage employment. Rama's model assumes full compliance with existing legislation such that it may overstate the likely impact of a labour market reform. Nevertheless also according to Rama (1996: 324), one should not expect labour reform to be a panacea and that a larger poverty-reducing impact should be expected from long-term investment in education.

This is not to say that labour market reform would not be relevant and urgent. In particular, the existing payment system and institutional wage setting make the remuneration system complex and little transparent. Minimum wage legislation with its

mandatory benefits guides the payment pyramid in both public and private sectors. The historical pattern has shown this makes modern sector nominal wage adjustments rigid and subject to political decision-making. The upshot being that with inflation up, workers tend to loose purchasing power over time. The above has suggested that real wage trends are closely associated with urban poverty. Hence a more transparent system of remunerations could help keep better defend purchasing power of workers on the one hand, as well as ease estimation of the production cost and budgetary implications of wage adjustments to private investors and the public administration.

Urban income distribution and poverty

The above tendencies are further reflected in a growing inequality in urban incomes. Real incomes of the richest quintile (Q.V) recovered earlier and faster from the high-inflation episode at the end of the 1980s. Between 1994 and 1996 real income increases are stronger for the lowest quintiles (Q.I-III). The survey data also show a substantial recovery of real incomes of the urban poorest (Q.I). Per capita household incomes of the lower-middle income groups (Q.II-III) are closest related to the trends in the real (minimum) wage, as Figure 16 shows. This link is weaker for the poorest urban household as a larger proportion of this income group is engaged as self-employed in urban informal activities.

The upshot of the above trends is that one can observe both a rise in urban inequality and a fall in the poverty incidence after 1992 (up to 1997). This is shown in Figure 17. The Gini for per capita urban household income increased from 0.44 to 0.48 between 1988 and 1992 and increased further to 0.50 in 1995. After 1995 there has been a slight drop, possibly due to loss in momentum of the liberalization process in the political turmoil of 1995-6 and the subsequent decline in growth of traded goods production. Urban poverty declined substantially after 1992 and shows a close inverse correlation with the trend in real wages (Figure 17). Falling real wages and employment along with rising inequality in per capita incomes in the emerging economic crisis of 1998 appear to have undone all of the poverty reduction achieved during 1992-7.

In the light of the above discussion (falling wage shares, rising informal, self-employed employment), this strong correlation between real wage trends and poverty maybe somewhat counterintuitive. There may be a number of possible explanations to this finding. First, the survey data used here (INEC's *Encuesta de Empleo Urbano*) are subject to important limitations. These will not be detailed here, but see León and Vos

(1999) for an extensive discussion. Two important limitations are mentioned here: (a) incomes are likely strongly underreported, particularly those referring to non-wage incomes; and (b) while questionnaires and sample design have been by and large unaltered, survey enumerators were better instructed starting with the 1995 survey which led to, in particular, a more concise registration of labour incomes. As a consequence one should assume that poverty indices are overestimated, while inequality measures maybe understated. Nevertheless, after performing a sensitivity analysis for various types of adjustments for alleged underreporting and observed non-reporting, Leon and Vos (1999) still find the same trends as reported in Figures 17. After adjustment, the rise in real per capita incomes and the fall in the poverty incidence from 1995 onwards become much less pronounced, but the observed trend remains unaltered. On these grounds the results in Figures 16 and 17 seem defendable proxies of the direction of change.

Figure 16: Real urban per capita incomes by quintiles and the minimum wage, 1988-97

(index, 1988=100)
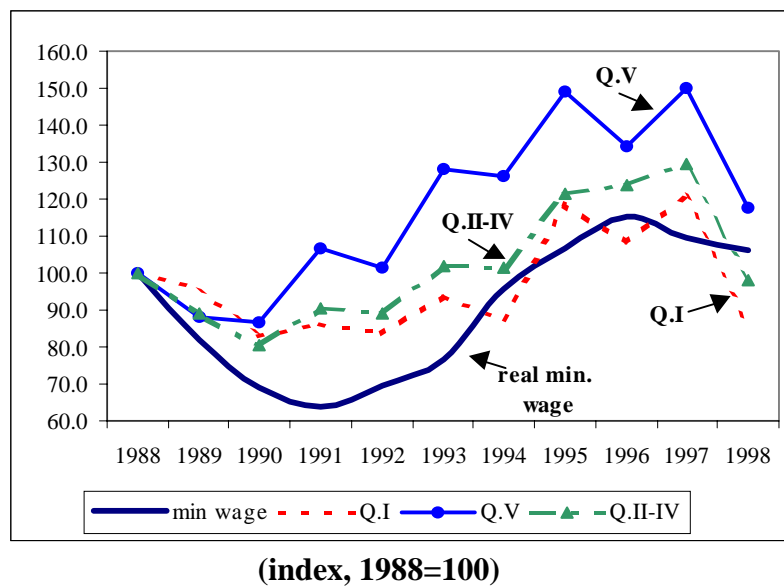
Source: León and Vos (1999), based on INEC, Encuestas de Empleo Urbano.
Note: Min.wage refers to real effective minimum wage (including bonuses and additional monthly payments); Q.I = first quintile (poorest 20%), Q.II-IV = second, third and fourth quintile (20-60%) and Q.V = fifth quintile (richest 20%).

Figure 17: Ecuador: Urban poverty, inequality and the minimum wage, 1988-97
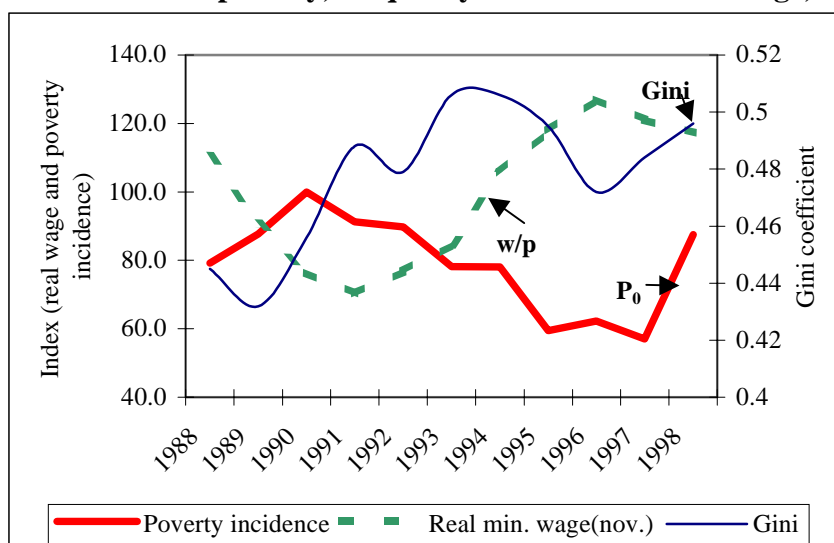
Second, what economic explanation could be given? A number of reasons re-
quiring further investigation can be given:

- Labour participation rates have increased during the 1980s and 1990s. Some work-
  ers may have abandoned wage employment and shifted to informal sector activities,
  but in other cases self-employed activities may have been taken up next to existing
  wage employment or by engaging other family members into the income earning
  process even if only part-time. If the latter aspect is of some weight, wage incomes
  may remain a key income source to families even if the share of wage employment
  is falling. In effect, the shares of wage income and self-employed incomes in total
  household income remained virtually stable between 1988 and 1997 (León and Vos
  1999).[14]

- Demand effects of real wage increases have important feedback effects on incomes
  in informal activities. This assumes demand for informal services and output of
  manufactured micro-enterprises mainly depends on consumption demand from

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[14] For the low-income groups (first quintile of per capita income distribution) the share of self-employed
income in total household income remained stable at 41% between 1988 and 1997, as did the wage share
at 47%. The composition of the wage share changed though, with a falling share for public sector wages
and a rising share for private sector wages. Trends for other quintiles are quite similar. For all house-
holds, the average share of self-employed income increased from 33 to 35% between 1988 and 1997, that
of public sector wages dropped from 23 to 17% and that of private sector wages increased from 34 to
38%. See León and Vos (1999) for further details.

wage-earning households and that of the self-employed themselves. Several studies have found this to be the case during the 1970s, using input-output and general equilibrium modelling frameworks (Vos 1987, Kouwenaar 1988 and Creamer 1992). More recent work (De Janvry, Sadoulet and Fargeix 1991 and Rama 1996) also confirm the hypothesis, but most of the key parameter values were borrowed from the earlier modelling work. Thus, while it seems convenient to assume that demand impulses derived from higher real wages work their way through into higher self-employed incomes and hence have a multiplier effect in reducing poverty, the proposition still requires proper testing for the economic structure that is emerging after the 1992 economic reform process.

5. CONCLUDING REMARKS

This paper has tried to trace the employment and income distribution effects of the liberalization of the current and capital account of the balance of payments of Ecuador during the 1990s. The insistence of multilateral organizations, particularly the IMF and the World Bank, that developing countries should entail trade and capital account liberalization is based on the notion that economic opening will bring important welfare gains. Countries often resist as they fear important adjustment costs, such as a rise in unemployment in the short run. Textbook approaches to structural adjustment and liberalization of the external sector typically side-step the question of unemployment and income distribution effects. In the orthodox approach which takes the simple Heckscher-Ohlin model as a benchmark, these issues are non-existent. According to the simplest textbook approach, in a small developing economy with capital-intensive imports, mobile factors and flexible prices, a reduction of import tariffs will no have no effect on total employment, not even in the short-run. Trade liberalization would lead to a sectoral reallocation of resources though and – by the Stolper-Samuelson theorem – redistribute income in favor of the input-intensive factor of production of exports, i.e. supposedly unskilled labour in the case of developing countries. In Latin America's reality, of course, adjustment and liberalization have been accompanied in many cases by rising unemployment, while rising inequality both skilled and unskilled workers and between wage and non-wage earners has been found in countries with either labour- or capital-intensive exportables (Berry 1997, Ganuza, Taylor and Morley 1998). The nature of the labour market, with typically wage rigidity in modern sectors and a good deal of labour market segmentation, is crucial in understanding the outcomes of the lib-

eralization process on incomes and employment. Macroeconomic policies and vulnerability to external shocks will compound such outcomes.

Ecuador's liberalization process started in earnest only in the early 1990s. It has made the economy even more dependent on export growth. Some growth of non-traditional exports has taken place, but oil and other traditional primary exports remain the key source of foreign exchange earnings, as well as of the vulnerability to external shocks. Overall we have a case of capital- or natural resource-intensive exportables (oil, bananas), labour-intensive non-tradables and importables (domestic food and liberalized manufactures) as the second most labour-intensive sector. Trade models with wage rigidity predict that liberalization under such initial structural conditions will reduce employment (Cox-Edwards and Edwards 1994). In Ecuador we saw no steep increase in unemployment rates, but – with high poverty and no unemployment benefit schemes – a strong rise in urban informal employment in the initial years of the liberalization, following a pattern sketched with a broad brush in Figure 1a. Capital account liberalization, real exchange rate appreciation, a return to expansionary fiscal policies and minimum wage increases reverted some of this trend in the mid 1990s, following the pattern of Figure 1b. Political conditions and external vulnerability make the situation quite volatile. Macro policies have been characterized by a "stop-go" pattern ever since the early 1980s and this has not changed in the post-liberalization era. Continued reliance on oil exports characterized the main source of external volatility. During the 1990s negative terms of trade shocks more than offset large volume increases in traditional and non-traditional exports, while also large volume adjustments proved insufficient to protect the fiscal balance against declining oil revenues.

Urban wage earners suffered heavy income losses during the ill-conceived stabilization efforts of the 1980s, but could regain some ground during the post-liberalization period when inflation dropped and real wages increased. Contrary to popular perceptions in Ecuador, urban poverty appears to have declined between 1992 and 1997. From the above, the major underlying cause should be found in macroeconomic policies, rather than in the effects of liberalization per se. As indicated, the structural conditions predict a loss of employment and real wage declines following the liberalization (in the short-run at least). Macroeconomic policies helped to revert the trend in mean real wages and thereby helped reduce urban poverty. This happy outcome has proven to be unsustainable. First, the macroeconomic policies did not help to decrease labour market segmentation, nor the trends towards rising wage inequality

between skilled and unskilled workers and a rising wedge between formal and informal workers. Second, sustained external vulnerability and slippage in fiscal discipline pushed the twin deficits to unprecedented heights by the end of 1998. This triggered a currency crisis, a full-blown banking crisis and high inflation in 1999. The subsequent drop in employment and real incomes undid most (and possibly more than that) of real income gains of the urban poor in the preceding years. Third, vulnerability to external shocks has remained. However, the crisis of 1998-9, is not simply due to falling oil prices and El Niño. Sequencing of reform policies equally has been problematic. In particular, the banking sector was liberalized at a point where it was virtually bankrupt and could only live on continued borrowing from the Central Bank (Figure 4 and Izurieta 1999) for as long as the foreign reserve position could keep up. Real exchange rate appreciation and high real interest rates did not particularly help stimulate industrial restructuring towards more labour-intensive export activities.

While the functioning of the Ecuadorian economy underwent some fundamental changes as a consequence of the liberalization process, the old story of (primary) export-driven growth cycles has not lost its relevance. Given the other structural features, this is bad news for the long-term prospects of the welfare of the poor population. More investment in human capital is but one element that clearly can turn the story into a happier one. However, the fruits of that will only become visible in the medium run. Labour market reform and promotion of labour-intensive export production will help lay additional foundations for a growth pattern that may achieve more effective employment growth and poverty reduction. However, in the short run there is still the formidable task of achieving a sustainable macroeconomic stability and coping with the enormous costs of restructuring the bankrupt financial sector. A surge in oil prices would be a welcome event to provide a cushion. However, if this positive external shock would just mean a fall back to the type of complacency with reform policies over the past decades, such a rescue in the short run would mean just another delay of the type of structural change needed to achieve the indicated long-run development goals.

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Table A.1: Macroeconomic indicators, Ecuador 1988-98

	units	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Trade liberalization												
Nominal import tariffs	weighted average	39.1%		24.6%	15.5%	9.3%	8.5%	11.9%	11.3%	11.3%	13.9%	
	Minimum tariff	*0.0%*		*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
	maximum tariff	*290.0%*		*80.0%*	*50.0%*	*37.0%*	*40.0%*	*40.0%*	*40.0%*	*35.0%*	*38.0%*	
Primary products	weighted average						7.6%	10.3%	10.4%	9.9%	9.9%	
Manufactured products	weighted average	39.0%		25.1%	15.8%	9.5%	8.8%	12.1%	11.4%	11.4%	12.5%	
Exports (% GDP)	current prices	28.4%	29.4%	32.7%	31.4%	31.5%	26.2%	26.7%	29.7%	30.5%	30.0%	26.2%
Imports (% GDP)	current prices	30.5%	31.2%	27.4%	29.7%	27.7%	25.5%	23.7%	28.6%	23.4%	29.0%	31.2%
Trade balance (% GDP)	current prices	-2.1%	-1.8%	5.4%	1.7%	3.8%	0.6%	3.0%	1.1%	7.1%	1.0%	-5.1%
Exports (% GDP)	constant prices	26.7%	26.1%	28.2%	29.3%	31.5%	32.2%	33.3%	34.4%	34.7%	35.4%	34.8%
Imports (% GDP)	constant prices	20.5%	21.6%	20.4%	22.0%	21.8%	21.3%	21.9%	23.3%	21.9%	23.0%	23.5%
Trade balance (% GDP)	constant prices	6.3%	4.5%	7.7%	7.3%	9.6%	10.9%	11.4%	11.2%	12.8%	12.4%	11.3%
Capital account liberalization												
Foreign savings (% GDP)		**6.8%**	**7.3%**	**3.4%**	**6.0%**	**1.0%**	**4.7%**	**4.1%**	**4.1%**	**-0.6%**	**3.8%**	**11.9%**
Portfolio investment (% GDP)		*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Direct foreign investment (% GDP)		*1.5%*	*1.6%*	*1.2%*	*1.4%*	*1.4%*	*3.3%*	*3.2%*	*2.6%*	*2.5%*	*2.9%*	*3.3%*
External borrowing, net (% GDP)		*1.3%*	*5.2%*	*0.6%*	*0.6%*	*-1.0%*	*2.1%*	*2.8%*	*8.7%*	*5.1%*	*4.3%*	*-0.8%*
By public sector		1.3%	4.7%	0.5%	0.6%	-1.8%	-0.3%	1.5%	4.6%	3.0%	1.5%	1.3%
New disbursements		*-0.4%*	*4.5%*	*0.0%*	*0.9%*	*-2.2%*	*-0.2%*	*0.5%*	*2.4%*	*2.6%*	*1.8%*	*1.1%*
Refinancing and capitalization of interest arrears		*1.7%*	*0.3%*	*0.5%*	*-0.3%*	*0.5%*	*-0.1%*	*1.0%*	*2.3%*	*0.4%*	*-0.3%*	*0.2%*
By private sector		0.0%	0.4%	0.1%	0.0%	0.8%	2.4%	1.4%	4.1%	2.1%	2.8%	-2.1%
New disbursements		*0.4%*	*0.6%*	*0.1%*	*0.0%*	*0.8%*	*2.4%*	*2.3%*	*8.1%*	*4.8%*	*4.0%*	*-0.5%*
Refinancing and capitalization of interest arrears		*-0.4%*	*-0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*-0.9%*	*-4.0%*	*-2.7%*	*-1.1%*	*-1.5%*
Payment arrears on external debt (% GDP)		*3.3%*	*4.2%*	*4.1%*	*4.3%*	*2.4%*	*3.3%*	*0.7%*	*-0.6%*	*0.3%*	*-0.1%*	*0.3%*
Other short-term capital inflows (% GDP)		*0.4%*	*0.1%*	*1.2%*	*1.1%*	*-1.7%*	*-0.6%*	*0.1%*	*-7.5%*	*-7.1%*	*-2.1%*	*5.6%*
Change in reserves (% GDP)		*0.2%*	*-3.9%*	*-3.7%*	*-1.3%*	*-0.2%*	*-3.3%*	*-2.8%*	*0.9%*	*-1.4%*	*-1.3%*	*3.4%*
Public and private external debt												
Total external debt (% GDP)		**107%**	**117%**	**114%**	**109%**	**101%**	**95%**	**88%**	**78%**	**77%**	**76%**	**76%**
Public external debt		105%	116%	113%	107%	99%	91%	83%	69%	66%	64%	65%
Private external debt		1%	2%	2%	1%	2%	4%	5%	9%	10%	13%	10%
Total domestic debt (% GDP)												
Public domestic debt												
Private domestic debt												
Exchange rate and terms of trade												
Nominal exchange rate (sucres per US$)	market rate, annual avg.	302	526	768	1,046	1,534	1,919	2,197	2,564	3,189	3,998	5,338
Real effective exchange rate (index, August 1992=100)	trade weighted	102.3	98.8	108.1	104.4	104.7	91.1	86.0	87.7	88.3	83.4	87.8
Bilateral US real exchange rate (index, August 1992=100)		111.3	110.2	114.4	109.7	107.3	95.4	87.8	85.5	88.1	86.6	90.9
External terms of trade		90	99	110	100	100	86	94	89	104	85	72
Interest rates												
Real deposit rate (%)		-25.7%	-8.4%	-8.4%	-2.4%	-17.7%	-18.0%	15.1%	24.5%	7.7%	-1.8%	3.1%
Real lending rate (%)		-22.1%	-3.2%	5.4%	7.1%	1.9%	-6.1%	22.4%	36.2%	20.2%	8.8%	16.0%
Spread (%)		3.6%	5.2%	13.8%	9.6%	19.6%	11.9%	7.3%	11.7%	12.5%	10.6%	12.9%
Fiscal balance												
Fiscal Surplus (+)/Deficit (-) (% GDP)	**Non-fin. public sector**	**-5.3%**	**-1.2%**	**0.5%**	**-0.6%**	**-1.2%**	**-0.1%**	**0.6%**	**-1.1%**	**-3.0%**	**-2.6%**	**-6.1%**
Public spending (% GDP)	**Non-fin. public sector**	**26.8%**	**27.4%**	**26.6%**	**26.0%**	**26.9%**	**25.0%**	**23.8%**	**26.6%**	**27.3%**	**26.3%**	**25.7%**
Current expenditures		21.4%	20.1%	19.5%	18.6%	19.6%	18.2%	17.3%	20.1%	19.7%	20.0%	20.5%
Investment		5.4%	7.3%	7.1%	7.4%	7.3%	6.8%	6.5%	6.6%	7.6%	6.3%	5.1%
Public revenues (% GDP)	**Non-fin. public sector**	**21.5%**	**26.2%**	**27.1%**	**25.4%**	**25.8%**	**24.9%**	**24.4%**	**25.5%**	**24.4%**	**23.8%**	**19.6%**
Oil revenues		7.7%	9.4%	11.6%	8.8%	9.6%	8.7%	7.2%	7.4%	8.2%	6.4%	4.6%
Non-oil revenues		13.8%	16.7%	15.5%	16.6%	16.2%	16.3%	17.2%	18.1%	16.1%	17.4%	15.0%
Other macroeconomic indicators												
GDP growth (%)		**10.5%**	**0.3%**	**3.0%**	**5.0%**	**3.6%**	**2.0%**	**4.3%**	**2.3%**	**2.0%**	**3.4%**	**1.4%**
Traded goods sector			-3.6%	2.3%	5.7%	4.1%	3.2%	6.0%	3.1%	1.8%	3.7%	0.6%
Non-traded goods sector			3.1%	1.4%	3.2%	2.6%	1.1%	2.7%	1.5%	2.6%	2.6%	2.0%
GDP per capita growth (%)		**7.9%**	**-2.1%**	**0.7%**	**2.6%**	**1.3%**	**-0.2%**	**2.1%**	**0.2%**	**-0.1%**	**1.3%**	**-0.7%**
Inflation rate (CPI) (%)		58.1%	75.7%	48.5%	48.7%	54.6%	45.0%	25.9%	22.9%	24.4%	30.7%	45.0%
Real minimum wage (Index, 1988=100; November is reference month)		100.0	82.1	69.2	63.6	69.5	76.6	95.7	106.8	115.0	109.6	106.2
Urban unemployment rate (%)		6.5%	7.9%	6.1%	8.5%	8.9%	8.3%	7.1%	6.9%	10.4%	9.2%	11.5%
Monetary expansion (M1) (%)		32.3%	38.1%	52.2%	46.5%	44.5%	49.4%	35.7%	12.7%	35.4%	29.7%	8.7%
Monetary expansion (M2) (%)		40.0%	45.8%	63.9%	58.1%	56.9%	52.8%	56.8%	41.8%	43.8%	35.1%	24.7%
Financial intermediation												
Money supply (M2/GDP)		20.7%	17.6%	18.2%	19.2%	19.1%	20.6%	24.3%	27.3%	29.8%	30.9%	28.4%
Financial intermediation ratio (M2/M1)		1.8	2.0	2.1	2.3	2.5	2.5	2.9	3.7	3.9	4.1	4.6

Cuadro A.2a: Ecuador: Descomposicion del crecimiento de la productividad, 1988-97: Sectores No agricolas y Empleo Urbano

DESCOMPOSICION DEL CRECIMIENTO DE LA PRODUCTIVIDAD LABORAL

a. Cambios en el producto y el empleo

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1988	1989	1990	1991	1992	1993	1994	1995	1996
A.-						Producto (Xi)									Estructura productiva, no agricola (Xi/X)					
Agricultura	29416	30230	32080	33988	35154	34555	35887	37033	38334	39887	39577									
Petroleo y minas	23964	21642	21442	23251	24599	27298	30200	31348	30756	31824	31825	16.9%	15.3%	15.1%	15.7%	16.1%	17.3%	18.4%	18.7%	18.0%
Industria manufacturera	29312	27858	28055	28951	29989	30731	32085	32794	33885	35082	36018	20.6%	19.7%	19.7%	19.6%	19.6%	19.5%	19.5%	19.5%	19.8%
Electricidad, gas y agua	2721	2899	2781	2841	2919	2980	3071	2956	3038	3110	3213	1.9%	2.1%	2.0%	1.9%	1.9%	1.9%	1.9%	1.8%	1.8%
Construcción	6024	6264	5333	5274	5256	5032	5299	5225	5356	5505	5726	4.2%	4.4%	3.7%	3.6%	3.4%	3.2%	3.2%	3.1%	3.1%
Comercio, hoteles y rest.	25925	26470	27469	28557	29420	29919	31000	31679	33067	34147	34852	18.2%	18.8%	19.3%	19.3%	19.2%	19.0%	18.8%	18.9%	19.3%
Transporte y comuncaciones	13620	14700	15362	16289	17223	17992	18746	19313	19909	20677	21036	9.6%	10.4%	10.8%	11.0%	11.3%	11.4%	11.4%	11.5%	11.6%
Servicios Financieros y a Empresas	14169	14496	14708	15145	15495	15644	16089	16349	16660	16969	17335	10.0%	10.3%	10.3%	10.2%	10.1%	9.9%	9.8%	9.7%	9.7%
Otros servicios	26477	26824	27268	27770	28090	27899	27995	28262	28410	28781	29261	18.6%	19.0%	19.1%	18.8%	18.4%	17.7%	17.0%	16.8%	16.6%
Otros componentes PIB	4114	4812	7033	8572	9291	9397	9778	10115	9920	10767	11163									
TOTAL PIB	**175742**	**176195**	**181531**	**190638**	**197436**	**201447**	**210150**	**215074**	**219335**	**226749**	**230006**									
TOTAL PIB No Agricola	**142212**	**141153**	**142418**	**148078**	**152991**	**157495**	**164485**	**167926**	**171081**	**176095**	**179266**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Transables (no agricolas)	53276	49500	49497	52202	54588	58029	62285	64142	64641	66906	67843	37.5%	35.1%	34.8%	35.3%	35.7%	36.8%	37.9%	38.2%	37.8%
Transables (no agricolas, no petrol)	*29312*	*27858*	*28055*	*28951*	*29989*	*30731*	*32085*	*32794*	*33885*	*35082*	*36018*	20.6%	19.7%	19.7%	19.6%	19.6%	19.5%	19.5%	19.5%	19.8%
No Transables	88936	91653	92921	95876	98403	99466	102200	103784	106440	109189	111423	62.5%	64.9%	65.2%	64.7%	64.3%	63.2%	62.1%	61.8%	62.2%
B.-						Empleo urbano (Li)									Estructura sectorial de empleo (Li/L)					
Agricultura	115907	137449	162293	193668	185379	201299	194544	184387	201326	219010										
Petroleo y minas	17389	18959	14972	12901	13261	19075	17791	17557	18623	11386		0.9%	0.9%	0.7%	0.5%	0.5%	0.7%	0.7%	0.6%	0.6%
Industria manufacturera	383523	401854	430386	448658	467940	493312	437128	441880	459926	512384		18.9%	18.7%	19.4%	18.4%	17.7%	19.1%	16.7%	15.6%	15.9%
Electricidad, gas y agua	17297	19727	24385	22765	18206	19860	13125	19443	12435	10546		0.9%	0.9%	1.1%	0.9%	0.7%	0.8%	0.5%	0.7%	0.4%
Construcción	159623	159715	174535	179318	193475	174102	184485	192733	192581	205431		7.9%	7.4%	7.9%	7.4%	7.3%	6.8%	7.0%	6.8%	6.7%
Comercio, hoteles y rest.	551676	599515	643680	738970	849322	814976	841594	943834	924504	919961		27.1%	27.9%	29.0%	30.3%	32.1%	31.6%	32.1%	33.4%	32.0%
Transporte y comuncaciones	124202	128131	134118	147895	153377	161654	161214	165378	179588	185167		6.1%	6.0%	6.0%	6.1%	5.8%	6.3%	6.1%	5.9%	6.2%
Servicios Financieros y a Empresas	102684	116467	110340	119586	140787	125575	117892	137650	144527	148350		5.1%	5.4%	5.0%	4.9%	5.3%	4.9%	4.5%	4.9%	5.0%
Otros servicios	676646	707183	689269	766337	805631	770527	851583	905393	954718	1033529		33.3%	32.9%	31.0%	31.5%	30.5%	29.9%	32.4%	32.1%	33.1%
Otros componentes PIB																				
TOTAL Empleo urbano	**2148947**	**2289000**	**2383978**	**2630098**	**2827378**	**2780380**	**2819356**	**3008255**	**3088228**	**3245764**										
TOTAL Empleo No Agricola	**2033040**	**2151551**	**2221685**	**2436430**	**2641999**	**2579081**	**2624812**	**2823868**	**2886902**	**3026754**		**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Transables (no agricolas)	400912	420813	445358	461559	481201	512387	454919	459437	478549	523770		19.7%	19.6%	20.0%	18.9%	18.2%	19.9%	17.3%	16.3%	16.6%
Transables (no agricolas, no petrol)	*383523*	*401854*	*430386*	*448658*	*467940*	*493312*	*437128*	*441880*	*459926*	*512384*		18.9%	18.7%	19.4%	18.4%	17.7%	19.1%	16.7%	15.6%	15.9%
No Transables	1632128	1730738	1776327	1974871	2160798	2066694	2169893	2364431	2408353	2502984		80.3%	80.4%	80.0%	81.1%	81.8%	80.1%	82.7%	83.7%	83.4%
C.-				Productividad Sectorial (Xi/Li) (miles de sucres de 1975)										Ponderadores de reasignacion laboral (Xi/X - Li/L)						
Agricultura																				
Petroleo y minas	1378.1	1141.5	1432.1	1802.3	1855.0	1431.1	1697.5	1785.5	1651.5	2795.0		16.0%	14.5%	14.4%	15.2%	15.6%	16.6%	17.7%	18.0%	17.3%
Industria manufacturera	76.4	69.3	65.2	64.5	64.1	62.3	73.4	74.2	73.7	68.5		1.7%	1.1%	0.3%	1.1%	1.9%	0.4%	2.9%	3.9%	3.9%
Electricidad, gas y agua	157.3	147.0	114.0	124.8	160.3	150.1	234.0	152.0	244.3	294.9		1.1%	1.1%	0.9%	1.0%	1.2%	1.1%	1.4%	1.1%	1.3%
Construcción	37.7	39.2	30.6	29.4	27.2	28.9	28.7	27.1	27.8	26.8		-3.6%	-3.0%	-4.1%	-3.8%	-3.9%	-3.6%	-3.8%	-3.7%	-3.5%
Comercio, hoteles y rest.	47.0	44.2	42.7	38.6	34.6	36.7	36.8	33.6	35.8	37.1		-8.9%	-9.1%	-9.7%	-11.0%	-12.9%	-12.6%	-13.2%	-14.6%	-12.7%
Transporte y comuncaciones	109.7	114.7	114.5	110.1	112.3	111.3	116.3	116.8	110.9	111.7		3.5%	4.5%	4.7%	4.9%	5.5%	5.2%	5.3%	5.6%	5.4%
Servicios Financieros y a Empresas	138.0	124.5	133.3	126.6	110.1	124.6	136.5	118.8	115.3	114.4		4.9%	4.9%	5.4%	5.3%	4.8%	5.1%	5.3%	4.9%	4.7%
Otros servicios	39.1	37.9	39.6	36.2	34.9	36.2	32.9	31.2	29.8	27.8		-14.7%	-13.9%	-11.9%	-12.7%	-12.1%	-12.2%	-15.4%	-15.2%	-16.5%
Otros componentes PIB																				
TOTAL PIB																				
TOTAL PIB No Agricola	**70.0**	**65.6**	**64.1**	**60.8**	**57.9**	**61.1**	**62.7**	**59.5**	**59.3**	**58.2**		**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Transables (no agricolas)	132.9	117.6	111.1	113.1	113.4	113.3	136.9	139.6	135.1	127.7		17.7%	15.5%	14.7%	16.3%	17.5%	17.0%	20.5%	21.9%	21.2%
Transables (no agricolas, no petrol)	76.4	69.3	65.2	64.5	64.1	62.3	73.4	74.2	73.7	68.5		*1.7%*	*1.1%*	*0.3%*	*1.1%*	*1.9%*	*0.4%*	*2.9%*	*3.9%*	*3.9%*
No Transables	54.5	53.0	52.3	48.5	45.5	48.1	47.1	43.9	44.2	43.6		-17.7%	-15.5%	-14.7%	-16.3%	-17.5%	-17.0%	-20.5%	-21.9%	-21.2%

Cuadro A.2a: Ecuador: Desc

a. Cambios en el producto y el emp

	1997	1998	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1992-97
A.-							Crecimiento PIB (dXi/Xi)							
Agricultura				2.8%	6.1%	5.9%	3.4%	-1.7%	3.9%	3.2%	3.5%	4.1%	-0.8%	2.6%
Petroleo y minas	18.1%	17.8%		-9.7%	-0.9%	8.4%	5.8%	11.0%	10.6%	3.8%	-1.9%	3.5%	0.0%	5.3%
Industria manufacturera	19.9%	20.1%		-5.0%	0.7%	3.2%	3.6%	2.5%	4.4%	2.2%	3.3%	3.5%	2.7%	3.2%
Electricidad, gas y agua	1.8%	1.8%		6.5%	-4.1%	2.2%	2.7%	2.1%	3.1%	-3.7%	2.8%	2.4%	3.3%	1.3%
Construcción	3.1%	3.2%		4.0%	-14.9%	-1.1%	-0.3%	-4.3%	5.3%	-1.4%	2.5%	2.8%	4.0%	0.9%
Comercio, hoteles y rest.	19.4%	19.4%		2.1%	3.8%	4.0%	3.0%	1.7%	3.6%	2.2%	4.4%	3.3%	2.1%	3.0%
Transporte y comuncaciones	11.7%	11.7%		7.9%	4.5%	6.0%	5.7%	4.5%	4.2%	3.0%	3.1%	3.9%	1.7%	3.7%
Servicios Financieros y a Empresas	9.6%	9.7%		2.3%	1.5%	3.0%	2.3%	1.0%	2.8%	1.6%	1.9%	1.9%	2.2%	1.8%
Otros servicios	16.3%	16.3%		1.3%	1.7%	1.8%	1.2%	-0.7%	0.3%	1.0%	0.5%	1.3%	1.7%	0.5%
Otros componentes PIB				17.0%	46.2%	21.9%	8.4%	1.1%	4.1%	3.4%	-1.9%	8.5%	3.7%	3.0%
TOTAL PIB				**0.3%**	**3.0%**	**5.0%**	**3.6%**	**2.0%**	**4.3%**	**2.3%**	**2.0%**	**3.4%**	**1.4%**	**2.8%**
TOTAL PIB No Agricola	**100.0%**	**100.0%**		**-0.7%**	**0.9%**	**4.0%**	**3.3%**	**2.9%**	**4.4%**	**2.1%**	**1.9%**	**2.9%**	**1.8%**	**2.9%**
Transables (no agricolas)	38.0%	37.8%		-7.1%	0.0%	5.5%	4.6%	6.3%	7.3%	3.0%	0.8%	3.5%	1.4%	4.2%
Transables (no agricolas, no petrol)	*19.9%*	*20.1%*		*-5.0%*	*0.7%*	*3.2%*	*3.6%*	*2.5%*	*4.4%*	*2.2%*	*3.3%*	*3.5%*	*2.7%*	*3.2%*
No Transables	62.0%	62.2%		3.1%	1.4%	3.2%	2.6%	1.1%	2.7%	1.5%	2.6%	2.6%	2.0%	2.1%
B.-							Crecimiento Empleo Urbano (dLi/Li)							
Agricultura				18.6%	18.1%	19.3%	-4.3%	8.6%	-3.4%	-5.2%	9.2%	8.8%		3.4%
Petroleo y minas	0.4%			9.0%	-21.0%	-13.8%	2.8%	43.8%	-6.7%	-1.3%	6.1%	-38.9%		-3.0%
Industria manufacturera	16.9%			4.8%	7.1%	4.2%	4.3%	5.4%	-11.4%	1.1%	4.1%	11.4%		1.8%
Electricidad, gas y agua	0.3%			14.0%	23.6%	-6.6%	-20.0%	9.1%	-33.9%	48.1%	-36.0%	-15.2%		-10.3%
Construcción	6.8%			0.1%	9.3%	2.7%	7.9%	-10.0%	6.0%	4.5%	-0.1%	6.7%		1.2%
Comercio, hoteles y rest.	30.4%			8.7%	7.4%	14.8%	14.9%	-4.0%	3.3%	12.1%	-2.0%	-0.5%		1.6%
Transporte y comuncaciones	6.1%			3.2%	4.7%	10.3%	3.7%	5.4%	-0.3%	2.6%	8.6%	3.1%		3.8%
Servicios Financieros y a Empresas	4.9%			13.4%	-5.3%	8.4%	17.7%	-10.8%	-6.1%	16.8%	5.0%	2.6%		1.1%
Otros servicios	34.1%			4.5%	-2.5%	11.2%	5.1%	-4.4%	10.5%	6.3%	5.4%	8.3%		5.1%
Otros componentes PIB														
TOTAL Empleo urbano				**6.5%**	**4.1%**	**10.3%**	**7.5%**	**-1.7%**	**1.4%**	**6.7%**	**2.7%**	**5.1%**		**2.8%**
TOTAL Empleo No Agricola	**100.0%**			**5.8%**	**3.3%**	**9.7%**	**8.4%**	**-2.4%**	**1.8%**	**7.6%**	**2.2%**	**4.8%**		**2.8%**
Transables (no agricolas)	17.3%			5.0%	5.8%	3.6%	4.3%	6.5%	-11.2%	1.0%	4.2%	9.4%		1.7%
Transables (no agricolas, no petrol)	16.9%			4.8%	7.1%	4.2%	4.3%	5.4%	-11.4%	1.1%	4.1%	11.4%		*1.8%*
No Transables	82.7%			6.0%	2.6%	11.2%	9.4%	-4.4%	5.0%	9.0%	1.9%	3.9%		3.0%
C.-							Crecimiento Productividad (dXi/Xi - dLi/Li)							
Agricultura														
Petroleo y minas	17.7%			-17.2%	25.5%	25.8%	2.9%	-22.9%	18.6%	5.2%	-7.5%	69.2%		8.5%
Industria manufacturera	3.0%			-9.3%	-6.0%	-1.0%	-0.7%	-2.8%	17.8%	1.1%	-0.7%	-7.1%		1.3%
Electricidad, gas y agua	1.4%			-6.6%	-22.4%	9.4%	28.5%	-6.4%	55.9%	-35.0%	60.7%	20.7%		13.0%
Construcción	-3.7%			3.9%	-22.1%	-3.7%	-7.6%	6.4%	-0.6%	-5.6%	2.6%	-3.6%		-0.3%
Comercio, hoteles y rest.	-11.0%			-6.0%	-3.3%	-9.4%	-10.4%	6.0%	0.3%	-8.9%	6.6%	3.8%		1.4%
Transporte y comuncaciones	5.6%			4.6%	-0.2%	-3.8%	2.0%	-0.9%	4.5%	0.4%	-5.1%	0.7%		-0.1%
Servicios Financieros y a Empresas	4.7%			-9.8%	7.1%	-5.0%	-13.1%	13.2%	9.5%	-13.0%	-2.9%	-0.8%		0.8%
Otros servicios	-17.8%			-3.1%	4.3%	-8.4%	-3.8%	3.8%	-9.2%	-5.0%	-4.7%	-6.4%		-4.4%
Otros componentes PIB														
TOTAL PIB														
TOTAL PIB No Agricola	**0.0%**			**-6.2%**	**-2.3%**	**-5.2%**	**-4.7%**	**5.5%**	**2.6%**	**-5.1%**	**-0.3%**	**-1.8%**		**0.1%**
Transables (no agricolas)	20.7%			-11.5%	-5.5%	1.8%	0.3%	-0.2%	20.9%	2.0%	-3.2%	-5.4%		2.4%
Transables (no agricolas, no petrol)	*3.0%*			*-9.3%*	*-6.0%*	*-1.0%*	*-0.7%*	*-2.8%*	*17.8%*	*1.1%*	*-0.7%*	*-7.1%*		*1.3%*
No Transables	-20.7%			-2.8%	-1.2%	-7.2%	-6.2%	5.7%	-2.1%	-6.8%	0.7%	-1.3%		-0.9%

Cuadro A.2b: Ecuador: Descomposicion del crecimiento de la productividad, 1988-97: Sectores No agricolas y Empleo Urbano

DESCOMPOSICION DEL CRECIMIENTO DE LA PRODUCTIVIDAD LABORAL

b. Descomposicion de la productividad

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1992-97	1988	1989	1990	1991	1992	1993	1994
A.-						Producto (Xi/X)Xi*)										Empleo {(Li/L)li*}		
Agricultura																		
Petroleo y minas		-1.5%	-0.1%	1.3%	0.9%	1.9%	2.0%	0.7%	-0.3%	0.6%	1.0%		0.1%	-0.1%	-0.1%	0.0%	0.3%	0.0%
Industria manufacturera		-1.0%	0.1%	0.6%	0.7%	0.5%	0.9%	0.4%	0.7%	0.7%	0.6%		0.9%	1.4%	0.8%	0.8%	1.0%	-1.9%
Electricidad, gas y agua		0.1%	-0.1%	0.0%	0.1%	0.0%	0.1%	-0.1%	0.0%	0.0%	0.0%		0.1%	0.3%	-0.1%	-0.1%	0.1%	-0.2%
Construcción		0.2%	-0.6%	0.0%	0.0%	-0.1%	0.2%	0.0%	0.1%	0.1%	0.0%		0.0%	0.7%	0.2%	0.6%	-0.7%	0.4%
Comercio, hoteles y rest.		0.4%	0.7%	0.8%	0.6%	0.3%	0.7%	0.4%	0.8%	0.6%	0.6%		2.4%	2.1%	4.5%	4.8%	-1.3%	1.0%
Transporte y comuncaciones		0.8%	0.5%	0.7%	0.6%	0.5%	0.5%	0.3%	0.4%	0.5%	0.4%		0.2%	0.3%	0.6%	0.2%	0.3%	0.0%
Servicios Financieros y a Empresas		0.2%	0.2%	0.3%	0.2%	0.1%	0.3%	0.2%	0.2%	0.2%	0.2%		0.7%	-0.3%	0.4%	0.9%	-0.5%	-0.3%
Otros servicios		0.2%	0.3%	0.3%	0.2%	-0.1%	0.1%	0.2%	0.1%	0.2%	0.1%		1.5%	-0.8%	3.5%	1.6%	-1.3%	3.4%
Otros componentes PIB																		
TOTAL PIB																		
TOTAL PIB No Agricola		**-0.4%**	**1.0%**	**4.0%**	**3.3%**	**3.1%**	**4.5%**	**2.1%**	**1.9%**	**2.9%**	**2.9%**		**5.9%**	**3.6%**	**9.9%**	**8.7%**	**-2.0%**	**2.5%**
Transables (no agricolas)		-2.5%	0.0%	1.9%	1.6%	2.3%	2.8%	1.1%	0.3%	1.3%	1.6%		1.0%	1.2%	0.7%	0.8%	1.3%	-1.9%
Transables (no agricolas, no petrol)		*-1.0%*	*0.1%*	*0.6%*	*0.7%*	*0.5%*	*0.9%*	*0.4%*	*0.7%*	*0.7%*	*0.6%*		*0.9%*	*1.4%*	*0.8%*	*0.8%*	*1.0%*	*-1.9%*
No Transables		2.0%	0.9%	2.1%	1.7%	0.7%	1.7%	1.0%	1.6%	1.6%	1.3%		4.9%	2.1%	9.1%	7.7%	-3.5%	4.1%
B.-						Productividad Sectorial Ponderada por el empleo {suma(Li/L)pi*}										Termino de Reasignación {suma[(Xi/X)-(L		
Agricultura																		
Petroleo y minas		-0.2%	0.2%	0.1%	0.0%	-0.2%	0.1%	0.0%	0.0%	0.3%	0.0%		-1.4%	-0.1%	1.3%	0.9%	1.8%	1.9%
Industria manufacturera		-1.7%	-1.2%	-0.2%	-0.1%	-0.5%	3.0%	0.2%	-0.1%	-1.2%	0.2%		-0.1%	0.0%	0.0%	0.1%	0.0%	0.1%
Electricidad, gas y agua		-0.1%	-0.2%	0.1%	0.2%	0.0%	0.3%	-0.2%	0.3%	0.1%	0.0%		0.1%	0.0%	0.0%	0.0%	0.0%	-0.2%
Construcción		0.3%	-1.7%	-0.3%	-0.6%	0.4%	0.0%	-0.4%	0.2%	-0.2%	0.0%		-0.1%	0.6%	0.0%	0.0%	0.2%	-0.2%
Comercio, hoteles y rest.		-1.7%	-1.0%	-2.9%	-3.3%	1.9%	0.1%	-3.0%	2.1%	1.1%	0.4%		-0.2%	-0.4%	-0.4%	-0.4%	-0.2%	-0.5%
Transporte y comuncaciones		0.3%	0.0%	-0.2%	0.1%	-0.1%	0.3%	0.0%	-0.3%	0.0%	0.0%		0.4%	0.2%	0.3%	0.3%	0.2%	0.2%
Servicios Financieros y a Empresas		-0.5%	0.4%	-0.2%	-0.7%	0.6%	0.4%	-0.6%	-0.1%	0.0%	0.0%		0.1%	0.1%	0.2%	0.1%	0.0%	0.2%
Otros servicios		-1.0%	1.3%	-2.6%	-1.2%	1.1%	-3.0%	-1.6%	-1.5%	-2.2%	-1.5%		-0.2%	-0.2%	-0.2%	-0.1%	0.1%	-0.1%
Otros componentes PIB																		
TOTAL PIB																		
TOTAL PIB No Agricola		**-4.6%**	**-2.3%**	**-6.2%**	**-5.5%**	**3.3%**	**1.2%**	**-5.6%**	**0.4%**	**-2.1%**	**-0.8%**		**-1.4%**	**0.2%**	**1.2%**	**0.9%**	**2.2%**	**1.7%**
Transables (no agricolas)		-2.2%	-1.1%	0.3%	0.1%	0.0%	3.6%	0.3%	-0.5%	-0.9%	0.3%		-1.1%	0.0%	0.9%	0.8%	1.1%	1.5%
Transables (no agricolas, no petrol)		*-1.7%*	*-1.2%*	*-0.2%*	*-0.1%*	*-0.5%*	*3.0%*	*0.2%*	*-0.1%*	*-1.2%*	*0.2%*		*-0.1%*	*0.0%*	*0.0%*	*0.1%*	*0.0%*	*0.1%*
No Transables		-2.3%	-1.0%	-5.8%	-5.1%	4.6%	-1.8%	-5.7%	0.6%	-1.1%	-1.0%		-0.5%	-0.2%	-0.5%	-0.5%	-0.2%	-0.6%
C.-						Productividad Sectorial Ponderada por el producto {suma(Xi/X)pi*}										Termino de Reasignación {suma[(Xi/X)-(L		
Agricultura																		
Petroleo y minas		-2.6%	3.8%	4.1%	0.5%	-4.0%	3.4%	1.0%	-1.3%	12.5%	1.5%		1.3%	-3.0%	-2.1%	0.4%	7.3%	-1.2%
Industria manufacturera		-1.8%	-1.2%	-0.2%	-0.1%	-0.5%	3.5%	0.2%	-0.1%	-1.4%	0.3%		0.1%	0.0%	0.0%	0.1%	0.0%	-0.3%
Electricidad, gas y agua		-0.1%	-0.4%	0.2%	0.5%	-0.1%	1.0%	-0.6%	1.1%	0.4%	0.2%		0.2%	0.2%	-0.1%	-0.2%	0.1%	-0.5%
Construcción		0.2%	-0.8%	-0.1%	-0.3%	0.2%	0.0%	-0.2%	0.1%	-0.1%	0.0%		0.0%	-0.4%	-0.1%	-0.3%	0.4%	-0.2%
Comercio, hoteles y rest.		-1.1%	-0.6%	-1.8%	-2.0%	1.1%	0.1%	-1.7%	1.3%	0.7%	0.3%		-0.8%	-0.7%	-1.6%	-1.9%	0.5%	-0.4%
Transporte y comuncaciones		0.5%	0.0%	-0.4%	0.2%	-0.1%	0.5%	0.0%	-0.6%	0.1%	0.0%		0.1%	0.2%	0.5%	0.2%	0.3%	0.0%
Servicios Financieros y a Empresas		-1.0%	0.7%	-0.5%	-1.3%	1.3%	0.9%	-1.3%	-0.3%	-0.1%	0.1%		0.7%	-0.3%	0.4%	0.9%	-0.5%	-0.3%
Otros servicios		-0.6%	0.8%	-1.6%	-0.7%	0.7%	-1.6%	-0.8%	-0.8%	-1.0%	-0.7%		-0.6%	0.3%	-1.4%	-0.6%	0.5%	-1.6%
Otros componentes PIB																		
TOTAL PIB																		
TOTAL PIB No Agricola		**-6.7%**	**2.3%**	**-0.4%**	**-3.2%**	**-1.4%**	**7.9%**	**-3.3%**	**-0.7%**	**11.1%**	**1.6%**		**0.9%**	**-3.7%**	**-4.3%**	**-1.5%**	**8.5%**	**-4.6%**
Transables (no agricolas)		-4.0%	-1.9%	0.6%	0.1%	-0.1%	7.9%	0.8%	-1.2%	-2.1%	1.8%		0.8%	0.9%	0.6%	0.7%	1.1%	-2.3%
Transables (no agricolas, no petrol)		*-1.8%*	*-1.2%*	*-0.2%*	*-0.1%*	*-0.5%*	*3.5%*	*0.2%*	*-0.1%*	*-1.4%*	**0.3%**		0.1%	0.0%	0.0%	0.1%	0.0%	-0.3%
No Transables		-1.8%	-0.8%	-4.7%	-4.0%	3.6%	-1.3%	-4.2%	0.4%	-0.8%	-0.2%		-0.9%	-0.4%	-1.8%	-1.6%	0.7%	-1.0%
No Transables																		

Cuadro A.2b: Ecuador: Desc

b. Descomposicion de la productivi

	1995	1996	1997	1992-97	1989	1990	1991	1992	1993	1994	1995	1996	1997	1992-97
A.-					Total { p*= suma[(Xi/X)Xi*-(Li/L)Li*]}									
Agricultura														
Petroleo y minas	0.0%	0.0%	-0.1%	0.0%	-1.6%	0.0%	1.4%	0.9%	1.6%	2.0%	0.7%	-0.4%	0.8%	1.0%
Industria manufacturera	0.2%	0.7%	1.9%	0.3%	-1.9%	-1.2%	-0.2%	-0.1%	-0.6%	2.8%	0.3%	0.0%	-1.2%	0.3%
Electricidad, gas y agua	0.3%	-0.2%	-0.1%	0.0%	0.0%	-0.3%	0.1%	0.2%	0.0%	0.2%	-0.4%	0.2%	0.1%	0.1%
Construcción	0.3%	0.0%	0.5%	0.1%	0.2%	-0.2%	-0.6%	0.5%	-0.2%	-0.3%	0.1%	-0.4%	-0.1%	
Comercio, hoteles y rest.	4.1%	-0.7%	-0.1%	0.5%	-2.0%	-1.4%	-3.7%	-4.2%	1.6%	-0.4%	-3.6%	1.5%	0.8%	0.1%
Transporte y comuncaciones	0.2%	0.5%	0.2%	0.2%	0.6%	0.2%	0.0%	0.4%	0.2%	0.5%	0.2%	-0.2%	0.3%	0.2%
Servicios Financieros y a Empresas	0.8%	0.3%	0.1%	0.1%	-0.5%	0.4%	-0.1%	-0.7%	0.6%	0.6%	-0.7%	-0.1%	0.0%	0.1%
Otros servicios	2.0%	1.8%	2.8%	1.7%	-1.2%	1.1%	-3.2%	-1.4%	1.2%	-3.4%	-1.9%	-1.7%	-2.6%	-1.7%
Otros componentes PIB														
TOTAL PIB														
TOTAL PIB No Agricola	**7.9%**	**2.5%**	**5.2%**	**2.8%**	**-6.4%**	**-2.4%**	**-5.8%**	**-5.1%**	**5.2%**	**2.3%**	**-5.6%**	**-0.4%**	**-2.0%**	**0.1%**
Transables (no agricolas)	0.2%	0.7%	1.6%	0.3%	-3.5%	-1.2%	1.2%	0.9%	1.0%	4.7%	1.0%	-0.4%	-0.3%	1.3%
Transables (no agricolas, no petrol)	*0.2%*	*0.7%*	*1.9%*	*0.3%*	*-1.9%*	*-1.2%*	*-0.2%*	*-0.1%*	*-0.6%*	*2.8%*	*0.3%*	*0.0%*	*-1.2%*	*0.3%*
No Transables	7.5%	1.5%	3.2%	2.5%	-2.9%	-1.2%	-7.0%	-6.0%	4.2%	-2.4%	-6.5%	0.0%	-1.6%	-1.2%
B.-	.i/L)}Xi*}				Productividad Laboral Total {[suma(Li/L)pi*] + [suma[(Xi/X)-(Li/L)]Xi*]}									
Agricultura														
Petroleo y minas	0.7%	-0.3%	0.6%	0.9%	-1.6%	0.0%	1.4%	0.9%	1.7%	2.0%	0.7%	-0.4%	0.9%	1.0%
Industria manufacturera	0.1%	0.1%	0.1%	0.1%	-1.8%	-1.2%	-0.1%	-0.1%	-0.5%	3.1%	0.3%	0.0%	-1.1%	0.3%
Electricidad, gas y agua	0.0%	0.0%	0.0%	0.0%	0.0%	-0.3%	0.1%	0.2%	0.0%	0.3%	-0.3%	0.3%	0.1%	0.1%
Construcción	0.1%	-0.1%	-0.1%	0.0%	0.2%	-1.1%	-0.2%	-0.5%	0.6%	-0.2%	-0.3%	0.1%	-0.3%	-0.1%
Comercio, hoteles y rest.	-0.3%	-0.6%	-0.4%	-0.3%	-1.9%	-1.3%	-3.3%	-3.7%	1.7%	-0.4%	-3.3%	1.5%	0.8%	0.1%
Transporte y comuncaciones	0.2%	0.2%	0.2%	0.2%	0.6%	0.2%	0.1%	0.4%	0.2%	0.5%	0.2%	-0.1%	0.3%	0.2%
Servicios Financieros y a Empresas	0.1%	0.1%	0.1%	0.1%	-0.4%	0.4%	-0.1%	-0.6%	0.7%	0.6%	-0.6%	-0.1%	0.1%	0.1%
Otros servicios	-0.1%	-0.1%	-0.2%	-0.1%	-1.2%	1.1%	-2.9%	-1.3%	1.2%	-3.0%	-1.8%	-1.6%	-2.4%	-1.6%
Otros componentes PIB														
TOTAL PIB														
TOTAL PIB No Agricola	**0.6%**	**-0.6%**	**0.4%**	**0.9%**	**-6.0%**	**-2.1%**	**-5.1%**	**-4.6%**	**5.5%**	**2.8%**	**-5.0%**	**-0.3%**	**-1.8%**	**0.1%**
Transables (no agricolas)	0.7%	0.2%	0.7%	1.0%	-3.3%	-1.1%	1.2%	0.9%	1.0%	5.1%	1.0%	-0.4%	-0.2%	1.3%
Transables (no agricolas, no petrol)	*0.1%*	*0.1%*	*0.1%*	*0.1%*	*-1.8%*	*-1.2%*	*-0.1%*	*-0.1%*	*-0.5%*	*3.1%*	*0.3%*	*0.0%*	*-1.1%*	*0.3%*
No Transables	-0.3%	-0.5%	-0.5%	-0.1%	-2.7%	-1.2%	-6.3%	-5.5%	4.4%	-2.3%	-6.0%	0.0%	-1.6%	-1.2%
C.-	.i/L)}Li*}				Productividad Laboral Total {[suma(Xi/XL)pi*]+[suma[(Xi/X)-(Li/L)]Li*]}									
Agricultura														
Petroleo y minas	-0.2%	1.1%	-6.9%	-0.5%	-1.3%	0.8%	2.0%	0.9%	3.3%	2.2%	0.7%	-0.3%	5.6%	1.0%
Industria manufacturera	0.0%	0.2%	0.3%	0.1%	-1.8%	-1.2%	-0.1%	-0.1%	-0.5%	3.2%	0.3%	0.0%	-1.1%	0.3%
Electricidad, gas y agua	0.5%	-0.5%	-0.2%	-0.1%	0.0%	-0.2%	0.1%	0.3%	0.0%	0.6%	-0.1%	0.6%	0.2%	0.1%
Construcción	-0.2%	0.0%	-0.2%	0.0%	0.2%	-1.2%	-0.2%	-0.6%	0.6%	-0.2%	-0.3%	0.1%	-0.4%	-0.1%
Comercio, hoteles y rest.	-1.8%	0.3%	0.1%	-0.2%	-1.9%	-1.4%	-3.5%	-3.9%	1.6%	-0.4%	-3.4%	1.5%	0.8%	0.1%
Transporte y comuncaciones	0.1%	0.5%	0.2%	0.2%	0.6%	0.2%	0.1%	0.4%	0.2%	0.5%	0.2%	-0.1%	0.3%	0.2%
Servicios Financieros y a Empresas	0.8%	0.2%	0.1%	0.0%	-0.4%	0.5%	-0.1%	-0.5%	0.8%	0.6%	-0.4%	-0.1%	0.1%	0.1%
Otros servicios	-1.0%	-0.9%	-1.5%	-0.9%	-1.2%	1.1%	-3.0%	-1.3%	1.2%	-3.2%	-1.8%	-1.7%	-2.5%	-1.6%
Otros componentes PIB														
TOTAL PIB														
TOTAL PIB No Agricola	**-1.6%**	**0.8%**	**-8.1%**	**-1.5%**	**-5.8%**	**-2.2%**	**-5.3%**	**-4.8%**	**5.4%**	**3.3%**	**-5.2%**	**-0.3%**	**-1.7%**	**0.2%**
Transables (no agricolas)	0.2%	0.9%	2.0%	-0.5%	-3.3%	-1.1%	1.2%	0.9%	1.0%	5.6%	1.0%	-0.3%	-0.1%	1.3%
Transables (no agricolas, no petrol)	0.0%	0.2%	0.3%	*0.3%*	-1.8%	-1.2%	-0.1%	-0.1%	-0.5%	3.2%	0.3%	0.0%	-1.1%	*0.5%*
No Transables	-2.0%	-0.4%	-0.8%	-1.0%	-2.8%	-1.2%	-6.5%	-5.6%	4.3%	-2.4%	-6.2%	0.0%	-1.6%	-1.2%
No Transables														

Table A.3: Decomposition of Productivity Growth, 1990-95: all sectors

1990-95	Output growth dXi/Xi	Employment growth dLi/Li	Productivity growth ρι*	Weights of productivity change (Xi/X).ri*	Employment reallocation (Xi/Xi -Li/L).Li*
Agriculture	2.9%	1.6%	1.3%	0.2%	-0.2%
Oil and mining	7.9%	3.5%	4.3%	0.7%	0.5%
Manufacturing	3.2%	0.7%	2.5%	0.4%	0.0%
Electricity, gas and wa	1.2%	1.9%	-0.6%	0.0%	0.0%
Construction	-0.4%	2.5%	-2.8%	-0.1%	-0.1%
Commerce	2.9%	6.9%	-3.7%	-0.6%	-0.5%
Transport and commu	4.7%	5.7%	-0.9%	-0.1%	0.3%
Financial services	2.1%	-6.7%	9.4%	0.8%	-0.5%
Other services	0.7%	3.3%	-2.5%	-0.3%	-0.5%
Total	**3.3%**	**3.1%**	**0.2%**	**1.0%**	**-0.7%**
Traded goods	4.4%	1.3%	3.0%	1.3%	0.4%
Non-oil, traded good	*3.2%*	*0.7%*	*2.5%*	*0.4%*	*0.0%*
Non-traded goods	2.2%	4.4%	-2.1%	-0.3%	-1.1%

Source: Central Bank, national accounts; INEC, Population census 1990; INEC, Encuesta de Condiciones de Vida 1

Note: Employment data of 1990 census adjusted for underreporting of female and rural participation rates to obtai greater comparability with 1995 LSMS survey data.

Table A.4: Ecuador: Urban employment by occupational category, 1988-97
(percent of Economically Active Population in Urban Areas)

	1988	1992	1996	1997
Wage earners	**55.7%**	**51.3%**	**51.9%**	**53.7%**
public sector	17.4%	14.2%	13.2%	13.0%
private sector	38.3%	37.1%	38.7%	40.7%
Self-employed	**33.2%**	**37.4%**	**37.2%**	**35.5%**
self-employed/owners	24.0%	27.0%	26.7%	26.3%
family workers	5.4%	6.2%	5.8%	4.3%
domestic servants	3.8%	4.2%	4.7%	4.9%
Employers	**7.6%**	**7.5%**	**6.9%**	**7.2%**
Unspecified	*3.6%*	*3.8%*	*3.9%*	*3.5%*
Total	**100%**	**100%**	**100%**	**100%**

Source: INEC, Encuestas de Empleo Urbano