

## **CLOSING THE DEVELOPMENT GAP:**

### **A PROPOSAL FOR A NORTH AMERICAN INVESTMENT FUND**

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The North American Free Trade Agreement (NAFTA) officially began on January 1, 1994. Since then, the economic and social integration of Mexico, Canada, and the United States accelerated, but the development gap separating Mexico from its two northern neighbors has not narrowed. Some critics hold NAFTA accountable, but the truth is that NAFTA succeeded for what it was designed to do. It reduced barriers to trade and investment, and trade and investment nearly tripled in a decade.<sup>1</sup>

NAFTA did fail to achieve compliance in a few controversial areas – trucking, softwood lumber, agriculture - but its principal flaw was what it omitted. It has not addressed the uneven economic development, the different vulnerabilities, and the wide disparities among the three countries. The failure to take these differences into account meant that the burden of financial problems, such as the “peso crisis” of 1994, has fallen disproportionately on the weaker parties. It has also meant that the three countries did not have the capacity to anticipate, coordinate, or plan for new shocks or take advantage of opportunities.

Soon after he won Mexico’s presidential election on July 2, 2000, Vicente Fox proposed a Common Market to replace the free-trade area, and he also volunteered the idea of a compensation fund for the poorest country. He invited President George W. Bush to his home in February 2001 and persuaded him to endorse the “The Guanajuato Proposal.” A key part of the proposal said:

“After consultation with our Canadian partners, we will strive to consolidate a North American economic community whose benefits reach the lesser-developed areas of the region and extend to the most vulnerable social groups in our countries.”<sup>2</sup>

This idea promised a very different approach to North America than the one envisaged in NAFTA, but that promise has not been fulfilled. While some might attribute the failure to September 11<sup>th</sup>, the hard truth is that the three governments made no progress on this theme before that. This does not mean that the proposal is impractical, only that the three governments have not yet taken it seriously enough to convert promise into policy. In the long-term, however, there is a compelling reason for

returning to the Guanajuato concept, and so we shall explore its origins and analyze its prospects further.

Fox and his then-Foreign Minister Jorge Castañeda consciously modeled the Guanajuato proposal on Europe's programs to reduce disparities in income between rich and poor countries. During the last forty years, Europe experimented with many approaches to this problem, and it has had considerable success. The EU is based on a very different model than NAFTA, but with such long experience in forging economic integration among disparate parts, North America would be foolish not to try to learn from what it has done or failed to do. The question for North America is **not** whether to adopt the European model; the two cases are different. The relevant questions are: Is there something to be learned from Europe's experience? Which of its initiatives failed and should be avoided by NAFTA? And which projects succeeded and could be adapted, and in what ways?

This paper is organized in three parts. First, it examines the European model and extracts lessons of pertinence to NAFTA. Secondly, we analyze the evolution, success, and failure of Mexico's development experience and then identify the principal sources of growth and the magnitude of the resources necessary to stimulate a 6 percent rate of growth for a decade as a step toward narrowing the development gap. Finally, we will offer a very specific proposal and strategy for a North American Investment Fund.

## I. The European Model

The establishment of the European Coal and Steel Community in 1951 consciously sought "a broader and deeper community among peoples long divided by bloody conflicts." Since that auspicious beginning, Europe has become increasingly integrated economically, socially, and politically. In 1957, France, Germany, Italy, Belgium, Netherlands, and Luxembourg signed the Treaty of Rome "to lay the foundation for an ever closer union." In 1986, the 12 members of the European Community signed the Single European Act, which declared their intent to speak with "one voice," and in 1992, they established the European Union to forge a common citizenship, a single currency, and a united foreign and defense policy.<sup>3</sup>

Since its beginning, the European Union (EU)<sup>1</sup> established one of its key objectives as the need to "reduce the differences between the various regions and the backwardness of the less favored regions." With the first enlargement in 1973 to include the United Kingdom, Denmark, and Ireland, the U.K. pressed for a more concerted approach to help the poorer regions, and George Thomson, a British Commissioner, was given responsibility to oversee EC regional policy. The subsequent enlargement to include Greece (1981) and Spain and Portugal (1986) led to a significant re-structuring and infusion of aid to these countries and Ireland. The EU model is based on a "recognition that wide disparities are intolerable in a community, if the term has any meaning at all."<sup>4</sup>

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<sup>1</sup> We shall use the term, "European Union" or EU to refer to the European integration effort even though that is just the latest of the many terms used to describe it.

The North American Free Trade Agreement was born of different soil. It aspired to be nothing more than an area where goods, services, and capital should be traded freely, but labor's movements should be restricted. Until Fox raised the idea of a Common Market, no other leader in the three countries had even broached a preliminary step - a Customs Union with a common external tariff. NAFTA is also silent on an issue – disparities among members - in which the EU is preoccupied, though the income and employment gaps are far wider in North America than in Europe.

In terms of gross product and population, the two entities are comparable, but the aggregate size of the two regions masks the unevenness of its membership. In 1960, the U.S. gross domestic product was two and one-half times larger than that of all seven EU countries. At the end of the 20<sup>th</sup> century, the U.S. GDP exceeded all fifteen EU countries by \$500 billion.<sup>5</sup> In contrast to NAFTA, which is dominated by a single state, the EU is composed of four strong states – Germany, France, U.K., and Italy – followed by numerous middle powers and then some very small states. The most powerful state - Germany – has about one-fourth of the EU's gross product and 7 percent of the world's product. The center and power of North America is the United States with almost 90 percent of the region's gross product and 29 percent of the world's.

Beyond the sheer difference in weight among the three countries of North America, the disparity in incomes between Mexico and its two northern neighbors is probably the most significant dimension of asymmetry. The per capita gross domestic product of the United States, Canada, and Mexico in 1960 was \$2,836, \$2,257, and \$354, respectively. The average for all North America was \$2,406 with the United States representing 118% of the average and Mexico, 15 percent. Nearly four decades later, the differences between the three countries hardly improved. The U.S. per capita GDP was 7.9 times higher than Mexico's in 1960 and 6.5 times higher in 1999. In comparison, the gaps within Europe were much more modest. In 1999, Germany's per capita GDP was 2.4 times that of Portugal, the EU's poorest country.

In summary, the income disparities are far wider in North America than in Europe. The United States and Canada have provisions for mitigating the disparity, but Mexico does not have any capacity to do that, and the region as a whole has not developed a redistributive mechanism to compensate the weaker countries.

**Europe's Regional Policies.** The first European institution that focused exclusively on the problem of regional disparities was the European Regional Development Fund (ERDF), which was established in 1975 after the EU was enlarged to include the United Kingdom, Ireland, and Denmark. The ERDF's purpose was "to help to redress the main regional imbalances in the Community."<sup>6</sup> Roughly 85% of the ERDF-funded projects in the 1970s and 1980s were used for infrastructure, and 91% of its funds went to the poorest regions in five countries - France, Germany, Italy, Greece, and the United Kingdom. Member governments co-financed the projects. The budget increased eight-fold in the first ten years of the program (1975-84), but that only amounted to one-eighth of what was spent for the Common Agricultural Policy (CAP).

The enlargements of the 1980s (Greece, Spain, and Portugal) coincided with the leadership of Jacques Delors, the President of the European Commission, who used the moment to transform the mandate, the programs, and the amount of funds devoted to the task. The Single European Act of 1986 included a new concept and a more precise set of goals under the title of "Economic and Social Cohesion" (Article 130A-E):

"In order to promote its overall harmonious development, the Community shall develop and pursue its actions leading to the strengthening of its economic and social cohesion. In particular, the Community shall aim aid at reducing disparities between the levels of development of the various regions and the backwardness of the least favored regions, including rural areas." <sup>7</sup>

The operational definition of "economic cohesion" was convergence of basic incomes, rates of employment, and competitiveness. Under the "Delors I" plan, adopted by the EC in 1988 for a five-year plan (1989-93), the budget for Structural Funds for the poorer countries doubled in real terms, to 60 billion ECUs over five years, reaching in 1992 to almost 30% of the total budget and about .3% of EC Gross Domestic Product.

The end of the Cold War and the negotiations for the Maastricht Treaty led to Delors II (a six-year plan, 1994-99), which boosted funding for cohesion by fifty percent, up to .46% of EU GDP. The Maastricht Treaty also created two more cohesion instruments: the Cohesion Fund for the four poorest countries - Ireland, Greece, Spain, and Portugal - and the European Investment Fund for the poorer regions.

The EU allotted 15.5 billion Euros for the Cohesion Fund's four poorer countries for grants for projects between 1993-99, rising from an annual level of 795 million Euros in 1993 to 2,769 million in 1999. This, however, represented only about 10 percent of money allocated to the "Structural Funds," which, in 1995, referred to the following four funds that has previously been established: The European Regional Development Fund (ERDF, which represented 50% of total Structural Funds), European Social Fund (ESF - 30% of the total), Agriculture (17%), and Fisheries (3%). The Structural funds were also grants and amounted to 170 billion ECUs during the 1994-99 period, or about one-third of total Community spending. The total budget for 2000-06 amounts to 195 billion Euros (at 1999 prices). This represents 1.27 percent of the EU's GDP in 1999. <sup>8</sup>

The Cohesion Funds are spent on the environment, infrastructure, and research and development in the four countries whose per capita GDP is less than 90% of the EU average (Spain, Portugal, Greece, Ireland). The EU claims that the total amount allocated for structural and cohesion funds amounted cumulatively to 6.5% of annual EU GDP during the decade of 1989-99. In comparison, the Marshall Plan aid from 1948-51 amounted cumulatively to 4% of annual US GDP. <sup>9</sup> The comparison is a bit deceptive both on statistical and substantive grounds. The EU aid was a ten-year total, and the Marshall Plan was for four years, though the denominator in both cases is the GDP in just the first year of the program. Moreover, the EU transferred the funds to itself, often to the same countries. Nonetheless, in an age when foreign aid has been declining

precipitously, EU transfers represent a significant effort. In just the period from 1992 programmed through 2006, the EU would have transferred roughly 425.2 billion Euros.

In its first Cohesion Report in 1996, the European Commission focused its analysis on the four poorer “cohesion” countries. It found the evidence mixed as to whether the disparities in income and employment between the richer and poorer states had narrowed, but by the Sixth Report issued in February 1999, the Commission declared: “The evidence is now unambiguous: the GDP, or output, per head of poorer regions is converging toward the EU average.” From 1986-99, the per capita GDP in the four Cohesion countries rose from 65% of the EU average to 78%. As for the regions, per capita GDP in the 10 poorest regions increased from 41% of the EU average to 50%, and of the 25 poorest regions, from 52% to 59%.<sup>10</sup>

While all four Cohesion countries (Ireland, Spain, Portugal, and Greece) have made substantial progress since entering the EU, an analysis of the differences in their rates of growth is useful for assessing the relative effectiveness of the EU's regional policies. Ireland has been the most successful. Although burdened with a weak infrastructure and educational system, Ireland took quick advantage of the EU and achieved the highest growth rates of any member state.<sup>11</sup> Its per capita GDP rose from only 61% of the EU average in 1986 to 96.5% one decade later. In 1999, Ireland's per capita GDP had reached 105.1% of the EU average.<sup>12</sup> The growth was not evenly distributed within Ireland. Most of it was concentrated in the eastern part of the country, particularly the service sector around Dublin.

Ireland received significant resources from the EU. For the decade beginning in 1989, Ireland received 10.2 billion Euros from both Structural and Cohesion Funds, and the government matched that amount as counterpart investments. The EU transferred resources that were equivalent to 2.8% of Ireland's GDP. National counterpart funding raised the total investment to 5% of GDP.<sup>13</sup> This undoubtedly provided a significant boost to Ireland's development. The Economic and Social Research Institute in Dublin did a rather intensive analysis and evaluation of the EU's programs in Ireland and concluded that “no single factor can explain the economic turnaround,” but it identified three mutually reinforcing variables: the gradual accumulation of human capital; fiscal control and the maintenance of wage competitiveness; and a sharp increase in EU structural funds. These funds began to arrive in 1989 just when there was a substantial backlog of projects and urgent infrastructural needs. “Without the support of the structural funds,” the report concludes, “congestion in public infrastructure and constraints in third level education would have limited the recovery.”<sup>14</sup> Using several different models, the Institute concluded that the combined effect in the period 1995-99 raised GNP by 3-4% above the level it would have been without the EU funding.<sup>15</sup>

Ireland's trajectory was astonishing, but the other three poor countries - Spain, Portugal, and Greece – also made progress. All three southern European governments slowly opened their economies and began to emerge from their authoritarian, protectionist shells in the early 1960s. As tariffs declined, foreign investment arrived, and the result was that all three countries witnessed important economic growth and an

increase in real wages during the decade of 1963-73: 6.4% in Spain, 6.8% in Portugal, and 7% in Greece.<sup>16</sup>

Spain's per capita GDP rose from 70% of the average of the EC in 1986 to nearly 80% in 1999. The scale of EU transfers to Spain tripled between the two periods (1989-93 and 1994-99), and it is programmed to continue its high rate until 2006. By that time, Spain would have received 111.6 billion Euros – about the same as the other three cohesion countries combined and double the next highest recipient. Adding both the national counterpart funding and the private sector financing for the EU projects, the total amount of resources mobilized by the EU constituted about 1.5% of Spain's average annual GDP in 1989 and 3.4% in the years, 1994-99.<sup>17</sup> The investments were concentrated in infrastructure, primarily roads, but attention and resources were also devoted to telecommunications. Within five years of its entry into the EU, foreign businesses tripled their direct investment in Spain, giving rise to suggestions that it was "turning into the continent's Sun Belt."<sup>18</sup>

During the last decade, Portugal grew faster than Spain and the EU as a whole but, of course, it started from a lower base. Its GDP per capita increased from 55% of the EC average in 1986 to 72% in 1999. With a weaker economy, Portugal's development has been more unbalanced. Most of the country has remained poor, but average income in its two urbanized regions - Lisbon and Norte - now approach the EU average.<sup>19</sup> The Community's investment of 46.3 billion Euros from 1989-2006 supported the transformation of the economy. This amounts to about 4% of Portugal's GDP (at 1994 level) or 7.2% when the central government and private sector funding is included. As in Spain, the EU emphasis on infrastructure was key to its development. During the last decade, the EU financed and constructed or improved nearly 4,000 kilometers of roads or almost half of all the roads in Portugal. It also constructed or improved 640 km of railroad and expanded and digitalized almost the entire telephone network.<sup>20</sup> Also, like Spain and Ireland, foreign investment played a pivotal role, mobilizing new development and introducing modern technology and higher-valued jobs.<sup>21</sup>

Greece, the poorest state in the EU, initially made the least progress after its entry into the EU because of chronic fiscal and current account deficits. Notwithstanding the Greek government's flawed economic policies, the EU nearly doubled its aid in the second period so that from 1989-2006, the EU transferred 51 billion Euros to Greece. Together with national and private funds, the total amount represented 4.5% of the average annual GDP in the 1989-93 period and 7.2% for 1994-99 - quite a substantial amount.

To what extent did these funds contribute to growth in the four cohesion countries and to the reduction of income disparities? Perhaps the most comprehensive and incisive study of the effect of regional and cohesion policies was done by Robert Leonardi, the Jean Monnet Lecturer in European Union Politics and Policy at the London School of Economics. Among the states, he finds, as others did, significant convergence. Using regression analyses, he tests various explanatory variables, including distance from the core countries, foreign investment, level of industrialization, unemployment, and EC

funding. The best predictor of convergence was distance from the core countries, and the best explanatory variable was EC spending. Structural and cohesion aid, he concludes, “made a substantial contribution to economic investment and overall GDP in the three nations. [It] acted as a significant stimulus to the national economies, explaining in part the surge of these countries toward convergence.”<sup>22</sup>

Leonardi did not assess whether structural funds or the single market were more important in explaining the convergence of the poorer states. The OECD did such a study in 1994, and it concluded that it was “difficult to find strong evidence [that] the single market program has yet had sizeable effects on aggregate output.” They estimated that it had improved GDP by perhaps 1.5%.<sup>23</sup> That is not exactly a trivial contribution to gross domestic product, but it also does not compare to the kind of contribution that Leonardi attributes to the structural funds. But the OECD study suffered from the same problem that others, including Leonardi, have had: how to answer the counter-factual: what would have happened in the absence of the single market?

Of the structural funds, which policies and projects were most effective? In a study of the regional policies and projects, Rainer Martin concluded that investments in two areas were most effective - infrastructure and human capital.<sup>24</sup> The EU has emphasized these two areas, but it has also scattered funds into projects in other areas, such as environmental protection, regulatory policies, new initiatives to provide low-interest loans to small and medium-sized businesses, and technical assistance.

**Lessons from the EU’s Experience.** Let us extract the lessons from the EU that may be relevant to NAFTA.

**1. A Declaration of Goals.** From the beginning, European leaders set goals of solidarity and community – a sense that the peoples of Europe would cooperate in new ways to bring peace and well-being to all. These goals provided general guidance to member states, but not in defining specific policies. The lesson is that a clear statement of goals is necessary but not sufficient to construct a community of nations.

**2. Institutions at Sunset.** The EU established many supra-national institutions. Most of them are needed to implement EU laws, but some of them exist because it is too hard to eliminate them, and many have expanded their activities because no one has stopped them. Clearly, one could identify a golden mean between the excessive institutionalism of the EU and the under-institutionalized NAFTA. The lesson is that policy-makers should incorporate a “sunset” provision into every institution or funding mechanism, lest each assume a permanence that would diminish the capacity to reduce disparities.

**3. Convergence and Conditionality.** The spectacular reduction in the income gap between the richer and poorer countries of Europe in a relatively short period of time (since 1986) offers hope that regional trading schemes could be an effective vehicle for lifting middle-income countries. Among the many factors responsible for narrowing the gap was the **establishment of a single market, foreign investment, and the massive aid programs from the EU.** An analysis of the difference in growth rates among the

four “Cohesion” countries leads to the inescapable conclusion that **national policy** is a fourth, critical determinant. There is a consensus that all four factors contributed to the reduction of disparities, but some disagreement as to which is most important. The lesson is to use the first three factors to induce the recipient government to adopt the appropriate economic policies that would make best use of the resources.

**4. The Best Projects for Regional Assistance.** The EU has funded almost every imaginable kind of project through many channels, but most analysts believe that the most effective projects aimed at infrastructure and higher level education.

**5. Reducing Volatility.** While convergence did occur between richer and poorer countries, the poorer ones did not follow a straight path upwards. Rather what occurred is that the cohesion countries outperformed the EU average in the boom years and did worse than the EU average during recessions.<sup>25</sup> The opportunities and the dangers of integration are much more serious for the weaker countries than for the more advanced ones. Another study by Rainer Martin also found greater volatility among the weaker partners of an integration effort.<sup>26</sup> The lesson is that the richer countries need to find ways to cushion the swings that the poorer economies suffer. Macro-economic policy coordination and financial arrangements should be undertaken to protect the poorer countries from foreign exchange crises.

**6. Growing Inequality.** In many cases, rapid integration tended to coincide with accelerating inequality among the regions in the poorer country. More often, this is not because the poor became poorer but because the prosperous regions - the ones tied to the EU by both exports and inward flows of investment - sped ahead. The poorer regions grew more slowly or just halted their growth. The lesson is that a supra-national agency needs to monitor the progress within each member state.

**7. Funds for the Affluent.** More than half of the structural funds go to poor regions in the rich countries, and several of the richer countries (notably France and Denmark) obtain large subsidies from the Common Agricultural Policy, which is half of the EU budget. (“Regional policies” take 30% of the budget.)<sup>27</sup> Given the greater difficulty of narrowing differences among regions than among states, it would be more efficient to concentrate the funds in the poorer states. Since the presence of EU projects in the richer countries gives its people a sense of community, some symbolic projects should remain there. The lesson is to concentrate the money where it is most needed.

**8. Emigration.** As the disparities between rich and poor countries were reduced, migration was significantly reduced.

**9. The Magnitude of the Commitment.** The task of closing the gap between richer and poorer countries in a free trade area is a formidable one, but the EU has demonstrated that it can be done, provided that its members made a serious commitment and appropriate significant funds expressly for that purpose.

**Gaps and Disparities within NAFTA.** When Europe decided on enlargement, concerns were raised about the effect on the poorer or weaker countries. The same concerns were evident in North America. Indeed, shortly after the U.S.-Canadian trade agreement came into effect in 1991, Canada suffered its worst recession since the 1930s. More than 450,000 jobs were lost. The FTA did not cause the recession nor was it the cause of the defeat by the Conservative Party, but it was harmed by the same factors that caused these two - the combination of tight monetary and fiscal policies, the over-valuation of the Canadian dollar, the American recession, and the unpopular Goods and Service Tax (GST) introduced at the time.

The Canadian debacle was not as bad as the peso shock. In 1995, the Mexican economy declined 6.2 percent. Because of NAFTA and the expansion of an export-oriented manufacturing sector, the impact of the contraction of the economy was very uneven. Exports grew, but the domestic-side of the economy, which represented 70% of the GDP, declined by 14 percent.<sup>28</sup>

There is some evidence that NAFTA has contributed to Mexico's regional disparities, which were already quite bad. About half of all domestic production is concentrated in Mexico City and the states of Mexico, Jalisco (Guadalajara), and Nuevo Leon (Monterrey). After the 1994 crisis, the disparities between regions became even more pronounced. Per capita income in the southern states of Chiapas, Guerrero, and Oaxaca is 62 percent of the per capita income of Nuevo Leon - roughly proportional to Southern Europe's income in relation to the EU average. An analysis of the eight regions of Mexico by the Confederation of Industrial Chambers of Commerce (CONCAMIN), using data from INEGI, concluded that the social and economic gap between the regions has widened since NAFTA.<sup>29</sup> Another analysis of the geographical impact of NAFTA on Mexico found that it "expanded the gap between Southern and Northern states."<sup>30</sup>

So the evidence on the diverging effects of integration is mixed but not inconsistent with what was learned from Europe. The strongest economic power in North America experienced the least effect. The weaker countries suffered the most volatility, although this was due also to mistaken macroeconomic policies. The weakest country experienced the widest disparities in income among classes and regions. The Canadian and U.S. system of income transfers among regions mitigate these disparities and lift the countries as a whole, but Mexico does not yet have the fiscal system that could permit such transfers, and there is no regional mechanism.

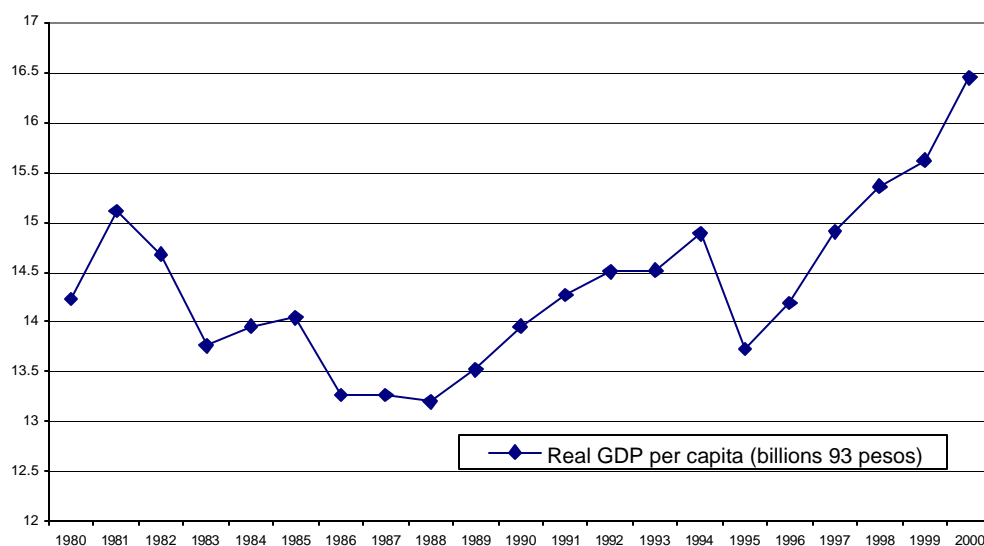
## **II: Closing the Development Gap**

**The Macroeconomic Overview: 1980-1999.**<sup>31</sup> Between the end of World War II and the explosion of the first debt crisis in 1982, Mexico was one of the fastest growing countries in the world. Growth rates were high and relatively stable. GDP per capita almost tripled between 1950 and 1982, and there were only three years during that entire 32-year period in which there was a decline in per capita income. The performance in the last twenty years has been markedly inferior. Overall the growth rate since 1980 has been far lower than it was earlier. In fact, per capita income did not return to its 1981

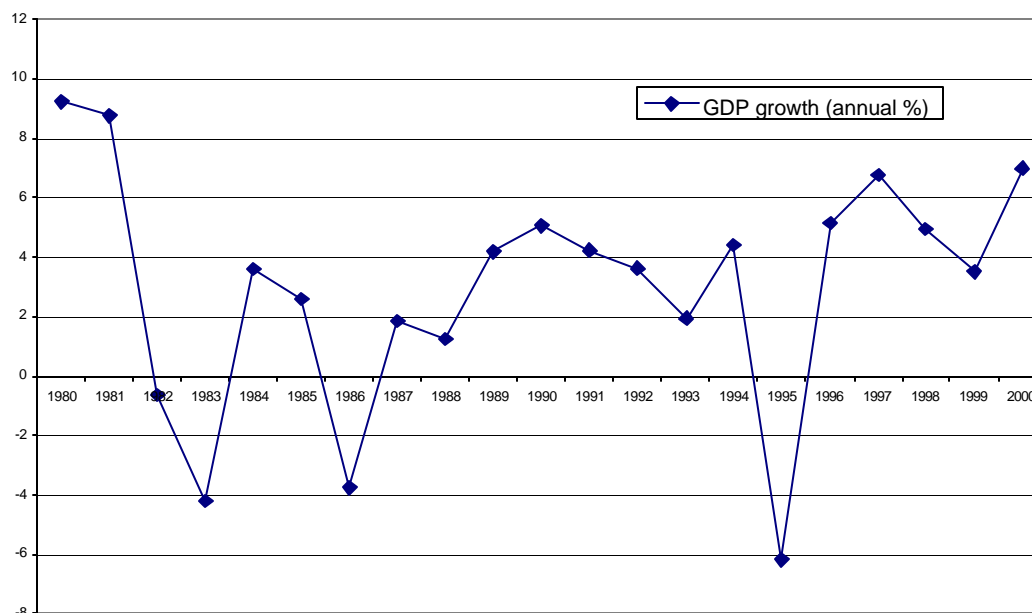
level until 1998. (See figures one and two.) Even if we omit the 1980s, which reflect the aftermath of the 1982 debt crisis, and look just at the 1990s, the growth rate is lower. The growth comparison is still unfavorable even if we start in 1995 after NAFTA. Export-led growth has certainly improved Mexico's performance relative to the 1980s, but it has yet to match the growth rates reached between 1950 and 1980.

Not only is the overall growth rate lower; it is also far less stable. There have been three severe recessions since 1980: the debt crisis of 1982-3, the oil shock of 1986, and the Peso Crisis in 1995. The declines in per capita income in each of the three were greater than anything experienced in the comparatively mild recessions of 1953, 1959 and 1977. (Per capita income fell 18% in 1982-3, 7% in 1986, and 6% in 1995.)

**Fig. 1: Real GDP Per Capita (billions of 1993 pesos)**



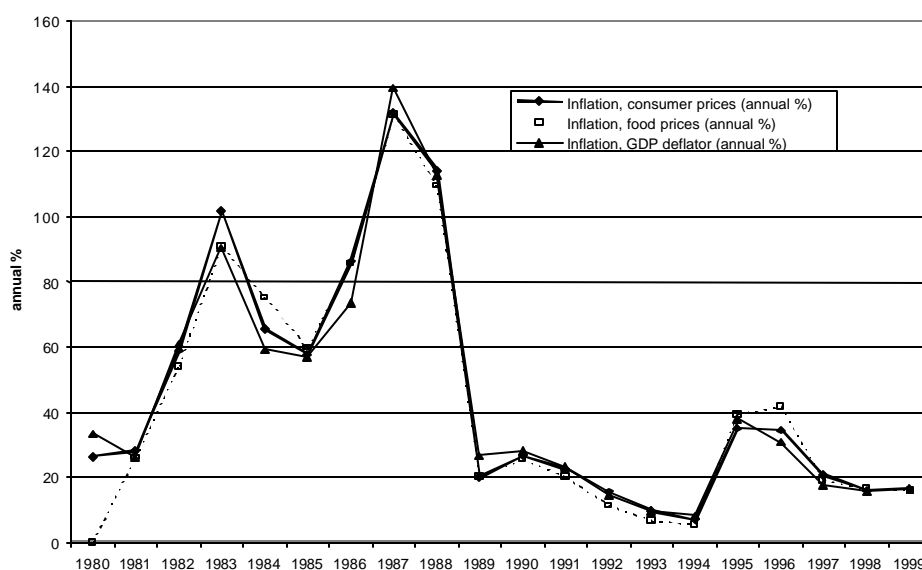
**Fig. 2: GDP Growth (annual %)**



Not only were the recessions more severe than they had been earlier, the recoveries were weaker. As is evident in figure 2, only once did the growth rate of GDP exceed 5% in either the two-year recovery between 1984-85 or the longer recovery between 1987 and 1994. It is only in the last several years that Mexico has approached the rapid growth rates observed in the 1950s, 60s and 70s.

**Stabilization and Inflation.** There are two other macroeconomic features of the period after 1980 that should be noted before decomposing our analysis. The first is the successful fight against inflation in the late 1980s, and the other, linked to the inflation battle, is the appreciation of the real exchange rate.

**Fig. 3: Inflation in Mexico 1980-99**



Most of the 1980s were dominated by the repercussions of three negative shocks: the debt crisis that exploded in 1982, a severe earthquake in 1985 and the drastic decline in oil prices in 1986. All of these unfavorable events put severe pressure on the balance of payments and internal price stability. Up to 1986, the government response to the heavy debt burden and deteriorating oil market was a policy of aggressive devaluations and restrictive monetary policy. At the same time, the government was forced by rising government deficits to reduce price controls and dismantle an expensive system of price subsidies in government enterprises. The net result of all of these measures was a serious increase in the inflation rate, which rose from 25% in 1980 to over 120% in 1987.

By 1987, thanks to the Brady Bonds, debt-equity swaps and better export markets, the economy began to recover. But the recovery was not particularly vigorous. Investment stayed below 15% of GDP, and private consumption remained weak (through 1989), reflecting the severe contraction in real wages that had taken place during the preceding inflation. Government expenditure as a fraction of GDP fell sharply over the remainder of the decade as it struggled to reduce its deficit and prevent a renewal of

inflation. Rising imports contributed to the overall weakness of the recovery. Responding to an appreciated exchange rate, significant reductions in tariffs and non-tariff import restrictions, and to the early signs of recovery, imports doubled between 1986 and 1996, more than offsetting a rise in export earnings.

The other feature of the inflation control program was a very sharp appreciation of the real exchange after 1986. Partly this was the result of a policy decision to stabilize key prices under the control of the government in order to bring down inflation. In an open economy inflation is highly correlated with the exchange rate. Thus not devaluing should, in theory at least, reduce the inflation rate. At the same time it was thought that maintaining a fixed exchange rate would bolster the confidence of foreign investors who in fact did dramatically increase their investment in Mexico after 1989. But of course inflation did not stop but only fell to a much lower level. The result of all this was an appreciation of the real exchange rate and increasing current account deficits financed by the capital inflows. These imports supplied a good deal of the increase in aggregate demand in a non-inflationary way, but they also cut into the potential markets for Mexican production. In effect, using the exchange rate as an anchor helped in the battle against inflation, but the cost was the penalty it imposed on domestic production.

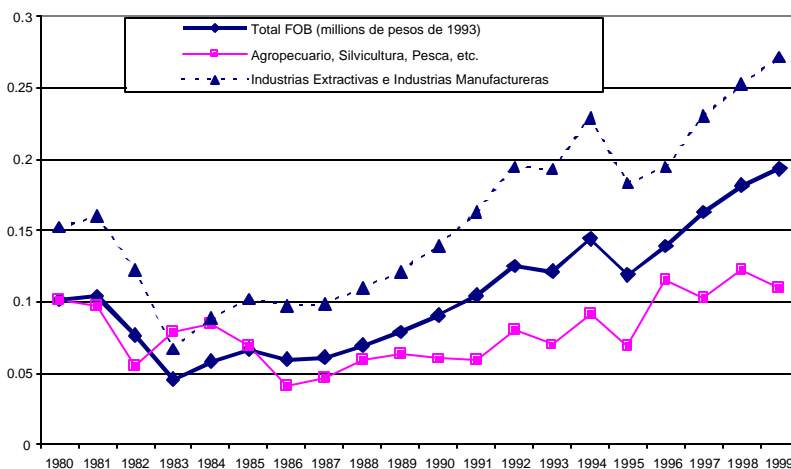
**Opening the Mexican Economy.** In the last 15 years, Mexico made an important change of development strategy by implementing a wide range of economic reforms. Since 1985, it reduced its average tariff from 34% to 14%, reduced barriers to foreign investment, dismantled most price subsidies, privatized a wide range of state enterprises, and joined NAFTA. The neo-liberal model which these reforms were intended to implement, envisioned an increase in economic growth led by exports. Mexico appears to be one of the shining success stories of this approach. Exports have tripled since 1990 and the export ratio has risen from less than 15% in the late 1980s to 35% in 1999. Growth overall was not particularly impressive until quite recently, and was interrupted by a severe crisis in 1995. But, thanks in part to NAFTA, per capita income has grown by 4% per year from 1995 through 2000 among the highest growth rates in Latin America.

It is just in the last five years that Mexican export growth has begun to reflect the hopes of those who implemented trade reform. As can be seen in figures 5-6, up to the beginning of NAFTA in 1994 increased openness meant mostly a rise in imports. Exports as a share of GDP were lower in 1994 than they had been ten years earlier, and this was due mainly to the reduction in the manufacturing sector. Imports are another story. Their share rises steadily after 1986, particularly in manufacturing. That reflects both the reduction in tariff rates that began in 1986 and a steady appreciation of the real exchange rate. Before NAFTA, Mexico's economic profile resembled those of many other countries that had reduced tariffs significantly. Capital flowed in, the exchange rate appreciated, imports flooded the market, and there were rising deficits in the trade account. Neither exports nor the economy grew very rapidly under that mix of policies.

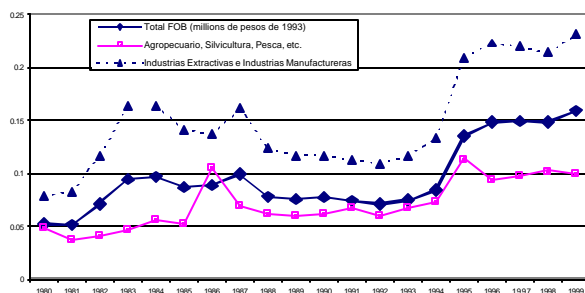
All that changed dramatically with NAFTA. Total exports rose from \$51 billion in 1993 to \$166 billion in 2000. Part, but only part, of that was due to assembly

operations (maquilas)<sup>2</sup>. Non-maquila exports grew from \$30 billion to \$86 billion, and 80% of that came from manufactured exports. Imports went up too, after a decline during the recession in 1995. But this time, unlike the late 1980s, the growth in imports was matched by rising exports. Thanks to NAFTA and access to the rapidly growing US market in the 1990s, increased openness meant not just the replacement of domestic industry by imports. Rather it meant a switch in the structure of production toward the internationally competitive parts of the economy.

**Fig. 4: Imports/GDP by sector (excl maquila)**



**Fig. 5: Exports/GDP by sector (excl maquila)**

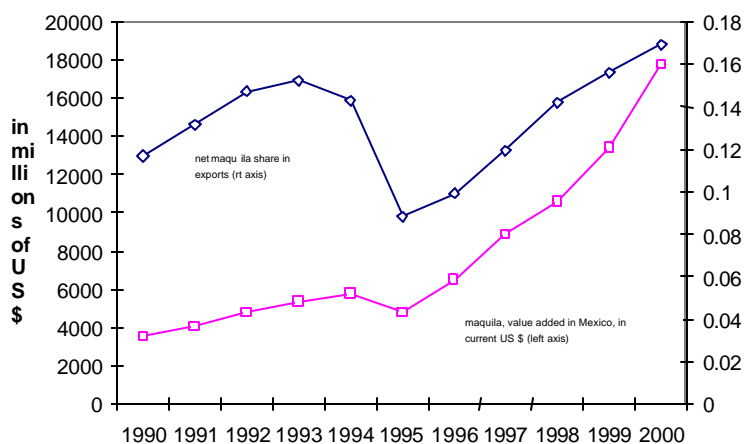


We have shown non-maquila exports and imports in figures 5-6 because of the large share of imported inputs that are embedded in maquila exports. The gross value of maquila exports comprised \$80 billion or almost half of Mexican exports in 2000. But \$62 billion of that amount represented imported inputs. If one compares the value added in maquila plus the domestically supplied intermediate goods to total exports (which are non-maquila exports plus the value added in maquila), one gets a better picture of the contribution of this sector to export growth. We show that calculation in figure 7 for

<sup>2</sup> Maquila is defined in the Mexican national accounts as the assembly of goods for export primarily from imported inputs. All of maquila output is exported and most of its inputs are imported.

1990 to 2000. Maquila value-added increased from just under \$4 billion in 1990 to \$18 billion in 2000, and the net contribution of maquila to adjusted exports rose from 9.5% to 13.6%. That is a significant share, but it is far lower than what appears in the unadjusted data. **The point is that the success of Mexico since NAFTA is not a maquila story. More than 85% of the growth in the export sector was elsewhere.**

**Fig. 6: Net maquila**



**A Decomposition Analysis of the Sources of Growth since 1980.** We turn now to a closer look at the causes of the changes in output in Mexico since 1980. We start with a purely mechanical decomposition of aggregate demand into its components and a simple Keynesian model of aggregate demand. The model assumes that exports, investment, and government expenditure are exogenous, while government receipts, household consumption, and imports are simple linear functions of aggregate income.

Several clear and important patterns emerge. The first is the key and pro-cyclical role of investment. It is far and away the most important determinant of the economic cycle in Mexico, particularly in the three recession periods, 1980-83, 1986 and 1995. (In the first, the recession actually occurred from 1982-1983.) More than anything else, those three recessions were caused by a collapse of investment and the subsequent recoveries were led by investment (and also by exports for the latter recovery). Of course, this begs the question of what caused those big fluctuations in investment. The model considers investment to be exogenous, but it is undoubtedly linked to trade policy, foreign investment and investor confidence, and other factors.

<b>Table 1: Contribution to Growth in Mexico</b>						
	<b>1980-83</b>	<b>1984-85</b>	<b>1986</b>	<b>1987-94</b>	<b>1995</b>	<b>1996-99</b>
investment	-6.491	1.209	-2.359	0.996	-2.490	0.952
saving	-0.708	0.166	0.798	0.094	-1.066	-0.204
government expenditure	0.956	0.331	0.107	0.173	-0.046	0.047
taxes less transfers	-0.252	-0.091	-0.061	0.209	0.248	0.086
exports	2.746	0.054	0.328	0.752	1.676	1.279
imports	5.426	-0.650	0.223	-1.185	0.679	-1.095
<b>total</b>	<b>1.678</b>	<b>1.019</b>	<b>-0.963</b>	<b>1.038</b>	<b>-0.998</b>	<b>1.065</b>
<b>actual growth (per year)</b>	<b>0.0118</b>	<b>0.0315</b>	<b>-0.0375</b>	<b>0.0373</b>	<b>-0.0617</b>	<b>0.0549</b>

Note: In recession years we have changed signs so that a positive entry indicates an increase in aggregate demand.

Fiscal policy was strongly countercyclical in the early 1980s, but has been weakly pro-cyclical thereafter. Government expenditure was highly expansionary in the downturn of 1980-83 and weakly expansionary in the subsequent recovery of 1984-85. But then the pattern changed. In the recessions of 1986 and 1995, government spending was still expansionary, but it was a good deal less than in previous or subsequent periods of recovery and growth. Government expenditures rose most rapidly when the economy was expanding, and then rose much less or even contracted when the economy declined. To some extent, countercyclical tax receipts offset this pattern on the expenditure side.<sup>3</sup> They tended to rise in recovery and decline in recession.

Consider now the role of exports and imports shown in the table. First, both are strongly countercyclical. Big reductions in imports helped cushion the impact of falling investment in all three recessions. And rising imports reduced upward pressure on demand during each expansion. Exports were also a big source of demand in each recession. What seems surprising is the relatively small role played by external trade in the three expansions, particularly the most recent one.

Mexico embarked on a new, export-oriented development model, based on a reduction of trade barriers and NAFTA. One would expect that this change would show up in a rising role for exports as a source of aggregate demand. And so they do, moving from 5.4% of total growth in 1984-85 to 128% in 1996-99. But that was more than offset by rising imports during the 1980s and almost offset in the most recent period. The new development model has clearly made Mexico a more open economy, but external markets have not been a particularly important source of net demand because the rising tide of imports has almost completely offset the significant increases in exports.

**Growth, investment and foreign capital.** The preceding decomposition is not an entirely satisfactory way of understanding what is driving the growth process. For one thing, it assumes that investment is exogenous. For another, it ignores the impact of foreign capital. But in Mexico even a casual examination of the historical record suggests that variations in capital flows are a big part of the story. Figure 8 charts growth and net resource transfer where the latter is defined as net capital inflows from the capital account less the net payment of interest and profits from the current account.

The collapse of foreign investment in the two debt crises in 1982-3 and 1995 are important contributing factors in those two recessions. As well, the surge in foreign investment after 1990 and the liberalization of financial markets and the capital account transactions under Salinas must have contributed to recovery in the 1989-94 period.

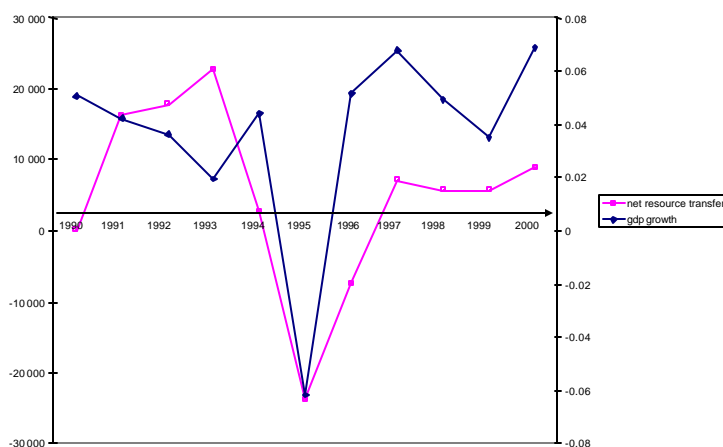
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<sup>3</sup> Note that one will be misled if one judges fiscal policy by the behavior of G/Y. It appears to be countercyclical, with spikes in both 1986 and 1995. In the latter case that happens despite the fact that G declines, because the fall in G in percentage terms is far less than the fall in GDP.

There are a number of different ways by which capital inflows may affect the growth rate. The most direct is through its relationship to fixed investment. Much foreign capital was linked directly to investment since it came as foreign direct investment expressly to build productive capacity in Mexico. Also, capital inflows permitted Mexico to run significant trade deficits and appreciate the exchange rate. That reduced the relative price of imported capital goods, which also stimulated domestic investment. Those same capital inflows helped finance rising government deficits and a boom in household consumption in the 1986-94 period, all of which was expansionary. But capital inflows are a two-edged sword. While the exchange rate appreciation may have had a positive effect on investment, it could have a strong negative impact on tradable goods production in Mexico. This is exactly what happened in the slow expansion between 1990 and 1994. Capital flowed back into Mexico, but a good deal of the expansionary effect was swamped or offset by a big increase in imports.

We ran some simple regressions to measure more formally the relationship between net resource transfers, investment and growth. Our hypothesis is that growth is positively related to investment and to net resource transfer. We found that both NRT and investment are positively related to growth. However because of the multicollinearity between the two, NRT is not significant in a simple regression of growth on the two variables. To control for the multicollinearity, we re-ran the growth regression, substituting for I/Y, the residual of the regression of I/Y on NRT. Now both I/Y and NRT have a highly significant positive impact on the growth rate. What this correction does is to assign to NRT both the direct influence it has on the growth rate, plus the indirect influence it has through its relationship to I/Y. **The regression predicts that, other things equal, a \$1 billion increase in net resource transfers will increase the growth rate by about 0.1%. A one-percentage point increase in the investment rate would increase the growth rate by a much bigger 0.62%.** Thus the growth rate is sensitive to capital inflows, but variations in the investment rate have a far bigger quantitative impact.

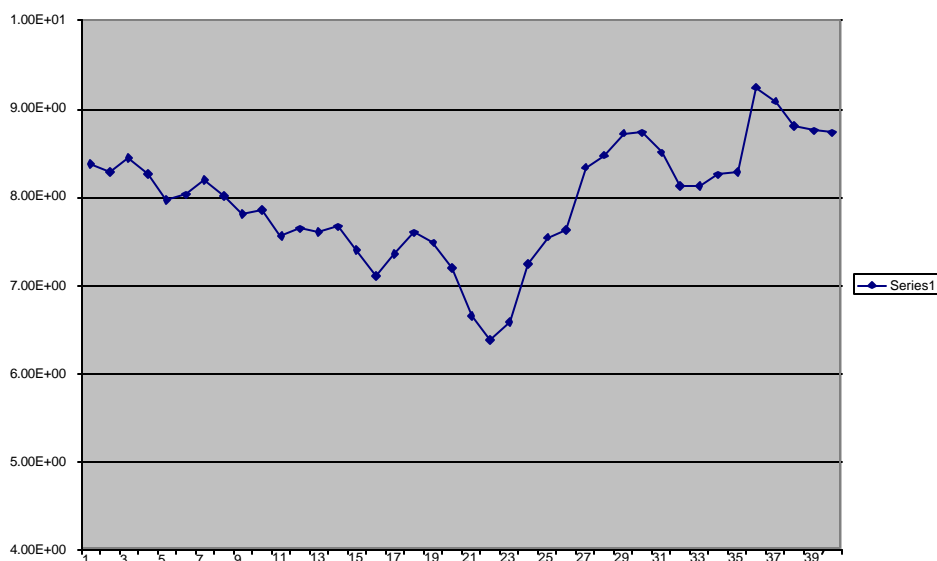
Fig. 7 Net resource transfer and growth in Mexico



**Closing the Gap.** In the period from 1960 to 1981 Mexican per capita income growth was far higher than either that of the United States or than it would be over the

next 20 years. Over those years the ratio of per capita income in the US to that in Mexico fell 25% from 8.4 to 6.4. But that turned out to be the closest that Mexico reached to the north. (See figure 8.). By 1990 the gap was back to 8.5 and by 1999 even though it fell slightly from its peak in 1995, it was still higher than it had been forty years before.

Fig. 8: US income per capita relative to Mexico income per capita



To close the gap, income growth in Mexico has to significantly increase. We will take as a goal here an overall growth rate of GDP of 6% per year. Given that the population growth rate of Mexico is expected to be no more than 1.3% for the next 15 years according to the Human Development Report, and per capital income growth in the United States is expected to be around 2.5%, six percent growth in Mexican GDP implies that the gap will close at about 2% per year or 20% per decade. While that may not sound like much, it is almost twice as fast a rate of convergence as what was achieved by Mexico during its rapid growth period (1960-80).

#### **What sort of policies will be required to achieve this ambitious growth rate?**

We will answer this question in two ways. First, we will forecast the aggregate investment, saving, human capital formation and foreign borrowing that is likely to be necessary, using the experience of the last twenty years as a rough guide. We will adapt a computable general equilibrium model (CGE) developed elsewhere (See Diaz-Bonilla-Morley (2003)) to link the investment rate, growth rate, saving and foreign saving into a solution which assures consistency between factor inputs, sectoral demand, income, saving behavior and external borrowing requirements.

**The CGE model<sup>32</sup>.** In the CGE model, the economy is split into production activities, commodities, and institutions (households, government, enterprises, and the rest of the world). For producers, profits are maximized subject to a production function, which may be CES, Leontief or a nested CES function. Each production activity uses

labor, capital, and land up to the point where the marginal revenue product of each factor is equal to its wage. Factor wages or rents may differ across activities when either factors are fixed across activities, or when, as in our case, there is a fixed minimum wage for unskilled urban labor. In the simulation, we assumed that the total stock of land, capital, skilled and agricultural labor is fixed, and the supply of unskilled labor is endogenous and responds to variations in the real wage for unskilled labor.

We assume that all production goes through commodity markets. For export commodities, sellers maximize sales revenue deciding on allocation of total supply between exports and the domestic market according to a CET transformation function. In the international markets, in one closure we assume that Mexico is a price taker in world markets for all commodities save the output of the maquila industry. It faces a downward sloping US demand curve which makes its export price endogenous. For commodities with imports, all domestic market demand is for a composite commodity made up of imports and domestic output, the demand for which is derived from a cost minimization assuming the goods are imperfect substitutes. Again Mexico is assumed to be a price-taker in all its import markets.

The model is completed by a set of macroeconomic balance equations, and a number of alternative closure conditions. For our purposes, the key closure is that we have made foreign saving endogenous by fixing the exchange rate. We made three important modifications of the general CGE model for the Mexico case. We added an informal sector as an activity, a separate maquila activity and commodity (including a downward sloping export demand equation), and modified the labor market by including an upward sloping labor supply curve. The informal sector uses urban unskilled labor and domestic commodity inputs. Since we are unable to estimate with any confidence the amount of capital in the sector, we treat production as if it were a linear function of labor and domestically produced intermediate inputs. That implies that the sector is not integrated into the internal market for capital

Maquila is treated as an activity and a commodity. We have not separated it within the different subsectors of manufacturing. Its production function has the same form as those of the other sectors of manufacturing using both imported and nationally produced intermediates, as well as labor and capital. Where the treatment is different is in the commodity account. No maquila output is sold domestically; all is exported. In addition, we assume that the sector faces a downward sloping international or US demand curve for its output. Thus we take US income as exogenous and determine the output of maquila and its price simultaneously.

In the simulations reported here we have replaced the small country assumption used in the export sectors in the general CGE with the assumption that Mexico faces downward sloping demand curves for its manufactured exports, most of which go to the United States. This is a more realistic portrayal of Mexico's export sectors where the boom was mainly in manufacturing, and mainly non-maquila. This change will permit us to examine the effect of an increase in US demand on Mexican manufacturing outside the

maquila sector. For comparability we keep the same assumption in the other simulations shown in the results tables.

Lastly, we modified the labor market by including an upward sloping labor supply curve. We assume that the supply of capital, land, and skilled labor is fixed, and that in the medium run simulations, these factors move across sectors to equate the factor wage. The total supply of agricultural unskilled labor is fixed, but the supply of unskilled labor to non-agricultural activities and the real wage for that labor are jointly determined by factor demand and an upward sloping supply curve for unskilled labor.

The social accounting matrix (SAM) used in this paper is based on the 1996 SAM for Mexico developed in Rebecca Harris<sup>33</sup> (1999). We have modified her SAM aggregating across regions and agricultural activities and disaggregating maquila and informal sectors. The final SAM is disaggregated into four agriculture sectors, ten manufacturing sectors, maquila construction, informal, and three service sectors. The labor force is divided into agricultural and urban labor, both disaggregated by gender. Within the urban labor force there are four kinds of labor, unskilled and skilled, male and female. Unskilled labor is defined as those with no more than high school education.

**Adapting the model for forecasting growth rates.** The CGE model we have just described is a comparative static model which assumes a fixed quantity of capital and a fixed labor force. For our purposes, this is inadequate. We need to know the additional quantity of capital needed to reach a certain growth target or output level, given the expected growth rate of the labor force and productivity. With this information, we can resolve the model for the equilibrium level of output for the new levels of capital and labor.

A rough guide to the needed input of capital can be obtained by looking at the rates of investment and growth rates of the economy between years when the economy is operating more or less at full employment of capacity. For example between 1981-2 and 1993-4, the economy grew an average of 1.8% per year and investment averaged 18.3% of GDP over the same period. If we assume that the depreciation rate on capital is 5% per year in that period it took roughly 2.7 units of capital to produce a unit of output (a capital to output ratio of 2.7). In the more recent period 1994-99, there was an average growth rate of 2.8% per year and an average investment ratio of 20.5%. With the depreciation rate of 5% the implicit capital output ratio was 2.62. Both of these estimates imply a far less favorable growth environment than in the period before 1980. **Between 1965 and 1980 GDP grew by an average of 7.1% per year while only investing 17.5% of GDP. That implies a capital output ratio of less than two. In our simulations we will use a capital output ratio estimate of 2.6.**

Our model splits labor by gender and by skill level. We define unskilled labor as those with an education of high school or less. Skilled labor comprised 14.8% of the male labor force and 6.9% of the female labor force in 1996.<sup>34</sup> Using the growth rate of the working age population and changes in the participation rate as reported in Weller (2000), we estimate the yearly growth of skilled labor both male and female of 6.5% per

year. We assume that the supply of unskilled labor to the urban sector is jointly and endogenously determined by factor demand and an upward sloping factor supply curve.

**Projections of capital requirements with the model.** In table 2 we display the results of three alternative growth scenarios where we vary the rate of investment so as to have the capital stock grow at 3%, 4%, and 5%. The model then solves for the feasible growth rate of each of the sectors, employment growth, real wages, exports, imports and all prices. As noted above, we have fixed the exchange rate. That means that **the model will tell us what amount of capital inflows are required to support the alternative growth rates in the simulations.**

	yearly growth rate			
income		5.84%	5.33%	4.80%
capital		5.00%	4.00%	3.00%
agric. Labor		1.60%	1.60%	1.60%
urban unskilled-male		4.21%	3.82%	3.44%
urban unskilled-female		3.59%	3.30%	3.00%
urban-skilled		6.46%	6.46%	6.46%
exports		4.50%	5.01%	5.37%
imports		6.44%	5.81%	5.20%
income shares (%)	base			
private consumption	69.894	70.656	70.42	70.45
fixed investment	20.121	26.511	22.897	19.357
government	7.782	7.9	7.542	7.205
exports	41.528	36.551	40.276	43.816
imports	-39.325	-41.618	-41.136	-40.828
GDP, market prices	100	100	100	100
foreign saving/GDP	0.0384	0.0931	0.0558	0.0218
for. saving in billions 96\$	\$12.2	29.3	20.4	11.6
exchange rate	1	0.906	0.963	1.018

Source: Simulations

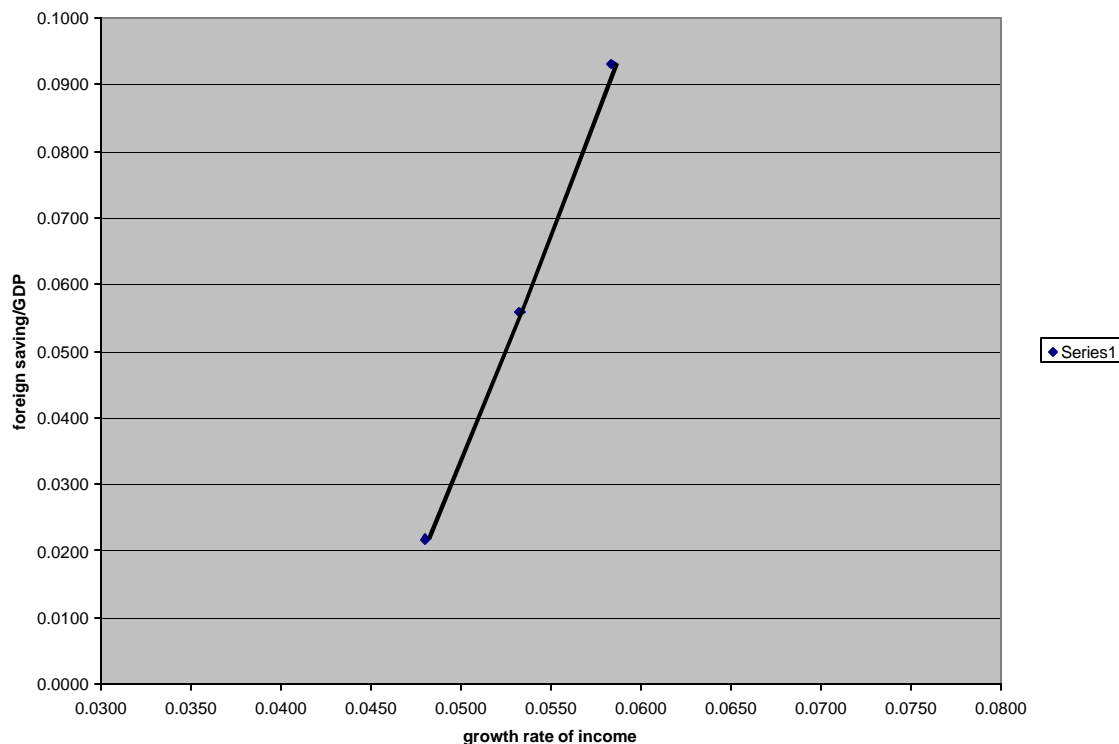
The first rows of the table show the growth rates of income, exports and imports that come from the growth rates of capital and the other factors of production. The growth rates of income are higher than the growth rate of capital for two reasons: first, we have assumed a 1% increase in TFP, and second skilled labor is growing in each of the three simulations by over 6% per year. In the middle rows of the table we show what happens to the shares of household consumption, government, investment, and foreign trade. In the simulations we set government to grow at 4-6%, and we set government savings at its base year absolute level. Since the government was running a deficit in the base year, any growth over time in GDP means that the government deficit declines slightly as a fraction of GDP or equivalently that government saving rises slightly (becomes less negative). Household saving does not change much as a fraction of GDP which means that most of any change in the investment share has to be financed out of foreign saving.

In the bottom rows of the table, we show the foreign saving that is required to cover the projected current account deficit under the three alternative growth simulations. The base period deficit of \$12.2 billion 1996 dollars is just under 4% of base period GDP. That corresponds to an investment rate of 20%. The table tells us that for capital to grow at 5% per year, investment has to rise to 26.5% of GDP. About 1% of the additional savings needs to come from domestic sources, which means that the rest must come from external borrowing or grants. They rise from 3.8% to 9.3% of GDP or from \$12.2 billion in the base year to \$52 billion ten years later (or an average of \$29.3 billion per year as shown in the table). **In other words, a very large increase in foreign saving - averaging about \$17 billion per year - will be required to sustain 6% growth in GDP. Lowering the projected growth rate of capital to 3% leads to a decline in foreign saving but it also reduces the growth rate of the economy to only 4.8%.**

Producing such growth under the structural conditions of 1996 in Mexico is difficult. Figure 9 makes that point visually. It shows the relationship between the growth rate of the economy and the rate of foreign borrowing that is necessary to support required capital formation. If the rate of capital formation and capital output ratios continue in the future as they did in the 1990s, Mexico should be able to grow at just under 5% per year with a 2% current account deficit. Exports and imports both grow by a bit over 5%, and urban employment more than keeps pace with the growth rate of the working age population and in-migration of rural workers to the urban sector.<sup>4</sup>

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<sup>4</sup> Note that our treatment of the urban unskilled labor supply may be optimistic. We shifted the labor supply curve to the right by 1.6% per year, and the supply is quite responsive to changes in the real wage.

**Figure 9: Foreign Saving and Growth**

A growth rate of 4.8% in income implies that per capita income in Mexico would grow at about 2.5% per year which is not a bad performance. But since per capita income in the US is expected to grow at about that same rate, there will not be any convergence. The figure shows that to raise the growth rate enough to get significant convergence will require an unsustainable increase in foreign borrowing. The reason is that in spite of the two percent increase in the growth rate of capital that comes from raising the investment rate from 20% of GDP to 26.5% of GDP, the growth rate only rises by one percentage point (from 4.8% to 5.8%). Increases in the supply of labor cushion the growth rate on the downside when capital is growing slowly, but constrain it on the upside when capital is growing more rapidly.

**Improving the growth-foreign saving trade off.** The results we have reported imply that **Mexico will have great difficulty reaching a sustainable growth rate of 6% per year unless some way is found to improve the relationship between growth and foreign saving. One way is to increase domestic saving rates**, either of the government or of the private sector. That could reduce the need for foreign borrowing and shift down the curve in figure 9. But it seems unlikely that one could reduce borrowing requirements by more than 2-3% of GDP by that route. There is a good deal of pressure on governments to increase social spending which is important for human capital formation and poverty reduction. Tax systems will be doing well if they can increase revenue fast enough to pay for new programs, let alone reduce government deficits.

**A second way is to make growth less capital intensive or more labor intensive. The idea is to target more investment to backward areas and to labor-intensive activities. Construction and agriculture are the two sectors** in particular that are important in this regard. Both are relatively big users of unskilled labor which means that the change in focus will reduce skill differentials and poverty. This could increase the growth rate that is attainable with a given amount of capital formation. Essentially what the strategy does is reduce the capital to output ratio so that one gets more output for each additional unit of investment.

To see the potential for this sort of strategy, suppose that Mexico was able to reduce the aggregate capital to output ratio back to around two which is still higher than the value it had during the period between 1965 and 1981 when Mexico was growing at 7.1% per year with an average investment rate of only 17.5% per year. With a capital output ratio of two, it would take an investment rate of 20% instead of 26.5% to permit the capital stock to grow at 5% per year. That would permit a growth rate of GDP of almost 6% with only a small increase in the foreign borrowing over its initial level. (foreign saving rises from 12.2 billion in the base to \$16 billion ten years later).

But there are several additional advantages to this change in the growth strategy. Investing in construction projects like roads, irrigation systems, rural electrification, and land reclamation increases production and employment. If the supply of the factors that produce those activities are easily available (more elastic factor supply curves) total output will rise with the change in strategy. Since these sorts of investments are intensive in the use of unskilled labor as opposed to capital, they should permit an increase in total production. But they have another advantage: these investments increase the productivity of agriculture. We have not built that advantage into our simulations. We simply assumed a common 1% increase in total factor productivity per year. It is surely possible to improve on that in the agriculture sector by well-targeted infrastructure or productive investments.

There is a third advantage to this regional, sectoral investment strategy. It is probably the case that consumption patterns are very different in backward areas, and that in those backward areas there is idle capacity or potential to increase production when there is demand. A previous paper analyzed the implications of this for Indonesia.<sup>35</sup> Morley showed that one could increase the growth rate or the output level of Indonesia by directing government spending to outlying areas where there was little demand for manufactured commodities or imports and where increase in demand could be supplied by local products. The same phenomenon is likely to be present in the backward regions of Mexico. If, at the same time, government expenditures increased productivity in the backward areas, that would be an additional benefit.

**Directions for future work.** The results that we presented in the previous section are just a rough sketch of possible future growth rates. To fill out the details and explore the potential impact of these targeted investment strategies, we need to specify and run a dynamic and regionally disaggregated version of the CGE model for Mexico. We already have a regionally disaggregated model, but that needs to be reintegrated with the

national model used here. In addition, we need to incorporate the dynamic link between investment and the rate of technical change, and we need to incorporate debt, interest payments and education strategies into the model. These simulations will make very clear the potential advantages of a program that concentrates on productivity-increasing investments in infrastructure, particularly infrastructure targeted toward agriculture and connecting the poorer more isolated areas of Mexico with the more modern areas.

### **III. North American Investment Fund**

What makes NAFTA unique is the integration of a developing country with two more advanced ones. So the issue for North America is how to assure that the integration is successful and becomes a model worth emulating by other areas.

In contemplating a “regional policy” for North America, let us recall the lessons from the EU. There is a clear need for a North American Investment Fund, and Mexico is at the stage that the Iberian countries were when they joined the EU. The fund should focus on infrastructure and education in the poorer regions of Mexico. It should multiply existing resources and serve to encourage sensible macroeconomic policies. Finally, the program should have a sunset provision. Finally, a significant commitment of funds – perhaps \$17 billion in grants per year for ten years – is needed to succeed in reaching and sustained a growth rate of 6% for a decade.

The United States, Mexico, and Canada are not prepared at this time to contemplate a North American Investment Fund on this, or perhaps any, scale at this moment, but it is not completely implausible to see a moment in the future when new leaders in the U.S. and Canada would accept the idea of such a fund. Why? Both governments provide significant amount of foreign aid each year, and justify that by declaring that it serves the national interest. It is hard to believe that any foreign aid would benefit the U.S. and Canada more than that which was invested in Mexico. As the Mexican economy grows, roughly 90% of the external trade and investment benefits flow to its two northern neighbors. From the U.S. standpoint, there are many additional reasons for providing such aid and lifting the Mexican economy: it would help build a middle-class, more stable, and democratic country, and over the long-term, it is the only way that undocumented migration would be reduced.

In the meantime, perhaps one could consider an intermediate option. Since the establishment of the World Bank, Mexico has been the third largest recipient of its loans – 169 loans totaling \$30 billion. Only India, having received \$52 billion, and China, having received \$33 billion, obtained more. In June 1999, the World Bank Board decided to direct \$5.2 billion to Mexico during the next two years to improve social conditions for the poor, strengthen public sector reforms, and reinforce macro-economic stability. Mexico also received more loans from the Inter-American Development Bank - 160 loans totaling \$12.2 billion - than any country.<sup>36</sup> These loans have gone to a wide range of projects, but none of them have aimed to facilitate North American integration.

If Mexico, the United States, and Canada all agreed that, say, half of the loans from these two institutions during the next ten years should be devoted to closing the development gap, the two Banks would probably respond positively, particularly as the precedent - integrating a developing country into a regional agreement with industrialized countries - is so important for the world. It would neither be necessary nor desirable to establish a new bureaucracy to undertake these projects. A special coordinating office in the World Bank could work with the Inter-American Development Bank and other institutions to mobilize the funds, supervise the bidding, and oversee the projects. Possibly, the tasks could be assumed by the North American Development Bank.

As we saw above, to achieve a 6% growth rate, approximately \$17 billion of grant funds would be needed each year for ten years. The United States would provide 90 percent and Canada, 10 percent, of a total of \$10 billion. If the U.S. and Canada were to invest in such a fund, Mexico would need to contribute the rest - \$7 billion per year. Or rather the U.S.-Canadian contribution would be conditional on Mexico undertaking a serious fiscal reform - increasing tax revenues as a percentage of GDP from 11 percent to 16 percent - a 50% increase over a ten-year period. There are many in Mexico, including President Fox, who wanted to increase tax revenue. This international grant could provide the incentive to accomplish that.

**One effective way to reduce geographical disparities within Mexico while reducing pressures for out-migration would be to improve the road system from the U.S. border to the center and southern parts of the country.** Because of foreign investment, the northern border economy is booming and attracting labor from the poorer parts of the country. However, in many cases, workers stay on the Mexican side of the border only long enough to learn how to cross into the United States where they can earn a lot more. U.S. firms do not like to invest in the border area because of the pollution and the inefficiencies associated with such a high turnover rate, but they do so because the roads from the border to the center of the country are bad.

If roads were built or improved from the border to the center of the country, investors would locate there for three reasons. First, the center and south of the country - from Oaxaca, Zacatecas, Michoacan, Guanajuato - have the highest rates of unemployment and, indeed, are the principal sources of immigrants to the border and to the United States. Secondly, the wage level is much lower in these areas, and the workers are no less educated than those on the border. Indeed, they are often the same workers. Finally, the region is not the polluted, cramped border. The government has incentive systems to encourage investors to locate there, but the problem is a lack of infrastructure - roads, electricity, etc. Build them, and investors would come, immigration levels would decline and so would disparities in income.

Vicente Fox has already proposed a Puebla-Panama Corridor to connect Puebla, a city southeast of the capital, with the countries of Central America. The international development banks agreed to help Mexico build roads and infrastructure in the ten poorest southern and eastern states of his country to connect to Central America. Many

of these Mexican areas have few or no roads, and so such a development project would help the region, but not nearly as much as if the roads connected to the northern border.

While much of the infrastructure and the universities will be built in Mexico, the United States and Canada also have considerable infrastructure problems. The increase in trade has slowed traffic in Texas going to the border and led to numerous accidents. Congress allocated \$700 million for NAFTA-related highway and infrastructure improvements, but apparently, only a small portion was allocated for Texas.<sup>37</sup>

In terms of forging a regional identity, a case could be made that some “North American” projects should be built in Canada and the United States and advertised, as the EU does, as North American Community Projects. Historically, one of the reasons why the United States has had so much difficulty sustaining public support for foreign aid or for international organizations is that the projects and the offices that manage them are outside of the country and the public’s view. That could be corrected if the projects and offices were also in the United States as well as in the two other countries most visited by Americans. The lesson of Europe, however, is that the funds for Canada and the U.S. should be relatively small and symbolic.

A regional development policy is essential to help Mexico move on to the first-world integration train. Lacking such a policy, Mexico is likely to experience greater volatility in its economics and politics, with devastating consequences for itself and its neighbors. To successfully integrate North America, it is hard to conceive of a better or more efficient investment.

## Endnotes

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- <sup>1</sup> This data and parts of this paper are adapted from Robert A. Pastor, Toward A North American Community: Lessons from the Old World For the New (Washington, D.C.: Institute for International Economics, 2001).
- <sup>2</sup> "Towards a Partnership for Prosperity: The Guanajuato Proposal," a Joint Communique, February 16, 2001. [www.presidencia/gob.mex./?P=42 &Orden=Leer&Tipo=Pe&Art=548](http://www.presidencia/gob.mex./?P=42 &Orden=Leer&Tipo=Pe&Art=548)
- <sup>3</sup> Brent F. Nelsen and Alexander C-G. Stubb, eds., The European Union: Readings on the Theory and Practice of European Integration (Boulder: Lynne Rienner Publishers, 2<sup>nd</sup> edition, 1998), pp. 13-15, 45-47, 69-70.
- <sup>4</sup> European Commission, First Report on Economic and Social Cohesion, 1996 (Luxembourg: Office for Official Publications of the European Commission, 1996), p. 13.
- <sup>5</sup> World Bank, World Development Indicators Database ([www.worldbank.org/dataquery.html](http://www.worldbank.org/dataquery.html)).
- <sup>6</sup> Rainer Martin, Regional Policy in the European Union: Economic Foundations and Reality (Brussels: Centre for European Policy Studies, 1998), pp 81-83.
- <sup>7</sup> European Commission, First Report on Economic and Social Cohesion, 1996 (Luxembourg: Office for Official Publications of the European Commission, 1996), p. 13.
- <sup>8</sup> For the data, see [http://europa.eu.int/comm/regional\\_policy/activity/index\\_en.htm](http://europa.eu.int/comm/regional_policy/activity/index_en.htm)
- <sup>9</sup> European Commission, First Report on Economic and Social Cohesion, 1996, p. 9.
- <sup>10</sup> European Commission, Regional Policy and Cohesion: Sixth Periodic Report on the Social and Economic Situation and Development of the Regions of the European Union (Luxembourg, February 1999), pp. i, 9.
- <sup>11</sup> European Commission, The Impact of Structural Policies on Economic and Social Cohesion in the Union, 1989-99 (Luxembourg: Office for Official Publications of the European Communities, 1997), p. 71.
- <sup>12</sup> EC, Sixth Periodic Report (1999), p. 9.
- <sup>13</sup> European Commission, The Impact of Structural Policies (1997), pp. 73-75.
- <sup>14</sup> Patrick Honohan, ed., EU Structural Funds in Ireland: A Mid-Term Evaluation of the CSF, 1994-99 (Dublin: The Economic and Social Research Institute, 1997), pp. xv-xxi.
- <sup>15</sup> Ibid., p. xviii.
- <sup>16</sup> See Otto Holman, Integrating Southern Europe: EC Expansion and the Transnationalization of Spain (N.Y.: Routledge, 1996).
- <sup>17</sup> European Commission, The Impact of Structural Policies (1997), p. 45.
- <sup>18</sup> Stephen Greenhouse, "With Spain in Common Market, New Prosperity and Employment," New York Times, January 15, 1989, pp. 1, 9; and Alan Riding, "Spain Aims for a Competitive Edge in a Unified Europe," New York Times, June 14, 1992, p. F11.
- <sup>19</sup> EC, Sixth Periodic Report (1999), p10.

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- <sup>20</sup> European Commission, The Impact of Structural Policies (1997), pp. 111-121.
- <sup>21</sup> Peter Gumbel, "Portugal: A Recovery That East Europe Can Emulate," Wall Street Journal, May 1, 1992, p. All.
- <sup>22</sup> Robert Leonardi, Convergence, Cohesion, and Integration in the European Union (N.Y.: St. Martin's Press, 1995), pp. 133, 170-6. See chapter 3 for his methodology.
- <sup>23</sup> Cited by Loukas Tsoukalis, The New European Economy Revisited (N.Y.: Oxford University Press, 1997), pp. 75-76.
- <sup>24</sup> Rainer Martin, Regional Policy in the European Union: Economic Foundations and Reality (Brussels: Centre for European Policy Studies, 1998), pp. 66-72.
- <sup>25</sup> EC, Sixth Periodic Report (1999), p. 9.
- <sup>26</sup> Rainer Martin, Regional Policy in the European Union: Economic Foundations and Reality (Brussels: Centre for European Policy Studies, 1998), pp. 53-61.
- <sup>27</sup> See Loukas Tsoukalis, The New European Economy Revisited (Oxford: Oxford University Press, 1997), pp. 202-222.
- <sup>28</sup> For an excellent analysis of the impact of the 1994 crisis, see Mauricio A. Gonzalez Gomez, "Crisis and Economic Change in Mexico," in Mexico Under Zedillo, edited by Susan Kaufman Purcell and Luis Rubio (Boulder: Lynne Rienner Publishers, 1998), pp. 37-66.
- <sup>29</sup> Gonzalez Gomez, "Crisis and Economic Change," pp. 55-56; Elvia Gutierrez, "Disturbing Trend Haunts Economic Development: Regional Disparities Are Alarming," El Financiero International Edition, May 31, 1999, p. 15.
- <sup>30</sup> Rafael Tamayo-Flores, "The Differential Impact of International Integration on Local Economies: How Are lagging Mexican Regions Performing?" Documento de Trabajo AP-77, Mexico City: Centro de Investigacion y Docencia Economicas (CIDE), 2000, p. 21.
- <sup>31</sup> The descriptive sections of this paper are taken from S.A. Morley., "Growth and Distribution in an Era of Structural Reform: the Case of Mexico 1980-1999," (IFPRI, mimeo, 2001).
- <sup>32</sup> This section follows closely the model description in C Diaz-Bonilla and S. Morley, (The Effects of Export-Led Growth on Employment, Poverty and Inequality: the Case of Mexico," (IFPRI, mimeo, 2003).
- <sup>33</sup> R. Harris, "The Distributional Impact of Macroeconomic Shocks in Mexico: Threshold Effects in a Multi-Region CGE Model," (IFPRI, TMD working paper #44, (1999).
- <sup>34</sup> J. Weller, *Reformas Economicas, Crecimiento y Empleo: Los Mercados de Trabajo en America latina y el Caribe*, (CEPAL, 2000).
- <sup>35</sup> S. A. Morley, "Keynes in the Countryside: The Case for Increasing Rural Public Works Expenditures," *Journal of Asian Pacific Economy* (1996).
- <sup>36</sup> The figures from the World Bank and the Inter-American Development Bank are from their websites.
- <sup>37</sup> Robert Bryce, "A Texas-Size Tie-Up: Traffic from Trade Agreement Has Created a Lone Star Nightmare on Interstate 35," U.S. News and World Report, October 25, 1999, p. 36.