

# Gerardo Reyes Guzmán, Carlos Moslares García

---

## The Mexican Economic Crisis (2007-2009)

---

Annales Universitatis Mariae Curie-Skłodowska. Sectio K, Politologia 16/2,  
117-139

---

2009

Artykuł został opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej [bazhum.muzhp.pl](http://bazhum.muzhp.pl), gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

Tekst jest udostępniony do wykorzystania w ramach  
dozwolonego użytku.

---

ANNALS  
UNIVERSITATIS MARIAE CURIE-SKŁODOWSKA  
LUBLIN – POLONIA

VOL. XVI, 2

SECTIO K

2009

---

Universidad Iberoamericana Puebla, México; Universidad Ramon Llull, Barcelona España

GERARDO REYES GUZMÁN, CARLOS MOSLARES GARCÍA

*The Mexican Economic Crisis (2007-2009)*

---

Kryzys ekonomiczny w Meksyku (2007-2009)

ABSTRACT

The possibility of a recession in Mexico as a consequence of the US mortgage crisis in 2007 had been repeatedly denied by Mexican officials throughout 2008. They said Mexico had maintained macroeconomic stability since the end of the 90's that made it resistant to external shocks of that kind. In comparison with 1995, Mexico had in 2008 price stability, a modest economic growth, plenty of foreign reserves, fiscal stability, sustainable current account deficit and a strong currency. Nevertheless, macroeconomic indicators started to deteriorate rapidly by the end of 2008, triggering an economic downturn of a kind not seen since 1995. In spite of the supposed strength of the economy, the present crisis seems to be even worse than believed and threatens to undermine once more the economic framework that was designed to avoid current account imbalances of the sort Mexico had suffered over the previous 40 years.

Key words: Mexican currency crisis, balance of payments, external exchange constraint

INTRODUCTION

Mexico has experienced four acute economic crises in the last 40 years: 1976, 1982, 1986 and 1995; all of them marked by a sudden depletion of foreign currency reserves in the balance of payments that ended up causing a severe currency devaluation, inflation and an economic downturn. The last one, in 1995, was considered one of the deepest since the 1930's. Pundits (Villarreal 2000; Dornbusch, 2002; Krugman, 1999) agree that the main factors that led to that crisis were an overvalued currency

and an unsustainable current account deficit. Furthermore the stabilization model implemented from 1988 was inspired by the Washington Consensus and played a decisive role in the macroeconomic imbalance that led to the 1995 crisis. Three policies were carried out in order to foster investment and economic growth: a) trade liberalization, b) financial liberalization and c) privatization of public enterprises. Trade liberalization and a fixed exchange rate managed to subdue inflation efficiently. General price inflation shrank from an average of 90% (1982-1987) to 16% (1988-1994). A boom in foreign direct investment (FDI) driven by optimistic expectations derived from the North American Free Trade Agreement (NAFTA) caused currency appreciation and by 1992 overvaluation was estimated to be around 40%. That was at the same time the driving force behind an increasing current account deficit, which had reached levels of 7% of GDP by 1992. The current account deficit was thus financed by a capital account surplus, most of it composed of short term capital investment. According to Villarreal (2002) external savings accrued an amount of 107 billion (bn) US dollars (USD) between 1988 and 1994; 66% of that was used to finance debt interest and profits obtained from FDI. As confidence of foreign investors diminished and capital flew out of the country at the end of 1994, the Mexican Central Bank (Banxico) ran out of foreign reserves and the fixed exchange rate could no longer be sustained (foreign exchange constraint). As a consequence the peso devalued by almost 100% in 1995 and GDP shrank 7% in that year.

The lessons of the 1995 crisis led to a new economic policy based on a flexible exchange rate and a restriction of short term capital flows to finance the current account deficit. That should have avoided external imbalances and diminished the vulnerability of the Mexican economy to external shocks. 14 years later, the Mexican economy seems to face a new crisis marked again by a current account deficit. It is said that whereas the 1995 crisis originated within the country, this one was caused by the US economic slump of 2007-2008. However, and in spite of the macroeconomic stability maintained after 1997, economic indicators have started to deteriorate, pointing to a worsening horizon in the coming years. This article analyzes the present crisis posing the following questions: how is it that a foreign exchange constraint has appeared once more in the Mexican economy? How can this new external imbalance be explained and which sectors have been most affected? And what are the possibilities for curbing the recessionary trend and rebounding in the near future? To answer these questions we have prepared three sections. The first one is a snapshot of the deterioration of Mexican macroeconomic indicators. The second section analyzes the main shortcomings of the balance of payments or the foreign exchange constraint. Here we analyze the characteristics of Mexican foreign trade; the importance of manufacturing, oil, remittances, tourism and FDI. We also comment on the changes of trade flows between Mexico and other regions to evaluate competitiveness. In the third section we explain how the most important economic activities that supported external equilibrium and a stable exchange rate from 1997 to 2008 have been deteriorating. We mean manufacturing, FDI, tourism, remittances and oil. We conclude

with a reflection summarizing the most important features of the present crisis and of the possibility of reestablishing economic stability in the near future.

#### I. THE RECESSION'S FIRST SYMPTOMS

The side effects of the US crisis in Mexico began to be apparent in January 2008. However, the Mexican Stock Exchange (MSE) began to slow down by October 2007, when it reached a record high of 32,000 points. In March 2009 it rated a monthly average of 19,626 points, equivalent to a slump of 40%, similar to that of 42% that occurred between August 1994 and February 1995 and marked the cornerstone of the 1995 crisis. Thus the fall of the MSE in conjunction with a sinking GDP in more than three continuous quarters can be interpreted as evidence of a recession. Not surprisingly, the MSE had previously had an extraordinary performance. It grew almost threefold from March 2004 (10,517 points) to October 2009 (31,458), an accomplishment that didn't square at all with the modest quarterly average economic growth of 3.8%. During all this length of time there was an unusual optimism in the stock market that fostered a strong capital inflow. Short term capital investment overvalued the Mexican peso and made it possible to obtain high rates of return in stock transactions. Speculators and corporations borrowed at low rates in the US, invested in the MSE and got an attractive return due to higher interest rates and an appreciating Mexican peso.

As we can see from Figure 1, the economic slump began in the second quarter of 2006. Many still agree that the US economic downturn began in 2007. The Mexican economy still had positive growth during 2007 and its main economic indicators started to deteriorate by the last quarter of 2008. But the indisputable correlation between the US and the Mexican economy can be seen in Figure 2. In the first quarter of 2009, GDP collapsed by 8.2% annually; the industrial sector fell by 9.9%: manufacturing: 13.8%; and construction: 7.7%. PEMEX, the Mexican state oil company, reported losses of USD 2bn; state revenues declined by a total of 11%, as a result of a decrease in Value Added Tax (IVA) of 21% and income tax of 11%; the government estimated it would receive around 300bn pesos less in taxes for 2009. Unemployment jumped from 3.9% in the first quarter of 2008 to 5.1% in March 2009, a percentage equivalent to 2.3 million jobless; 509,000 people lost their job during this period and further job losses in 2009 were estimated to be around 450,000.

However, the first real alarm signal came through the depreciation of the Mexican peso. As we can see in Figure 3, the Mexican currency lost almost 50% of its value against the US dollar between August 2008 and February 2009. That was a consequence of simultaneous supply and demand shocks. On the demand side, speculators and big corporations bought a considerable amount of US dollars; the former in the hope of gaining a return in the short term, the latter to pay off debts denominated in dollars. Among the most well-known corporations doing this were Cemex, Vitro,

Grupo Durango and Comercial Mexicana. It is believed that the demand for US dollars could have sent the exchange rate beyond 15 pesos per dollar. Banxico reported a capital flight in the Errors and Omissions Balance of Payments (*cuenta de errores y omisiones de la balanza de pagos*) of USD 2.8bn in the last quarter of 2008 and USD 1.5bn in the first quarter of 2009. Had the Mexican Central Bank (Banxico) not intervened, the depreciation could have been worse. Banxico resorted to its reserves to support the Mexican peso by selling 17.9 billion US dollars on the market between October 8<sup>th</sup> 2008 and February 10<sup>th</sup> 2009. Interventions by Banxico in the market were not infrequent. Between May 2<sup>nd</sup> 2003 and July 31<sup>st</sup> 2008, Banxico sold 30.8bn US dollars to avoid hoarding reserves. On the supply side, exports in general declined in the first quarter of 2009 by 26% as a result of the US economic downturn. Sales of goods to the US dropped by 21.0%; specifically exports of machinery, equipment and metal-related products, which account for almost 73% of all manufacturing exports, fell by 29% in the same period.

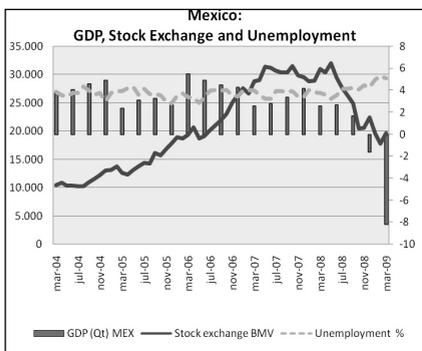


Figure 1. Source: INEGI

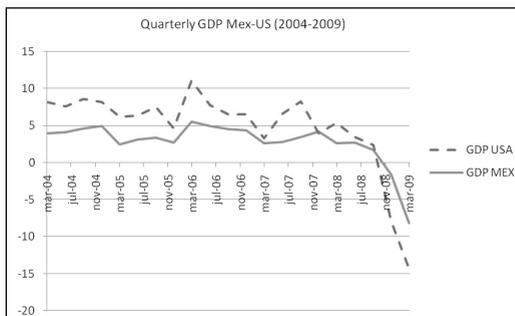


Figure 2. Source: INEGI

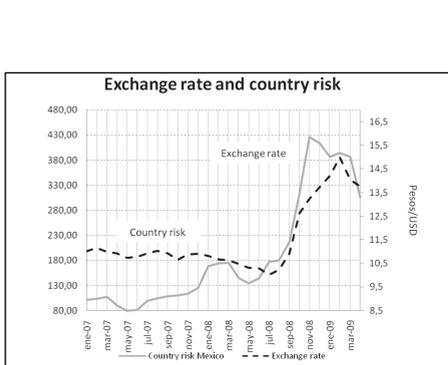


Figure 3. Source: INEGI

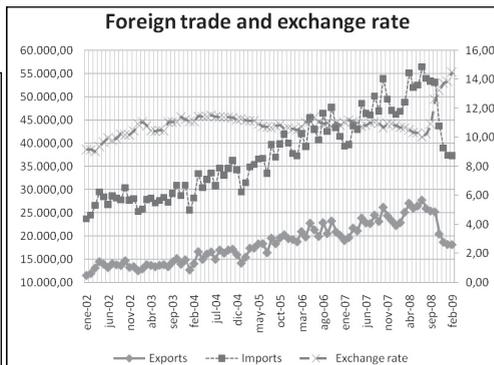


Figure 4. Source: INEGI

Based on experiences in former economic crises (1976, 1982, 1987 and 1995), a depreciation of the peso usually pushes up inflation, undermines investment and sets off a general unrest with high political costs. Thus, the government of President Felipe Calderón decided in April 2009 to reinforce the Mexican currency by resorting to three additional sources of foreign currency, apart from the reserves held at Banxico. It applied for an FCL (Flexible Credit Line) from the International Monetary Fund (IMF) for an amount of USD 47bn. It signed a swap contract with the US Federal Reserve for USD 30bn and borrowed USD 10bn from the World Bank. Having reported a sum of USD 79bn as foreign reserves at Banxico, the total disposal of US dollars amounted to USD 166bn by the end of April 2009. This served as a temporary **cushion** and managed to assuage speculation against the Mexican peso. Thus the exchange rate appreciated from its peak of 15 pesos per dollar in late February 2009 to an average of 13.5 pesos per dollar two months later. Since investors moved their capital away from the US, the depreciation of the US dollar against the Euro and Japanese yen during the same time also influenced the pesos' recovery. As Figure 3 states, country risk played an important role as well in determining exchange rate movement. The higher the country risk, the lower the confidence in assets denominated in pesos. Fitch and Moody's Investor ratings agencies and investors agreed on March 2009 that the US crisis could act negatively on Mexican public finances, leading to a higher fiscal deficit and a liquidity shortage. Fitch gave Mexico in November 2008 a BBB+ with a negative perspective and Moody's a BAA1 which means "stable". But on the other hand, credit default swaps (CDS's) for Mexico, which reflect the cost of insuring Mexican sovereign debt, scored 367.2 points. This number placed Mexico by the first half of 2009 in a riskier position in comparison with other Latin American countries like Chile (219), Brazil (315) or Peru (357). Therefore a worsening rate of Mexican sovereign debt was expected.

## II. MEXICAN BALANCE OF PAYMENTS

Figure 5 shows a sinking current account deficit from 2000 to 2006 which matches with an increase of crude oil exports, remittances and to a lesser extent, tourism. The current account deficit had been financed by a surplus in the capital account, except in 2006 when it was negative. Furthermore capital account surpluses have been slightly larger than current account deficits; this positive difference is shown in the bars of Figure 5. As a consequence, foreign reserves at Banxico had been growing vigorously from 2001 for two reasons: a diminishing current account deficit and relative constant capital account surplus. An important component of the capital account has been Foreign Direct Investment (FDI). Long term FDI has behaved irregularly during the decade averaging USD 21.2bn a year but representing a modest annual growth of 3.3%. Between 2004 and 2007, short term FDI increased from USD 2.6bn to USD 8.5bn. This sudden hike in short term FDI can be explained by the boom at the MSE, since

it rose from 10,517 points in January 2004 to 29,536.6 in December 2007. However, short term capital had not disturbed the external imbalance as it had in 1995. This can be seen in Figure 6. Internal investment was not financed by external savings (external debt or FDI). Investment as a share of GDP increased to levels not seen since the 1980's, surpassing 26% of GDP between 2006 and 2009. Nevertheless, external savings (debt) started to drop sharply from 2000 onwards and they rebounded softly by 2007 in a "U" shape. But this time external debt was not the driving force of the current account imbalance that led to depreciation of the peso as it had in 1994<sup>1</sup>. We can therefore assume that the present crisis did not originate from the capital account but from the current account.

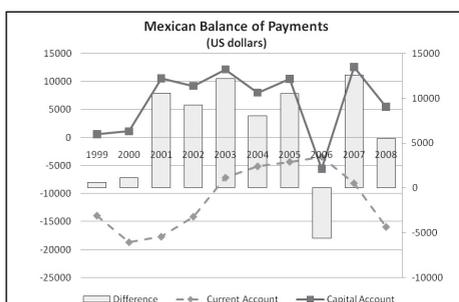


Figure 5. INEGI

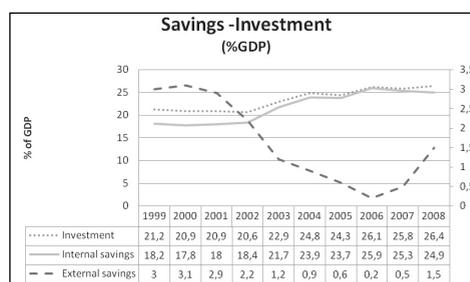


Figure 6. INEGI

## II.1. CURRENT ACCOUNT

Table 1 indicates that exports of merchandise grew from USD 136.3bn in 1999 to USD 291.3bn in 2008, which equals an average annual growth of 8.8%. In Mexico's balance of payments, income derived from tourism is recorded in the balance of non-factor services. Tourism accounts for more than 70% of non-factor services. Tourism revenues grew at an annual rate of 5% and lost share of total income of the current account from 7.1% in 1999 to 5.3% in 2008. In spite of that, we can still affirm that tourism represents an important source of foreign exchange for Mexico. In 2008 alone, this item contributed USD 13.3bn to the total income of the current account.

<sup>1</sup> After the equation  $S-I = X-M$ , where S stands for savings; I for Investment; X for exports and M for imports, we can establish that an internal imbalance (S-I) can be reflected in an external imbalance. Between 1992 and 1994, internal savings averaged 16% of GDP, whereas investment 22%. External savings accounted for 6% of GDP which matches with the current account deficit at that time. That means that the external imbalance was caused by external debt (external savings) and an overvalued exchange rate (Villarreal, R., 2000: 637).

Transfers, where remittances from Mexicans working abroad are recorded, had an outstanding performance. They increased at an annual rate of 16%. This allowed them to raise their share of total income from 3.6% in 1999 to 7.2%. This speaks to an increasing importance of remittances in the generation of foreign exchange and explains why the current account deficit in 2008 as a share of GDP would turn from 1.5% to 3.8% without taking them into account. The trade balance shows also a particular structural shortcoming. The exports of crude oil grew at an annual rate of 19.3%. This meant an increase of hydrocarbon exports - whose main item is crude oil - in the share of total exports from 9.7% in 1999 to 17.4% in 2008. If we take crude oil exports away from the current account in 2008, the deficit would jump from 1.5% to 5.4% as a share of GDP. If we subtract remittances and crude oil from total current account income, the deficit would be 7.8% as a share of GDP. This is important, because at this level the 1995 crisis took place as short term capital left the country. Even though manufacturing exports grew at 7.4% annually, their share in the total trade balance stagnated. They went from 95.5% in 1999 to 95.9% in 2008. This analysis indicates that most of Mexican current account income has been relying on crude oil, remittances, manufacturing and, to a lesser extent, tourism.

On the expenditures side of the trade balance, Table 1 shows that imports grew at an annual rate of 9.0%. Of all imports, consumer goods show the most movement. They increased at an annual rate of 16.4% and their share of all foreign expenditures went from 11.7% to 15.5%. Intermediate goods and capital goods increased at a yearly rate of 8.2% and 7.4% respectively but they lost share of total foreign expenditures from 74.9% and 13.4% in 1999 to 71.8% and 12.7% in 2008 respectively. Since intermediate goods are strongly tied to manufacturing we can affirm that trade between Mexico and the US has been mainly intra-industrial. In this way, the exchange rate has not been a competitiveness factor for manufacturing exports, since the collapse of foreign trade at the beginning of 2009 is matched by a depreciation of the Mexican peso of almost 50% (See Figure 4)<sup>2</sup>. Foreign trade is thus dependent on the economic performance of the United States. If we assume an average appreciation of the Mexican currency from 1999 to 2008 of over 20% as Banxico states (Banxico, 2009: 126) and as a consequence of the aforementioned dynamism (oil exports, remittances, manufacturing, short term FDI and tourism), we can state that the appreciated peso financed mainly imports of consumer goods, which at the same time reflects a disruption of domestic industry and its import-substituting capacity. On the other hand, intermediate goods and capital goods didn't keep pace with the growing trade and thus contributed modestly to national productivity and competitiveness.

---

<sup>2</sup> Depreciation has made agricultural goods more competitive.

Table 1

<b>Current Account bn USD</b>											
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Yearly Δ
<b>Current Account (CC)</b>	<b>-13,9</b>	<b>-18,6</b>	<b>-17,7</b>	<b>-14,1</b>	<b>-7,19</b>	<b>-5,16</b>	<b>-4,3</b>	<b>-3,4</b>	<b>-8,1</b>	<b>-15,95</b>	
<b>Income</b>	<b>158,9</b>	<b>192,8</b>	<b>186,1</b>	<b>188,1</b>	<b>196,7</b>	<b>226,5</b>	<b>257,9</b>	<b>298,7</b>	<b>323,8</b>	<b>342,7</b>	<b>8,9</b>
Merchandise Exports	136,3	166,1	158,7	161,0	164,7	187,9	214,2	249,9	271,8	291,3	8,8
Non Factor Services	11,6	13,7	12,6	12,6	12,5	13,9	16,0	16,2	17,4	18,1	5,0
Factor Services	4,5	6,0	5,3	4,0	3,9	5,7	5,4	6,5	7,9	7,5	5,9
Unilateral Transfers	6,3	7,0	9,3	10,3	15,5	18,8	22,1	26,0	26,5	25,5	16,8
Expenditure	172,8	211,5	203,8	202,2	203,9	231,6	262,2	303,1	332,0	358,6	8,4
Imports	141,9	174,4	168,3	168,6	170,5	196,8	221,8	256,0	281,9	308,6	9,0
Factor Services	134,9	160,3	162,1	167,3	171,3	185,6	207,7	219,5	237,9	252,0	7,2
Non factor Services	17,3	21,0	19,2	16,8	16,2	16,2	19,6	25,0	26,2	24,7	4,0
Transfer	0,26	0,29	0,21	0,35	0,37	0,80	0,56	0,87	1,07	1,28	18,9
CC deficit as a share of GDP	-2,9	-3,2	-2,8	-2,2	-1,0	-0,7	-0,5	-0,5	-0,8	-1,5	
<b>CC Deficit without tourism</b>	<b>-5,3</b>	<b>-5,6</b>	<b>-4,9</b>	<b>-4,1</b>	<b>-2,8</b>	<b>-2,5</b>	<b>-2,4</b>	<b>-2,2</b>	<b>-2,5</b>	<b>-3,1</b>	
<b>CC Deficit without remittances</b>	<b>-4,2</b>	<b>-4,4</b>	<b>-4,4</b>	<b>-3,8</b>	<b>-3,2</b>	<b>-3,2</b>	<b>-3,1</b>	<b>-3,2</b>	<b>-3,4</b>	<b>-3,8</b>	
<b>Deficit without oil exports</b>	<b>-4,7</b>	<b>-5,7</b>	<b>-4,8</b>	<b>-4,2</b>	<b>-3,4</b>	<b>-3,5</b>	<b>-3,9</b>	<b>-4,1</b>	<b>-4,5</b>	<b>-5,4</b>	
<b>Deficit without oil exports and remittances</b>	<b>-6,1</b>	<b>-6,9</b>	<b>-6,3</b>	<b>-5,8</b>	<b>-5,6</b>	<b>-6,0</b>	<b>-6,5</b>	<b>-6,8</b>	<b>-7,1</b>	<b>-7,8</b>	
<b>Trade Balance bn USD</b>											
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Yearly Δ
<b>EXPORTS</b>	<b>136,3</b>	<b>166,1</b>	<b>158,7</b>	<b>161,0</b>	<b>164,7</b>	<b>187,9</b>	<b>214,2</b>	<b>249,9</b>	<b>271,8</b>	<b>291,3</b>	<b>8,8</b>
hydrocarbons	9,9	16,13	13,19	14,82	18,6	23,6	31,8	39,02	43,01	50,65	19,8
Crude oil	8,8	14,5	11,9	13,3	16,6	21,2	28,3	34,7	37,9	43,3	19,3
Others	1,1	1,5	1,2	1,4	1,9	2,4	3,5	4,3	5,0	7,3	22,9
Non oil exports	126,3	149,9	145,5	146,2	146,1	164,3	182,3	210,2	228,8	240,6	7,4
Agriculture	4,4	4,7	4,4	4,2	5,0	5,6	6,0	6,8	7,4	7,9	6,6
Extractive industry	0,4	0,4	0,38	0,36	0,49	0,90	1,16	1,31	1,73	1,93	18,4
Manufacture	121,5	144,7	140,7	141,6	140,6	157,7	175,1	202,7	219,6	230,8	7,4

<b>IMPORTS</b>	<b>141,9</b>	<b>174,4</b>	<b>168,3</b>	<b>168,6</b>	<b>170,5</b>	<b>196,8</b>	<b>221,8</b>	<b>256,0</b>	<b>281,9</b>	<b>308,6</b>	<b>9,0</b>
<b>Consumer goods</b>	12,1	16,6	19,7	21,1	21,5	25,4	31,5	36,9	43,0	47,9	16,4
<b>Intermediate goods</b>	109,2	133,6	126,1	126,5	128,8	148,8	164,0	188,6	205,2	221,5	8,2
<b>Capital goods</b>	20,5	24,1	22,4	20,99	20,20	22,5	26,21	30,52	33,59	39,0	7,4
<b>Trade deficit % as a share of GDP</b>	-1,2	-1,4	-1,5	-1,2	-0,8	-1,2	-0,9	-0,6	-1,0	-1,6	
<b>Trade deficit without oil</b>	-3,0	-3,9	-3,5	-3,2	-3,2	-4,0	-4,2	-4,3	-4,7	-5,6	
<b>Trade openness</b>	57,9	58,6	52,6	50,8	47,9	50,7	51,4	53,1	54,0	55,1	
<b>GDP bn usd</b>	480,5	580,7	621,8	648,6	700,3	759,4	849,0	952,1	1025	1088	
<b>Capital Account (bn USD)</b>											
	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	
Capital Account (KA)	<b>14,6</b>	<b>19,8</b>	<b>28,3</b>	<b>23,3</b>	<b>19,3</b>	<b>13,1</b>	<b>14,8</b>	<b>-2,1</b>	<b>20,7</b>	<b>21,4</b>	
Public Debt	18,8	-5,7	1,2	-4,2	-1,3	-1,3	0,54	-9,8	1,5	7,9	
FDI	16,6	18,4	30,86	23,7	17,21	26,3	28,4	25,6	35,7	21,8	
Long term	13,83	18,01	29,7	23,6	16,4	23,6	21,7	19,1	27,1	18,5	
Short term	2,8	4,0	1,0	0,46	0,7	2,6	6,6	6,4	8,5	3,2	
Assets	-4,0	7,0	-3,8	3,8	3,4	-11,7	-14,1	-17,9	-30,0	-8,3	
Statistical discrepancy	-0,2	1,7	-3,2	-2,1	-2,7	-3,9	-3,3	5,5	-2,3	1,9	
<b>Δ Foreign reserves</b>	<b>0,5</b>	<b>2,8</b>	<b>7,3</b>	<b>7,1</b>	<b>9,4</b>	<b>4,0</b>	<b>7,1</b>	<b>-0,9</b>	<b>10,3</b>	<b>7,4</b>	
FDI as a share of GDP	2,9	3,1	4,8	3,7	2,3	3,1	2,6	2,0	2,7	1,7	
Source: Banxico (2008). Informe Anual 2008.											

## II.2. TRADE WITH THE REST OF THE WORLD

Table 2 shows how Mexican foreign trade has been changing throughout the decade. For instance, exports to the North American region have diminished as a share of the total from 90% in 1999 to 82% in 2008. Mexico's share of US total imports shrank from 11.6% in 2002 to 10.3% in 2008. Already at the beginning of this decade, Mexico was displaced as the second largest trade partner of the United States by China. At the same time, exports to the rest of the world increased, especially those products sent to Europe and South America. They rose from 4.4% and 1.6% in 1999 to 6.2% and 4.8% in 2008 respectively. Therefore, Mexican exports have slightly diversified to other regions' markets during the 00's.

Imports from North America have fallen sharply, going from 76% in 1999 to 52% in 2008, but merchandise coming from Asia and Europe increased strongly from 10.7% and 10.1% to 27.9% and 13.7% respectively. These changes in the Mexican

trade structure can be seen in the trade balance. Trade with the US has been led by kin industries and subsidiaries. Their main activity has been assembly of end products or outsourcing to reduce costs. The trade surplus with the North American Region increased from USD 14.4bn in 1999 to USD 79.84bn in 2008, whereas the trade deficit with Asia and Europe skyrocketed from USD 13.0bn and USD 8.32bn to USD 77.58bn and USD 24.25bn respectively.. As we saw in the analysis of the trade balance, crude oil ranks as the second largest export product after manufacturing, supplying mainly the US market. Thus the added value and factor productivity or even the exchange rate have not played a relevant role in determining Mexico's foreign trade balance.

Table 2. Regional Foreign Trade

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008 P
<b>Total Exports (bn USD)</b>	<b>136,3</b>	<b>166,12</b>	<b>158,77</b>	<b>161,04</b>	<b>164,76</b>	<b>187,99</b>	<b>214,23</b>	<b>249,92</b>	<b>271,87</b>	<b>291,34</b>
<b>Regional Exports as (%)</b>										
North America	89,9	90,7	90,5	90,0	89,5	89,3	87,7	86,9	84,5	82,7
Central America	1,2	1,0	1,1	1,1	1,2	1,1	1,3	1,4	1,6	1,7
South America	1,6	1,6	1,8	1,8	1,7	2,2	2,7	3,2	4,0	4,8
Caribic	1,3	1,4	1,4	1,2	1,4	1,3	1,3	1,1	1,1	1,2
Europe	4,4	3,9	3,7	3,6	3,9	3,7	4,4	4,5	5,5	6,2
Asian	1,6	1,3	1,4	2,1	2,2	2,1	2,2	2,6	2,8	3,0
Africa	0,0	0,0	0,1	0,1	0,1	0,1	0,1	0,1	0,2	0,2
Australia	0,1	0,1	0,1	0,1	0,1	0,2	0,2	0,2	0,2	0,3
Others	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008 P
<b>Total Imports (bn USD)</b>	<b>141,97</b>	<b>174,45</b>	<b>168,39</b>	<b>168,67</b>	<b>170,54</b>	<b>196,80</b>	<b>221,81</b>	<b>256,05</b>	<b>281,94</b>	<b>308,60</b>
<b>Regional Imports as (%)</b>										
North America	76,2	75,4	70,1	65,8	64,2	59,0	56,2	53,8	52,3	52,1
Central America	0,2	0,3	0,2	0,4	0,5	0,7	0,7	0,6	0,6	0,6
South America	2,0	2,3	2,8	3,2	3,8	4,6	4,8	4,8	4,4	3,9
Caribic	0,2	0,3	0,3	0,4	0,3	0,5	0,5	0,6	0,6	0,6
Europe	10,1	9,6	10,8	11,0	11,8	12,1	12,8	12,5	12,9	13,7
Asian	10,7	11,6	15,1	18,6	18,7	22,6	24,2	26,9	28,2	27,9
Africa	0,3	0,3	0,4	0,2	0,2	0,3	0,3	0,3	0,5	0,7
Australia	0,3	0,3	0,4	0,4	0,4	0,4	0,5	0,5	0,5	0,4
Others	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
<b>Regional Trade Balance</b>										
<b>Total (bn usd)</b>	<b>-5,61</b>	<b>-8,33</b>	<b>-9,61</b>	<b>-7,63</b>	<b>-5,77</b>	<b>-8,81</b>	<b>-7,58</b>	<b>-6,13</b>	<b>-10,07</b>	<b>-17,26</b>
North America	14,35	19,18	25,64	33,85	37,85	51,65	63,08	79,28	82,19	79,84
Central America	1,25	1,24	1,29	1,17	0,99	0,78	1,35	1,94	2,64	3,07
South America	-0,65	-1,31	-1,86	-2,54	-3,74	-4,96	-4,74	-4,42	-1,55	1,77

Caribien	1,40	1,81	1,75	1,31	1,65	1,61	1,56	1,25	1,26	1,44
Europe	-8,32	-10,31	-12,32	-12,69	-13,64	-16,78	-18,95	-20,58	-21,41	-24,25
Asia	-13,0	-18,1	-23,1	-28,04	-28,17	-40,45	-48,87	-62,50	-71,83	-77,58
Africa	-0,34	-0,46	-0,50	-0,28	-0,21	-0,33	-0,22	-0,37	-0,84	-1,24
Australia	-0,29	-0,38	-0,50	-0,41	-0,49	-0,39	-0,83	-0,77	-0,72	-0,48
Source: Banxico (2008). Informe Anual 2008.										

It can also be said that part of the gains obtained through the trade surplus with the US have been used mainly to finance imports from Asia and Europe. Since those regions also have a strong trade surplus with the US, we can say that Mexico contributes to the loss of competitiveness of the NAFTA region vs Asia and Europe.

The trade surplus with Central America rose from USD 1.2bn to USD 3.0bn in the same period. Trade with South America improved for Mexico too since it went from a deficit of USD 0.6bn to a surplus of USD 1.7bn. But on the other hand, competitiveness with the rest of the world has fallen sharply. For instance the trade deficit with Europe went from USD 8.3bn in 1999 to USD 24.2bn in 2008. In spite of the fact that its share has become smaller, dependence of Mexican exports on the US market is still very high. But the trade deficit with Asia, whose main partner has been China, grew sixfold from USD 13.4bn in 1999 to USD 77.5bn in 2008. China has not only displaced Mexico as the second largest partner of the US, but products imported from China have dislodged several Mexican manufacturing industries too, among them textiles and apparel, toys, tools, shoes and office equipment.

### III. FOREIGN EXCHANGE CONSTRAINT

We have seen that there are basically five sources of foreign exchange on which the balance of payments equilibrium has been relying in the last 10 years. They are manufacturing, FDI, tourism, remittances and oil. In order to estimate the capacity of overcoming the present exchange constraint that can lead to further devaluations and thus a worsening of the crisis, we need to analyze each one of them.

#### III.1. MANUFACTURING

The drop in demand for Mexican manufacturing products has severely affected the economy. Above all, the car industry crisis (the bankruptcy of GM and Chrysler and the difficulties of Ford) has played a central role in the downturn. The slump in manufacturing is considered to be on a world wide scale. According to *The Economist* (February 21st 2009: 9), industrial production in the United States and Great Britain fell from November 2008 to January 2009 by 3.6% and 4.4% respectively, or at 13.8% and 16.4% in annual terms. Countries whose manufacturing sector is highly export-oriented have suffered the largest setbacks. For example, in the last

quarter of 2008, Germany's industrial production fell by 6.8%; Taiwan's by 21.7% and Japan's by 12%. Other severely affected countries and regions have been China, Eastern Europe, Turkey, Malaysia, South Korea, etc. There are three aspects that are pointed out as the main bottlenecks: a) drying up of trade finance; b) running down inventories and c) the fall in demand.

In Mexico, more than  $\frac{3}{4}$  of manufacturing exports are related to metal, equipment and machinery. Assembly factories (*maquiladoras*) have been reporting losses and have also laid off thousands of workers. In January 2009, 128,000 jobs were lost nationwide. The Mexican states with the highest job losses have also been those where assembly factories and car-related businesses operate; among them northern states like Chihuahua, Baja California, Tamaulipas, Coahuila, Sonora and Mexico State. Mexico City, Chihuahua, Nuevo Leon, Baja California and Mexico State alone accounted for 52% of the job losses.

The most affected manufacturing products have been automobiles and electronics. The share of car industry-related products in manufacturing exports normally amounts to more than 35%. This sector generates nearly USD 40bn annually, which is comparable only to oil export revenues. The drop of 50% in production at the beginning of 2008 led to the lay off of thousands of workers in cities whose main economic activity is related to either the car industry or assembly factories. Many of them are suppliers or outsourcers in the production chain. More than 20 car production factories are established in Mexico and more than 200 produce auto parts and components. 8 out of 10 cars produced in Mexico are sold to the US. Car exports to the United States dropped in 2009: by 50% in January; 43% in February and 28% in March. In April sales fell by 38.2%, production by 46.6% and exports by 41%. Several factories implemented technical production stoppages to avoid downsizing. That consists of working and paying fewer hours a week, stopping production on certain days or longer vacation periods, all of which has resulted in less income for workers.

Companies like GM, Nissan, VW, Ford, Chrysler, Toyota, Honda, Mazda, SEAT and Mitsubishi operate in Mexico offering more than 40 types of cars. But those which have suffered the most are GM, Chrysler and Ford; the first two declared bankruptcy by the end of May 2009. These enterprises have subsidiaries in different states of Mexico: Ford has plants in Sonora and Chihuahua; GM in Guanajuato and Mexico State; Chrysler in Mexico State and Mexico City. The automobile sector represents the main economic driving force in the north of Mexico. There is for example the Monterrey-Salttillo industrial corridor, which comprises municipalities like Coahuila, Silao and Ramos Arizpe; they produce trucks, auto parts, cars and components. Due to GM's and Chrysler's bankruptcy, the assembly plant in Coahuila reduced its staff from 3,000 to 1,200 whereas Silao wiped 650 jobs out. There is also a Toyota plant in Tijuana; Nissan and Renault operate in Aguascalientes, where the automobile industry's share in this state's GDP accounts for 14% and 60% of its total exports. Ciudad Juárez, a city located in the state of Chihuahua, has evolved as a typical assembly factory area; 37% of these kinds of companies are suppliers of auto parts and have suffered

directly from drops in sales. The car industry matches the geographical distribution of Mexican foreign trade, since three states account for almost 50% of total exports: the Federal District (20%), Chihuahua (17%) and Baja California Norte (13%). These regions have been affected much more intensively than the rest of the country.

### III.2. FDI AND TOURISM

The world crisis has affected FDI as a whole. It is estimated that capital flows to Latin America dropped from USD 184bn in 2007 to USD 89bn in 2008 and it is expected that in 2009 they will be only USD 43bn, with 30% for Mexico, equivalent to USD 13bn. Long term FDI in Mexico went from USD 4.1bn in the first quarter of 2008, to USD 2.6bn in 2009, a drop equivalent to 36%. The main foreign investor in Mexico has been the United States. In 2008 they were responsible of 45.7% of all FDI, followed by Canada with 11.8%, Spain 11%, the British Virgin Islands 7.8%, and the UK 7.5%. In 2008 almost USD 18bn entered in the form of FDI (see Table 1); 33% for the manufacturing sector, 22.9% mining, 21.4% financial services, 9.3% wholesale trade and 13.3% others. Manufacturing and financial services have been the most favored sectors by FDI in Mexico during the 00's.

However FDI in Mexico has had a weak performance. As a share of GDP it has been constantly decreasing; it fell from 4.8% in 2001 to 1.7% in 2008. This means that international capital has not considered Mexico an attractive country to invest in. Authorities believed that FDI's sluggishness can be explained mainly by two factors: disappointment in the progress of structural reforms<sup>3</sup> and violence derived from organized crime. Foreign investors are very interested in areas that are still restricted to them: the energy sector, communications and financial services. The purpose of the structural reforms is to open these areas to the private sector. The first two especially constitute a strong barrier to the private sector, since the Mexican Oil Company (PEMEX), state electricity companies (CFE/CLF) and TELMEX operate as monopolies in the hydrocarbons, electricity and communications sectors. The most recent energy reform (2008) failed to liberalize the hydrocarbons sector, resulting in marginal improvements for PEMEX and the construction of a new refinery. Structural reforms should create the conditions to foster competitiveness and productivity in the domestic market. However the influence of corporations and the lack of political consensus (monopolies, trade unions and political parties) have impeded their passage.

Secondly, crime has been another factor against FDI and tourism. According to Forbes magazine, Mexican and Colombian mobs launder money in a range between

---

<sup>3</sup> During the presidency of Vicente Fox Quezada (2000-2006), the government established a strategy to prop up investment and economic growth that consisted of implementing ten structural reforms: 1) Education Reform, 2) Energy Reform, 3) Federalism, 4) Financial Reform, 5) Fiscal Reform 6) Public Expenditure Reform, 7) Judicial Reform, 8) Labor Reform, 9) Social Security Reform and 10) Communication Sector Reform. Presidencia de la República (2002). Programa Nacional de Financiamiento al Desarrollo 2002-2006. SHCP: México.

USD 18bn and USD 39bn annually. According to the *Centro de Estudios Sociales y de Opinión Pública de la Cámara de Diputados* (Center for Social Studies and Public Opinion of the Chamber of Deputies), money laundering in Mexico has already surpassed USD 40bn dollar annually. This has been therefore another important source of foreign exchange for Mexico. Forbes magazine published that the 701<sup>st</sup> richest man in the world, with a assets of more than USD 1bn, was Joaquín Archivaldo Guzmán Loera, a well known Mexican drug boss who escaped prison in 2001. There are five drug cartels operating in Mexico: Arellano Felix (Tijuana); Beltrán Leyva (Michoacán and Guerrero); Los Zetas (Gulf of Mexico); Joaquín ‘el Chapo’ Guzmán (Sinaloa) and Carrillo Fuentes (Ciudad Juárez, Chihuahua). The federal government has launched a campaign to fight drug trafficking which includes the participation of both the police and the armed forces. The capturing of drug bosses and confiscation of merchandise has caused an unusual number of deaths. It is believed the almost 8,000 people die every year in drug-related operations, either among the cartels themselves or during clashes with the police. 60 percent of the killings have occurred in three states: Chihuahua (Ciudad Juarez), Sinaloa (Culiacán) and Baja California Norte (Tijuana). Mexico has spent USD 9bn and deployed 45,000 army troops to fight drug trafficking, as well as to prevent the smuggling of weapons from the United States of America. An agreement called the “Merida Initiative” has been signed with the US. It foresees the support in the form of American equipment, training and logistics of around USD 1.4bn for Central America and Mexico over three years. Mexico is supposed to get USD 400 million every year.

An unforeseeable additional factor that severely undermined tourism was the A H1N1 virus, which struck Mexico from mid-April to the beginning of May 2009. The A H1N1 virus was officially diagnosed by American and Canadian labs and confirmed by the World Health Organization. Thus, the Mexican government decided to suspend for almost a week and a half all kinds of activities that could have triggered a national contagion (entertainment, schools, restaurants and other services). This measure affected small businesses and tourism, mainly in the areas where the virus emerged (Mexico City and Mexico State, and other tourist sites like Cancun, Isla Mujeres, Acapulco, etc.). The economic losses were calculated to be 0.3% of GDP. The tourist sector as a whole reported revenue losses of 80%; 95% of planned visits to Mexico were canceled; the entertainment sector also lost 80% of its revenues. On May 12<sup>th</sup> the secretary of tourism, Rodolfo Elizondo, said that the A H1N1 virus could have cost the tourist sector USD 3bn and the loss of 100,000 jobs. It is estimated that 2.2 million people work in activities related to tourism. By May 13<sup>th</sup>, 60 people had died while 2,446 were infected. There were 6,043 cases worldwide with a minimum of deaths. Thus the flu virus didn’t prove to be as lethal as originally expected, but the damage to the Mexican economy had already been done. Apart from restaurants, hotels and tourist facilities, the pork business was also struck, as in the beginning the virus was dubbed “swine flu”. During the two weeks of emergency, the consumption of pork declined by 90%, which means that 70,000 tonnes of pork could not be sold and

as a consequence the whole production-consumption chain was undermined. By May 13<sup>th</sup>, losses were calculated at MXN 4bn pesos. The main places affected by the A H1N1 virus were the Federal District (D.F.) and Mexico State and they are among the six entities that account for 53.3% of national GDP (D.F., Mexico State, Nuevo León, Jalisco, Chihuahua and Veracruz). They contribute 20.2% (D.F.) and 11.05% (Mexico State) respectively to the total GDP of Mexico. Other estimates point out that the total losses derived from the AH1N1 virus accounted for 65bn pesos, or 0.7% of GDP; 78.4% of it in restaurants, retailing and services; 6.9% in the pork business and 13.3% in tourism.

### III. 3. REMITTANCES

Mexican emigrants working in the US have been sending money to their families at home in the form of remittances. Remittances are recorded as part of the current account in the item of transfers (see Table 1). They grew from USD 6.3bn in 1999 to USD 25.5bn in 2008, which represents a remarkable increase of 400% or 16.8% yearly. Remittances in 2008 showed a decline of 3.6% in comparison with 2007, as a consequence of the US economic crisis. This fall is modest in comparison with what has happened with oil, manufacturing or tourism revenues. Remittances slightly surpassed oil revenues in the first quarter of 2009; the first totaled USD 5.475bn, whereas the second accounted for USD 5.463bn. That means that the US crisis, particularly the slump in the US construction sector, where many migrants used to work, has modestly decelerated the flow of remittances to Mexico. Restrictions on crossing the border illegally have increased, making it harder for migrants to enter into the United States or come back to Mexico for holidays. According to a study conducted by *The Economist* (January 5<sup>th</sup> 2008: 10-11), the price people pay to be smuggled into the US has increased from USD 250-500 in 1998 to USD 3,000 in 2008. Security measures implemented by the US along the US-Mexican border have been modernized not only by building a wall but also by installing a sophisticated monitoring system. The number of crossings has thus fallen sharply but people who are already in the US are staying there in spite of the economic slump. That means remittances may not further diminish severely in the coming years.

Traditionally six federal Mexican states account for nearly 50% of all remittances; in 2008 they received 47.8% of them; Michoacán (9.8%), Guanajuato (9.2%), Mexico State (8.3%), Jalisco (7.7%), Veracruz (6.4%) and Puebla (6.2%). The average monthly money transfers are estimated at USD 346 and the recipient families at 1.3 million. The top ten federal Mexican states in remittances as a share of their GDP are Michoacán (10%), Oaxaca (8.8%), Zacatecas (8.4%), Guerrero (8.1%), Hidalgo (6.7%), Nayarit (6.3%), Guanajuato (6.2%), Tlaxcala (5.2%), Chiapas (4.5%) and Morelos (4.3%). Half of the remittances are received by 884 out of 2,450 municipalities registered in Mexico. More than 90% of remittances are spent on consumption. According to Lozano (2003), 40% of the families depend 100% on remittances, whereas for the rest they represent only 36% of their regular income. Lozano also points out that 55% of

the families live in municipalities of no more than 20,000 people and 43% of them are headed by women.

It could also be possible that remittances might include income generated abroad in activities other than typical migrant jobs. They could be the result of payments for services, merchandise or even organized crime. This mismatch is apparent from a simple calculation. If money transfers amount to an average of USD 350 and they are sent to 1.3 million families, their yearly income would be around USD 5.4bn, or USD 16.3bn if we assume that every family has three members working as migrants in the United States. But we hardly come to the USD 25bn that Banxico reports as remittances (see Table 1). Thus a more detailed investigation needs to be conducted to clear up this matter.

#### III.4 OIL EXPORTS AND FISCAL DEFICIT

As we can see from Figure 7, Mexican oil exports as well as oil production have declined from July 2008 onwards. This has meant both a stagnation in foreign reserves accumulation (see Figure 8) and a significant collapse for government income (Table 5). Since public income depends on oil for 40% of its revenues, government income has been affected as well. From January to April 2009 the revenues from oil exports dropped by 60.5%, due to a lower oil price; they fell from USD 15.5bn during the same time in 2008 to USD 6.1bn in 2009. As Figure 7 shows, Mexican oil prices fell by 70% from USD 120 a barrel in July 2008 to USD 35 a barrel in December 2008. Thus Mexico faces not only a backlash caused by the international decrease of oil prices, but a structural problem too. Table 3 shows how production diminished throughout 2007. Production went from 3.1 million barrels a day (b/d) in January to 2.9 million b/d in November. But it is evident that the powerful Northeast region whose main well has been Cantarell shows a rapid downtrend. Cantarell reached its peak in 2004 producing 2.14 million b/d. In 2008 it produced only 1.03 million b/d or 40% less than in 2007. From 2004 to 2008 Cantarell decreased its production by 1.1 million b/d and its share of total production went from 62.9% to 36.6%. The rapid depletion of Cantarell has undermined government income, since exports have also diminished as well (see Figure 7).

PEMEX (the Mexican State Oil Company) believes that the downturn of Cantarell could eventually be substituted by the well complex called Maloob-Zaap or Chicon-tepec (not shown in Table 3). It is also known that in the Gulf of Mexico there could be potential oil reserves of about 30bn barrels. Especially an area called *Hoyo de la Dona* or *the Great White*, located on the borderline between Mexico and the United States, has been indicated as the richest. The production of oil in this zone can be very expensive, because of the depth of the wells, the required technology and the diplomatic procedure that its exploitation entails. Mexican leaders fret that the US will exploit that oilfield absorbing the Mexican part if PEMEX takes too long in starting to work there. Politicians are thus requesting Congress to pass a bill allow-

ing PEMEX to work with private companies, bringing the expertise and technology needed to carry out the project.

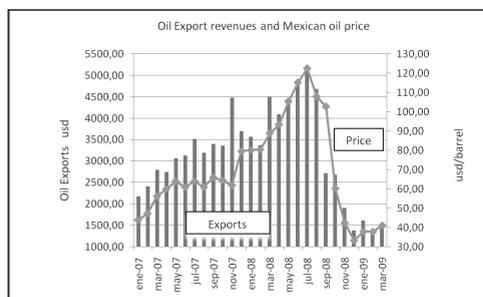


Figure 7. Source: INEGI

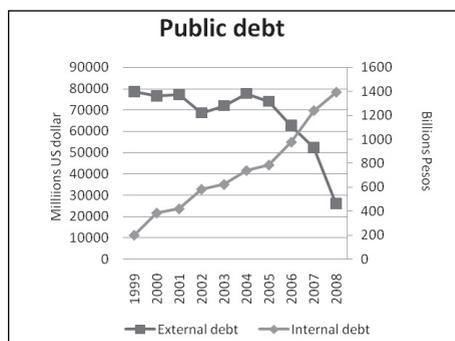


Figure 8. Source: Banxico (2009)

Table 3. Mexican Oil production per region Jan-Nov 2007 (thousands b/d)

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov
<b>Total</b>	3142,2	3146,9	3181,8	3180,8	3109,8	3205,5	3165,4	2842,2	3159,9	2994,4	2900,1
<b>Northeast</b>	2053,2	2061,3	2103,6	2103,3	2102,4	2126,5	2092,7	1852,4	2088	1918,2	1875,4
<b>Cantarell</b>	<b>1591,1</b>	<b>1566,5</b>	<b>1584,8</b>	<b>1592,1</b>	<b>1578,3</b>	<b>1569,4</b>	<b>1526,3</b>	<b>1318,4</b>	<b>1460,6</b>	<b>1320,2</b>	<b>1277</b>
<b>Ku</b>	<b>299</b>	<b>311</b>	<b>318,8</b>	<b>307</b>	<b>336</b>	<b>345,5</b>	<b>332,8</b>	<b>302,4</b>	<b>348</b>	<b>338</b>	<b>346,5</b>
<b>Zaap</b>	<b>77,4</b>	<b>94,8</b>	<b>94,9</b>	<b>95,3</b>	<b>78,6</b>	<b>98,9</b>	<b>108,3</b>	<b>117,5</b>	<b>143,2</b>	<b>134,4</b>	<b>135,8</b>
<b>Maloob</b>	<b>49,9</b>	<b>51,6</b>	<b>61,8</b>	<b>62,9</b>	<b>63</b>	<b>66</b>	<b>79,8</b>	<b>75,9</b>	<b>94,9</b>	<b>88,8</b>	<b>84</b>
<b>Otros</b>	<b>35,8</b>	<b>37,4</b>	<b>43,3</b>	<b>46</b>	<b>46,5</b>	<b>46,7</b>	<b>45,5</b>	<b>38,2</b>	<b>41,3</b>	<b>36,8</b>	<b>32,1</b>
<b>Southwest</b>	523	524,8	518,6	510,1	451,5	519,4	514,5	439,9	525	531	508,8
<b>South</b>	479,5	473,4	472,2	480	469,2	467	467,1	462,3	466	464,2	430,6
<b>North</b>	86,5	87,4	87,4	87,4	86,7	92,6	91,1	87,6	80,9	81	85,3

Source: PEMEX

Table 4

Oil Sector					
	2003	2004	2005	2006	2007
Oil Exports (mb/d)	1,84	1,87	1,81	1,79	1,68
Production (mb/d)	3,37	3,38	3,33	3,26	3,08
Oil Reserves bnb	18,9	17,65	16,47	15,51	14,72
Oil Reserves in years	11,9	11	10,3	9,6	9,2

Source: Pemex, Informe Anual 2008

Table 4 shows how production, exports and reserves are diminishing. The estimated time of reserve depletion shortens rapidly. If PEMEX doesn't find new wells or exploit those which are located in the Gulf of Mexico, the government will face a severe contraction in its fiscal income. For instance, had the government not hedged to get at least USD 70 for every barrel sold until October 2009, it would have already faced more difficulties in financing its current expenditure. In 2010 PEMEX will have to sell oil at the prevailing international prices no matter how high or low they are.

Table 5

Public Finance as a share of GDP									
	2005	2006	2007	2008	2009	2010	2011	2012	2013
Income	21,1	21,8	22,2	23,6	22,9	22,8	21,7	21,4	21,3
Expenditure	21,2	21,7	22,2	23,7	24,8	25,1	25,1	25,0	24,8
Oil Revenues*	7,9	8,3	7,9	8,7	8,2	7,7	7,3	6,8	6,4
Social Expenses**	4,1	4,1	4,4	4,8	4,5	4,9	5,1	5,2	5,4

\*Taxes collected from oil exports; \*\* Includes health care, pensions, subsidies and transfers.

Source: El Financiero (22 de mayo de 2009). Presiones fiscales se agudizarán: 3.

Table 5 highlights the financial difficulties the Mexican government will face in the coming years. For instance, in 2005 income amounted 21.1% of the GDP where as expenditure 21.2%, which resulted in a slightly deficit of 0.1%. But in 2013 the deficit is estimated to be of 3.5% of the GDP. Two of the immediate dangers of a growing fiscal deficit are inflation and a crowding-out effect. As shown in Figures 9 and 10, inflation has been rapidly increasing since 2006 due to factors like the food crisis and subsidy cuts (Reyes, G., 2008). Furthermore, in 2009 depreciation of the Mexican currency also contributed to push up general prices. The price increase in basic grains like corn, rice and wheat pushed inflation of the basic basket from 3.5% in May 2006 to 9% at the beginning of 2009, whereas general inflation and core inflation never surpassed 6.5%. 2008 was especially difficult because food and energy crises pushed up inflation worldwide. The government subsidizes gasoline and low electricity prices, helping to keep inflation down. In 2008 energy subsidies accounted for MXN 407bn pesos or USD 40bn at the prevailing nominal exchange rate; an amount equal to approximately to 3.7% of GDP. Of this money: 63.8% was spent on gasoline and diesel; 7.6% on natural gas, and 28.6% on electricity. Just from 2007 to 2008, subsidies for energy grew by 220% from MXN 179.9bn pesos to MXN 407.5bn pesos. But demand for gasoline is increasing at 5% annually. All the time more and more Mexicans can afford a car, either because of new cheap cars coming from China, or second hand cars imported from the US as foreseen by NAFTA. The government has to import 40% of national gasoline consump-

tion. From the first half of 2007 to the first one of 2008, the subsidy for gasoline increased almost five times since it went from MXN 25.9bn pesos to MXN 126.1bn pesos. During the first six months of 2008, as international oil prices were over 130 USD/b, the Mexican government had to pay higher prices for imported gasoline to assure a low internal price, which consequently stressed the public deficit. Therefore energy prices have been increasing slowly, contributing to inflation and causing social stress in a country whose income distribution is rather unequal. For instance, the price of standard gasoline (called "magna") increased 46.49% from 5.27 pesos per liter in December 2000 to 7.72 pesos in January 2009; diesel<sup>4</sup> rose by 72.31% from 4.37 pesos to 7.53 pesos and the price of "premium" (a better quality gasoline) increased by 61.93% from 5.91 to 9.57 pesos per liter during the same period. Sooner or later subsidies in energy won't be financeable without incurring a higher fiscal deficit. Internal public debt grew by 224% from MXN 623.1bn pesos in 2003 to MXN 1.4 trillion pesos in January 2008. There is an increasing imbalance of the public finances caused by an increasing internal debt. Thus the discussion about enforcing a new fiscal reform to charge consumers value added tax (IVA) on food and medicines is already on the political agenda. If it fails, the government will keep on resorting to internal debt or use the external credit line from the IMF, which is not politically and financially the optimal choice. If public finances are not stabilized soon, higher pressures on inflation could undermine macroeconomic stability.

Figures 9 and 10 exhibit how the Mexican Central Bank (Banxico) has tried to assuage price hikes through a contractive monetary policy. As inflation reached an annual rate of 6.5% at the beginning of 2009, Banxico increased the interest rate to 8.2%, unleashing a controversy among economic actors because of the consequences of a liquidity stress. The higher interest rate also triggered a moratorium in many households facing debts with flexible borrowing rates, either in credit cards or mortgages. Mortgages in default increased from 2.9% in 2005 to 12.9% in 2009. The average default rate on credit cards rose from 5.1% in 2006 to 10% in 2008. That reflects the plight of many households subject to unemployment, sinking salaries or decreasing sales revenues. Commercial banks imposed lending rates of more than 50% a year on their credit card members, bringing the annual total cost (CAT) to over 65%. They have been awarding credit cards or extending credit limits without examining the financial solvency of their clients. Recently, as inflation came down to 6.0% in May 2009, Banxico lowered the interest rate to 5.25% in order to prop up economic activity. However, the increasing tendency of core inflation remained pointing to a coming inflation wave.

---

<sup>4</sup> Hikes in diesel prices have already led to social protest among transportation workers. They want the government to cut diesel prices. Fishermen argue that their production costs are higher than their selling price prevailing in the market.

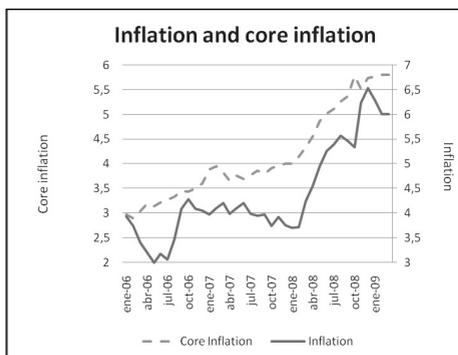


Figure 9. Source: INEGI

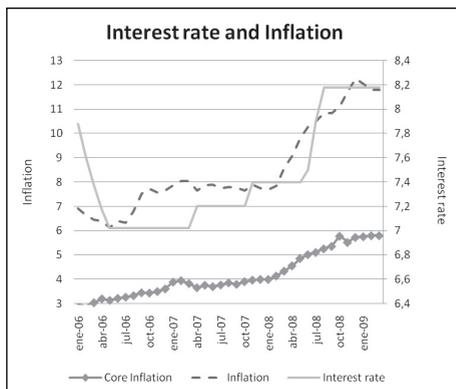


Figure 10. Source: INEGI

## CONCLUSION

In comparison with the 1995 crisis, which had a “V” shape since it rebounded quickly and saw dynamic economic growth until the end of the 90’s, this one will probably have a “U” shape or an “L” shape. No **cushion** will be able to replace the sinking exports of the automobile industry, FDI or hydrocarbons. Everything depends on how quickly the US economy returns to growth and how quickly the private sector reacts to find a way out of the slump. In comparison with the 1995 crisis, which was triggered by a sudden capital flight and foreign reserves depletion, this one is taking place in the current account as a result of its weakening income sources.

It can be said that the present crisis originated in the US and was transmitted to Mexico through foreign trade channels: manufacturing, oil exports, remittances and tourism. Particularly the car industry crisis has struck the Mexican economy in three ways: foreign trade, unemployment and lower production. Geographically, the automobile crisis has affected the richest Federal States of Mexico: D.F., Mexico State, Coahuila and Chihuahua. The fall of oil prices has affected the government’s finances, triggering a higher pressure for fiscal deficit and general inflation. Oil prices have started to rise again, reaching levels of USD 70 a barrel by June 2009. That could be a sign hope, if Mexico hadn’t the problem of rapidly depleting reserves. Nevertheless oil revenues for 2009 are estimated to be around USD 17.5bn, a fall of 60% in comparison with 2008. The MSE has also rebounded by almost 30% which is also a sign of relief.

We can estimate short term, midterm and long term prospects. In the short term there could be a strong recovery of the economy by the third quarter of 2009. That is because the side effects of the AH1N1 epidemic in May 2009 must have sent GDP for the second quarter of 2009 deeper than the first one (-8.4%). Public programs to

support businesses affected by the AH1N1 epidemic and further public investment in infrastructure as well as the traditional Christmas season could play an important role in a rebound by the third and fourth quarter of 2009. But the annual downturn of the economy could be worse than 1995. The fiscal deficit will also be around 1.8% and 2.6%, which is unusually high in comparison with the last 10 years. It is also foreseeable that the US will reinforce protectionism and restrain migration, which could result in a weakening peso. Cooperation between the two countries will deal mainly with security issues like terrorism and organized crime. Economic recovery will rely on internal market dynamism.

In the midterm, things might be more complicated. First of all, manufacturing, long term FDI and oil exports won't have a strong recovery for the rest of 2009 and through 2010 unless energy and fiscal reforms take place. The bankruptcy of GM will severely affect the aforementioned industrial regions in the country, if the shrinking market share of GM is not taken by other competitors that operate in Mexico (VW, Nissan, etc.) The manufacturing sector must look for new markets, especially in Latin America and Asia. And industries that intend to remain within NAFTA must increase competitiveness and creativity. Otherwise the current account deficit will worsen and the currency will be subject to speculative attacks. Secondly, the most difficult bottleneck to overcome in the mid term will be the fiscal deficit. Based on the present lack of prospects for thorough fiscal reform or for the successful exploitation of potential oil reserves, the public deficit and national debt will grow. Expenditures, especially health care and pensions will keep growing, due to demographic factors like an aging population and a growing workforce.

In the long term, NAFTA will be subject to external pressures of new economic and political poles: China, Europe, India and Brazil. Energy, security, migration and food will be topics that will define Mexico's development strategy and its linkage with the US. It is very likely that future US strategy will include Mexico if NAFTA continues on its path of integration, allowing free movement of trade, capital and labor. But before that happens, a new wave of protectionism will have to hurt the economies so hard that a return to liberalization will be considered.

#### REFERENCES

- Banco de México (2008). Informe Anual 2008. <http://www.banxico.org.mx/publicaciones/JSP/informeAnual.jsp>
- Dornbusch, Rudiger (2000). *Keys of prosperity: free markets, sound money and a bit of luck*. Cambridge Massachusetts: MIT Press.
- Duarte, Enrique (2009). Influenza costara 65,144 mmd: Espertos. CNN Expansión. Extraído el 22 de mayo de 2009: <http://www.cnnexpansion.com/economia/2009/05/07influenza-constara-65144-mdp-a-mexico>
- El Financiero (4 de septiembre de 2008). Sangran los subsidios a finanzas públicas: 3.
- El Financiero (3 de noviembre de 2008). Tasas en tarjetas de crédito disparadas: 6.

- El Financiero (8 de abril de 2008). Radiografía de la industria automotriz: 16-17.
- El Financiero (6 de mayo de 2009). Despazan las remesas al petróleo como principal fuente de divisas: 5A.
- El Financiero (22 de mayo de 2009). Presiones fiscales se agudizarán: 3.
- El Financiero (5 de junio de 2009). Se dispara salida de recursos sospechosos: 4.
- INEGI (Instituto Nacional de Estadística y Geografía). Economía. Available in: [www.inegi.org.mx/inegi/default.asp?s=est-c=125](http://www.inegi.org.mx/inegi/default.asp?s=est-c=125)
- Krugman Paul (1998). Currencies and crisis. Cambridge Massachusetts: MIT Press.
- Krugman Paul (1999). The return to depression economics. Cambridge Massachusetts: MIT Press.
- Lozano Ascencio, Fernando (Octubre de 2003). Discurso oficial, remesas y desarrollo en México. Migración y Desarrollo: 23-31.
- Meier, Gerarld (1968). Internationa economics of development. NY: Oxford University Press.
- (1989). Leading issues in economic development. NY: Oxford University Press.
- Navarrete, Rodolfo (30 de marzo de 2009). Calificación soberana en peligro. El Financiero: 12.
- Ordorica, Ana Paola (Octubre de 2008). El futuro del TLC según sus creadores. Nexos. [http://www.nexos.com.mx/vers\\_imp.php?id\\_article=351&id\\_rubrique=120](http://www.nexos.com.mx/vers_imp.php?id_article=351&id_rubrique=120)
- PEMEX (2009). Informe Anual 2007. <http://www.pemex.com/index.cfm?action=content&sectionID=2&catID=2624&contentID=2626>
- Presidencia de la República (2002). Programa Nacional de Financiamiento al Desarrollo 2002-2006. SHCP: México.
- Reyes Guzmán, Gerardo (Septiembre-Diciembre de 2008). Petróleo y Alimentos. Vol. 15 Economía-am , Instituto de Investigaciones económicas, UNAM: 83-98.
- Roubini Nouriel and Brad Setter (2004). Bailouts or Bail-ins? Responding to Financial Crisis in Emerging Economies. Washington D.C.: Institute for International Economics.
- Stiglitz, Joseph (2002). Globalization and its discontents. New York: Norton & Company.
- The Economist (January the 5th 2008). A special report on migration: 1-16.
- Villarreal René (2000). Industrialización, deuda y desequilibrio externo en México. Un enfoque macroindustrial y financiero (1929-2000). Mexico: FCE.

## ABSTRAKT

Władze Meksyku przez cały 2008 r. zaprzeczały możliwości wystąpienia recesji w Meksyku jako konsekwencji amerykańskiego kryzysu ekonomicznego z 2007 r., powtarzając, że Meksyk pod koniec lat 90. XX wieku osiągnął makroekonomiczną stabilność, uodparniając państwo na tego typu zagrożenia. W porównaniu z rokiem 1995, w 2008 r. Meksyk wykazywał się stabilnymi cenami, umiarkowanym wzrostem gospodarczym, stabilnym systemem podatkowym i silną walutą. Jednak z końcem 2008 r. wskaźniki makroekonomiczne zaczęły gwałtownie spadać, prowadząc do kryzysu niespotykanego od 1995 r. Pomimo domniemanej stabilności gospodarki Meksyku, kryzys z końca pierwszej dekady XXI wieku okazał się głębszy niż przypuszczano i może podważyć ekonomiczne mechanizmy, zaprojektowane w celu unikania przez państwo finansowych niestabilności, które zagrażały Meksykowi w ostatnich 40 latach.

Słowa kluczowe: kryzys walutowy w Meksyku, bilans płatniczy, zewnętrzne ograniczenia walutowe

Gerardo Reyes Guzmán (Universidad Iberoamericana Puebla, México). He graduated in 1986 from the Universidad Autónoma Metropolitana in México; completed his Masters in Development Theory at the Hochschule für Ökonomie Berlin in

conjunction with the Duisburg University in 1992 and accomplished his PhD at the Rostock University also in Germany (1995). Since 1999 he works at the Department of Business and Economics as a full time instructor and researcher at the Universidad Iberoamericana Puebla. He has dictated more than 30 Conferences and curses at national and international level addressing topics in fields like International Finance, International Economics and Poverty. He writes articles regularly for the local press and has published more than 35 academic products under which scientific articles, book reviews and essays are considered. Presently he works with Dr. Moslares on topics concerning the world economic crisis of 2008.

Carlos Moslares García (Universidad Ramon Llull, Barcelona España): He obtained his PhD in Economics at the Florida International University; worked for several international companies along the 90's; among others are Spain USA Chamber of Commerce (Miami-USA), COPCA (Deleg. Miami-USA), Insit. València d'Exportacions (IVEX-Deleg. Miami) and Centro Cultural Español y de Coop. Iberoamericana. He works presently at the Universidad Ramon Llull in Barcelona in the Facultat d'Economia IQS, he is member of the Unesco's Chair at the University Ramon Llull, member of the Comité Ejecutivo de ASEPELT and has written more than 30 articles in well known national and international business magazines and several recognized journals.