Trade liberalisation in Mexico: rhetoric and reality

PENÉLOPE PACHECO-LÓPEZ and A.P. THIRLWALL

1. Introduction

Since the Second World War, the Mexican economy has had a chequered history, buffeted by internal and external shocks, and plagued by inflation and macroeconomic instability. Five major phases of economic performance and policy-making can be identified: firstly, the import substitution phase from the 1950s stretching into the late 1970s; secondly, the oil boom from 1976 to 1981; thirdly, the debt crisis and its aftermath from 1982 to 1987 during the Presidency of Miguel de la Madrid Hurtado; fourthly, the period of macroeconomic reforms initiated by Carlos Salinas de Gortari from 1988 to 1994, and lastly the period since 1994 when Ernesto Zedillo came to power (replaced by President Fox in 2000) and Mexico locked itself into the North American Free Trade Agreement (NAFTA). In the mid-1980s, extensive trade liberalisation was initiated, accompanied by widespread financial liberalisation, which was consolidated by the NAFTA agreement. What is striking about the economic performance of Mexico, however, is that the growth of the economy was far higher in the import-substitution phase than it has been in the post-liberalisation phase. The annual growth of gross domestic product (GDP) from 1950 to 2000 is shown in Figure 1.

The volatility of growth performance is immediately apparent, but what is even more interesting is the disparate average growth

☐ National University of Mexico (UNAM), Mexico City (Mexico), e-mail: pp57@kent.ac.uk.

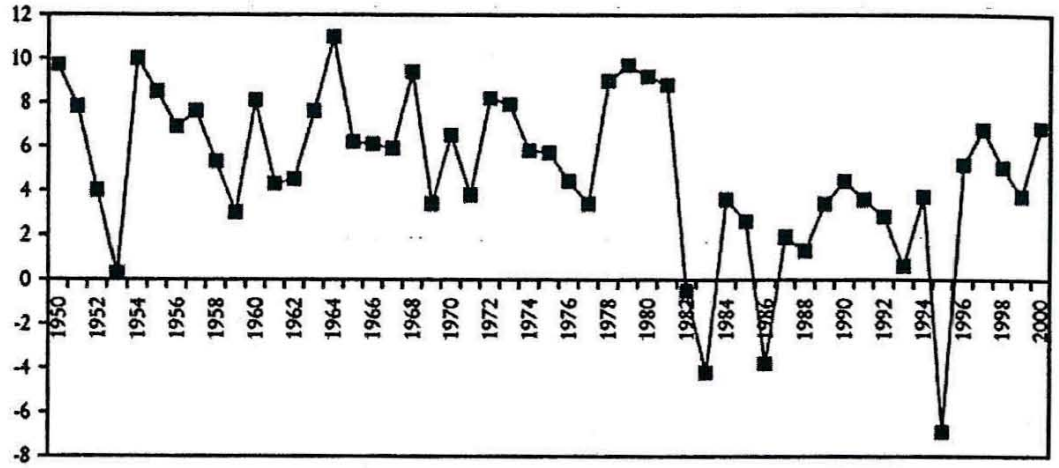
University of Kent, Department of Economics, Canterbury (Great Britain); e-mail: A.P.Thirlwall@kent.ac.uk.

BNL Quarterly Review, no. 229, June 2004.

performance between the different phases of policy-making identified above. In the import-substitution phase, growth averaged 7% per annum. In the years of the oil boom, the average growth was even higher at 7.4% per annum. During the debt crisis there was no growth at all, and since then growth has averaged only 3.5% per annum. If we distinguish between the period before trade reforms in 1985/86 and after, the contrast is striking. Average growth in the pre-liberalisation period (even allowing for the debt crisis) was over 6% per annum compared to under 3% per annum since liberalisation took place in a significant way (including the years since the formation of NAFTA). The process of liberalisation has been associated with a deterioration in growth performance of approximately one-half.

FIGURE 1

ANNUAL GROWTH OF MEXICAN GDP 1950-2000



Source: Instituto Nacional de Estadística, Geografía e Informática, Mexico.

The purpose of this paper is to explore the possibility, and to suggest, that this association is not a coincidence because trade liberalisation has impacted unfavourably on the balance of payments of Mexico through a rise in the propensity to import, and this has lowered the growth of output consistent with a sustainable payments deficit. Domestic economic policy associated with trade and financial liberalisation has also worsened the balance of payments – growth trade-off by keeping the exchange rate high (see also Blecker 1996) and encouraging types of investment with a high import content, including foreign direct investment (FDI) by multinational companies,

particularly in the maquiladora sector. At the same time, export growth has not improved to compensate. The average growth of exports pre- and post-liberalisation has been about the same – 8% per annum in real terms. This bleak scenario contrasts markedly with the rhetoric of policy-makers and commentators at the time, particularly during the NAFTA negotiations, who promised a new dawn for the Mexican economy and people in terms of improved export performance and the growth of living standards. Lustig (1994, p. 47) quotes a leading forecasting firm saying that

> "NAFTA will double both the growth rate of Mexico's overall economy and the growth rate of its wages – specifically boosting the wage growth rate from 1.2% to 2.4% per annum".

Burfisher, Robinson and Thierfebler (2001, p. 140) say that the studies of NAFTA using general equilibrium models all conclude that "NAFTA would benefit all three member countries [Mexico, the US and Canada], with the largest relative gains going to Mexico", and they quote a pre-NAFTA survey which concluded that "the effects of NAFTA would be positive but small for the US economy, and positive and large for Mexico" (*ibid.*, p. 126).

What we show in this paper is the contrast between the rhetoric of liberalisation and the reality, which provides not only a salutary lesson for other developing countries attracted by the orthodoxy of trade liberalisation, but also for future trade negotiations in the Latin American region. The first lesson is that, contrary to orthodoxy, the balance of payments consequences of liberalisation matter. It is of the utmost importance to sequence liberalisation in such a way as to maintain a balance between exports and imports at a country's capacity growth rate, otherwise domestic deflation will be necessary and growth thwarted. The second lesson is that trade liberalisation is not a substitute for a development strategy. Moreover, liberalisation is not even an outward-orientated development strategy if domestic economic policies are pursued which are inimical to the growth of exports (e.g. an overvalued exchange rate) and which encourage the growth of imports (e.g. multinational investment with a high import content). An industrial strategy and exchange rate policy must be supportive of the liberalisation process, otherwise liberalisation will be a recipe for disappointed expectations.

The paper will proceed as follows. Firstly, as a background, we will briefly consider the different phases of economic policy-making in the Mexican economy up to the period of liberalisation in the mid-1980s. Secondly, we will discuss the trade liberalisation reforms of the mid-1980s and the NAFTA agreement, including policies towards FDI. Thirdly, we estimate, using econometric techniques, the impact of liberalisation on Mexican export growth, import growth and the trade balance. Fourthly, we formally consider the impact of trade liberalisation on GDP growth working through the balance of payments, also drawing on the work of Moreno-Brid (1998, 1999 and 2001). Fourthly, we draw conclusions, and discuss future trade policy in the wider context of the Latin American region.

2. Economic policy-making in Mexico

It is well known that the import substitution policies implemented in virtually the whole of Latin America in the 1950s, including Mexico, were inspired by the ideas of Raul Prebisch (1950), who was the first economist after the Second World War to seriously challenge the doctrine of the mutual profitability of free trade for all participating countries. He had two justified worries relating to the productive and export structures of developing countries compared to developed countries. The first was the tendency for the prices of primary commodities to deteriorate relative to the price of industrial goods (the terms of trade argument – later the Prebisch-Singer thesis). The second was the balance of payments implications for developing countries of a low income elasticity of demand for primary commodity exports combined with a much higher income elasticity of demand for industrial good imports. Both the terms of trade and balance of payments implications of specialisation in primary products by developing countries can offset the static resource gains from trade emphasised by the doctrine of comparative advantage (Thirlwall 2003). For Prebisch, the solution to these twin difficulties for developing countries was for them to industrialise behind protective barriers.

In Mexico, three main forms of trade protection were applied: import tariffs, licensing restrictions and official reference prices. The

average nominal tariff on manufactured imports during the import substitution phase was over 30%, and the effective rate of protection (i.e. the protection of value-added) was over 70% (Villarreal 2000). Import licensing was used extensively, and the proportion of imported goods subject to licensing rose steadily during the period, mainly in response to balance of payments crises. In 1956, 17% of imports were subject to licensing; in 1974, over 80% of imports were protected by licensing, and during the years of the debt crisis, 1982-83, all imports were subject to licensing (even though the import substitution policy had been relaxed during the oil boom years of the late 1970s). For most of the period, import controls operated with a fixed nominal exchange rate that was devalued twice in the period – by 25% in 1976 and 47% in 1977. During this period, Mexico was not exactly a closed economy, but imports on average were less than 10% of GDP, compared to over 30% today. The World Bank (1987), in its categorisation of countries according to trade regimes over the period 1963-85, classified Mexico as a 'moderately inward oriented' country. The import substitution industrialisation policy officially ended with the debt crisis and change of government in 1982. The growth of GDP in the import substitution phase averaged 7% per annum, one of the highest growth rates in the world economy.

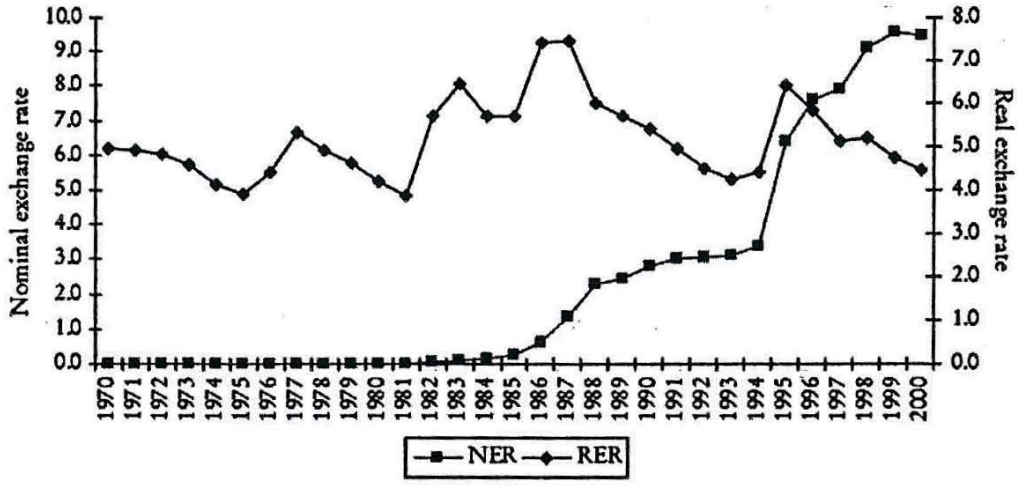
The fast growth of output in the mid-1970s, however, was not 'painless'. The government over-extended itself, running a fiscal deficit of 20% of GDP, and borrowed heavily from overseas. In 1975, the trade deficit as a percentage of GDP rose to 2.7%, its highest level since 1960. This was enough to trigger a currency crisis, devaluation and resort to IMF borrowing. Oil came to the rescue temporarily, and allowed the growth of the economy to proceed at a rapid pace, while the trade deficit fell. There was also partial relaxation of import controls. But the respite was short-lived. In 1981, the oil boom ended, and a period of renewed import restrictions began in order to protect the balance of payments.

The end of the oil boom in Mexico coincided with a deterioration in world economic conditions. Rising international interest rates, and demand deflation in the developed industrialised countries to control inflation, plunged the whole world economy into recession, which severely affected commodity prices and the demand for the exports of developing countries. Mexico suffered a major capital flight. On top of this, its ratio of debt service payments to export earnings

(the debt-service ratio) rose to over 50% in 1982; and in August of that year Mexico was forced to suspend payments to creditors, which triggered the worldwide debt crisis. Mexico imposed strict exchange controls, and further import restrictions. The peso was also devalued, and a dual exchange rate system was introduced with the flexible rate allowed to 'crawl' within pre-announced margins. From 1982-84, however, the nominal exchange rate depreciation was less than the rate of inflation, so that the real exchange rate appreciated, adversely affecting exports. Movements in the nominal and real exchange rate of the Mexican economy from 1970 to 2000 are shown in Figure 2.

FIGURE 2

NOMINAL AND REAL EXCHANGE RATE OF THE MEXICAN ECONOMY, 1970-2000



Source: Banco de México and World Bank (2002).

In 1982 a drastic economic reform programme was introduced by the new government of Jose López Portillo, which formally ended the import substitution strategy pursued over the previous three decades. The intention was to re-orientate the economy from a state-led development and trade protectionist strategy to a private-led growth and trade-openness policy. The immediate task, however, was to generate balance of payments surpluses to cope with the debt crisis, and this was done in orthodox ways through macro-deflation. The Programa Inmediato de Reorientación Económica (PIRE) was launched in 1983 with the major aim of cutting the budget deficit. Balance of trade surpluses were generated throughout the whole period 1982 to 1988, but at enormous cost in terms of welfare. Living

standards fell drastically. Real wages fell by at least 30%, and poverty and unemployment increased. GDP growth was negative in 1982, 1983 and 1986, and, on average, was slightly negative for the whole period. The stabilisation programmes introduced during this period were frequently disrupted, requiring revision and modification. The 1983 Programme was seriously affected by the steep decline in oil prices between 1985 and 1987, and by the earthquake in Mexico City which caused severe disruption and imposed significant costs. By the end of 1987, Mexico was in serious fiscal crisis, partly resulting from the New York stock market crash, and capital flight from Mexico, and partly the result of high rates of inflation (8% per month). The peso was already depreciating, but then was formally devalued in November 1987. The fall in the value of the peso by over 100%, however, did not stop the flood of imports (in 1988, imports grew by 36% while exports grew by only 5%). In December 1987, the government introduced a new 'heterodox' programme designed to control inflation, and the exchange rate was indexed to the price level. Inflation was reduced, based on an austere fiscal policy, and the public finances were improved by the privatisation of public assets. In general, the aim was to liberalise the economy through reducing the size of the public sector, by removing price controls and subsidies, by encouraging FDI and by financial and trade reforms. Mexico embraced the Washington Consensus. It was in this period of major macro-reforms, and reorientation of the economy, that trade liberalisation was initiated in a significant way. We now describe the process, and then attempt to evaluate its effects.

3. Trade liberalisation

Trade liberalisation has now been one of the cornerstones of economic policy-making in Mexico for two decades. Since 1985 there has been a radical reorientation of trade policy from a highly protectionist stance, focussed on the domestic market, to an intensive deregulation of the import tariff and licensing system. The impetus has come from within the country, as well as imposed from outside by the IMF and World Bank as part of various loan and structural adjustment packages

adopted in previous years. Mexico believed, and convinced itself, that trade (and financial) liberalisation could be the new engine of growth.

It was after the IMF/World Bank meetings in Seoul in 1985 that the government confirmed its promise to liberalise trade. The programme of trade liberalisation during 1985-87 was one of the most far-reaching of any developing country. In a relatively brief period of time, tariff rates on most products were substantially reduced; reference prices were progressively removed, and non-tariff barriers were drastically decreased or eliminated. The first stage of the liberalisation programme was implemented in June 1985 when licenses were eliminated on almost 3,600 tariff lines, leaving less than 1,000 under control. Import growth did not accelerate immediately, however, because at the same time there was a 32% real depreciation of the peso, and the economy was still in deep recession. In the same year, Mexico commenced negotiations to join the GATT, and became a full member in 1986. The accession to GATT signalled the country's intention to carry forward the trade liberalisation policy, which it did. In 1988, official prices for competitive imports were abolished entirely, and by 1989 only 20% of imports were protected by the licensing system and 12% by tariff coverage. The evolution of trade reforms between 1985 and 1989 is shown in Table 1.

TABLE 1

QUANTITATIVE INDICATORS OF THE MEXICAN IMPORT REGIME 1985-89 (%)

	1985		1986	1987	1988	1989
	June	December	December	December	December	December
Domestic production value covered by import licensing	92.2	47.1	39.8	25.4	21.3	19.8
Production-weighted tariff averages	23.5	28.5	24.5	11.8	10.2	12.5
Domestic production value covered by official import prices	18.7	25.4	18.7	0.6	0.0	0.0

Source: Ten Kate (1992).

The new government of Carlos Salinas de Gortari was elected in 1988 which committed itself to further trade and investment reforms. The emphasis was on reducing the dispersion of tariff rates with the

objective of producing a broadly uniform system of effective protection. In October 1989, a new framework agreement between Mexico and the USA was signed to facilitate more trade and investment between the two countries – a precursor of the NAFTA agreement in 1994. FDI laws were also modified in 1989, eliminating some of the restrictions on foreign investment, particularly in the capital goods and technology-intensive industries.

As well as the relaxation and elimination of import restrictions, an export promotion programme was also launched, focussing on the maquiladora sector. The maquiladora programme was originally launched in the mid-1960s in order to ameliorate the high unemployment in the northern border zone of Mexico that resulted from the termination of the Braceros system which employed Mexican migrant workers in the United States. Three facilitation programmes were initiated specifically for export industries in the manufacturing sector: firstly Pitex (Programa de Importación Temporal para Producir Artículos de Exportación) in 1985 giving duty rebates to firms with a high level of imported inputs embodied in exports; secondly, Altex (Empresas Altamente Exportadoras) in 1986 giving special administrative, fiscal and financial treatment to firms with a high level of exports, and thirdly, Compex (Comisión Mixta para la Promoción de Exportaciones) in 1989 designed to overcome bureaucratic difficulties for producers selling goods abroad. One of the major drawbacks of the maquiladora sector from the point of view of the balance of payments, however, is that its net contribution to foreign exchange earnings is relatively low because the import content of exports is so high (we will return to this issue later when we discuss FDI).

After the trade reforms between 1985 and 1987, the most significant development was the negotiations in the early 1990s leading to the NAFTA agreement in 1994 between Mexico, Canada and the US. From the Mexican government's point of view the major function of NAFTA was to embody the newly liberalised trade regime (since 1985) into a comprehensive international treaty to lock-in free market policies against future changes of government. At a practical level, it marked the beginning of the removal of most of Mexico's remaining barriers to trade and investment. Goods were divided into five categories, and a programme of tariff elimination was agreed for each (see Table 2). 85% of goods were put in categories A, B and C1, and the final date for completion of the agreement is 2008.

TABLE 2

NAFTA'S TARIFF ELIMINATION SCHEDULE

Group A	Duties on Goods of this category shall be eliminated entirely and such goods shall be duty-free, effective 1st January 1994.
Group B	Duties on Goods of this category shall be removed in 5 equal stages beginning on 1st January 1994, and such goods shall be duty-free, effective 1st January 1998.
Group C1	Duties on Goods of this category shall be removed in 10 equal stages beginning on 1st January 1994, and such goods shall be duty-free, effective 1st January 2003.
Group C2	Duties on Goods of this category shall be removed in 15 equal stages beginning on 1st January 1994, and such goods shall be duty-free, effective 1st January 2008.
Group D	Goods shall continue to receive duty-free treatment.

Source: North American Free Trade Agreement (NAFTA).

The liberalisation process also contained other elements. It was agreed that trade barriers in agriculture and transport would be eliminated. Restrictions on investment by multinational corporations were to be eased further. US and Canadian providers of financial services were to be accorded the same treatment as their domestic counterparts. Dispute resolution mechanisms were established, and tri-annual Commissions were formed to deal with issues relating to labour rights and environmental protection.

No sooner had NAFTA been signed, however, than the country entered another crisis phase. First, there was the Zapatista uprising in Chiapas. Second, there was the assassination of the Presidential candidate, Luis Donaldo Colosio, and a Party chief. Thirdly, against the background of previous trade liberalisation, huge deficits on the balance of payments had arisen, partly due to the massive appreciation of the peso by over 70% in real terms compared to its 1987 value (see Figure 2 earlier). The current account deficit was 5% of GDP in 1992, 5.9% in 1993 and 4.8% in 1994. There was no export-led growth, despite the promises of liberalisation. The Zedillo government, elected in December 1994, was confronted with massive capital flight from the country and a huge decline in foreign exchange reserves. There was an increase in FDI, but at the same time a serious fall in portfolio investment as asset prices tumbled. A $ 20 billion loan package was agreed with the US and IMF. The peso was devalued by 90%, and then allowed to float. The austerity measures imposed caused GDP to fall by 6.1% – the steepest decline in output in Mexico's post-war history,

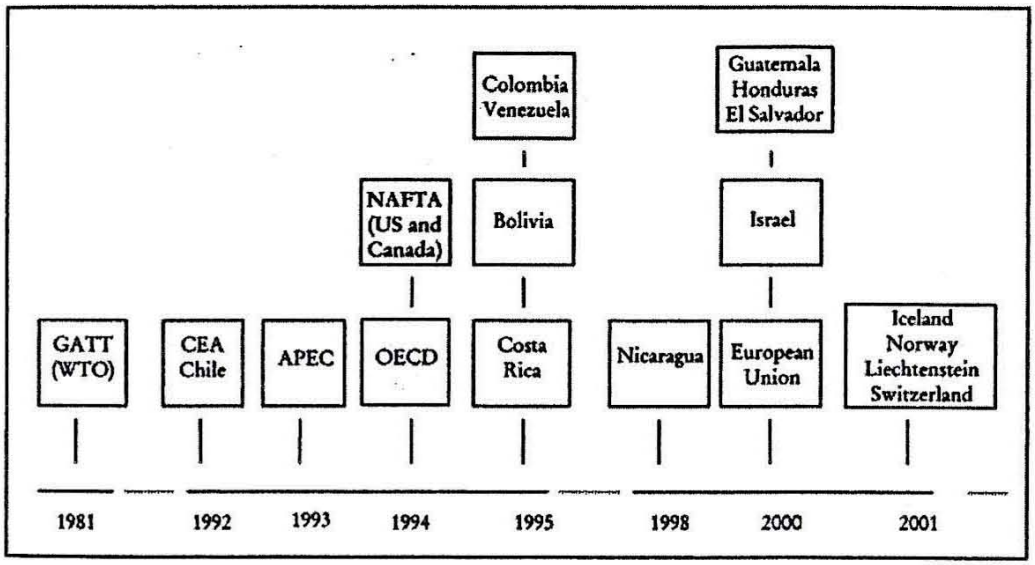
and the biggest since 1932. By the end of 1995 open unemployment had risen to over three million, and real wages fell by over 30%. Lustig (1997), a strong supporter of free trade and NAFTA, argues that NAFTA was not to blame for the crisis. It is true that NAFTA was not the primary cause, but the fact remains that it is economically naïve and always potentially disastrous for a country to liberalise trade when macroeconomic policy is encouraging capital inflows and the currency is appreciating – and so it turned out to be.

On the 1st January 1995, Mexico joined the World Trade Organisation (WTO). The binding trade and foreign investment rules are contained in more than 60 agreements and decisions which were formulated during the Uruguay Round Negotiations 1986-94 signed in Marrakesh, April 1994.

Apart from NAFTA, Mexico has signed several other Free Trade Agreements (FTAs) shown chronologically in Figure 3. In 1993, it became a member of APEC. In 1995, it agreed the G-3 FTA with

FIGURE 3

TIME PROFILE OF MEXICO'S FTAs AND ADHESION TO INTERNATIONAL ORGANISATIONS



Source: Secretaria de Economía, Mexico.

Colombia and Venezuela, and a FTA with Bolivia and Costa Rica. In 1998, it concluded a FTA with Nicaragua. In 2000, negotiations were concluded with the so-called 'North Triangle' of Guatemala, Hondu-

ras and El Salvador, and a FTA with the European Union and Israel. In 2001, an agreement was signed with the European Association of Free Trade composed of Iceland, Liechtenstein, Norway and Switzerland. Currently, there are active negotiations for a Free Trade Area of the Americas which would unite the whole of Latin America (apart from Cuba) in a free trade zone with North America.

Despite all these trading agreements with the rest to the world, Mexico's dependence on the United States for its exports and imports has increased inexorably through time. The share of Mexico's exports going to the US has increased from 64% in 1980 to 89% in 2000. The share of Mexican imports coming from the US has increased from 61% to 73% over the same period. A major part of this change has came about as a result of the nature of US investment in Mexico which uses the country as an export assembly platform providing its own exports as inputs, and which, in turn, has raised the income elasticity of demand for imports (as we shall see later).

4. NAFTA and foreign direct investment

For the Mexican government, the main purpose of NAFTA was not to further liberalise trade, which had already been extensively liberalised, but to attract FDI as a means to improve economic performance and to ensure future access to the US market. The NAFTA agreement was also a signal to other foreign investors that they could locate in Mexico and also have access to the US market. As Blecker (1996) has argued, however, in order to obtain preferential access to the US market, Mexico was forced to agree to a liberalised trade and investment regime which maximised advantages for US and other multinational enterprises, rather than furthering Mexican development objectives. NAFTA has forced Mexico into low-wage (assembly-type) manufactures with a high foreign import content. Trade and investment liberalisation which takes this form is not the same as an outward-oriented development strategy, particularly if exchange rate and internal macroeconomic policies are working in the opposite direction, and balance of payments difficulties arise. Other countries have liberalised, but the control of industrial development has not been

effectively left in the hands of multinational corporations (MNCs). In East Asia, for example, an outward-oriented development strategy was pursued, but combined with extensive government regulation and intervention to promote structural change and to shift resources into more capital-intensive and technologically sophisticated industries. Tight import restrictions and strict capital controls were maintained in the early stages of the export drive, and the exchange rate was supportive. Part of the failure of the liberalisation programme to achieve a faster and sustainable rate of growth in Mexico has been that the state is weak, and successive governments have been unable and unwilling to pursue an effective industrial policy to combine with liberalisation policies.

Mexico started to modify its Foreign Investment Law (FIL) from the mid-1980s, by gradually reducing the range of economic activities reserved for ownership by the state or Mexican citizens. Significant changes took place in 1989, 1993/94 and 1999. In October 1989 a new agreement was signed with the United States to start 'global conversations' to facilitate trade and investment. In particular, and very important for the US, domestic content rules were relaxed for the automobile industry. In 1993, a new FIL was enacted reducing further the number of activities in which foreign participation was forbidden or restricted. When NAFTA was signed, it gave preferential treatment to FDI from the US and Canada, but also guaranteed favourable treatment to all countries – no less favourable than that accorded to their own foreign investors. In January 1999, the majority of financial services were liberalised, and the government allowed 100% foreign participation in the banking sector, as well as in railways and gas. In 2001, Mexico's largest commercial bank, Banco Nacional de Mexico, was bought by Citicorp, which made Mexico the largest recipient of FDI in Latin America in that year (UNCTAD 2002).

The evolution of FDI inflows into Mexico as a percentage of GDP is shown in Table 3.

The rise in the share of FDI from the mid-1980s can be clearly seen, and there was an apparent quantum leap between 1993 and 1994 which has been sustained. Part of this increase, however, is due to a change in the definition of FDI adopted in 1994 to make it compatible with the definitions used by the OECD and IMF. NAFTA has undoubtedly given a boost to FDI, probably of the order of 1.0 to 1.5% of GDP.

TABLE 3

FOREIGN DIRECT INVESTMENT, NET INFLOWS (% of GDP)

Year	FDI	Year	FDI	Year	FDI
1970	0.91	1981	0.93	1992	1.21
1971	0.78	1982	0.84	1993	1.09
1972	0.67	1983	0.31	1994	2.59
1973	0.83	1984	0.22	1995	2.62
1974	0.94	1985	0.27	1996	2.60
1975	0.69	1986	1.18	1997	3.57
1976	0.71	1987	2.31	1998	2.60
1977	0.68	1988	1.42	1999	2.90
1978	0.80	1989	1.36	2000	3.10
1979	0.99	1990	1.00		
1980	0.96	1991	1.51		

Source: World Bank (2002).

Most of the FDI comes from the US. The US share rose from 46% in 1994 to 78% in 2001. Most of the investment is in sectors such as Machinery and Equipment (including automobiles), Chemicals, and Textile and Leather Products. These three sectors accounted for 80% of manufacturing FDI between 1994 and 2001, which, in turn, accounted for 70% of total foreign investment. According to UNCTAD (2002), nearly two-thirds of Mexico's exports originate from MNCs based in Mexico, and 30% from just 35 companies. On the surface, it might appear that FDI and MNCs confer a substantial benefit on the Mexican economy, but some caution is in order which leads to a rather different conclusion.

Firstly, linkages between FDI and domestic industry are weak. Máttar, Moreno-Brid and Peres (2002) analyse the performance of FDI in the context of the macroeconomic policy reforms of the 1980s, and conclude that FDI has not led to an increase in fixed capital formation in the country as a whole; moreover, it has led to a segmentation between an export-oriented sector linked to foreign capital on the one hand, and smaller indigenous firms focusing on domestic demand on the other. Mortimore (2000) also concludes from a comprehensive study of FDI in Mexico that it has tended to result in export oases possessing little contact with the domestic economy, thereby truncating or limiting the national industrialisation process.

Secondly, in some instances, domestic industry has been destroyed by competition from FDI and imported inputs used. Máttar,

Moreno-Brid and Peres (2002) conclude that the high import content of Mexican exports has disrupted domestic chains of production by displacing and eliminating firms that previously produced for the domestic market, but are unable to compete with MNCs entry. And now MNCs themselves are closing subsidiaries, especially in the maquiladora sector, and relocating either in cheaper locations (e.g. China) for the production of low value-added goods, or back to North America in the high value-added range of goods such as luxury cars. In 2002 alone, over 5,000 plants closed; and 250,000 workers have lost their jobs in the maquiladora sector since 2000.

Thirdly, because the import content of FDI is so high, its contribution to net exports is low. Under NAFTA, for example, the Mexican authorities permitted the assembly of automobile exports that incorporated a higher level of imported components than cars for the domestic market: 70% compared to 40%. This also hindered the integration of the car industry with local suppliers. In work on temporal causality between FDI, exports and imports, Pacheco-López (2003) finds evidence of strong 'Granger-causality' between FDI and imports, but there is no evidence that FDI has raised the growth of non-oil exports since the NAFTA treaty was signed. Cimoli and Correa (2002, p. 13) describe very well what has been going on in Mexico and elsewhere in Latin America where there is a strong FDI presence:

> "many production activities have been seriously disrupted by trade liberalisation and by the massive inflow of imports [...] substituting domestically produced intermediate inputs by cheaper (and sometimes better) imported ones, reorganising themselves more as assembly-type operations based on a much higher unit import content [...]. The share of large firms in GDP has significantly increased [...] while countless [small and medium] enterprises have been forced to exit the market altogether".

The final point to make is one that we have made already, but is worth repeating, and that is the arrangements concerning FDI have effectively removed the ability of the state to intervene and protect indigenous industry (Blecker 1996, Arestis and Paliginis 1996). Under the NAFTA agreement, Mexico is effectively prohibited from using most of the types of strategic industrial and trade policies for a successful outward-orientated development strategy that would maintain a

balance between the growth of exports and imports without sacrificing the growth of output. We will now give some quantitative estimations of the impact of trade liberalisation on the rate of growth of exports, imports and the trade balance, and then show how the rise in the income elasticity of demand for imports has reduced the sustainable growth rate of the Mexican economy from over 6% per annum in the pre-liberalisation phase to less than 3% per annum since the mid-1980s.

5. The impact of trade liberalisation on exports, imports and the trade balance

One of the ways of estimating the impact of a sudden switch in policy-regime is to test for structural breaks in time series data. In the case of trade liberalisation which started in 1985, and NAFTA in 1994, we are interested in testing for structural breaks in export growth, import growth and the trade balance in these years. The technique is to specify estimating equations for these dependent variables, and then add to the independent variables a shift dummy variable in the year of policy change to test for the significance of a structural change.

The growth of Mexican non-oil exports (x_t) is assumed to be primarily a function of the growth of real income in the USA (g_{us}), the change in the real exchange rate (p) and export growth in the previous period (x_{t-1}). The growth of Mexican imports (m_t) is made a function of the growth of domestic income (g_d), the change in the real exchange rate (p) and import growth in the previous period (m_{t-1}). The rate of change of the trade balance (t_b) is a function of the above variables plus changes in the terms of trade (tot) (since the trade balance is measured in monetary terms).[1] We then add dummy variables to the equations for the trade liberalisation period, experimenting with 1985, 1986 and 1987 for the mid-1980s reforms, and 1994, 1995 and 1996 for NAFTA, and estimate the equations over the period 1970 to 2000. Using the Augmented Dickey-Fuller test for unit roots, all the variables included

[1] i.e. $tb = (x_t + p_x) - (m_t + p_m)$, where p_x and p_m are the rate of change of export and import prices, respectively, and $p_x - p_m = tot$.

in the equations are found to be stationary, so that we can be confident that the results obtained are not spurious due to a common time trend. With lagged dependent variables in the equations, we can also estimate both short- and long-run coefficients. The results are presented in Table 4.

TABLE 4

THE IMPACT OF LIBERALISATION ON EXPORT GROWTH, IMPORT GROWTH AND THE BALANCE OF TRADE (1970-2000)

Export growth

$x_t = -0.11 + 5.19\ (g_{us}) + 0.55\ (p) + 0.15\ (lib1986) - 0.05\ (lib1994) - 0.19\ (x_{t-1})$.

(-1.96) (3.54) (2.93) (2.26) (-0.68) (-1.16)

$R^2 = 0.50$

DW = 1.95

Import growth

$m_t = -0.11 + 2.67\ (g_d) - 0.61\ (p) + 0.13\ (lib1985) + 0.00\ (lib1994) + 0.07\ (m_{t-1})$

(-1.84) (2.66) (-3.00) (2.25) (0.00) (0.67)

$R^2 = 0.83$

DW = 1.86

Trade balance growth

$tb_t = 0.29 - 4.30\ (g_d) - 1.21\ (g_{us}) + 0.07\ (p) - 0.02\ (tot) - 0.18\ (lib1985)$

(2.71) (-3.48) (-0.61) (0.23) (-0.08) (-2.42)

-0.06 (lib1994)

(-0.86)

$R^2 = 0.81$

DW = 2.47

Note: bracketed terms are t-statistics.

The equations are well-determined, and produce some interesting (and surprising) results. First considering exports, Mexican export growth is highly sensitive to the performance of the US economy with an income elasticity of demand in excess of 5. Mexican export competitiveness also matters, but the price elasticity is relatively low at

0.55. The impact of the trade reforms seems to have been delayed till 1986. We found no evidence of a significant structural break in export growth in 1985, but there is evidence of a break in 1986 when export growth rose 15 percentage points, allowing for changes in the real exchange rate and the growth of income in the US. In fact, non-oil exports rose by 56% in 1986, so that roughly one-quarter of the increase can be attributed to liberalisation. This might be regarded as a substantial effect, but the important point to bear in mind is that the average export growth of all goods and services in the post-liberalisation years was no higher than in the pre-liberalisation years. Any permanent structural effect must therefore have been offset by unfavourable movements in other determinants of export performance, including the exchange rate. It can be seen from Figure 2 (earlier) that since 1986 there has been a virtually continuous appreciation of the real exchange rate.

This behaviour of exports contrasts markedly with that of imports. Imports responded to liberalisation more quickly than exports. There was a significant structural break in 1985 when import growth jumped 13 percentage points, holding other variables constant. This compares with actual import growth of 11%. The positive impact on import growth seems not to have been offset by other factors since the average growth of import volume prior to 1985 was only 6% per annum compared to 14% post-1985. Liberalisation seems to have opened up a permanent imbalance between the growth of imports and exports, allowing for the difference in the growth of income in the US and Mexico, and movements in the real exchange rate. Other interesting features of the import growth equation are that the income elasticity of demand for imports is well-determined with a relatively high value of 2.67, and price competitiveness also matters, but the price elasticity is relatively low at 0.61. Combining the export and import price elasticities gives a value of 1.16, which means that the Marshall-Lerner condition for a successful depreciation of the currency is just satisfied – but in fact the Mexican authorities have allowed the real exchange rate to appreciate, at least since 1986 (with the exception of 1994-95).

The permanent imbalance between the growth of imports and exports associated with the trade liberalisation in the mid-1980s shows up in the trade balance equation where there is a significant negative sign on the shift dummy variable for 1985, with a coefficient of –0.18. The rate of change of the trade balance is also significantly affected by

the growth of the Mexican economy, but surprisingly not by the growth of the US economy. The coefficient on the real exchange rate variable is also insignificant but this is probably a reflection of the fact mentioned above that the sum of the price elasticities of demand for exports and imports hardly differs from unity.

Turning now to the impact of NAFTA, we have not found it possible in any of our estimations to detect an independent significant effect of NAFTA on export growth, import growth or movements in the trade balance. Shift dummy variables for 1994, 1995 and 1996 were used, but none were significant. Perhaps this result is not surprising, however, because by 1994 there was not much of Mexico's trade left to liberalise. As we argued earlier, NAFTA had more to do with FDI and US access to the Mexican financial markets than with trade per se. Our conclusions also accord with other studies. Gould (1998) and Krueger (2000) both argue that the gains from NAFTA are difficult to disentangle from the effect of exchange rate changes and other policies. Neither find that NAFTA had a significant effect on bilateral trade flows, at least in the early years. Krueger finds that Mexican exports grew most rapidly in sectors in which they grew most rapidly in the rest of the world, so that no special effect can be attributed to NAFTA. It is true that export growth jumped from 8% in 1993 to 18% in 1994 and 30% in 1995, but then export growth reverted to the pre-1994 average. There was also a big increase in import growth in 1994, but since then the average growth has been no different to the period 1985-1993. This sudden change in 1994-95 undoubtedly had more to do with the rapid depreciation of the real exchange rate in these years than NAFTA. It is true that the volume of trade between the US, Canada and Mexico has increased quite sharply, but there has been little change in the rate of growth of Mexican exports and imports to and from the US. Since 1994, Mexican export growth to the US has been 16.1% per annum compared to 14.4% per annum from 1980 to 1993. Mexican import growth from the US has been 15.7% per annum since 1994 compared to 14.2% during 1980-93. There has been trade diversion as well as trade creation.

Since trade liberalisation, Mexico has experienced two severe balance of payments/exchange rate crises: one in 1986 and the other in 1994-95. Both crises were associated with inappropriate macroeconomic policies and an overvalued exchange rate, but trade liberalisation in these years did not help the situation. Table 6 gives details of

movements in the trade balance and balance of payments in relation to GDP since 1979. Both accounts have been extremely volatile, but more so in the 1980s and 1990s than in the 1950s, 1960s and 1970s, when import tariffs and controls were used to ameliorate deficits without too much damage to the real economy. This brings us to the question of the relationship between trade liberalisation, the balance of payments and growth.

TABLE 5

TOTAL TRADE BALANCE, NON-OIL TRADE BALANCE, TRADE IN SERVICES, TOTAL CURRENT ACCOUNT AND NON-OIL CURRENT ACCOUNT RELATIVE TO GDP (%)

Year	TB/GDP	Non-oil TB/GDP	Trade in services/GDP	Current account/GDP[a]	Non-oil current account/GDP
1979	-1.59	-5.34	n.a	n.a.	n.a.
1980	-1.37	-6.04	-3.67	-4.67	-9.71
1981	-1.27	-6.02	-4.37	-5.30	-10.39
1982	3.59	-4.81	-7.13	-3.01	-11.95
1983	9.47	-1.28	-6.33	3.94	-7.61
1984	7.51	-1.95	-5.90	2.38	-7.85
1985	3.24	-2.64	-3.79	0.34	-6.43
1986	3.88	-0.99	-6.16	-1.06	-7.15
1987	6.26	0.11	-4.61	3.02	-4.50
1988	1.42	-2.24	-3.95	-1.30	-6.19
1989	0.18	-3.35	-3.93	-2.61	-7.28
1990	-0.34	-4.18	-4.01	-2.84	-8.20
1991	-2.01	-3.96	-2.72	-4.66	-6.68
1992	-4.38	-6.67	-3.27	-6.72	-9.94
1993	-3.34	-5.18	-3.36	-5.80	-8.55
1994	-4.39	-6.16	-3.56	-7.05	-9.72
1995	2.48	-0.47	-4.41	-0.55	-4.88
1996	1.97	-1.54	-4.08	-0.75	-5.62
1997	0.16	-2.67	-3.37	-1.91	-6.04
1998	-1.90	-3.61	-3.40	-3.86	-7.02
1999	-1.16	-3.24	-3.07	-2.92	-6.31
2000	-1.39	-4.24	-2.99	-3.16	-7.23

[a] Includes transfers, where remittances from workers are accounted for.

Source: own calculations based on data from World Bank (2002) and Bank of Mexico.

6. The balance of payments and growth in Mexico

There have been several recent studies of the impact of the balance of payments on Mexican growth which we will briefly discuss before presenting our own estimations. The consensus seems to be that the trade reforms, combined with the liberalisation of FDI, have increased through time the income elasticity of demand for imports without increasing the growth of exports. This means that using Thirlwall's (1979) balance of payments constrained growth model in its simplest form of $g_B = x/\pi$ (where π is the income elasticity of demand for imports), the growth rate consistent with balance of payments equilibrium (g_B) has fallen through time. Loría and Fuji (1997) provide a descriptive study showing how the growth of GDP consistent with balanced trade has continuously declined since the early 1980s as a result of adjustment and stabilisation programmes implemented after the debt crisis and the liberalisation of trade. López and Cruz (2000) also document the worsening trade-off between growth and the balance of payments, but put more blame on the exchange rate. Nevertheless, they show that to maintain trade equilibrium, the income elasticity of demand for imports would have to fall by more than one-half if there is no improvement in export performance. It is not clear that a once-for-all exchange rate adjustment is capable of producing the required structural change, or that a continuous depreciation of the *real* exchange rate is feasible. Ocegueda (2000) compares estimations of Mexico's GDP growth between two periods, 1960-82 and 1983-97, and finds that the growth rate consistent with balance of payments equilibrium worsened after 1982 because the income elasticity of demand for imports increased from 1.05 to 4.91. The latter estimate looks high, but we find a similar elasticity for the period 1982-96 (see below).

The work of Moreno-Brid (1998, 1999 and 2001) has so far been the most comprehensive and rigorous in this field of enquiry for Mexico. He does a number of interesting things including extending the basic Thirlwall model of $g_B = x/\pi$ to allow for a sustainable current account deficit to GDP (financed by capital inflows), which gives the formula $g_B = \theta x/[\pi - (1-\theta)]$ where θ is the ratio of exports to imports. The two models give the same growth rate if exports equal imports and $\theta = 1$, but not otherwise. He then applies the two models

to Mexico's growth experience over the period 1967-99, distinguishing three overlapping periods prior to 1985 and post-1982. The income elasticity of demand for imports is estimated by the Johansen (1991) cointegration method. The estimates are shown in Table 6, together with data on export growth, actual GDP growth and the predicted growth of GDP from the simple and extended balance of payments equilibrium growth models.

TABLE 6

MORENO-BRID'S ESTIMATES OF MEXICO'S BALANCE OF PAYMENTS EQUILIBRIUM GROWTH RATE

Period	Growth of GDP %	Simple model $g_B = x/\pi$	Extended model	Export growth (x)	Income elasticity of imports (π)
1967-1999	3.87	4.78	4.40	8.47	1.77
	Before reforms				
1968-83	5.52	5.85	5.46	9.17	1.57
1969-84	5.34	5.84	5.29	8.47	1.53
1970-85	5.05	5.62	5.17	8.66	1.54
	After reforms				
1982-97	1.65	2.19	2.86	7.74	3.54
1983-98	2.63	2.76	3.26	8.59	3.11
1984-99	2.79	2.91	3.70	9.14	3.14

Source: Moreno-Brid (2001).

The first thing to notice is that the balance of payments equilibrium growth model fits the growth experience of Mexico remarkably well, with Moreno-Brid's extension of the basic model performing slightly better up to 1985, and the basic model predicting better after the trade reforms. Notice the slow-down of growth after the reforms. Up to 1985, GDP growth averaged 5.3% per annum. After 1982, growth averaged only 2.4%. Notice also that there is no evidence of faster growth in the post-reform period. The fall in the sustainable growth rate has been entirely due to the rise in the income elasticity of demand for imports from an average of 1.55 pre-reforms to 3.26 post-reforms. This, of course, is consistent with the econometric estimates we made earlier of a more than doubling in the growth of imports post-1985 (see Table 4).

We take a similar approach to Moreno-Brid by estimating the evolution of the income elasticity of demand for imports year by year

between 1973 and 1999 using thirteen overlapping periods, and then we focus more precisely on the difference that the mid-1980s trade reforms made to growth performance by comparing the model's predictions from 1973 to 1985/86 with the period 1986/87 to 1999. The evolution of the income elasticity (estimated using an autoregressive distributed lag model of import demand) is shown in Table 7.

TABLE 7

LONG RUN ELASTICITIES OF DEMAND FOR MEXICAN IMPORTS (π)

Period	π	Period	π
1973-87	1.21	1980-94	2.47
1974-88	1.50	1981-95	3.34
1975-89	1.85	1982-96	4.56
1976-90	2.09	1983-97	4.43
1977-91	2.31	1984-98	3.12
1978-92	2.20	1985-99	3.15
1979-93	2.04		

Source: Pacheco-López (2003).

As liberalisation has proceeded, the gradual rise in the income elasticity of imports can be clearly seen (with big temporary jumps in 1982-96 and 1983-97 when import growth changed from –15% in 1995 to +22% in both 1996 and 1997). The estimates corroborate those of Moreno-Brid.

The results of applying the estimates and model to understand Mexico's growth performance pre- and post-trade reforms in 1985 are shown in Table 8.

TABLE 8

THE IMPACT OF TRADE REFORMS ON GROWTH IN MEXICO

Period	Growth of GDP %	Predicted growth rate ($g_B = x/\pi$)	Export growth (x)	Income elasticity of imports (π)
1973-99	3.6	4.4	9.8	2.2
	Pre-liberalisation			
1973-85	5.0	6.9	9.0	1.3
1974-86	4.3	5.8	8.7	1.5
	Post-liberalisation			
1986-98	2.8	2.9	9.2	3.1
1987-99	2.8	3.2	10.5	3.2

The balance of payments equilibrium growth model over-predicts the actual growth rate in the pre-liberalisation period (partly due to adverse terms of trade movements and capital outflows in the 1980s), but the important point to note is the fall in the sustainable growth rate caused by the doubling of the income elasticity of demand for imports, and this fall is mirrored in the reduction of the actual growth rate from 5% per annum in the pre-liberalisation period to under 3% post-liberalisation.

7. The future

We conclude this essay on the political economy of Mexico with a consideration of the future, particularly the proposal for a Free Trade Area of the Americas (FTAA) due to be implemented in 2005. As a leading Latin American country with experience in negotiating with the US, Mexico has participated actively in the negotiations for a FTAA. However, such negotiations stalled in the recent IX Ministerial Meeting which took place in Puebla, Mexico, in February 2004. The main controversial issue was the subsidies in the agricultural sector. The US and Canadian position has been obtuse regarding the elimination of subsidies in this sector, where most Latin American countries could compete advantageously. MERCOSUR (e.g. Argentina, Brazil, Uruguay and Paraguay) and Chile and Bolivia are strongly opposed to agricultural subsidies. Mexico, on the other hand, has supported the US position which is surprising since the farming sector (and particularly maize growers) has suffered badly under NAFTA, as is evident from the serious contraction of agricultural employment.

Mexico expects to benefit from the FTAA, but it is worth remembering that the same expectations concerning wages, more jobs and faster growth when NAFTA was signed in 1994 have never materialised. A few statistics illustrate the divorce between rhetoric and reality. In 1994, the average hourly wage in manufacturing in Mexico was $ 2.1 and in the US $ 12. Such a wage differential remains. In 2001, the average manufacturing wage in Mexico was $ 2.5 and in the US $ 14.8. Still, 63% of the economically active population of Mexico (40 million workers) do not have any social security benefits or em-

ployment rights; and 20% of employees work without any fixed location. These figures illustrate how the income distribution has deteriorated and informal unemployment has increased. Another indication of the deterioration of working conditions is the amount of emigration and the remittances by Mexican workers in the US, which has become the second most important source of foreign exchange after oil.

There is nothing in the doctrine of free trade that guarantees an equal distribution of the gains from trade between countries, or an equal distribution of the gains between groups within countries. Some countries, and groups within countries, can easily suffer an absolute loss. The moral of our study of Mexico is that in any future trade negotiations, it is extremely important for countries to determine what they think their capacity growth rate is (determined by labour force and productivity growth) and to make sure that any trade agreements that they make are compatible with that rate. In particular, they need to consider the balance of payments implications of trade liberalisation and to ensure that imports do not grow faster than exports. The exchange rate has a role to play in smoothing the liberalisation process, but a depreciating exchange rate cannot be guaranteed to rectify a permanent imbalance between the growth of imports and exports, and in any case, would lead to an inflationary spiral. Deflation and growth below capacity are the inevitable result. This has been the experience of Mexico since the move to free trade in the mid-1980s.

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