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THESIS

**A STUDY OF THE LESS-DEVELOPED-COUNTRIES DEBT
CRISIS IN MEXICO AND SUBSEQUENT ECONOMIC
POLICIES**

by

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MEXICO AND SUBSEQUENT ECONOMIC POLICIES**

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ABSTRACT

On 11 August, 1982, the Finance Minister of Mexico, Silvia Herzog informed the International Monetary Fund that Mexico was unable to meet its principle payments to its major creditors. The economic crisis that ensued affected not just Mexico but the entire free market system. It marked a fundamental shift in development economics and altered the economic systems in all but four Latin American countries. Since the onset of the 1982 Less–Developed–Countries (LDC) debt crisis, Mexico has suffered through numerous economic crises further restraining their potential for economic growth. This thesis examines the historical background leading to the onset of the 1983 LDC debt crisis and the economic policies that the Mexican government and the international community enacted to economically recover.

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LIST OF ACRONYMS AND ABBREVIATIONS

ADR	Alternative Dispute Resolution
BOM	Banco de Mexico (Bank of Mexico)
BIS	Bank for International Settlements
BPD	Barrels per day
BRICS	Brazil, Russia, India, China, South Africa
CLPPP	Capitalization and Loan Portfolio Purchase Program
CPI	Consumer Price Index
DTO	Drug Trafficking Organization
ECLA or CEPAL	Economic Commission for Latin America and the Caribbean
FDI	Foreign Direct Investment
FDIC	Federal Deposit Insurance Corporation
FICORCA	Fideicomiso para la Cobertura de Riesgos Cambiarios (Trust in Hedging)
FTA	Free Trade Agreement
FOBAPROA	Bank Savings Protection Fund
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GAAP	Generally Accepted Accounting Principles
IGO	International Governmental Organizations
IMF	International Monetary Fund
ISI	Import Substitution Industrialization
ILR	Import Licensing Requirements
IPP	Import Permit Protection
IPAB	Institute for the Protection of Bank Savings
IRP	Impuesto a los Rendimientos Petroleros
LDC	Less-Developed Countries
LIBOR	London Interbank Offer Rate
LQSP	Ley de Quiebras y Suspension de Pagos
LCM	Ley de Concursos Mercantiles
MYRA	Multiyear Rescheduling Agreement

MTB	Minor Tax Payers
MPRA	Munich Personal RePEc Archive
NAFTA	North American Free Trade Agreement
NIC	Newly Industrializing Countries
NGO	Non–Governmental Organization
NF	Nacional Financiera (National Development Bank)
NPL	Non–Performing Loans
OAPEC	Organization of Arab Petroleum Exporting Countries
ORP	Official Reference Prices
OECD	Organization for Economic Co–operation and Development
PRI	Institutional Revolutionary Party
Pemex	Petroleos Mexicanos
PIRE	Programa Inmediato de Feordenacion Economica (Program of Immediate Economic Reorganization)
PSRB	Public Sector Borrowing Requirement
Pacto	Pacto de solidaridad Economica (Economic Solidarity Pact)
PEP	Pemex Exploration and Production
R&D	Research and Development
SOE	State Owned Enterprises
SAT	Servicio de Administracion Tributaria
STB	Special Tax Basis
U.S.	United States
U.S. Fed	United States Federal Reserve
UDI	Unidad de Inversion
VAT	Value Added Tax
WTO	World Trade Organization
WWII	World War II

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I. INTRODUCTION

A. OVERVIEW

Why did the implementation of economic reforms in the 1980s and 1990s, following the 1983 Less-Developed-Countries (LDC) debt crisis and the 1994 peso crisis, lead to slow economic growth in the Mexican economy? In an effort to economically recover from the 1983 LDC debt crisis, as well as the 1994 peso crisis, Mexico, with the assistance of several International Governmental Organizations (IGO), implemented a series of structural economic reforms, fundamentally changing how the Mexican economy functions. Although some of the reforms were successfully implemented, such as the liberalization of the Mexican economy, others were flawed from conception. Due to this incorrect, inappropriate, or out of sequence implementation of the economic reform measures (as designed by the International Monetary Fund [IMF] and the Mexican Government), the Mexican economy has been trapped in a cycle of underperformance and restrained growth.

B. IMPORTANCE

For a quarter century, the effects of the 1983 LDC debt crisis have impacted Latin American countries. Due to the magnitude of the 1983 debt crisis in Mexico, new economic policies and frameworks had to be developed. These policies eventually became the basis for the Washington Consensus. This resulting framework has been implemented in almost every industrializing country throughout Latin America. The

results have differed, sending some countries, such as Brazil, down the path towards greatness (according to Goldman, Sachs & Co in 2001),¹ and others, such as Ecuador, towards perpetual indifference.²

The 1983 LDC debt crisis has been concluded for close to twenty–five years, yet the underlying causes are still salient and continue to affect countries throughout the developing world. A principle cause of the 1983 debt crisis proved to be the ability of Mexico to borrow considerable sums of capital from the international community based on future oil revenue. This is an accepted practice throughout the economic community, however, it is still dangerous for countries whose primary source of revenue is highly volatile; for those countries such as oil rich Venezuela and Peru, with their copper exports, if they do not properly manage their capital inflows, it often times leads to excessive borrowing. When the international price for their commodity drops, these countries are left with large current account deficits. This large deficit, combined with continuing low international prices, leads to an inability to repay lenders. This is what occurred in Venezuela and in Peru (with an added variation in production costs in the Peruvian case) in the late 1970s and early 1980s.³ By understanding these basic economic concepts, countries have the ability to better manage their currency inflows and avoid similar mistakes that resulted in almost 30 years of underperformance of the Mexican economy.

Through the study of the 1983 LDC debt crisis and Mexico’s inability to fully recover from it, this thesis will shed light on what went wrong in Mexico’s recovery and what other countries can do to avoid the pitfalls that they experienced. Additionally, by

¹ “BRIC: A Goldman Sachs Concept,” Goldman Sachs, http://www2.goldmansachs.com/gsam/individuals/products/growth_markets/bric/bric_concept/index.html (accessed on 15 December, 2011).

² Samantha Newport, “Did the IMF Drop the Ball in Ecuador? (int’l edition),” *Business Week*, 24 January, 2000. http://www.businessweek.com/2000/00_04/b3665160.htm (accessed on 15 December, 2011).

³ “Peru: Export and Import Structures,” *Country Data*, <http://www.country-data.com/cgi-bin/query/r-10274.html> (accessed on 15 December, 2011); *Country Studies Series*, “Peru - The Economy,” *Mongabay.com*, http://www.mongabay.com/reference/country_studies/peru/ECONOMY.html (accessed on 15 December, 2011).

examining the errors made in Mexico, the IMF, World Bank and other IGO's can further develop or refine their existing tactics and policies as they relate to the default of international debt.

Not only is the 1983 LDC debt crisis an economically salient issue, it is also politically relevant. The LDC debt crisis highlighted a myriad of political and social issues that Mexico needed to address. These social and political issues range from increasing efficiency and decreasing corruption in the Mexican judicial system, to educational reforms required to raise the standard of human capital. Social scientists from varying disciplines agree that until these issues are corrected, or at least addressed, Mexico's economy will continue to be plagued by slow economic growth.

C. PROBLEMS AND HYPOTHESES

Given the extensive literature that is available on the LDC debt crisis, there is no shortage of answers in regard to this question, yet all of them have fallen short; Mexico's economy is still trapped in a cycle of underperformance and restrained growth.⁴ There are several different possible answers as to why Mexico is experiencing slow economic growth. One argument states that due to the rapid economic liberalization that Mexico experienced following the LDC debt crisis, their economy became increasingly exposed to the international market, thereby making it considerably vulnerable to external variables.⁵ Another possible hypothesis focuses on political explanations. The PRI (Institutional Revolutionary Party) has had a strong hold on Mexican politics for sixty-six years and until they are no longer in control of the Mexican political machine, their economy will continue to perform at substandard levels. Even though the PRI lost the 2000 presidential election, they are still a strong player in Mexican politics; this argument focuses on favoritism, corruption and the PRI's role in Mexican economic decisions.

⁴ Suárez-Mier, Manuel. "Mexico's Embassy to the United States. Why Is Mexico Not Growing Faster?," 1.

⁵ Blecker, "External Shocks, Structural Change, and Economic Growth in Mexico, 1979–2007," 1.

Until these issues are addressed, the Mexican economy will continue to be underproductive as a result of the inefficiencies that accompany corruption.⁶ A third argument focuses on a different cause of inefficiency; the economic inefficiencies that are the result of monopolistic and oligopolistic competition. Through abnormalities in the international economic system, monopolies and oligopolies inflate the value of their goods, thereby producing deadweight loss. The presence of this deadweight loss causes inefficiencies in the international and national economic system. Until these monopolistic and oligopolistic firms are dealt with, the Mexican economy will continue to be underproductive, thereby restraining economic growth.⁷ A final possible hypothesis centers on the idea that the reforms that were implemented in the 1980s and 1990s restrained economic growth.⁸

D. LITERATURE REVIEW

Scholars such as Douglas North, Jeffrey Frieden and Sidney Weintraub, as well as many others, have published works that examine why the Mexican economy has been trapped in a cycle of underperformance. Even though considerable research has been completed on the topic, and numerous answers have been postulated, the Mexican economy remains trapped in an underproductive cycle that lacks economic growth. These possible explanations can be grouped into three categories; economic, social, and a mixture of the two called socioeconomic.⁹

When looking at the economic arguments that have been presented, one of the most cited explanations focuses on external shocks to the economy. More specifically, the rapid economic liberalization that Mexico experienced following the 1983 LDC debt crisis caused their economy to become increasingly exposed to the international market,

⁶ Elizondo and Santiso, *Killing Me Softly*, 2.

⁷ Lieberman, *Introduction to Economics*, 200–206.

⁸ Looney, *Mexico on the Ropes*, 60; Esquivel and Hernández-Trillo, “How Can Reforms Help Deliver Growth in Mexico?,” 193.

⁹ The numerous explanations have been grouped into three classifications to assist in the organization of the large amount of literature present on the subject.

thereby making it considerably vulnerable to external variables. This is the basis of Robert A. Blecker's article, *External Shocks, Structural Change, and Economic Growth in Mexico, 1979–2007*. He argues that, "Mexico's various policies of opening and liberalization have made the country's growth highly vulnerable to certain external constraints or "shocks" since the late 1970s."¹⁰ His argument is not the only one based on external variables. Some argue that due to Mexico's liberalization and integration into the North American Free Trade Agreement (NAFTA), the Mexican economy has become too dependent on external economies, namely the United States.¹¹

The generally accepted rebuttal to these arguments is that through diversified trading partners, as well as product diversity, any country has the ability to minimize their GDP volatility.¹² Mexican leaders understood this concept and have taken measures to diversify their export's markets. The export portfolio of any country is always changing, however in 1986, Mexico was accepted into the General Agreement on Tariffs and Trade (GATT; the predecessor to the World Trade Organization [WTO]), and in 1994, NAFTA was signed into existence.¹³ As for a rebuttal to Sidney Weintraub's argument regarding the ineffectiveness of NAFTA, the success of the free trade agreement is undoubtedly positive for all three countries, but especially for Mexico. "Mexico used its NAFTA membership to effectively shift away from a heavy dependence on oil exports and towards a more diversified mix of higher value-added goods over the past two decades (once again proving that through trade diversification, the Mexican economy is better off)."¹⁴ Additionally, a 2005 report published by the World Bank stated that, "Mexico's global exports would have been about 50 percent lower and foreign direct investment (FDI) would have been about 40 percent less without NAFTA. Furthermore, the amount

¹⁰ Blecker, "External Shocks, Structural Change, and Economic Growth in Mexico, 1979–2007," 1.

¹¹ Weintraub, "An Economic Storm Hits Latin America," 60.

¹² Jansen, Lennon, and Piermartini, *Exposure to External Country Specific Shocks and Income Volatility*, 15.

¹³ Background notes on Mexico. U.S. State Department. <http://www.state.gov/r/pa/ei/bgn/35749.htm#econ> (accessed 11 November, 2011).

¹⁴ Wise, "The North America Free Trade Agreement," 145.

of time required for Mexican manufacturers to adopt U.S. technological innovations was cut in half . . . NAFTA made Mexico richer by about 4% of its gross domestic product (GDP) per capita.”¹⁵ Even though the Mexican economy suffers from external shocks, through the use of free trade agreements, they have mitigated their risks, producing a more stable economy.

Another possible economic explanation as to why the Mexican economy has not produced the growth that was expected following the LDC debt crisis, can be found in Gerardo Esquivel and Fausto Hernandez-Trillo’s chapter in *Growing Pains in Latin America; An Economic Growth Framework as Applied to Brazil, Colombia, Costa Rica, Mexico, and Peru*. They state that, “the economic reform process has gone too far and that it has been unable to break the stranglehold of existing economic interest groups, and may even have made them more powerful. This line of analysis concludes that the reform process should not continue and that some reforms may even need to be reversed.”¹⁶ Esquivel and Hernandez-Trillo do mention this line of reasoning is not well traveled in academic circles; however, the Mexican populace feels this is the underlying cause of their country’s slow growth.

This argument could not be farther from the truth. Had Mexico continued their import substitution industrialization (ISI) policies, the country may have transitioned into a failed state. Even scholars, such as Evelyne Huber, who is critical of neo-liberal economic policies understands that, “If the counterfactual is no reforms at all, i.e., a continuation of the ISI model as it was pursued from the 1950s to the 1970s, including what Michael Walton calls the "old-style populist redistributive agenda" (see Walton in this volume, 178), then the assessment of successes looks more favorable.”¹⁷ This viewpoint is supported by several IGO’s to include the World Bank and the IMF. When

¹⁵ Lederman, Mahoney, and Serve´n, *Lessons from NAFTA*, 2.

¹⁶ Esquivel and Hernández-Trillo, “How Can Reforms Help Deliver Growth in Mexico?,” 193.

¹⁷ Huber and Solt, “Successes and Failures of Neoliberalism,” 150.

viewing the Mexican current account deficit leading up to the financial meltdown that occurred in August of 1982, it would be impossible to continue without considerable foreign assistance.¹⁸

An additional set of explanations that has been posed is based not on economic variables, but on social explanations. This list is supported by countless scholars, social scientists, and social economists to include Larry Diamond and Stephen Morris. Some items on the list include, but are not limited to: poverty, corruption in all levels of the government, the war on drugs, a lack of educational opportunities and/or quality of education, lack of sufficient health care, and lack of an effective judicial system. Even though none of these individual variables are sufficient to cause a lack of economic growth in Mexico, together they do represent a serious set of problems that must be addressed if Mexico hopes to increase their rate of growth.

Poverty is a considerable problem in Mexico and must be addressed. According to David Mayer-Foulkes' article *The Human Development Trap in Mexico*, growth will not return until human capital has been fully exploited. He claims that due to an underutilization of the provided school system, coupled with low levels of early childhood nutrition and poor health in adults, Mexico has developed a "long term, intergenerational, low human capital accumulation trap."¹⁹ Until this problem is resolved, the foundations that Mexico requires to stimulate growth in their economy will continue to prove elusive.²⁰

Corruption is a problem that has plagued Mexico since its independence in August 1821, however, the level of corruption dramatically increased during the seventy plus years of single party rule through the PRI. The most frequently cited hypothesis follows the argument of Paolo Mauro's article, *Corruption and Growth*. He finds that,

¹⁸ Boughton, *Silent Revolution*, 290.

¹⁹ Mayer-Foulkes, "The Human Development Trap in Mexico," 1.

²⁰ Mayer-Foulkes, "The Human Development Trap in Mexico," 1.

“Corruption lowers private investment, thereby reducing economic growth.”²¹ Several Latin American scholars have followed his premise, including Carlos Elizondo and Javier Santiso’s work on legal corruption, which focuses on certain entities, “privileged position to appropriate expenditure or avoid taxes,”²² to Stephen D Morris’ article, which focuses on the traditional illegal corruption in the Mexican Government.²³ Mexico is not the only country that is experiencing problems with corruption. According to the 2011, Corruption Perception Index, Mexico is a 3.0, Brazil is a 3.8, and India is a 3.1 (10 represents no corruption and 0 represents complete corruption).²⁴ This shows corruption alone is not enough to reduce a country’s overall economic growth, however, in combination with other socioeconomic factors, it presents a strong effect.²⁵

The same concept is present when viewing Mexico’s War on Drugs as it effects economic growth. Although the War on Drugs effects economic growth, it alone does not represent the final solution. Authors such as Gideon Rachman believe that Mexico would be on par with the BRICS if it were not being held back by it drug problems.²⁶ He is not alone in his assessment; the Wharton Business School published an article that falls directly in line with Rachman’s thinking. They believe that this War on Drugs, “is threatening the country's [Mexico’s] economic health and causing multinationals to

²¹ Mauro, “Corruption and Growth.” 3.

²² Elizondo and Santiso, “Killing Me Softly, 2.

²³ Morris, “Corruption and the Mexican political system, 635.

²⁴ “Corruption Perceptions Index 2011,” Transparency International, <http://cpi.transparency.org/cpi2011/results/> (accessed on 10 January, 2012).

²⁵ Bannon, “The Fight Against Corruption: A World Bank Perspective,” (Paper prepared as part of the Consultative Group Meeting for the Reconstruction and Transformation of Central America, May 25–28, 1999, Stockholm, Sweden). http://www.iadb.org/regions/re2/consultative_group/groups/transparency_workshop6.htm (accessed on 11 November, 2011).

²⁶ Gideon Rachman, “Why Mexico Is The Missing BRIC,” Financial Times-UK, <http://www.ft.com/intl/cms/s/0/36d846a6-1a9a-11df-bef7-00144feab49a.html#axzz1dWJOcUxb> (accessed on 11 November, 2011).

examine closely how they operate and invest in Mexico.”²⁷ Although both of these publications are correct, the same could be said for Brazil. “Brazil is the second–largest consumer of cocaine in the Americas” as well as, “Latin America's largest market for opiates or opioids.”²⁸ Even though Mexico’s War on Drugs affects their economic growth rate, once again, it is not the singular cause of the sluggish Mexican economy.

A strong educational foundation has been considered an essential building block for economic growth in any country. This idea has been postulated through various endogenous–growth models. The theory states that by increasing the quality of education, a country can increase its potential for growth.²⁹ This theory has proven to be true in various studies through the use of empirically based research. In David M. Gould and Roy J. Ruffin’s article *What Determines Economic Growth*, the idea of new product innovation is tied to increased economic growth. Three different studies (Lucas 1988, Romer 1990, and Gorssman and Helpman 1991) have shown that as the accumulation of human knowledge increases, so does growth. This can be attributed to “a relatively large stock of capital, a large educated population, or an economic environment that is favorable to the accumulation of human knowledge.”³⁰ Additionally, studies conducted by “Barro (1991), Mankiw, Romer, and Well (1992), Levine and Renelt (1992)...have found evidence suggesting an educated populace is a key to economic growth. A larger educated work force may increase growth either because of faster technological progress, as individuals building on the ideas of others, or by simply adding to the productive capacity of a country.”³¹ Even though these studies only briefly address the Latin American region (Guatemala is the only Latin American country that is studied), Elsa–

²⁷ “Mexico's Drug War: The Battle to Remain Safe, Low-cost and Competitive.” Knowledge @Wharton, <http://knowledge.wharton.upenn.edu/article.cfm?articleid=2589> (accessed on 11 November, 2011).

²⁸ “Brazil Drug Addiction and Treatment,” Narconon International, <http://www.narconon.org/drug-information/brazil-addiction-treatment.html> (accessed on 15 December, 2011).

²⁹ Brown, *Principles of Economics*, 871.

³⁰ Gould and Ruffin, “What Determines Economic Growth,” 30.

³¹ Gould and Ruffin, “What Determines Economic Growth,” 33.

Sofia Morote's work titled, *Higher Education, Employment and Economic Growth: Mexico and Peru* focuses directly on Mexico. Her study confirms the claims previously made by economists that quantity and quality of education are important foundations for economic growth.³² Even if one does not agree with the new endogenous growth models, the traditional model for growth, titled the Solow growth model, also holds an important, albeit, supporting role for human capital accumulation.³³

Effective judicial systems have long been touted as key principles of economic growth. Scholars such as Richard E. Messick, argue that a, "well-performing judiciary is important for economic development."³⁴ Even though this concept has been present in the development and democratization literature for several years (see Larry Diamond's work on "Consolidating Democracy in the Americas."),³⁵ only since the early 1990s have the IGOs that oversee judicial reform taken it into account. This new found emphasis placed on institutions is in direct response to the lack of growth experienced in several Latin American countries following the implementation of the Washington Consensus in the 1990s.³⁶

The final classification considers the possibility that economic or social explanations alone do not possess the tools that are required to solve a problem of this magnitude. Socioeconomic explanations combine individual aspects of both previously mentioned policy prescriptions to address the lack of growth in Mexico.

In 1944 Karl Polanyi published, *The Great Transformation: The Political and Economic Origins of Our Time*. Polanyi's argument, as summarized by Joseph Stiglitz in the foreword, states, "Self-regulating markets never work; their deficiencies, not only in

³² Morote, "*Higher Education, Employment and Economic Growth: Mexico and Peru*," 10–11.

³³ Gould and Ruffin, "What Determines Economic Growth," 33.

³⁴ Messick, "Judicial Reform: The Why, the What, and the How," 1.

³⁵ Diamond, "Consolidating Democracy in the Americas," 18–19; This idea is also present in Linz and Stepan, *Problems of democratic transition and consolidation: Southern Europe, South America, and Post-Communist Europe* (Baltimore: Johns Hopkins University Press, 2006).

³⁶ Woo, "Serious Inadequacies of the Washington Consensus, 18–31.

their internal workings but also in their consequences, are so great that government intervention becomes necessary; and that the pace of change is of central importance in determining these consequences.”³⁷ This argument turned the free market world of Adam Smith upside down and has become the basis for all future socioeconomic literature.

In recent years, Polanyi’s work has been adapted and scholarship has focused on institutions and the role they play in sustained or reinvigorated economic growth. The Nobel Prize winning Douglas North’s 1993 work on institutions and their role in economics is still considered groundbreaking work. He argues that changes must be made to the neoclassical model to account for institutions and the role they play in long term economic growth. He illustrates this point by looking at the differences between the Mexican and United States economies. According to North, the current neoclassical model does not account for the difference in long term economic performance given the free market system. The only method to account for these differences is through the inclusion of institutions to the current free market based neoclassical model.³⁸ Other scholars have further developed and adapted the works of Polanyi and North to suit their area of expertise.

One such scholar is Jeffry Frieden. In his influential work, *Debt, Development and Democracy: Modern Political Economy and Latin America, 1965–1985*, he examines how politically designed economic policies affected the 1983 LDC debt crisis. He discovers that different economic interest groups placed considerable stress on each of five Latin American countries during the 1980 debt crisis, which had long lasting, adverse effects on the political landscape, as well as the economic future of all five

³⁷ Stiglitz, “Foreword,” vii.

³⁸ North, *Institutions, Institutional Change and Economic Performance*, 107.

countries.³⁹ Even though Frieden focuses on more of the economic indicators, he understands that social variables are equally important in explaining economic growth.⁴⁰

Peter Evans article compares the East Asian newly industrializing countries (NICs) with Latin American states through the lens of dependence theory. His work argues that even though both groups of countries formed a triple alliance between private capital, transnational capital, and the state, the reason the East Asian NICs economies grew at a more substantial rate when compared to the Latin American states, is based on greater state intervention.⁴¹ This increased state intervention allowed the East Asian NICs to overcome the, “negative consequences of dependence.”⁴² This theory was tested on Marcus Kurtz’s work on Chile. In “State Developmentalism Without a Developmental State: The Public Foundations of the ‘Free Market Miracle’ in Chile,” Kurtz claims that increased state intervention led to the success of three nontraditional exports in Chile.⁴³ Even though both Evans and Kurtz’s work on increased state intervention is not based on Mexico, they both are excellent examples of socioeconomic alternatives to the purely economic approach of neo-liberal reforms.

Stephan Haggard argues that, “variations in the social organization of agriculture, the timing of labor mobilization, and the interests and strength of domestic entrepreneurs provide the permissive social conditions underlying the divergent development trajectories of...Mexico.”⁴⁴ Even though his phrase, “permissive social conditions” is ambiguous by nature, it shows that more than just economics plays a role in the growth of the Mexican economy.

³⁹ Frieden, *Debt, Development, and Democracy*, 3.

⁴⁰ Frieden, *Debt, Development, and Democracy*, 4–5.

⁴¹ Evans, “Class, State, and Dependence in East Asia: Lessons for Latin Americanists,” 221.

⁴² Evans, “Class, State, and Dependence in East Asia,” 212.

⁴³ Kurtz, “State Developmentalism Without a Developmental State, 1.

⁴⁴ Haggard, “The Newly Industrializing Countries in the International System,” 346.

Manual Pastor and Carol Wise argue that the success of Mexico's trade reform in the 1980s was due to the organizational overhaul of Mexico's government at the state level.⁴⁵ Even though institutions are important in explaining trade policy and subsequent growth in Mexico, they feel that it is only part of the story. Like Friedman, they argue that global political-economic structures, as well as institutions, are key in explaining Mexico's growth and trade policy following the 1983 LDC debt crisis.⁴⁶

Pamela Starr loosely follows the analytical framework that Friedman describes in his *Debt, Development, and Democracy: Modern Political Economy and Latin America, 1965–1985*. Pamela Starr follows Friedman's framework by theorizing that in order for economic policies to be effective, they must be properly constructed. The body that constructs and recommends these policies is a political entity. Therefore, in order to achieve lasting, and meaningful economic change (as was needed in Mexico following in the 1983 LDC debt crisis and the 1994 peso crisis), "political decentralization, judicial reform, public administration, civil society" and other socioeconomic institutions need to be included in the reform process.⁴⁷

This thesis is not attempting to refute the fact that these socioeconomic variables have undoubtedly played a role in Mexico's lack of growth; they surely have, however, even if all of these socioeconomic conditions were corrected, Mexico still would not have grown. The reforms of the 1980s and 1990s were insufficient and poorly implemented. The Mexican economy was thus trapped in a cycle of underperformance and slow growth.

E. METHODS AND SOURCES

An in depth historical approach will be required to answer why Mexico's economy is lacking growth. Research will be conducted on both the 1983 LDC debt crisis, as well as

⁴⁵ Pastor and Wise, "The Origins of Mexico's Free Trade Policy," 182.

⁴⁶ Pastor and Wise, "The Origins of Mexico's Free Trade Policy," 470.

⁴⁷ Starr, "The Political Economy of Reform in Latin America, 225.

the 1994 peso crisis. In addition to the historical review of the actual crises, the subsequent policies that were implemented in the 1980s and 1990s will also be reviewed. In general, the policies that were implemented can be grouped into two general categories: economic and political. This thesis will focus mainly on the economic reforms. By showing that the economic reforms were poorly implemented, this thesis will show the dangers of following an economic framework in a haphazard manner. The IMF and World Bank policies were designed to work in conjunction with each other hence any deviation from complete implementation will result in a failed economic policy. Following the historical review of the crises, this thesis will study each of the sub categories of economic reform and determine if the reforms were implemented properly and more importantly, fully. If all of the policies were implemented correctly, then the reforms should have resulted in economic growth. If they were not implemented correctly, then the policies should have failed. Once a determination has been made on each of the subcategories, the overall economic framework and reform policies can be judged as successful or unsuccessful. If one or all of the categories are determined to be unsuccessful, an attempt will be made to point to a reason why the method of implementation was unsuccessful and recommend a policy to correct the deficiency. As is always the case, there is some basic level of background, or theoretical information that is necessary to understand each subcategory.

F. THESIS OVERVIEW

Chapter I will be an introductory chapter and will contain a revised version of this thesis proposal. Chapter II examines the causes of the 1983 LDC debt crisis and the 1994 peso crisis as it relates to Mexico. There is an inherent need to be well versed in the 1983 LDC debt crisis to determine why the 1994 peso crisis occurred, as well as why Mexico has experienced sluggish economic growth. The cause of the 1983 LDC debt crisis will directly relate to the type and methods of implementation of the economic reforms that were recommended by the IMF and World Bank. Chapter III delves into the actual reforms that were recommended. The economic reforms that were enacted in Mexico are a direct result of the policies of ISI. Due to this reason, a historical discussion will be

conducted in regard to the ISI model of development and the problems that it entails. The economic reforms can be broadly grouped into five categories; Trade Liberalization (Section B, Chapter III), Combat of Monopoly Power (Section C Chapter III), Controlling Inflation (Section IV Chapter III), Structural Changes in the Tax System (Section V, Chapter III), and the Banking Reform (Section VI, Chapter III). Each of the individual sections concerning the structural reforms that were enacted will look at the principles of the related economic theory, the nature of the problem that Mexico faced in their dealings with each problem, and the actual policy. Chapter IV will address the weakness of each of the reforms that were enacted and why the policies did not work. The conclusion (Chapter V) of this thesis is concerned with what is the next step in restoring growth to the Mexican economy. In this section of the thesis, a discussion of the socioeconomic problems that were briefly introduced in the literature review will be conducted, specifically concerning why they are important in an economic recovery plan. More importantly Chapter V will review the findings of the thesis and show how they could be applied in future policies of NGO/IGO's to help countries in their economic recovery.

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II. BACKGROUND

A. INTRODUCTION

Chapter II serves to provide a historical overview of the 1983 Less–Developed–Countries (LDC) debt crisis, the economic reforms that followed, and the role those reforms played regarding the onset of the 1994 peso crisis. Even though no major analysis is conducted in this chapter regarding the onset of both financial crises; several contributing factors immediately become apparent. First, as in most countries that contain significant natural resources, oil futures played a considerable role in the inflow, and subsequent outflow of foreign capital. Second, the lack of transparency present throughout the Mexican financial institutions greatly influenced severity of both crises. Finally, many of the reform packages that were implemented following the 1983 debt crisis were being put into practice in the real world for the first time. Even though there had been numerous financial crises throughout history, the international financial institutions had not developed the tools needed to cope with a crisis on such a scale as Mexico represented. This led to considerable delays due to ineffective management on an international scale. By the end of Chapter II, the historic foundations will be in place, allowing the economic analysis of the reform packages to begin.

B. HISTORY OF THE LESS–DEVELOPED–COUNTRY DEBT CRISIS

This section focuses on the background knowledge that is required to analysis the 1983 LDC debt crisis and the 1994 Peso crisis. By delving into the history of the events leading up to both crises, a better understanding can be achieved that will aid in the critical review of the economic reform packages that were designed to place Mexico back on a path towards sustained economic growth. This section has been subdivided into several segmented periods of time. The first segment covers from 1973 to 1979. The second is from 1979 until the start of the LDC debt crisis in Mexico in August 1982. The third starts with Mexico’s announcement that their economy was insolvent in August 1982 and continues until the installation of the Baker Plan in late 1987. The final period

covers the implementation of the Baker Plan. Given the fact that the reforms that were implemented throughout the 1980s, are contributing factors to the 1994 Peso crisis, separating the two events becomes problematic, however, experts such as Nora Lustig, Robert Looney, and Timothy Curry feel that by the end of the decade, the crisis was for the most part, under control.⁴⁸

Before proceeding with the historical narrative of the LDC debt crisis, it is important to understand how the loans that Mexico was receiving were structured. Most of the loans to the Mexican economy were processed through the Eurodollar Market. Due to this fact, the terms of the loan were negotiated using United States dollars. Furthermore, because United States dollars were the currency of the loan, they had to be repaid using United States dollars. As the interest rate climbed in the U.S., the amount of money that was required to pay back the loans was in essence, growing.⁴⁹ In addition to the interest rate component of the Eurodollar loans, a great majority had a medium to long term maturity. Finally, the terms of the loan were constructed around the London Interbank Offer Rate (LIBOR), not United States dollar interest rates.⁵⁰

Why start the historical narrative in 1973? Given the fact that Mexico's economy is heavily dependent on oil exports, it seems only logical to start in October of 1973; it was then that the Organization of Arab Petroleum Exporting Countries (OAPEC) raised the price of crude oil 70% while simultaneously cutting production at a 5% a month rate until certain political objectives were met.⁵¹ Because Mexico was not a member country of OAPEC, they were not limited by the terms of the embargo.⁵² This allowed Mexico to export oil at an increased percentage thus fueling their unprecedented economic growth.

⁴⁸ Lustig, *Mexico: The Remaking of an Economy*, vi; Looney, "Politics of Global Economic Relations," Class Lecture.

⁴⁹ Curry, *An Examination of the Banking Crisis of the 1980's and Early 1990's*, 192–195.

⁵⁰ Curry, *An Examination of the Banking Crisis of the 1980's and Early 1990's*, 192–195.

⁵¹ Yergin, *The Prize: The Epic Quest for Oil, Money, and Power*, 589.

⁵² "OAPEC Members," Organization of Arab Petroleum Exporting Countries, <http://www.oapecorg.org/en/aboutus/members.htm> (accessed on 21 August 2011).

In 1973 alone, Mexico's real Gross Domestic Product (GDP) grew at an amazing 7.86%.⁵³ This is well above the world GDP average growth rate of 6.61% in 1973.⁵⁴ This high performing economy, fueled by increased oil revenues, made the Mexican economy a prime target for foreign investment.⁵⁵ Foreign banks and multinational corporations were sitting on large sums of capital (in large part due to the Eurodollar Market) and were in search of a good investment.⁵⁶ With the amazing growth that was occurring throughout Latin America, GDP averaging anywhere from 4–6% annually, the banks and multinational corporations decided to invest strongly in Latin American countries.⁵⁷ Even though the embargo implemented by OAPEC ended in March of 1974, oil prices stayed at an elevated level throughout the decade; peaking at close to \$38 per barrel in 1980 (this is equivalent to approximately \$103 per barrel in today's market).⁵⁸ Because of this steady increase in oil prices throughout the 1970s, Mexico appeared to have no issues servicing its ever increasing foreign investment debts. Because Mexico was a net oil exporter, they were able to offset their increasing debt payments to foreign banks and multinational corporations using their increased oil revenue. Because Mexico was able to continue to service their debts, or balance their payments, foreign banks and multinational corporations continued to increase the amount of money they were lending to them; thus creating a cyclical effect based on a fairly unstable export economy.⁵⁹

⁵³ Google Public Data Explorer Labs, World Development Indicators (subset), http://www.google.com/publicdata/explore?ds=d5bncppjof8f9_#!ctype=l&strail=false&bcs=d&nselm=h&met_y=ny_gdp_mkt_p_kd_zg&scale_y=lin&ind_y=false&rdim=region&idim=country:MEX&ifdim=region&tdim=true&hl=en_U.S.&dl=en_U.S. (accessed on 04 April, 2012).

⁵⁴ Google Public Data Explorer Labs, World Development Indicators (subset), http://www.google.com/publicdata/explore?ds=d5bncppjof8f9_#!ctype=l&strail=false&bcs=d&nselm=h&met_y=ny_gdp_mkt_p_kd_zg&scale_y=lin&ind_y=false&rdim=region&idim=country:MEX&ifdim=region&tdim=true&hl=en_U.S.&dl=en_U.S. (accessed 04 April, 2012).

⁵⁵ Curry, *An Examination of the Banking Crisis of the 1980's and Early 1990's*, 192.

⁵⁶ Curry, *An Examination of the Banking Crisis of the 1980's and Early 1990's*, 192.

⁵⁷ Beek, "Commercial Bank Lending to the Developing Countries," 1.

⁵⁸ "Historical Crude Oil Prices (Table)" Inflation Data.com, http://www.inflationdata.com/inflation/inflation_rate/historical_oil_prices_table.asp (accessed on 21 August 2011).

⁵⁹ Curry, *An Examination of the Banking Crisis of the 1980's and Early 1990's*, 192.

Following the oil crisis of 1973, the world experienced a recession starting in 1974 that lasted through 1975. But because Mexico's economy was based on an ISI model, in addition to being an oil exporting country, they did not feel the effects of the recession like a free market economy or oil importer did. Mexico's real GDP growth rate did drop from 7.86% in 1973 to 5.74% in 1975; however, the world average for the same time period decreased from 6.61% to 1.09%.⁶⁰ Mexico was able to mitigate this drop in GDP growth due to increased oil production and subsequent oil exportation. From 1970 to 1980, Mexican oil production increased from 500,000 barrels per day (BPD) to over 2 million BPD.⁶¹ Following the recession, things continued, relatively unchanged for Mexico until 1979.

The second phase of the narrative begins just as the first; with a major financial shock to the global economic system. This occurred in 1979 with the second (or 1979) oil crisis. Due to a violent regime change in Iran, Iranian oil supply to the United States was at first limited, then suspended all together.⁶² Just as before, Mexico was able to increase production just as prices for oil were at their highest in nearly a decade. In the United States, the reduced oil supply proved to be just another problem for the struggling economy. Since 1978, the U.S. economy had been plagued by under productivity, high rates of unemployment, and increased inflationary pressure. In order to promote growth and break the cycle of general stagflation, the United States Federal Reserve, under the new leadership of Paul Adolph Volcker, Jr., increased interest rates from 5.67% in 1980

⁶⁰ Google Public Data Explorer Labs, World Development Indicators (subset), http://www.google.com/publicdata/explore?ds=d5bncppjof8f9_#!ctype=l&strail=false&bcs=d&nselm=h&met_y=ny_gdp_mktp_kd_zg&scale_y=lin&ind_y=false&rdim=region&idim=country:MEX&ifdim=region&tdim=true&tstart=8060400000&tend=323679600000&hl=en_U.S.&dl=en_U.S. (accessed on 04 April, 2012).

⁶¹ GraphOlogy. Mexico's Ability to Export Oil. Last modified 13 March, 2006. <http://www.graphology.com/2006/03/mexicos-ability-to-export-oil.html>. Accessed on 21 August, 2012.

⁶² "The Iranian Oil Crisis," The Heritage Foundation, <http://www.heritage.org/research/reports/1979/02/the-iranian-oil-crisis> (accessed on 21 August 2011); Roberto Dewell G. and Luis Rubio F. *Mexico's Dilemma: the Political Origins of Economic Crisis* (Boulder CO: Westview Press, 1984), 222.

to an all-time high of 20% in January 1981.⁶³ While this is clearly not favorable for consumers in the United States, it proved far worse for the Mexican economy.

While the second oil crisis was occurring in the United States, Mexico was continuing to acquire more and more public debt through international lending. In 1973, Mexico's debt was \$4 billion. By 1981, their debt had skyrocketed to \$43 billion; this was an astounding 30% increase in debt per year.⁶⁴ During this period of increased lending, Mexico exhibited almost no economic warning signals, due in large part to their ability to finance their debt. Mexico's total debt to GDP ratio for 1981 was only 41.7%, averaging only 4.5% of GDP.⁶⁵ During this period of economic prosperity the Mexican economy became increasingly dependent on the oil sector; by 1981, oil revenues accounted for 72.5% of total exports of goods and services.⁶⁶ During the early months of 1981, the unthinkable happened in Mexico; the oil market started a downward slide. Next, Mexico made a disastrous decision; with oil prices dropping, the government decided to leave national oil prices untouched. This decision made Mexican oil the only oil on the world market to hold steady as the rest of the world's oil was dropping in price. This unprecedented behavior centered on the belief that Mexican oil was of a higher quality than the rest of the world's oil.⁶⁷ This move led to an expected drop in Mexican oil exports. This drop was a full 25% below *Petróleos Mexicanos* (Pemex) projections.⁶⁸ It is impossible to understand just how much money was lost due to this disastrous decision, but at the same time as oil exports in Mexico were falling, external borrowing

⁶³ United States Congress, Congressional Budget Office, *The Prospects for Economic Recovery* (Washington D.C.: Government Printing Office, 1982), 26.

⁶⁴ Boughton, *Silent Revolution*, 282.

⁶⁵ Boughton, *Silent Revolution*, 282; Carmen M. Reinhart and Kenneth S. Rogoff, "This Time is Different: Eight Centuries of Financial Folly," Reinhartandrogoff.com, www.reinhartandrogoff.com/user_uploads/data/18_data.xls (accessed on 09 April, 2012).

⁶⁶ Lustig, *Mexico: The Remaking of an Economy*, 24.

⁶⁷ Boughton, *Silent Revolution*, 283.

⁶⁸ Boughton, *Silent Revolution*, 283.

increased to over \$18.3 billion.⁶⁹ Even though this increase in borrowing is not a direct correlation (as borrowing would have increased regardless of the price of oil), there is no doubt at this point in Mexico's economic situation, there would have been an increase in borrowing, just not to the magnitude that was apparent. Mexico's economy was in serious trouble, and it had become fully apparent to the international community as well as the national sector.⁷⁰ To calm fears a decision was made that a policy shift needed to occur, unfortunately, a consensus could not be reached as to the nature of the policy. Due to this lack of an effective and timely decision, the private sector in Mexico started transitioning their savings from domestic banks to international banks.⁷¹ Even though the IMF had been keeping a close eye on Mexico, this massive outflow of currency set off alarms throughout the IMF as well as other international monetary institutions. The IMF sent a mission down to Mexico to evaluate their current situation, and the team reported the following:

...the prospects for fiscal adjustment were limited, the outlook for economic activity was poor, the exchange rate (which was fixed against the U.S. dollar) was inconsistent with a price level that was inflating more rapidly all the time, and debt service was likely to rise sharply.⁷²

On 17 February 1982, the Mexican central bank made the decision to temporarily remove itself from the foreign exchange market and let the peso "float" in the international market. The hope was that once the peso was stable domestically, it would be placed back on the foreign exchange market. Within a week of this decision, the peso had dropped more than 40% compared to the U.S. dollar.⁷³ Unfortunately, any gains that the Mexican economy had accomplished with this brave step were made null and void due to other economic policies; most notably, the increase in the minimum wage (more

⁶⁹ Boughton, *Silent Revolution*, 283; Lustig, *Mexico: The Remaking of an Economy*, 24.

⁷⁰ Curry, *An Examination of the Banking Crisis of the 1980s and Early 1990s*, 203.

⁷¹ Boughton, *Silent Revolution*, 283; Lustig, *Mexico: The Remaking of an Economy*, 24.

⁷² Boughton, *Silent Revolution*, 284.

⁷³ Boughton, *Silent Revolution*, 284; Lustig, *Mexico: The Remaking of an Economy*, 24.

than likely this was a political move more than anything else). This “disorderly adjustment” further exasperated capital flight (between 1979 and 1982, \$26.5 Billion U.S. dollars exited Mexico and landed in U.S. Banks) and led to an eventual price freeze.⁷⁴ By April 1982, major businesses that were backed by the Mexican government started to default on their loans. The largest of which, Alfa Group, defaulted on its principle payment to foreign banks to a tune of \$2.3 billion.⁷⁵ Additionally, by the end of April 1982, for the first time, Mexico drew the maximum \$800 million on the swap line from the United States Federal Reserve in order to remain solvent.⁷⁶ By now, the IMF and Mexico’s government were in constant negotiations and it was clear that unless Mexico was able to continue to receive foreign loans, it would be unable to continue to balance its books.⁷⁷ The Mexican government knew that it would have to continue to make drastic spending cuts in order to even come close to balancing its budget. By this time, the Mexican government was pleading with foreign investors to continue lending.⁷⁸ Surprisingly, several foreign banks did continue to negotiate new loans with the Mexican government (given how much the foreign banks already had invested in Mexico, there was really no other choice).⁷⁹ Throughout this time of financial unrest, foreign banks were becoming increasingly weary of dealings with Mexico. This weariness materialized in the decrease in maturity dates of the new loans being issued to Mexico. Maturity dates for Eurodollar loans were traditionally medium to long term. By mid-1982, only short term loans were being offered to the Mexican government. In addition, due to the widening interest rate gap between LIBOR, the Mexican peso, and the United States dollar, banks understood that Mexico was going to have a very hard time repaying their

⁷⁴ Boughton, *Silent Revolution*, 284; Lustig, *Mexico: The Remaking of an Economy*, 25; Newell and Rubio, *Mexico’s Dilemma*, 222–224; Duncan Green, *Silent Revolution*, 22.

⁷⁵ “The Debt Burden on Alfa of Mexico,” *New York Times*, May 10, 1982, pp. D1, D5.

⁷⁶ Boughton, *Silent Revolution*, 285; Munk, *Exchange Stabilization Fund Loans to Sovereign Borrowers*, 217-219.

⁷⁷ Boughton, *Silent Revolution*, 285.

⁷⁸ Green, *Silent Revolution*, 64.

⁷⁹ Green, *Silent Revolution*, 65.

loans.⁸⁰ Mexico did start to adjust their financial policy—promising public spending cuts as well as cutting the fiscal deficit by 3%.⁸¹ Both of these measures were accomplished, but the damage was done. By this point, everyone knew that Mexico’s fate relied on their ability to ensure foreign public financing.⁸² Even though the IMF had considerable clout on the world economic stage, they could not force the public corporations and foreign banks to continue to fund a sinking ship. The banking sector had learned its lesson in their dealings with Alfa Group, and they instituted a new policy; in order for Mexico to continue to receive financing from the public sector, the banks demanded principle repayment of their current loans on time, with no exceptions. On 4 August 1983, Mexico’s central bank again withdrew another \$700 million from the swap line with the U.S. Federal Reserve.⁸³ This proved to be insufficient and on the 11th of August 1982, the Finance Minister of Mexico, Silvia Herzog informed the IMF that Mexico was unable to meet its principle payments to its major creditors that were due on Monday, 16 August, 1982.⁸⁴

Now that the crisis was in full swing (the beginning of the third phase), the real work began. As soon as this occurred, the IMF notified Volcker (the current chairman of the United States Federal Reserve) who immediately phoned all of the major holders of the debt that would be defaulted on by Mexico. This included the Bank for International Settlements (BIS) in Switzerland, the Bank of England in London, the Bank of Japan, and the Bank of Tokyo in Japan. Before 1982 was over, the United States had extended a \$1 billion swap line of credit to Mexico in addition to already paying \$4.6 billion dollars of Mexican debt. Even though the U.S. was the primary holder of the debt, this was an international effort. BIS gave Mexico \$925 million, France, Israel, and Spain accounted

⁸⁰ Boughton, *Silent Revolution*, 286.

⁸¹ Looney, *Economic Policymaking in Mexico*, 112.

⁸² Boughton, *Silent Revolution*, 287.

⁸³ Munk, *Exchange Stabilization Fund Loans to Sovereign Borrowers*, 217–219

⁸⁴ Boughton, *Silent Revolution*, 290; Newell and Rubio, *Mexico’s Dilemma*, 225; Bulmer-Thomas, *The Economic History of Latin American Since Independence*, 353.

for \$550 million, the IMF accounted for \$3.86 billion, and commercial banks, in addition to allowing the principle payments to slide, gave an additional \$5 billion.⁸⁵

Now that funds had been allocated to stem an immediate worldwide financial meltdown, the Mexican economy had to be stabilized. The first stabilization program that was instituted in Mexico was the *Programa Inmediato de Feordenacion Economica* (Program of Immediate Economic Reorganization, or PIRE). PIRE was a two stage policy: first, a “shock treatment” would be instituted in 1983, followed by “gradualist” policies (running from 1984–1985).⁸⁶ The shock treatment consisted of a large devaluation of the free and controlled exchange rates, increases in tax and non-tax revenues, and a further decrease in public spending.⁸⁷ Now that a short run solution was implemented, Mexico turned its attention to the repayment of debt.

In order to Mexico to successfully be able to repay their debt, an agreement had to be reached where either debt could be reduced or rescheduled. The solution to this problem was FICORCA (*Fideicomiso para la Cobertura de Riesgos Cambiarios* – loosely translated it means Trust for Hedging) program, which allowed Mexican firms to reschedule repayments of foreign debt and make payments in pesos to the Mexican central bank. Once the bank received the required amount of payments, it would send out dollar payments to the foreign creditors. This program ended up being of vital importance, ensuring Mexico would not have to continually draw on the swap line of credit to ensure repayments occurred on schedule. This policy proved to be a tremendous success for the Mexican government, accounting for over \$12 billion in debt repayment by year end.⁸⁸ Even though the current account deficit was reduced at a greater rate than PIRE projected (3.6% of GDP as opposed to –2.2%) due in part to FICORCA, Inflation,

⁸⁵ Boughton, *Silent Revolution*, 293.

⁸⁶ Lustig, *Mexico: The Remaking of an Economy*, 29; Heckert, Ramos, and Wright, “A Multi-Country Evaluation of Trade Imbalances,” 5.

⁸⁷ Lustig, *Mexico: The Remaking of an Economy*, 31; Heckert, Ramos, and Wright, “A Multi-Country Evaluation of Trade Imbalances,” 5.

⁸⁸ Boughton, *Silent Revolution*, 360; Lustig, *Mexico: The Remaking of an Economy*, 31.

Public Sector Borrowing Requirement (PSBR), and real GDP growth goals were all not achieved.⁸⁹ Even with PIRE lackluster performance, Mexico did not experience any unexpected financial shocks and by the years end, a policy program for repayment was approved for 1984.

1984 marked the beginning of the “gradualists” phase of PIRE; its goals included “a slower deceleration of inflation, further improvement of the trade surplus, and resumption of the historical growth rates.”⁹⁰ These goals would be accomplished through controls on exchange rates, minimum wage levels, and the prices of consumer goods and services.⁹¹ In addition to the implementation of phase two of PIRE, several major financial hurdles were cleared in 1984; one major issue was an additional loan made through private banks to the tune of \$3.8 billion to ensure that the balance of payments for the year end could be achieved. Once again, the commercial banks were loaning more and more money to ensure that things did not get any worse throughout the world. Additionally, a Multiyear Rescheduling Agreement (MYRA) plan was set in place to ensure that the IMF would be allowed to continue to monitor the progress made by Mexico in exchange for continued private bank support for the country.⁹² MYRA included a semiannual inspection of Mexico’s balance of payment sheets and a review of policy implementations. This was designed to help ease tension in the banking sector by shifting from single year agreements to multiyear, medium term loan and policy agreements. The agreement between Mexico, the IMF, World Bank, and the private sector that allowed the passage of the MYRA plan, was a huge breakthrough in the rescheduling of payments. On 8 September 1984, the private banking sector agreed to a rescheduling of \$55 billion in loans due to mature between 1985 and 1990.⁹³ In addition to lengthening the maturity of the loans, interest rates spread as compared to the LIBOR

⁸⁹ Lustig, Mexico: The Remaking of an Economy, 34–35.

⁹⁰ Lustig, Mexico: The Remaking of an Economy, 34.

⁹¹ Lustig, Mexico: The Remaking of an Economy, 34.

⁹² Boughton, Silent Revolution, 364–369.

⁹³ Boughton, Silent Revolution, 368.

were reduced.⁹⁴ By mid-1984, there was consensus between the major lenders and the Mexican government that a mild economic recovery was in full swing; however, this optimism was short lived.

By years end in 1984, the PIRE policies designed to combat inflation backfired. The decision to relax the fiscal stance and allow the exchange rate to appreciate led to a rapid deterioration of the trade surplus. To make matters worse, non-oil exports decreased and oil export revenues declined 11%.⁹⁵ This resulted in the PIRE, once again not meeting its inflation reduction or PSRB goals. Real GDP growth and the reduction of the current account deficit goals were achieved, however, there was little actual progress made on correcting the root cause of the 1983 LDC debt crisis.⁹⁶ Even with this lack luster performance, all IMF policy goals were achieved and, 1985s policy goals had been agreed upon.

The economic downturn that took place in 1984 continued into 1985. Improvements in the balance of payments were coming at the expense of imports and not through trade liberalization.⁹⁷ Additionally, the exchange rate was becoming seriously overvalued again. A third setback occurred when the president informed the IMF that a wage increase of at least 10% was due to the public.⁹⁸ The IMF regarded this as the wrong policy given the ongoing problems with inflation, however, there were political implication if the wage increase was not implemented. Finally, the straw that broke the camel's back was placed in October 1985. The IMF was informed that Mexico was going to be unable to meet the performance criteria required to ensure funding for the

⁹⁴ Boughton, *Silent Revolution*, 369.

⁹⁵ Lustig, *Mexico: The Remaking of an Economy*, 36

⁹⁶ Lustig, *Mexico: The Remaking of an Economy*, 35.

⁹⁷ Boughton, *Silent Revolution*, 369; Lustig, *Mexico: The Remaking of an Economy*, 36.

⁹⁸ Boughton, *Silent Revolution*, 369.

following year.⁹⁹ The peso continued to devalue and given the lack of policy objectives met in 1985, the IMF was unable to approve policy objectives for 1986. Given the peso's devaluation on the global economic market, it was allowed to float for the first time since the LDC crisis began.¹⁰⁰

Not everything in 1985 was for the worse. In 1984 a decision had been made to start the liberalization of the economy in 1985. The initial goals were to liberalize 35% to 45% of total imports by year end.¹⁰¹ Even though this was accompanied by an increase in tariffs, the importance of this shift cannot be underestimated. For the first time in nearly 30 years, Mexico was officially adopting an outward growth model.

As 1985 drew to an end, Mexico officially abandoned PIRE and a new program needed to be developed.¹⁰² Just when Mexico thought that it could not get any worse, a series of earthquakes centered near Mexico City destroyed infrastructure and caused massive public suffering.¹⁰³ Even though the IMF allowed emergency funding, the damage to the infrastructure was immense and would take months to correct, setting Mexico's economic progress back yet again. When the numbers were tallied, the earthquakes cost Mexico an estimated 3.5% of their GDP, and to make matters worse, \$1 billion in principle repayments were coming due (these were allowed to slip and were eventually rescheduled).¹⁰⁴

Throughout the turmoil in 1985, the Mexican government attempted to make considerable strides in reorganizing their economic structure, but due to the previously mentioned issues, it led to little, actual results. However, in 1986 (the fourth phase of the

⁹⁹ Boughton, *Silent Revolution*, 369; Lustig, *Mexico: The Remaking of an Economy*, 36 and 39.

¹⁰⁰ Boughton, *Silent Revolution*, 371; Lustig, *Mexico: The Remaking of an Economy*, 36.

¹⁰¹ Lustig, *Mexico: The Remaking of an Economy*, 39.

¹⁰² Lustig, *Mexico: The Remaking of an Economy*, 36; Heckert, Ramos, and Wright, "A Multi-Country Evaluation of Trade Imbalances," 5.

¹⁰³ Heckert, Ramos, and Wright, "A Multi-Country Evaluation of Trade Imbalances," 5; Lustig, *Mexico: The Remaking of an Economy*, 39.

¹⁰⁴ Boughton, *Silent Revolution*, 371.

historical narrative), things did change considerably on the structural side. It was clear that even though things in Mexico were improving, the underlying cause of the lack of growth had yet to truly be addressed; ISI. In order to actually fix the problem, a structural transformation needed to occur. In 1985, banks started to pull most of their future financing out of LDC indebted countries and by 1986, the flow had reversed.¹⁰⁵ On a positive note, the United States dollar had started to depreciate in March of 1985.¹⁰⁶ Another positive aspect is MYRA was working and in Mexico from 1986 through 1989, the average \$9.6 billion dollar yearly payment had be rescheduled to a merger \$1.1 billion a year payment.¹⁰⁷

In the midst of this chaos, a plan to fix the structural issues that was plaguing Mexico was developed. U.S. Secretary of the Treasury, James A. Baker III, developed a plan which consisted of three main parts that were designed to actually increase growth and reduce debt simultaneously.¹⁰⁸

First, principle debtor countries should adopt a comprehensive macroeconomic and structural policies, which must be supported by the international financial community, to promote growth and balance of payments adjustment and to reduce inflation. Second, a continued central role for the IMF is called for, in conjunction with increased and more effective structural adjustments lending by the multilateral development banks in support of the adoption by principal debtors of market-oriented policies for growth. Third, private banks should increase their lending in support of comprehensive economic adjustments programs.¹⁰⁹

His plan was revolutionary, but there still was a lack of empirical evidence (at the time) that actually linked structural reforms with growth.¹¹⁰ In order to accomplish these

¹⁰⁵ Boughton, *Silent Revolution*, 415.

¹⁰⁶ Boughton, *Silent Revolution*, 416.

¹⁰⁷ Boughton, *Silent Revolution*, 416.

¹⁰⁸ Bulmer-Thomas, *The Economic History of Latin American Since Independence*, 360; Bowe and Dean, *Has the market solved the sovereign-debt crisis?*, 6.

¹⁰⁹ Boughton, *Silent Revolution*, 417.

¹¹⁰ Boughton, *Silent Revolution*, 418; Bowe and Dean, *has the market solved the sovereign-debt crisis?*, 1.

goals, he recommended that the World Bank and the Inter-American Development Bank increase their funds to LDC nations by 50%. In addition, he wanted to ensure that commercial banks provide a minimum of \$20 billion to the 15 most indebted countries between the years of 1986 and 1989.¹¹¹ Even though his policy was, for the most part, adopted with very few changes by the IMF and the World Bank, and his targeted cash flows to indebted countries were, for the most part accomplished, little actual growth occurred directly due to the Baker Plan.¹¹² This was not due to the structure of his plan, but events outside his control. First, in 1986, due to price competition and production cutbacks by OPEC members, oil prices decreased from \$25.5 per barrel in 1985 to \$12.00 per barrel in 1986.¹¹³ Second, in 1987, Brazil announced a moratorium on debt services.¹¹⁴ These two events created a false appearance of success, however, in the long run, the Baker Plan produced little real growth for Mexico or any other LDC debt crisis country.¹¹⁵ By the end of 1986, things in Mexico were as bad as they had been since the beginning of the LDC debt crisis: real GDP fell by 3.8% as a result of the oil price decrease, the peso depreciated 46%, inflation was measured at 105.7% in December of 1986, and real wages dropped between 6 and 11%.¹¹⁶

The policy that did make drastic changes was implemented in December 1987, during the second year of the Baker Plan. The Mexican government reached an agreement with the labor unions in Mexico to stop devaluing the peso at rates equal to, or

¹¹¹ Boughton, *Silent Revolution*, 419.

¹¹² Bowe and Dean, *has the market solved the sovereign-debt crisis?*, 6.

¹¹³ "Crude Oil Price Collapse of 1986." Last modified 21 May, 2008. <http://www.freerepublic.com/focus/f-news/2019385/posts>. Accessed on 02 April, 2012; Michael Bowe and James W. Dean, *has the market solved the sovereign-debt crisis?*, 7; Lustig, *Mexico: The Remaking of an Economy*, 39.

¹¹⁴ Bowe and Dean, *has the market solved the sovereign-debt crisis?*, 7.

¹¹⁵ Bowe and Dean, *has the market solved the sovereign-debt crisis?*, 9.

¹¹⁶ Lustig, *Mexico: The Remaking of an Economy*, 44–45; real wage depreciation figures depend on the indicator analyzed.

higher, than the inflation rate.¹¹⁷ The actual plan that the Mexican government decided to pursue was to restrain wages and prices.¹¹⁸ In other words, a comprehensive income policy was finally attempted to reduce inflation.¹¹⁹ The agreement became known as the Economic Solidarity Pact (*Pacto de Solidaridad Económica* or Pacto for short). Pacto ended up being extremely effective. It further helped reduce public spending and implemented a complete overhaul of the Mexican tax system. In addition, Pacto played a key role in promoting trade liberalization and also started breaking up key state monopolies to include the ever important banking reform. Quite possibly, the biggest measurable change was a reduction of the inflation rate. Between the time Pacto was implemented in late 1987, to the end of 1988, inflation fell from 159% to 52%.¹²⁰ Though Pacto was making tremendous progress in controlling and reducing the inflation rate in Mexico, by 1988 a new economic crisis began to simmer. In order to understand how the 1994 peso crisis erupted, it is important to understand how Pacto was designed to work.

Pacto, was an agreement between the labor unions, key private business leaders, and the government. Pacto worked by using income policy and exchange rate targeting to induce inflation stabilization in Mexico. In more practical terms, this amounted to labor agreeing to limit wage inflation, the key business leaders agreeing to limit price inflation, and the government contributing through the use of public sector price and the exchange rate stability.¹²¹ This agreement however, had several unintended consequences. Even though Pacto was very successful at reducing the inflation rate of the Peso, it also possessed the potential to produce “significant real exchange rate overvaluation, loss of

¹¹⁷ “Macroeconomic Management,” Country Studies, <http://countrystudies.us/mexico/66.htm> (accessed on 21 August 2011)

¹¹⁸ “Macroeconomic Management,” Country Studies, <http://countrystudies.us/mexico/66.htm> (accessed on 21 August 2011)

¹¹⁹ Lustig, Mexico: The Remaking of an Economy, 51.

¹²⁰ Boughton, Silent Revolution, 451–452.

¹²¹ Dornbusch, Werner, Calvo, and Fischer, “Mexico: Stabilization, Reform, and No Growth,” 51.

competitiveness, and very large trade deficits.”¹²² In Mexico’s case, even though these potential problems were a very real concern, the necessity to reduce inflation outweighed the potential risks. Additionally, the Mexican government was confident that Pacto would not lead to another financial crisis for several reasons: “first the policy started from a situation of undervaluation; second, Mexico had ample international reserves; and third, a rapid rate of productivity growth was supposed to compensate for the appreciation of the Peso.”¹²³ Even though the Mexican government was optimistic they could manage the inflationary drawdown without inducing a follow-on economic crisis, they were unsuccessful; Mexico was unable to use Pacto to reduce inflation without real appreciation of the exchange rate.¹²⁴

Mexico’s inability to avoid a second financial crisis in as many decades was the result of several factors. Some include individual actions on the part of the Banco de México (Central Bank of Mexico) and the Mexican government. Just as Pacto played a key role in the onset of the 1994 peso crisis, so did the Mexican government’s decision to open or liberalize the capital account early in the neo liberal reform process.¹²⁵ As is important in all economic frameworks, the order in which a government chooses to implement key policy decisions will impact the economy in very different ways. One consequence of the 1989 decision to relax capital controls was the subsequent inflow of short term capital into the Mexican economy. Just as in 1983, this large inflow of capital into the system, fueled expenditures that created a consumption boom, put additional pressure on an ever increasing real exchange rate, and further fueled the increase in the current-account deficit.¹²⁶ In addition to this chain of events, private savings declined

¹²² Edwards, “Bad Luck of Bad Policies?,” 104.

¹²³ Edwards, “Bad Luck of Bad Policies?,” 104.

¹²⁴ Lustig, Mexico: The Remaking of an Economy, 155; Whitt, Jr., “The Mexican Peso Crisis,” 2.

¹²⁵ Edwards, “Bad Luck of Bad Policies?,” 105.

¹²⁶ Edwards, “Bad Luck of Bad Policies?,” 106; Whitt, “The Mexican Peso Crisis,” 9.

considerably for the last few months of 1989.¹²⁷ For the remainder of the 1980s, Mexico seemed to be moving towards economic stability, due in large part to their neo liberal reform package. It was still too early to tell that the actions of the Mexican government and the Banco de México had inadvertently placed Mexico on a path towards a second economic crisis in as many decades.

In the early 1990s, Mexico was being hailed as a model of neo liberal reform and the praises that were being showered down were taking the form of more than just words.¹²⁸ From 1990–1993, international investment in Mexico had returned. During the Salinas administration, the Banco de México was able to attract over \$50 billion dollars in cumulative foreign investment.¹²⁹ Even though they were receiving considerable attention from IGO's and Multinational Corporations, problems were beginning to mount. Just as private savings had decreased considerably in the latter half of 1989, by 1992, public savings too had been reduced as a result of the relaxing of capital controls.¹³⁰ This, paired with the rise in real appreciation in the exchange rate, keyed several individuals in prominent positions to being asking questions.¹³¹ The World Bank released a public document that stated, "Opening its [Mexico] current account also exposes Mexico to the volatility of short term capital movements that can transmit destabilizing external shocks to the economy even if the policies are right."¹³² To adjust for this issue, they recommended the increasing of interest rates and possibly depreciating the peso.¹³³ To calm fears, the Mexican government indicated that the fiscal

¹²⁷ There has been considerable debate in the economic community as to whether this decrease in private savings was the result of relaxing capital controls or just the substitution of other durable goods for financial assets.

¹²⁸ Edwards, "Bad Luck of Bad Policies?," 99–100.

¹²⁹ Adams, *Mexican Banking and Investment in Transition*, 155.

¹³⁰ Lustig, *Mexico: The Remaking of an Economy*, 156.

¹³¹ Edwards, "Bad Luck of Bad Policies?," 107.

¹³² The World Bank, *Trends in Developing Economies*, 359.

¹³³ The World Bank, *Trends in Developing Economies*, 359.

accounts were still running a surplus and that the inflows of capital were largely private. Additionally, flexible exchange rates (within the band of allowable movement as stipulated in Pacto) allowed the economy enough leeway to adjust to international economic events without placing the overall economic health of the country in danger. If this was still not enough reassurance to calm investors' fears, Mexico was about to increase exports as well as productivity due to the upcoming signing of NAFTA. When investors viewed all the available evidence, combined with the constant reassurance of IGOs and the U.S. government, they continued to invest in Mexico in record numbers.¹³⁴

Even though investors' fears had been addressed, the real exchange rate was still increasing; some would argue at an unsustainable rate. The rebuttal to this argument was based on sound economic principles. The increase in the real exchange rate was based on achieving equilibrium as a consequence of the liberalization reforms that had taken place in Mexico through the 1980s and early 1990s.¹³⁵ The problem with this theory, is that Mexico was experiencing capital inflows of upward of 7% of GDP...a level that cannot be sustained in the long run. In the short or medium time frame, interest rate differentials, the perceived degrees of country and exchange rate risk, and the openness of an economy will allow increased debt or negative current account deficits to be held in the public market. However, when viewed in the long run, these temporary measure lose their effectiveness and when combined with the pegged exchange rate system that Pacto implemented, when adjustments need to be made, based on increased capital inflows and the resultant current account deficit, it is unable to be accomplished.¹³⁶ Unfortunately, this is exactly what happened in Mexico.

When the new year dawned in 1994, economic indicators were still looking exceptionally sound, and investors continued to put considerable confidence and capital

¹³⁴ Edwards, "Bad Luck of Bad Policies?," 107.

¹³⁵ Edwards, "Bad Luck of Bad Policies?," 108.

¹³⁶ Edwards, "Bad Luck of Bad Policies?," 109; Lustig, *Mexico: The Remaking of an Economy*, 157; Whitt, "The Mexican Peso Crisis," 8.

into the Mexican economy. The good luck of the Mexican economy however, would not hold for much longer. Several political and international events occurred in the early months of 1994 that changed the economic climate in Mexico. These events would have an effect on how the Mexican government and the Banco de México choose to handle their deteriorating financial system.

First, because of sustained economic performance in the U.S., the Fed decided to raise the federal funds rate. This resulted in capital flight back to the U.S. to take advantage of increase yields offered in U.S. markets.¹³⁷ Second, on January 1st, Zapatista Army of National Liberation, a revolutionary leftist group, declared war on Mexico.¹³⁸ The rebellion grabbed international headlines throughout the world and it showed that even though Mexico has been on an impressive road to economic recovery, there is still much work to be done.¹³⁹ Just a month later the *Financial Times* ran an article that pointed out several income distribution issues. Third, on March 23rd, Luis Donaldo Colosio, the PRI presidential candidate, was assassinated.¹⁴⁰

These three major events had far reaching consequences. First, the exchange rate for the peso moved to the upper limit of the band.¹⁴¹ Second, a financial panic ensued and the demand for Mexican securities, or Mexican debt, took a sharp decline.¹⁴² After consulting with their NAFTA partners, Mexico decided that this event was a short term, non-reoccurring issue; to deal with their problems, Mexico raised the domestic interest rate, issued more dollar denominated securities (*tesobones*), and allowed the U.S. to

¹³⁷ Lustig, *Mexico: The Remaking of an Economy*, 157–158; Lustig, *Mexico: The Remaking of an Economy*, 158; Whitt, “The Mexican Peso Crisis,” 11.

¹³⁸ Casa, “Timeline of Zapatista Movement,” <http://www.casacollective.org/content/timeline-zapatista-movement> (accessed on 03 March, 2012); Whitt, “The Mexican Peso Crisis,” 2.

¹³⁹ Edwards, “Bad Luck of Bad Policies?,” 110.

¹⁴⁰ Edwards, “Bad Luck of Bad Policies?,” 111; Lustig, *Mexico: The Remaking of an Economy*, 158; Whitt, “The Mexican Peso Crisis,” 2.

¹⁴¹ Edwards, “Bad Luck of Bad Policies?,” 110; Lustig, *Mexico: The Remaking of an Economy*, 158.

¹⁴² Whitt, “The Mexican Peso Crisis,” 2.

invest \$10 billion to assist Mexico in stabilizing the peso.¹⁴³ In the same month, the 28 day *cetes* (peso-denominated government securities) interest rates increased from 10% to 16%. The U.S. Federal Reserve extended an additional \$6 billion dollar swap line of credit to further stabilize the situation, however, it was never called into use.¹⁴⁴

Even though both of these events did have minor implications on the interest rate and the exchange rate, the international community, for the most part, didn't seem to pay much attention. Even though the investors had access to the tri-yearly announcement of the current account deficit (which by September 1994 was just shy of \$20 billion dollars), capital was still flowing into the economy at very high rates. The fact that capital was still flowing into the economy at high rates was not as troubling as how it was being invested.

Just like the beginning of the 1983 LDC debt crisis, Mexico was experiencing issues paying their peso dominated debt.¹⁴⁵ To temporarily fix the problem, the Mexican government decided to impose an interest rate cap on all *cetes* and issue increased *tesobonos*.¹⁴⁶ In December of 1993, 76.5% of Mexican debt was held in *cetes* and *tesobonos* only accounted for 4.8%. By December 1994, that rate was almost completely reversed; *cetes* accounted for only 14.2% of Mexican debt, and *tesobonos* held 80.6%.¹⁴⁷ Additionally, the government made the decision to maintain the money supply target (the total amount of money available in an economy at a specific time).¹⁴⁸ This meant that when the Mexican government decided to decrease the reserves to pay their external debt,

¹⁴³ Edwards, "Bad Luck of Bad Policies?," 111; Lustig, *Mexico: The Remaking of an Economy*, 158.

¹⁴⁴ Edwards, "Bad Luck of Bad Policies?," 111; Lustig, *Mexico: The Remaking of an Economy*, 159.

¹⁴⁵ Whitt, "The Mexican Peso Crisis," 2.

¹⁴⁶ Edwards, "Bad Luck of Bad Policies?," 112.

¹⁴⁷ Lustig, *Mexico: The Remaking of an Economy*, 160; Whitt, "The Mexican Peso Crisis," 11.

¹⁴⁸ Johnson, "A Glossary of Political Economy Terms," Department of Political Science, Auburn University, http://www.auburn.edu/~johnspm/gloss/money_stock (accessed on 03 March, 2012); Lustig, *Mexico: The Remaking of an Economy*, 160.

as is prudent given the \$20 billion deficit in their current account, due to sluggish export performance in the traditional sectors of the economy, they had to increase credit.

By mid-1994, there was no hiding the fact that the peso was overvalued. The Brookings Institution economic panel would argue by upwards of 30%.¹⁴⁹ The Pacto fixed / pegged exchange rate system, in conjunction with the absolute instance in maintaining single digit inflation rates was unsustainable in the long run. In May 1994, a memo from the Treasury Assistant Secretary for International Affairs pointed out that the Mexican government has spent \$10 Billion dollars in defending the peso since the assassination of Colosio.¹⁵⁰

In August of 1994, the new PRI candidate was elected president and in September, Pacto was renewed for another year.¹⁵¹ When the new administration took office, the major aspects of the economic policy were left untouched. This decision was at least partially based on the hopes that capital inflows would return to the 1990–1993 rates and that any change in the exchange rate of the peso would adversely affect that extremely vulnerable national banking sector.¹⁵²

By October, due to the number of U.S. dollar linked securities and bonds that the Mexican government was issuing, the M3 monetary aggregate (or the traditional assets plus long term deposits) was increasing at an annual rate of over 20%.¹⁵³ Couple this with the increase in dollar denominated debt previously discussed, and Mexico was primed for a financial crisis. To make matters worse, Telmex posted disappointing third quarter earnings, caused by the entrance of AT&T into the Mexican market. This action

¹⁴⁹ Edwards, “Bad Luck of Bad Policies?,” 112; additionally, economists such as “Rudiger Dornbusch (1993) and John Williamson (1993) both recommended that policy action be taken to reduce the real value of the peso.”; Whitt, “The Mexican Peso Crisis,” 5.

¹⁵⁰ Edwards, “Bad Luck of Bad Policies?,” 113.

¹⁵¹ Lustig, Mexico: The Remaking of an Economy, 160; Whitt, “The Mexican Peso Crisis,” 2.

¹⁵² Edwards, “Bad Luck of Bad Policies?,” 115; Lustig, Mexico: The Remaking of an Economy, 160.

¹⁵³ Brown, “Principles of Economics,” 728-729.

resulted in the decline of the internal reserves of over \$5 billion dollars.¹⁵⁴ In late October, Mexico granted 52 operating licenses to foreign banks to bolster the ever weakening economy. However, by this point, the damage to the economy had reached a tipping point and these efforts proved fruitless. By the end of November, the reserves in Mexico were valued at \$12.5 billion dollars, however short term public debt, 70% of which was *tesobonos* debt, was valued at \$27 billion dollars.¹⁵⁵

In December, following months of continual declining reserves, the international community decided that holding Mexican debt was not a prudent decision; a massive withdrawal of funds took place. On December 20th, the exchange rate band attached to the peso was widened, allowing for a 15% devaluation of the Peso.¹⁵⁶ On the same day, investors pulled an amazing \$4 billion dollars out of Mexican economy, leaving the reserves with an inadequate \$6 billion dollars to pay their foreign lenders.¹⁵⁷

C. CONCLUSION

The 1983 LDC debt crisis was clearly the result of the fundamentally flawed ISI policies that were in place for the better part of four decades. The reform measures that were introduced were clearly instrumental in the recovery of Mexico's economy; yet at the same time, some of the reforms actually led to the onset of the 1994 Peso crisis. Even though GDP recovered to its pre-crisis numbers by 1997, the policy changes that were implemented following both crises have had lasting effects.¹⁵⁸ Chapter III will evaluate

¹⁵⁴ Edwards, "Bad Luck of Bad Policies?," 116.

¹⁵⁵ Edwards, "Bad Luck of Bad Policies?," 116; Lustig, Mexico: The Remaking of an Economy, 162; Whitt, "The Mexican Peso Crisis," 12.

¹⁵⁶ Lustig, Mexico: The Remaking of an Economy, 162; Whitt, "The Mexican Peso Crisis," 4.

¹⁵⁷ Edwards, "Bad Luck of Bad Policies?," 118; Lustig, Mexico: The Remaking of an Economy, 162.

¹⁵⁸ Google Public Data Explorer Labs, World Development Indicators (subset), http://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&ctype=l&met_y=si_pov_gini#!ctype=l&strail=false&bcs=d&nselm=h&met_y=ny_gdp_mktp_cd&scale_y=lin&ind_y=false&rdim=region&idim=country:MEX&ifdim=region&hl=en&dl=en (accessed on 10 March, 2012).

the role of ISI in the onset of the 1983 LDC debt crisis, and the economic reforms that were implemented following both crises.

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III. IMPLEMENTATION OF THE REFORMS

A. INTRODUCTION

In the aftermath of the 1982 LDC debt crisis, the government slowly started to implement structural reforms. During the first period of the debt crisis (1982–1985), the reforms were less than effective, and any positive results that structural changes produced were greatly reduced, or completely negated by other minor crises. During the subsequent phases, due to the Baker Plan and Pacto, major structural reforms occurred. This chapter is subdivided into two main sections: the first deals with the reforms resulting from the 1983 LDC debt crisis and the second focuses on the reforms resulting from the 1994 peso crisis. Prior to evaluating these reforms, ISI will be examined, focusing specifically on how its policies helped steer the reform packages that were recommended from the IMF and U.S. government. Following this examination, the five major economic reforms will be examined. Each economic reform will be evaluated by first looking at problems that Mexico was facing, the theory that supported the reforms, and the actual reform that was implemented.

B. STRUCTURAL REFORMS FOLLOWING THE 1983 LDC DEBT CRISIS

The reforms that Mexico enacted following the 1983 LDC debt crisis can be grouped into two general categories: economic reforms and social/political reforms. Economic reforms included:

- an increase in free trade, otherwise known as trade liberalization
- an increase in the commitment and effectiveness of the Mexican government to combat monopoly power
- the controlling of inflation through the use of Pacto
- structural changes throughout the tax system

The political reforms included:

- increases in the performance of the judicial system
- an increase in the institutional safeguards in order to guarantee fiscal discipline and increase in local government empowerment
- an increase in competitive federalism
- a reduction in the initiation costs of firms broadly known as a more regulatory environment
- an increase in the distribution of public educational expenditures as well as their accountability

This chapter will only be evaluating the economic reforms and their impact on Mexico's economic growth. All of these reforms were designed to move Mexico away from ISI, Mexico's economic system at the time of the collapse, towards a free market oriented system. Prior to delving into the individual reforms, it is necessary to take a closer look at ISI.

C. IMPORT SUBSTITUTION INDUSTRIALIZATION

ISI is a development strategy that promotes barriers to trade in order to promote internal growth.¹⁵⁹ Instead of relying on the highly unstable external markets (specifically oil and other commodity markets), Mexico could use the fundamentals of ISI (high trade barriers) to promote internal growth. "The goal was to create industries capable of producing substitutes for expensive imports while simultaneously promoting industrial growth and the expansion of internal economies."¹⁶⁰ Mexico would produce key products that are expensive to import (usually this is advanced industrial/consumer products such as automobiles, refrigerators, etc...) while at the same time, allowing a safe

¹⁵⁹ Franko, *The Puzzle of Latin American Economic Development*, 52; Baer, "Import Substitution and Industrialization in Latin America, 95.

¹⁶⁰ Franko, *The Puzzle of Latin American Economic Development*, 56.

and protected sector for Mexico's infant industry to grow.¹⁶¹ The theory was that ISI would induce a process of learning, driven by exposure to new ideas and processes that would dynamically spill over into the whole economy.¹⁶² Once this process of learning occurred, and the infant industry developed to a point where it could support itself in the competitive market, each sector of the economy would be individually reintroduced into the competitive free market system. During the post-World War II era, this policy was endorsed by several key financial institutions such as the Economic Commission for Latin America and the Caribbean (known as either ECLA or CEPAL for its Spanish acronym) in hopes that it would promote long term growth in the same ways that their counterparts in the United States and Europe were experiencing.¹⁶³

The ISI theory was based on a string of casual logic that can be traced back to dependency theory. According to dependency theory, countries did not succeed or fail because of internal national endowments, but because of a countries' ability or inability to set the rules of the international economic game.¹⁶⁴ In the real world, this meant that large, industrialized countries defined the rules and small, less developed countries were merely pawns in the international economic game for power and profit. In short, rich countries became richer by making poor countries even poorer.¹⁶⁵ Dependency theorist such as Fernando Henrique Cardoso and Enzo Faletto believed that the peripheral countries could overcome their current imbalance in the international economic game, but only through active state involvement.¹⁶⁶

¹⁶¹ This is based off of the theory that is represented in Baer, "Import Substitution and Industrialization in Latin America, 96.

¹⁶² Franko, *The Puzzle of Latin American Economic Development*, 56.

¹⁶³ Franko, *The Puzzle of Latin American Economic Development*, 56; Baer, "Import Substitution and Industrialization in Latin America, 97.

¹⁶⁴ Franko, *The Puzzle of Latin American Economic Development*, 53; Matias Vernengo, "Dependency Theory." University of Utah, Department of Economics. <http://www.econ.utah.edu/~vernengo/papers/princeton.pdf> (accessed on 09 April, 2012), 1.

¹⁶⁵ Franko, *The Puzzle of Latin American Economic Development*, 54.

¹⁶⁶ Franko, *The Puzzle of Latin American Economic Development*, 54; Baer, "Import Substitution and Industrialization in Latin America, 97-98.

At this point in the story, ECLA enters the picture under the ever guiding hand of structuralist Raúl Prebisch. Prebisch and his small group of structural economists focused on three interesting observations: first, they noticed that the industrialized countries controlled the technology and that the distribution of that technology was slow. Second, they were interested in the apparent correlation between interruptions in trade and growth during the WWII. Finally, they observed that most Latin American economies relied heavily on commodity exports that had wide price fluctuations, such as oil or certain ore extracts.¹⁶⁷ Based on these three assumptions, Prebisch and his team determined that first, because less developed countries export agricultural products and trade them for technologically advanced products, they ended up facing declining terms of trade. Due to these declining terms of trade, developing countries needed to export more and more of their primary products, such as agricultural products and oil, to keep up with developed countries. Second, they arrived at the conclusion that international economics does not follow the preconceived rules that neo classical economists have assumed for centuries. In contrast to the neo classical approach, Prebisch believed that economics is driven by politics. Because politics drives economics, less developed countries tend to be a hand full of oligopolies and conglomerates. This leads to a movement away from the natural equilibrium of supply and demand and produces greater tension in the system. Furthermore, this tension leads to inequality in the international economic system.¹⁶⁸ The assumptions drawn from both of these theories, led most of the governments in the developing world to implement ISI as their basis for their economic growth.¹⁶⁹

ISI employs several mechanisms or policies to help achieve growth. In Mexico, the tools took the role of the following policies: active industrial policy, high tariff walls (otherwise known as protectionism), targeted lending to key sectors, multinational

¹⁶⁷ Franko, *The Puzzle of Latin American Economic Development*, 54; Brid and Caldentey, *Trade and economic growth*, 8.

¹⁶⁸ Franko, *The Puzzle of Latin American Economic Development*, 55; Brid and Caldentey, *Trade and economic growth*, 8.

¹⁶⁹ Bulmer-Thomas, *The Economic History of Latin American Since Independence*, 268.

activity (loans from outside the country) and, a passive or loose monetary policy.¹⁷⁰ In Mexico, ISI did produce growth. In fact, the growth throughout the 1950s, 60s, and 70s was unprecedented in Latin America or in any developing country the size of Mexico. Unfortunately, the growth that was produced was unsustainable. This was the result of the exact monetary policies that allowed it to grow earlier in the century. In order to ensure that certain key industries were growing, target lending was introduced. As economic inefficiencies became apparent (as is always the case for ISI economies in the long run), the government lent greater and greater amounts of money to floundering industries. Not only were large sums of money being handed out at will, but the industries that were being developed were not able to compete in the free market. Eventually, because of the high trade barriers, the inefficient industries, and the large foreign debt that had been accrued due to massive government lending programs, the Mexican economy collapsed under its own weight. Had these policies not been in place (in other words, if Mexico had not adopted ISI) then the crisis would never have occurred.

This dependency on ISI is why the United States Secretary of the Treasury, James A. Baker III insisted that the situation in Mexico would not improve until structural reforms occurred.

D. TRADE LIBERALIZATION

Under ISI, Mexico's economy was operating under a protectionist frame work. ISI works because it closes off the economy to the international free market economy to help the infant industry grow. In order to produce lasting growth, the Mexican government needed to open up their economy to the rest of the world; this action is called trade liberalization. This section will evaluate the two major policy changes that Mexico implemented in an effort to liberalize their economy: reduced barriers into the national economy and international trade agreements. The evaluation will consist of an in-depth

¹⁷⁰ Baer, "Import Substitution and Industrialization in Latin America, 98; Green, Silent Revolution, 16-17.

look into the theory of tariffs and other trade barriers, followed by Mexico's attempt to liberalize their economy through the implementation of free trade agreements and reductions in tariffs.¹⁷¹

1. Tariffs and Barriers to Trade

Tariffs have been used by countries for various reasons for centuries. As stated previously, Mexico used tariffs and other barriers to bar entry into the domestic economy to help certain key industries grow. The economic principle of tariffs are simple; by implementing tariffs, producers can either expand their own production and sales, raise the price they charge, or any combination of the two.¹⁷² As stated in Chapter II, due to the implementation of ISI in Mexico, their economy was relatively closed by international standards. However, during the López–Portillo administration, due to the ever widening current account deficit, several governmental actors were beginning to question if this was the correct stance. President López–Portillo, being a former finance minister for Mexico, understood what needed to happen, and he attempted to start the liberalization process. His moderate approach included swapping some import licenses with tariffs, gradually removing some Official Reference Prices (ORP), and the establishment of fiscal and trade credits. This was designed to reduce anti-export bias and increase industrial efficiency.¹⁷³ However, with increased revenue flowing into Mexico due to the discovery of increased oil reserves, none of these liberalization measures produced much actual change. Regardless of the method used to promote growth, protection levels increased substantially as the level of manufacturing increased. This pattern is most notably in the consumer durables sector and capital goods sector

¹⁷¹ For an in-depth evaluation of tariff theory, see the technical appendix.

¹⁷² Pugel, *International Economics*, 147.

¹⁷³ Ros, *Mexico's Trade and Industrialization Experiences Since 1960*, 6; Roberts, "The Reasons For Mexico's Trade Liberalization," 4.

(effective protection rates averaged 77% throughout the 1970s).¹⁷⁴ This trend increased until the announcement in August 1983, that Mexico had become insolvent.

2. Mexico's Attempt to Rectify the Problem

The IMF, World Bank, and other international economic entities recommended that Mexico reduce their tariffs, thereby allowing their industry to compete naturally in the world wide free market economy. This proved to be a daunting process for Mexico. In July 1985, the Mexican government reluctantly agreed with the afore mentioned institutions and shifted away from ISI towards an export led economic growth model. Between July 1985 and December 1987, Mexico implemented a unilateral trade liberalization program.¹⁷⁵ The program consisted of three major structural changes: the first was accomplished through an import liberalization program.¹⁷⁶ The import liberalization program consisted of a substantial reduction in imports that were protected using permits (the main barrier to trade liberalization in Mexico). A reduction of 35%–45% was mandated for immediate removal, with additional cuts in the months following.¹⁷⁷ In addition, Import Licensing Requirements (ILR) were eliminated on 3600 tariffed items, thereby increasing non licensed imports from 16.4% in December 1984 to 64.1% in December 1985.¹⁷⁸ By using Import Permit Protection (IPP is merely tariffs or entry barriers), the Mexican government was providing substantial protection to local producers. When the government made the decision to reduce IPP, they were essentially removing an extremely large tariff, or barrier, to the world market. Second,

¹⁷⁴ Ros, Mexico's Trade and Industrialization Experiences Since 1960, 9.

¹⁷⁵ Cronin, "Expanding Free Trade," 76.

¹⁷⁶ Pacheco-López, "The Effect of Trade Liberalization on Exports, Imports, the Balance of Trade, and Growth, 4.

¹⁷⁷ Cronin, Expanding Free Trade, 76.

¹⁷⁸ Lustig, Mexico: The Remaking of an Economy, 39; Puyana and Romero, "Trade Liberalization in Mexico," 3; Pacheco-López, "The Effect of Trade Liberalization on Exports, Imports, the Balance of Trade, and Growth," 4.

ORP were phased out.¹⁷⁹ An ORP is the pricing of a product just below its main competitor.¹⁸⁰ When Mexico removed the ORP, it had once again reduced another measure designed to ensure that consumers were purchasing domestic products as opposed to imports. Finally, the top tariff rate was slashed from 100% to 20%.¹⁸¹ (The results of these processes can be seen in the Table 1). It is important to note that this liberalization occurred only in the manufacturing sector. Only later did the Mexican government liberalize its service sector followed by agriculture. Even though they were not liberalized in the initial wave, ISI had a much greater impact on manufactured goods as compared to services and agriculture products.

	Number of Tarriff Items		Tarriffs		
	With Permits	Free	Average	Maximum	Dispersion
Jun-85	4,062	3,963	23.5%	100.0%	25.6%
Dec-85	907	7,154	28.8%	100.0%	25.3%
Jun-86	815	7,293	25.6%	45.0%	18.1%
Dec-86	626	7,457	24.5%	45.0%	17.9%
Jun-87	499	7,798	22.7%	40.0%	15.8%
Dec-87	329	8,117	11.8%	20.0%	7.8%
Jun-88	285	8,187	11.0%	20.0%	8.0%

	Import Permit Coverage	ORP Coverage
Jun-85	92.2%	18.7%
Dec-85	47.1%	25.4%
Jun-86	46.9%	19.6%
Dec-86	39.8%	18.7%
Jun-87	35.8%	13.4%
Dec-87	25.4%	60.0%
Jun-88	23.2%	0.0%

Table 1. Results of Trade Liberalization Efforts in Mexico (From Cronin, “Expanding Free Trade,” 77)

¹⁷⁹ Cronin, Expanding Free Trade, 76.

¹⁸⁰ Cronin, Expanding Free Trade, 80.

¹⁸¹ Cronin, Expanding Free Trade, 76.

3. Trade Agreements

The second half of the liberalization puzzle consisted of trade agreements. As Mexico was implementing their policy adjustments to reduce their dependence on ISI, they were simultaneously making preparations to join several free trade organizations. When the announcement came on 25 November 1985, that Mexico would join the General Agreement on Tariffs and Trade (GATT), it was hailed as a turning point in their LDC debt crisis, however, several roadblocks still needed to be removed.¹⁸² By July 1986, Mexico was in compliance with all entry requirements and was formally admitted. Since their entrance in GATT, Mexico has joined Canada and the United States as part of the North American Free Trade Agreement (NAFTA), as well as signing eleven additional Free Trade Agreements (FTA) that encompasses forty one different nations.¹⁸³ This continued liberalization has shown the international community as well as IGO that its commitment to economic liberalization is not a fleeting ideal.

E. COMBAT OF MONOPOLY POWER

During the years that Mexico was under an ISI system, the government assisted in the sustainment of several preexisting monopolies as well as creating several new ones. This list is quite amazing and encompasses all sectors of the economy. Several of the monopolies that have been around the longest are constitutionally mandated. In 1938, *Petróleos Mexicanos* (PEMEX) was monopolized under Article 27 of the constitution of 1917.¹⁸⁴ Not only did article 27 give the Mexican government a permanent and inalienable right to oil, but it also nationalized all subsoil resources.¹⁸⁵ This was however, not the first nationalization of a business in Mexico. That distinction belongs to

¹⁸² "Mexico and GATT," The New York Times, November 26, 1985, <http://www.nytimes.com/1985/11/26/business/mexico-and-gatt.html> (accessed on 23 august, 2011).

¹⁸³ Villarreal, "Mexico's Free Trade Agreements," 3.

¹⁸⁴ "The Constitution of 1917," Mexico and it's Culture, http://zedillo.presidencia.gob.mx/welcome/PAGES/culture/note_5feb.html (accessed on 21 August 2011).

¹⁸⁵ "Oil," Country Studies, <http://countrystudies.us/mexico/78.htm> (accessed on 21 August 2011).

the railroads which were nationalized in 1929 and 1930.¹⁸⁶ This section will look at the monopolies that were present when the 1983 LDC debt crisis occurred and will determine what role they played in the crisis. To conclude, an overview of Mexico's attempt to control the monopolies will be conducted. For information regarding the theoretical support for removing monopolies from the economy, see the technical appendix.

1. Monopolies: A Problem for Mexico

Pemex and the railroad industry were not the only nationalized businesses that Mexico had in place when the economy took a turn for the worse. Almost any major service, to include oil, natural gas, electricity, the rail roads, telephones and television providers, the airlines, construction, food production, and even land were state owned.¹⁸⁷ In addition to the massive numbers of state run enterprises that already existed, in the middle of negotiations with the IMF for additional funding during September of 1982, 58 of the 60 banks that were licensed to operate in Mexico were nationalized.¹⁸⁸ These monopolies created considerable stress on the economy and hampered the recovery efforts following the 1983 LDC debt crisis.

When monopolies are introduced into an economy, they not only create inefficiencies and net social losses (see technical appendix), but they also “undermine the Mexican economy's capacity for both innovation and adaptation.”¹⁸⁹ With so many key industries operating as inefficiently as they were (prior to 1993 when the privatization program ended, the median net income to sales for Mexican publically owned enterprises was -12.97%), it is no wonder why the Mexican economy needed as much outside capital as possible in order maintain solvency.¹⁹⁰ A good example of this is the automotive

¹⁸⁶ “Growth and Structure of the Economy,” Country Studies, <http://countrystudies.us/mexico/65.htm> (accessed on 21 August 2011).

¹⁸⁷ Looney, *Mexico on the Ropes*, 57.

¹⁸⁸ Sappin, *The Role and Impact of Foreign Bank Ownership in the Mexican Financial System*, 1.

¹⁸⁹ Looney, *Mexico on the Ropes*, 57.

¹⁹⁰ Porta and López-de-Silanes, “The Benefits of Privatization,” 2.

industry in Mexico. The automotive decree of 1962, was designed to develop a robust automotive industry in Mexico through a ban on imported vehicles, a 60% value added tax, and a 40% limit on foreign ownership of auto parts manufacturing plants.¹⁹¹ The results of these taxes did increase production and employment, however, the long run consequences far outweighed the benefits. After the automotive industry in Mexico was liberalized following the 1983 LDC debt crisis, it was soon discovered that because the industry was isolated from the competitive auto market, the domestically produced cars were of substandard quality and were prohibitively expensive by international standards.¹⁹² This required a massive infusion of foreign capital into the northern states of Mexico to regain competitiveness. Even after this occurred, domestically produced cars were still not reaching their export goals. On the other hand, the auto parts manufacturing plants in the north were showing considerable capital gains.¹⁹³ This imbalance is a direct result of a lack of R&D and substandard quality resulting from the isolation of a closed economy.¹⁹⁴ Without R&D, the industries that Mexico nationalized may have been able make it in the short run, but in the long run they were doomed to fail.

This story is repeated in almost every sector of the Mexican economy. Due to a lack of technological innovation, once liberalization occurred, the companies required massive inflows of foreign capital to regain competitiveness. Without R&D, the technologically focused industries such as telecommunications, the airline industry, oil and other key service industries, were left behind by their more technologically advanced counterparts in the international free market.

¹⁹¹ Brid, *Mexico's Auto Industry After NAFTA*, 7.

¹⁹² Brid, *Mexico's Auto Industry After NAFTA*, 7.

¹⁹³ Brid, *Mexico's Auto Industry After NAFTA*, 13.

¹⁹⁴ Lieberman, *Introduction to Economics*, 200-212.

2. The Breakup of the Monopolies in Mexico

By 1982, the Mexican state controlled over 1,100 businesses in almost all sectors of the economy.¹⁹⁵ When the economy collapsed in December of 1983, State Owned Enterprises (SOE) accounted for “4.4 percent of the country’s labor force and 30 percent of fixed capital formation, and they received subsidies equivalent to almost 13 percent of GDP” and “produced 14% of national output, employed 4.4% of the labor force and accounted for 38% of fixed capital investment.”¹⁹⁶ The privatization program was responsible for reducing the number of SOE, thereby reducing government expenditures. From 1982 to 1988, the Privatization Program reduced the number of SOE from the maximum of 1,155 to 666. This was accomplished through liquidations, shutdowns, mergers, transfers, and privatizations.¹⁹⁷ In addition to reducing the number of SOE in Mexico, changes to the constitution were ratified that reduced the role of the government. By 1993, the number of SOE had been reduced to 258, and by 2003, it was down to 210.¹⁹⁸ During the 1988–1993 period, most of the reduction of SOE was accomplished through selling of inefficient businesses as opposed to the methods discussed earlier.¹⁹⁹ The government did establish strict rules for the privatization of firms. One the most important rules was the decision to sell off 100% of its ownership, instead of dividing up the interests between the government and the private sector.²⁰⁰ The results of this style of privatization will be examined in Chapter IV.

¹⁹⁵ Chong and López-de-Silanes, *Privatization in Mexico*, 6–7; Porta and López-de-Silanes, “The Benefits of Privatization,” 1.

¹⁹⁶ Chong, *Privatization in Mexico*, 9; Porta and López-de-Silanes, “The Benefits of Privatization,” 1.

¹⁹⁷ Chong, *Privatization in Mexico*, 10; Porta and López-de-Silanes, “The Benefits of Privatization,” 1.

¹⁹⁸ Chong, *Privatization in Mexico*, 7.

¹⁹⁹ Porta and López-de-Silanes, “The Benefits of Privatization,” 1-2.

²⁰⁰ Chong, *Privatization in Mexico*, 12.

F. CONTROLLING INFLATION

Mexico throughout the 1980s was plagued by high inflation. On two occasions (in 1983, the annual inflation rate based on the consumer price index (CPI) was 102% and in 1987 it was 132%), the inflation rate proved to be such an issue that unless addressed, it could single handily stop all economic progress.²⁰¹ This inflation situation in Mexico was unsustainable, and therefore had to be addressed. This section will focus on Mexico's attempt to address the high inflation rates through the implementation of Pacto.

1. Reason for the Implementation of the Economic Solidarity Pact (Pacto de Solidaridad Economica)

In 1986, it was recognized that in order for the Mexican economy to have any chance at an economy recover, the lack of long term growth would need to be addressed.²⁰² To achieve long term growth, a plan was worked out between the IMF and the Mexican government. Most of the intricacies of the program are not important for the purpose of this chapter, however, one amendment to the 1987 stand-by arrangement was; it was decided that if the annual inflation rate rose above 85%, a new round of negotiations would commence, aimed at relieving inflationary pressure.²⁰³ Even with this contingency built into the 1987 stand-by arrangement, following "Black Monday" (October 19th, 1987), it became clear that authorities would need to intervene to limit the effects of the ever worsening world financial crisis on the Mexican economic system. This intervention took the form of a heterodox regime called the Economic Solidarity Pact, or Pacto.

²⁰¹ "World dataBank: World Development Indicators (WDI) & Global Development Finance (GDF)," World Bank, <http://databank.worldbank.org/ddp/home.do> (accessed on 2 April, 2012).

²⁰² Boughton, *Silent Revolution*, 440.

²⁰³ Boughton, *Silent Revolution*, 449.

2. Implementation of the Economic Solidarity Pact (Pacto de Solidaridad Economica)

Pacto was a non-traditional, multi-pronged strategy to induce inflation stabilization in Mexico. Pacto had several components designed to achieve four main goals: restore and maintain international competitiveness, strengthen fiscal balance, liberalize trade policy, and maintain social consensus on wage policy. To accomplish the first goal, the controlled exchange rate was devalued by 18%. This was designed to eliminate the difference between the controlled and free exchange rates. The second goal was to be accomplished through a “combination of expenditure cuts and higher prices for energy products, utilities, ect.”²⁰⁴ Pacto accelerated the trade liberalization program previously discussed through reduction and elimination of tariffs and trade barriers. Finally, periodic agreements were reached between labor unions, key private business leaders, and the government that were based on projected inflation.²⁰⁵ Together, these four goals would reduce, and then maintain a stable inflation rate.²⁰⁶

There are numerous ways to reduce inflation. Some of the most widely used government policies include: monetary policy, fiscal policy, income policies, and long term solutions such as supply side reforms.²⁰⁷ Elements of each of these policies were used in Mexico following the 1983 LDC debt crisis.

Monetary policy is defined as “The actions of a central bank, currency board or other regulatory committee that determine the size and rate of growth of the money supply, which in turn affects interest rates. Monetary policy is maintained through actions such as increasing the interest rate, or changing the amount of money banks need to keep

²⁰⁴ Boughton, *Silent Revolution*, 451.

²⁰⁵ Dornbusch, Werner, Calvo, and Fischer, “Mexico: Stabilization, Reform, and No Growth,” 271; Boughton, *Silent Revolution*, 451.

²⁰⁶ Boughton, *Silent Revolution*, 451.

²⁰⁷ “economics policies to control inflation,” tutor2u, http://tutor2u.net/economics/content/topics/inflation/controlling_inflation.htm (accessed on 02 April, 2012).

in the vault (bank reserves).”²⁰⁸ These policies are designed to reduce the aggregate demand by reducing consumer spending and increasing incentives to save.²⁰⁹ Aggregate demand is “the total amount of goods and services demanded in the economy at a given overall price level and in a given time period.”²¹⁰

Fiscal policy is defined as “government spending policies that influence macroeconomic conditions. These policies affect tax rates, interest rates and government spending, in an effort to control the economy.”²¹¹ By implementing fiscal policies, a government can reduce demand pull inflation, thereby, reducing aggregate demand.

Both of these two policies can be easily understood when viewed in graphical form. Graph 5 shows the effects of a reduction in aggregate demand. Start by plotting aggregate supply and aggregate demand. Aggregate supply is “the total supply of goods and services produced within an economy at a given overall price level in a given time period.”²¹² Where aggregate supply and aggregate demand intersect represents the equilibrium price (PL1) and the corresponding level of GDP (Q1). By shifting aggregate demand down (regardless of the method used), the equilibrium shifts from point A to point B, causing a reduction in the price level from PL1 to PL2, and a reduction in GDP from Q1 to Q2.

²⁰⁸ “Fiscal Policy,” Investopedia,
<http://www.investopedia.com/terms/f/fiscalpolicy.asp#axzz1oqQXzzhj> (accessed on 02 April, 2012).

²⁰⁹ Tejvan Pettinger, Policies to Reduce Inflation, Economics Help,
<http://www.economicshelp.org/blog/42/inflation/economic-policies-to-reduce-inflation/> (accessed on 02 April, 2012).

²¹⁰ “Aggregate Demand,” Investopedia,
<http://www.investopedia.com/terms/a/aggregatedemand.asp#axzz1qLRI4aqR> (accessed on 02 April, 2012).

²¹¹ “Monetary Policy,” investopedia,
<http://www.investopedia.com/terms/m/monetarypolicy.asp#axzz1oqQXzzhj> (accessed on 02 April, 2012).

²¹² “Aggregate Supply,” Investopedia,
<http://www.investopedia.com/terms/a/aggregatesupply.asp#axzz1qLRI4aqR> (accessed on 02 April, 2012).

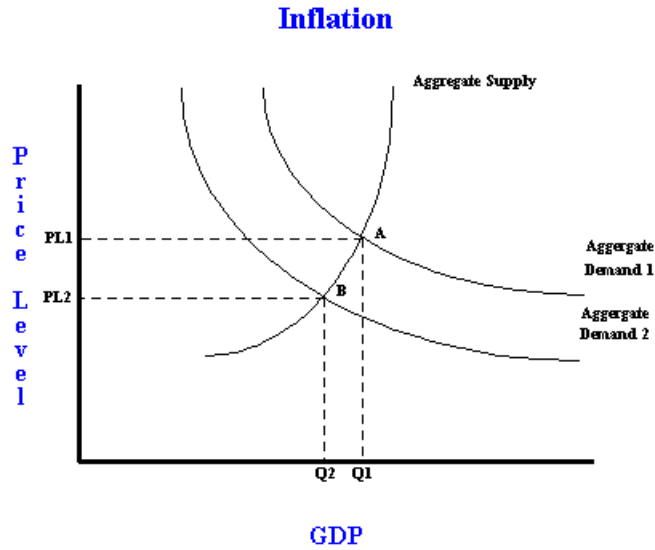


Figure 1. Inflation Reduction Measures

Income policy is defined as “measures through which a government attempts to control escalation in incomes (wages, salaries, dividends, rents) to restrain escalation in prices (inflation) without increasing unemployment.”²¹³ This is usually implemented through wage controls. Just as in monetary and fiscal policies, the idea centers around reducing the amount of money consumers have at their disposal. By reducing money supply, consumers will spend less and save more, once again, reducing aggregate demand. Even though these are the three main methods used by governments to control inflation, there are some long term policies that have also produced results.

Supply side inflationary policies are aimed at increasing the productive capacity of the economy. By reducing the cost per unit, a company (and national economy) can increase income without increasing inflationary pressure. This is the result of increasing

²¹³ “incomes policy,” Business Dictionary, <http://www.businessdictionary.com/definition/incomes-policy.html> (accessed on 02 April, 2012).

labor and capital productivity.²¹⁴ The reason for the long time frame of these policies is the means used to achieve the overall goal. Increasing labor and capital productivity requires investments in education and health care (and other long run variables) which will require generations, not months to successfully decrease inflationary pressure.

Graph 6 shows how increasing productivity (regardless of the means used to accomplish the increase) will shift the aggregate supply curve outward. Just as before, start by plotting aggregate supply and aggregate demand (aggregate supply 1 and aggregate demand 1 respectively). By shifting the aggregate supply curve outward (represented by aggregate supply 2), the equilibrium is shifted from point A to point B. The outward shift in the aggregate supply curve is accompanied by an outward shift in the aggregate demand curve (aggregate demand 2), which allows the price level to remain relatively unaffected while still increasing the GDP.

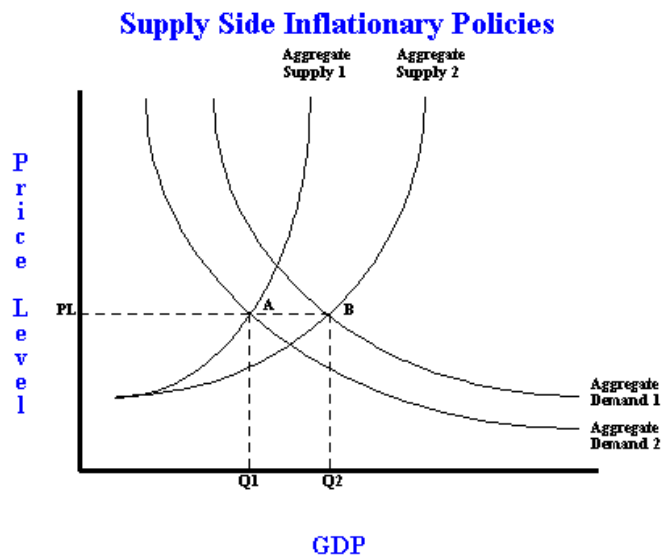


Figure 2. Supply Side Inflation Reduction Measures

²¹⁴ "economics policies to control inflation," tutor2u, http://tutor2u.net/economics/content/topics/inflation/controlling_inflation.htm (accessed on 02 April, 2012).

G. STRUCTURAL CHANGES IN THE TAX SYSTEM

In 2007, the World Bank released a scathing report documenting Mexico's economic problems. According to the World Bank the tax code in Mexico is far too complex to be enforced by the government. This is a contributing factor that has led to Mexico's biggest tax problem; tax evasion. In Mexico, there is an estimated 40% of the population that don't pay their taxes.²¹⁵ To get to the bottom of this issue, this section will address the problems that have plagued Mexico's tax system, past tax reforms that attempted to correct the issue, and the reforms that took place following the 1983 LDC debt crisis, and the results of said reforms.

1. The Problem in Mexico

The Mexican government continues to be unable to raise the required level of revenue to cover their expenditures or expenses.²¹⁶ Tax revenues as a percentage of GDP from 1980–1999, has remained relatively stable (between 9.03% and 11.53%), yet government expenditures and the population have continued to rise.²¹⁷ This broken system is the result of a few main issues: ineffective administration, the informal economy, and tax evasion. In the past, several tax revisions have been attempted to try to increase the amount of tax revenue flowing into the Mexican government, but ultimately failed.

Prior to adopting ISI, there was a general feeling that the old economic system was partly responsible for the inequities in income distribution that were present in Mexico during the late 1960s and 1970s. To adjust for this income disparity, several tax and income laws were changed (or at least were attempted to be changed).²¹⁸ Some of

²¹⁵ Allan Wall, World Bank Diagnoses Mexican Economic Problems," *Banderas News*, <http://www.banderasnews.com/0705/edat-worldbank.htm> (accessed on 02 April, 2012).

²¹⁶ Martinez-Vazquez, *Mexico: An Evaluation of the Main Features of the Tax System*, 9; Dalsgaard, "The Tax System in Mexico," 4.

²¹⁷ Martinez-Vazquez, *Mexico: An Evaluation of the Main Features of the Tax System*, table 1.

²¹⁸ Elizondo, "In Search of Revenue," 166.

the changes were successful, however, the laws and reforms that were implemented resulted in little actual change to the nature or structure of the tax system.²¹⁹ This problem was only exacerbated when Mexico's ISI system collapsed. When President Salinas came into power, there was a realization that in order to overcome the current LDC debt crisis, foreign investors needed to be persuaded to reinvest in the Mexican economy. "Foreign investors not only sought markets that were adopting new technologies and innovative market strategies, but they also demanded a competitive tax system and favorable regulatory environment."²²⁰

One of the main reasons why Mexico was unable to collect the necessary revenue that is required to effectively run the state, is the ineffective administration of the tax code. Mexico is marred by inefficiencies throughout the state and the tax system is no different. The tax code of the 1980s and early 1990s was, and continues to be, a very complex system. There were multiple tax rates that each company had to comply with, and exemptions and loopholes allowed for considerable "wobble room" within the tax code. What made matters worse was the inability of Servicio de Administracion Tributaria (SAT) to conduct audits.²²¹ SAT did not have the requisite knowledge or ability to conduct audits due to the complex tax code. This means that the very large and lucrative firms that are responsible for the majority of corporate tax revenue, are in essence, paying a voluntary tax. Due to the inability of SAT to effectively audit the firms, the Mexican government is relying on the "honor system" to ensure that firms are paying the correct amount of taxes.²²² Even with these problems, the tax code continued to change at an alarming pace. Due to the frequency of changes, it is clearly not SAT's fault alone that they are unable to effectively administer the laws and tax code.²²³

²¹⁹ Elizondo, "In Search of Revenue," 171

²²⁰ Kamery, "Mexico's Economic Reform Under Carlos Salinas, 87.

²²¹ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 7; Dalsgaard, "The Tax System in Mexico," 13.

²²² Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 32; Dalsgaard, "The Tax System in Mexico," 13.

²²³ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 32.

Another serious problem was the ability of tax payers to avoid paying taxes altogether.²²⁴ During the early 1980s, Mexico had lost almost all ability to effectively collect taxes; in 1989, tax evasion was estimated to be 70%.²²⁵ This was the result of the complex tax codes and laws (as previously discussed), as well as the very large informal economy. 17% of Mexican citizens qualified for either the minor tax payers (MTP) exemption or the special tax basis (STB), which allowed them to reduce their payments to the government or forgo tax payments completely.²²⁶ Additionally, according to research conducted by the Munich Personal RePEc Archive (MPRA), “the Mexican informal sector at the beginning of the 1970s initially accounted for 40 percent of GDP while slightly decreasing to stabilize around 30percent of GDP in the late 1980s.”²²⁷ Had the SAT been able to effectively collect taxes on this large informal sector, tax revenue would have increased considerably.

2. The Solution

To ensure that foreign investors would return to Mexico following the 1983 LDC debt crisis, President Salinas implemented several changes to the tax code / law. From 1979–1994, Mexico attempted eleven major changes to the tax code / law.²²⁸ Due to the large number of attempted revisions to the tax code/laws, this section will not go into great detail in all of the changes. However, it will highlight a few of the major changes that were implemented in the 1988/1989 tax reform under President Salinas, and show why they were of great importance in changing the nature of the tax system in Mexico.

²²⁴ Dalsgaard, “The Tax System in Mexico,” 13 and 16.

²²⁵ Elizondo, “In Search of Revenue,” 177; Dalsgaard, “The Tax System in Mexico,” 18.

²²⁶ Elizondo, “In Search of Revenue,” 180.

²²⁷ Jose Brambila Macias, *Modeling the Informal Economy in Mexico. A Structural Equation Approach*, MPRA Paper No. 8504 (2008), <http://mpra.ub.uni-muenchen.de/8504/> (accessed on 02 April, 2012); Dalsgaard, “The Tax System in Mexico,” 6.

²²⁸ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 32

In 1988, President Salinas introduced a law in Congress that recommended major changes to the current tax code. A tough battle raged in congress due to interest group lobbying, however, in 1989 the bill was approved and signed into law. The main changes that the 1988 tax reform law addressed was: the introduction of a 2% asset tax on businesses, the elimination of the special provisions for minor tax payers (MTP) and the special tax basis (STB), the penalties for tax evasion were increased, loopholes were closed, and enforcement mechanisms were improved.²²⁹

The introduction of a 2% asset tax seems like a small inclusion, however, the entire reason for inclusion of a 2% asset tax was to simplify the tax code, thereby reducing the level of manipulation in system.²³⁰ By simplifying the tax code, the government was attempting to reduce the amount of tax evasion, which was estimated to be 70% in 1989.²³¹ What made the new law so effective was its simplicity. All firms have to pay the tax, and the entire amount can be credited towards the payment of income tax. This ensured that the only firms that would be affected were those who found a way to declare no profits, or those firms that paid no taxes at all.²³² What made this new tax so hard to effectively combat by the business community was the coupling of reduced tax rates in other sectors. “The top personal rate went down from 60.5% (including a 5.5% surcharge for the earthquake of 1985) in 1986 to 55% in 1987; 50% in 1988; and to 40% in 1989. Starting in 1990 the top rate fell even further to 35%. The corporate tax rate also went down, from 39% in 1988 to 35% in 1990.”²³³ By reducing these tax rates, the

²²⁹ Elizondo, “In Search of Revenue,” 177–180.

²³⁰ Thirsk, *Tax Reform in Developing Countries*, 303 and 318.

²³¹ Elizondo, “In Search of Revenue,” 177; Lehoucq, Why is structural reform stagnating in Mexico,” 18.

²³² Elizondo, “In Search of Revenue,” 178; Thirsk, *Tax Reform in Developing Countries*, 303 and 318.

²³³ Elizondo, “In Search of Revenue,” 179; Dalsgaard, “The Tax System in Mexico,” 7; Thirsk, *Tax Reform in Developing Countries*, 303–304.

Mexican government was able to align their tax rates with the U.S., therefore, reducing the urge to evade taxes through capital flight.²³⁴

The elimination of the special provisions for minor tax payers (MTP) and the special tax basis (STB) was also a key factor that produced considerable repercussions through the system. Over 1.5 million individuals in Mexico were able to claim protection under MTPs and STBs. By eliminating these two special provisions, the 17% of Mexicans who “legally paid no taxes, or had enjoyed special and privileged tax regimes” were forced to provide some revenue to the government.²³⁵

The increased penalties for tax evasion, the closing of loopholes in the tax system, and the improved enforcement mechanisms can be grouped into a final category due to the interrelated nature of their changes. Prior to the changes in the law that allowed for strengthening of the prosecution capacity for tax evaders, only two individuals were prosecuted (the time frame for that statistic spans 67 years). Not only was the frequency of prosecution increased (by 1990, over 400 people had been prosecuted; an increase of over 13,000%), so was the severity of the crime.²³⁶ Prior to the change in the law, if you were caught committing fraud, or evading tax payments, 99% of the time you were only required to pay the government the back taxes owed in addition to a small fine. Once the law was changed, depending on the severity of the evasion, you might also be required to serve time in jail.²³⁷ To accompany this increase in prosecution, auditing was also increased. Without the ability to audit, an effective enforcement arm serves little purpose.

²³⁴ Elizondo, “In Search of Revenue,” 178–179; Dalsgaard, “The Tax System in Mexico,” 7.

²³⁵ Elizondo, “In Search of Revenue,” 180; Lehoucq, Why is structural reform stagnating in Mexico? Policy Reform episodes from Salinas to Fox,” 18; Thirsk, Tax Reform in Developing Countries, 304.

²³⁶ Elizondo, “In Search of Revenue,” 181–182; Lehoucq, Why is structural reform stagnating in Mexico?,” 18.

²³⁷ Elizondo, “In Search of Revenue,” 181–182; Lehoucq, Why is structural reform stagnating in Mexico?,” 18.

H. THE 1994 PESO CRISIS

Within a year of the Peso devaluation that occurred in December 1994, real GDP declined by 6.2 percent and the inflation rate reached 46.9% by December 1995. In February 1995, interest rates skyrocketed due to restrictive credit and monetary policies imposed by the Bank of Mexico. The events that triggered the 1994 Peso crisis had placed the Mexican banking system on the verge of total collapse.²³⁸ This section will evaluate the causes of the 1994 banking crisis through an in-depth look at past banking issues and practices, the banking reform that assisted the economy in recovery, and the results of the reform measures.

1. Events Leading up to the 1994 Banking Crisis

The history of the Mexican banking sector is best viewed in two distinct sections: from 1983 until the reforms were implemented in 1988 and from the start of the banking reforms in 1988 through the onset of the 1994 banking crisis. As has already been reviewed, the 1983 LDC debt crisis is a direct result of the unsustainable rate of borrowing from the international community and Bank of Mexico. In 1982, the Mexican government announced a plan to amend the constitution which would allow the nationalization 58 out of the 60 publically controlled banks. Following the privatization of the banking sector, a subsequent consolidation was initiated; of the 58 banks that were privatized, only 18 remained by 1988.²³⁹ In addition to the removal of the banks from the public sector of the economy, a number of new rules were imposed upon the banks that would have lasting consequences.

One of the most important changes was the limitations placed on banks that restricted the activities that they were allowed to conduct. Under the new rules, banks

²³⁸ Hernández-Murillo, “Experiments in Financial Liberalization,” 422.

²³⁹ Hernández-Murillo, “Experiments in Financial Liberalization,” 417; Copelman, *Financial Structure and Economic activity in Mexico*, 7; Unal and Navarro, *The Technical Process of Bank Privatization in Mexico*, 4.

were prohibited from offering financial services beyond banking. This led to a reinforcing cycle that resulted in the diminishing importance of banks in the financial community.²⁴⁰ In 1984, the government began to strip the non-banking activities away from the remaining banks under their control.²⁴¹ This decision was designed to “allow private investors (often former bank owners) to form and operate stock brokerage firms, insurance and re-insurance firms, and currency exchange firms.”²⁴² This was not the only new rule that would have unintended consequences for the banking sector and the national economy. Some of the other new “rules” included, interest rate ceilings on bank deposits and loans, as well as mandated lending quotas on high priority economic sectors through the national development bank, Nacional Financiera (NF); usually the larger sectors of the economy received the lion’s share of the funding.²⁴³ The government controls reached all levels of bank operations. Operational procedures such as employment rates, branch locations, and even the annual budget for income and expenses were controlled by government agencies. These are small compared to the requirements that were placed on banks in terms of credit loan requirements. The individual banks were only allowed to determine where 25% of their lending would be focused. The remaining 75% was earmarked for “federal government or to targeted sectors of the economy.”²⁴⁴ These rules that were instituted in the first years of the 1983 LDC debt crisis would have a profound impact in the decisions of investors for the remainder of the banking crisis.

When President Salinas took office in 1988, he implemented a series of programs designed to “reform the state.” Included in these programs was a series of reforms to the now state controlled banking sector. Thanks to the liberalization of the economy and the

²⁴⁰ Hernández-Murillo, “Experiments in Financial Liberalization,” 417.

²⁴¹ Copelman, *Financial Structure and Economic activity in Mexico*, 7; Unal and Miguel Navarro, *The Technical Process of Bank Privatization in Mexico*, 6.

²⁴² Hernández-Murillo, “Experiments in Financial Liberalization,” 418.

²⁴³ Hernández-Murillo, “Experiments in Financial Liberalization,” 418; Copelman, *Financial Structure and Economic activity in Mexico*, 7–8.

²⁴⁴ Hernández-Murillo, “Experiments in Financial Liberalization,” 418.

reduction in the inflation rate due to Pacto, in 1989, the Mexican economy was granted reentry into the international capital markets.²⁴⁵ When this landmark event occurred, things for Mexico started to turn around. In April 1989, interest rate controls and the self-imposed quotas on commercial lending were eliminated and relaxed respectively. By 1991, the reserve requirements on private debt were eliminated and the two year process of re-privatizing the banking sector began.²⁴⁶ By the end of 1992, the banking sector was back in the control of private citizens, however, the events that occurred in 1989–1992, as a result of the unique market conditions that were present when re-privatization occurred, would place the Mexican financial sector on a path towards collapse.

At the time of the auction, the four largest banks in Mexico controlled 70% of the total banking assets. Additionally, because foreign banks were not allowed to participate in the auction, there was a general belief amongst the participants that a state backed oligopoly would be created, allowing for higher profits. This condition resulted in the new privately owned banks participating in risky lending practices.²⁴⁷ Furthermore, because of the structure of the new market, bank directors, depositors, and regulators were not encouraged to enforce prudent lending practices on the new banks.²⁴⁸ Even though there were some benefits of the 1988 banking reforms, there still existed an outdated regulatory environment and a lack of enforceable rules.²⁴⁹ Several regulatory agencies embodied these risky lending practices.

The Bank Savings Protection Fund (FOBAPROA) was created in 1990 to ensure the solvency of the banking sector in Mexico. One of the key functions of FOBAPROA

²⁴⁵ Hernández-Murillo, “Experiments in Financial Liberalization,” 418; Copelman, *Financial Structure and Economic activity in Mexico*, 8.

²⁴⁶ Copelman, *Financial Structure and Economic activity in Mexico*, 8.

²⁴⁷ Hernández-Murillo, “Experiments in Financial Liberalization,” 419–420; Gavin and Hausmann, *The Roots of Banking Crises*, 13; Desmet, “Accounting for the Mexican banking crisis,” 168.

²⁴⁸ Hernández-Murillo, “Experiments in Financial Liberalization,” 420.

²⁴⁹ Hernández-Murillo, “Experiments in Financial Liberalization,” 420.

was to promote confidence in the banking sector through deposit insurance. The Bank of Mexico, through FOBAPROA, guaranteed 100% deposit insurance regardless of the amount. Even though this did promote investor confidence, it also caused a lack of oversight from depositors of large sums of money.²⁵⁰ Additionally, not a single regulatory body required any bank to adhere to the generally accepted accounting principles (GAAP). The regulatory institutions were so lax, that Mexican banks were not required to report the entire value of past-due loans as nonperforming, just the past-due interest payments.²⁵¹ It was not just the regulators and banks, but also the legal system was not structured to enforce the lending contracts that were increasingly classified as non-performing. Even though there were more and more non-performing loans on the banks' balance sheets, the self-perpetuating cycle was in full effect, further reinforcing the risky lending practices.²⁵² This equated to banks' lending to individuals and firms that were not in a financially stable position to be able to service their debt. The event that caused the house of cards to come tumbling down was the December 1994 decision to devalue the Peso that led to the 1994 Peso crisis.

Now that the causes of the 1994 banking crisis have been identified (lack of an appropriate legal and regulatory environment reinforcing the risky lending practices, and the expansion of both bank credit and financial intermediation), an examination of the 1988/1989 and 1994/1995 banking reforms can be conducted.

2. 1988 Banking Reforms

The 1988 banking reforms were disbursed over several years and culminated in the re-privatization of the banking sector. In April 1989, controls on interest rates and the sectoral quotas imposed by the government on commercial lending were

²⁵⁰ Desmet, "Accounting for the Mexican banking crisis," 168.

²⁵¹ Hernández-Murillo, "Experiments in Financial Liberalization," 420; Desmet, "Accounting for the Mexican banking crisis," 168-169.

²⁵² Desmet, "Accounting for the Mexican banking crisis," 169.

eliminated.²⁵³ As previously mentioned, FOBAPROA was created in 1990 to increase the oversight requirements on the soon to be privatized banks, as well as increase consumer confidence in the banking sector. Also in 1990, the government allowed for the creation of integrated financial groups.²⁵⁴ This meant that banks could now conduct operations other than strictly banking practices. These included, but were not limited to financial planning, “leasing, factoring, currency exchange, mutual fund management, and asset-based warehousing firms.”²⁵⁵ To accompany this increased responsibility, new laws and updated regulatory frameworks were introduced to manage these new multifaceted organizations. In 1991, reserve requirements on private deposits were eliminated and the auctions that re-privatized the banking sector began.²⁵⁶

3. 1994 Banking Reforms

Following the 1994 Peso crisis, a banking reform was initiated that ran through 1998. The package was designed and implemented by Banco de México (BOM), Secretaría de Hacienda y Crédito Público (the Mexican finance ministry, and Comisión Nacional Bancaria y de Valores (the national banking and securities commission).²⁵⁷ The reforms consisted of many different types of programs and were implemented in two general phases: the first was the initial rescue package that was designed to avert a total collapse of the banking sector, and the second was the long term reforms that were designed to avoid a repeat of this crisis. The rescue package consisted of liquidity window programs, initial capitalization programs, loans for bonds swap programs, NAFTA and foreign banks led programs, and debt relief programs.

²⁵³ Hernández-Murillo, “Experiments in Financial Liberalization,” 418.

²⁵⁴ Desmet, “Accounting for the Mexican banking crisis,” 167.

²⁵⁵ Hernández-Murillo, “Experiments in Financial Liberalization,” 419.

²⁵⁶ Hernández-Murillo, “Experiments in Financial Liberalization,” 418.

²⁵⁷ Hernández-Murillo, “Experiments in Financial Liberalization,” 422; Unal and Miguel Navarro, *The Technical Process of Bank Privatization in Mexico*, 13.

The liquidity window programs were designed to ensure the solvency of the current banks and ensure that they had the funds necessary to meet all immediate dollar denominated liabilities. The program worked by offering the banks short term dollar denominated credit back by the central bank and FOBAPROA. This credit carried short term maturity dates designed to provide the necessary incentives for the receiving banks to find alternatives funding sources.²⁵⁸

The initial capitalization program was a much more complex program designed to assist banks in increasing their capital to asset ratio above 8%. Due to the large amount of delinquent loans on the banks' balance sheets, this became a very important short term goal. The main tool to accomplish this 8% capital to asset ratio was the selling of 5-year convertible bonds to FOBAPROA.²⁵⁹ While FOBAPROA was acquiring a massive amount of debt, the banks were expected to independently increase the capital flows. This was achieved through, a "reinvestment of retained earnings," capital injections from BBVA Bancomer (the largest investment bank in Mexico), and the reinvestment of revenue from "the divestiture of bank investments in insurance companies and pension funds."²⁶⁰ This independent increase in capital would not have been possible a few months prior to the 1994 Peso crisis because of the severe restrictions placed on banks from the government.²⁶¹

Now that the banking system in Mexico was not on the verge of immediate collapse, the government shifted its attention towards long term stabilization (phase two). Loans for Bonds Swaps were managed under the Capitalization and Loan Portfolio

²⁵⁸ Hernández-Murillo, "Experiments in Financial Liberalization," 423; Montes-Negret and Landa, "Banking Sector," 243; Graf, "Policy responses to the banking crisis in Mexico," 169–170; González-Hermosillo, Pazarbaşıoğlu and Billings, "Determinants of Banking System Fragility," 297.

²⁵⁹ Hernández-Murillo, "Experiments in Financial Liberalization," 423; Graf, "Policy responses to the banking crisis in Mexico," 170; González-Hermosillo, Pazarbaşıoğlu and Billings, "Determinants of Banking System Fragility," 297.

²⁶⁰ Montes-Negret and Landa, "Banking Sector," 246.

²⁶¹ Hernández-Murillo, "Experiments in Financial Liberalization," 423; Montes-Negret and Landa, "Banking Sector," 243.

Purchase Program (CLPPP).²⁶² The CLPPP was the government's main effort to prevent a total collapse of the financial sector in Mexico. Just as in the initial capitalization programs, FOBAPROA acquired a portion of the banks past due loans, as well as the rights to any assets that could be recovered. This increase in liability on the part of FOBAPROA was not cheap. The banks were required to: 1) purchase special FOBAPROA issued 10-year Unidad de Inversión (UDI) indexed, non-negotiable bonds, 2) surrender their institutions to FORAPROA if the banking authorities were unable to convert their debt into equity, 3) if further capitalization efforts failed, liquidate or sell their institutions.²⁶³ In addition to these terms, all banks would also have to participate in initial capitalization programs. The requirements were quite lax in this regard; only half of all peso denominated debt would have to be repaid to FORAPROA through initial capitalization programs.²⁶⁴ Anahuac, Capital, Cremi, Interestatal, Obrero, Oriente, Pronorte, and Union banks were all forced to hand over control of their financial institutions due to their inability to meet the above mentioned terms. Immediately following the handover of control, all banking operations were ceased and the institutions were liquidated.²⁶⁵ Other banks fared better; under the Saneamiento Program, Serfin and Santander banks were allowed to merge and continue to operate under the ever watchful eye of the newly minted government regulatory institutions.²⁶⁶

²⁶² Hernández-Murillo, "Experiments in Financial Liberalization," 423; Montes-Negret and Landa, "Banking Sector," 243 and 245; González-Hermosillo, Pazarbaşıoğlu and Billings, "Determinants of Banking System Fragility," 298.

²⁶³ Hernández-Murillo, "Experiments in Financial Liberalization," 423; Montes-Negret and Landa, "Banking Sector," 244; Graf, "Policy responses to the banking crisis in Mexico," 171–174.

²⁶⁴ Hernández-Murillo, "Experiments in Financial Liberalization," 423; Montes-Negret and Landa, "Banking Sector," 244.

²⁶⁵ Montes-Negret and Landa, "Banking Sector," 244; González-Hermosillo, Pazarbaşıoğlu and Billings, "Determinants of Banking System Fragility," 298; Goldberg, Dages, and Kinney, "Foreign and Domestic Bank Participation in Emerging Markets," 15.

²⁶⁶ Montes-Negret and Landa, "Banking Sector," 244; González-Hermosillo, Pazarbaşıoğlu and Billings, "Determinants of Banking System Fragility," 298; Goldberg, Dages, and Kinney, "Foreign and Domestic Bank Participation in Emerging Markets," 15–16.

Once the severity of the situation was realized, foreign owned banks were allowed to purchase a few of the failed Mexican banks. This was the case for Santander bank, which was purchased by Bank of Nova Scotia.²⁶⁷ This was coordinated under the NAFTA and Foreign Banks led programs. Initially, in order for a foreign owned bank to purchase a failed Mexican bank, the failed bank could account for no more than 6% of the total banking capital present in Mexico. However, as time passed, new laws were introduced that increased the number of banks that could be purchased, as well as the percentage of Mexican banking capital that could be foreign owned. By the end of the reform period, all but the three largest banks were foreign owned and each bank could now control up to 25% of Mexican banking capital.²⁶⁸

Most of the programs that have been discussed up until this point were directed at large firms; however, the debt relief programs were specifically designed to target individual and small borrowers. Features of the debt relief program included, decreased interest rates, payment discounts, and debt restructuring; all designed to help the small borrower not fall any further behind in his payments.²⁶⁹ Even though this program was targeted at the small borrowers, by stopping the small borrowers from defaulting, the large lenders would be able to decrease their non-performing loan numbers and increase capital. Once these measures were put into place, the Mexican government was confident that disaster had been averted; however, to ensure that this type of systematic collapse could not happen again, the long term structural problems had to be addressed.

The first change designed to place Mexico on a sustainable path towards financial security was the introduction of new bank accounting standards and supervision practices. The new practices were introduced in 1995 and approved by the banking

²⁶⁷ Montes-Negret and Landa, "Banking Sector," 244; Goldberg, Dages, and Kinney, "Foreign and Domestic Bank Participation in Emerging Markets," 15–16.

²⁶⁸ Montes-Negret and Landa, "Banking Sector," 424; Graf, "Policy responses to the banking crisis in Mexico," 173.

²⁶⁹ Hernández-Murillo, "Experiments in Financial Liberalization," 424; Graf, "Policy responses to the banking crisis in Mexico," 174; González-Hermosillo, Pazarbaşıoğlu and Billings, "Determinants of Banking System Fragility," 297.

regulatory committee in 1997.²⁷⁰ The new rules required: stricter standards to deal with related lending, the strengthening of the quality and increasing of the quantity of capital reserves on banks' balance sheets, the elimination of unjust forbearance, improved loan classifications and provisioning rules, new means to assess and measure risk, consolidated balance sheets, and income statements for financial groups.²⁷¹ These measures were all designed to impose "greater disclosure on banks and make their balance sheets more directly comparable with those in other countries, particularly with regard to the disclosure of nonperforming loans."²⁷² These reforms to the bank accounting standards and supervision practices would not be enforceable unless FOBAPROA was reformed as well; and that is exactly what the Mexican authorities set out to do.

In 1998, FOBAPROA was not overhauled, but completely replaced by the Institute for the Protection of Bank Savings (IPAB). The structure and function of IPAB was designed based on modern international deposits insurance institutions (such as the U.S. Federal Deposit Insurance Corporation [FDIC]).²⁷³ Specifically, two measures were considerably changed from those present under FOBAPROA; a reduction in the amount covered for 100% protection under deposit insurance, and "authority to formally intervene if it detects irregularities in a member bank."²⁷⁴ These two changes were designed to correct one of the main issues leading to risky lending practices. By decreasing protection and increasing intervention, large depositors paid closer attention to

²⁷⁰ Hernández-Murillo, "Experiments in Financial Liberalization," 424; Montes-Negret and Landa, "Banking Sector," 244; Goldberg, Dages, and Kinney, "Foreign and Domestic Bank Participation in Emerging Markets," 17–18

²⁷¹ Hernández-Murillo, "Experiments in Financial Liberalization," 424–425.

²⁷² Hernández-Murillo, "Experiments in Financial Liberalization," 424; Montes-Negret and Landa, "Banking Sector," 247.

²⁷³ Hernández-Murillo, "Experiments in Financial Liberalization," 425.

²⁷⁴ Hernández-Murillo, "Experiments in Financial Liberalization," 425; Demirgüç-Kunt and Sobaci, *Deposit Insurance Around the World*, 486.

the regulators and the inner workings of the bank where their funds are kept. This decreased the banks' ability and opportunity to partake in risky lending practices.²⁷⁵

Because of the high number of outstanding or non-performing loans, regulators set out to strengthen the legal framework in hopes of preventing another financial crisis. The old bankruptcy laws, *Ley de Quiebras y Suspensión de Pagos* (LQSP), was deemed ineffective and a hindrance in the new open market system that had been implemented following the 1983 LDC debt crisis. In 2000, congress passed the *Ley de Concursos Mercantiles* (LCM) bill which completely overhauled the fifty plus year old bankruptcy laws.²⁷⁶ The bill was designed to help lenders recover funds from citizens that had declared bankruptcy. This was accomplished in two ways: first, the claimants would attempt to settle outside of the courtroom. By moving to from formal trials to alternate dispute resolutions (ADR) institutions, there was a better chance of increasing the number of resolved cases. This reduced the caseload of the already overworked lawyers in Mexico and assisted in recovery of assets. If the informal ADR was unsuccessful, then the second phase would begin, and an official trial would be started.²⁷⁷

The last major systematic change that occurred in Mexico was the increased presence of foreign owned banks. In 1994, of the 35 banks that were present in Mexico, only two were foreign owned and they only controlled 7% of the total banking assets. Ten years later, in 2004, that share of total banking assets controlled had increased to 83%.²⁷⁸ The increase in foreign banking in Mexico was based on the theory that by increasing competitiveness within the system, the entire banking sector would be able to reduce costs and increase efficiency. The same theory had been applied to the trade liberalization and market opening strategies that had been implemented less than 10 years

²⁷⁵ Hernández-Murillo, "Experiments in Financial Liberalization," 425; Peria and Schmukler, "Do Depositors Punish Banks for Bad Behavior," 1030.

²⁷⁶ "Guide to Mexican Bankruptcy Law" (Chadbourne & Parke LLP, 2009), 1.

²⁷⁷ Montes-Negret and Landa, "Banking Sector," 244–247; Hernández-Murillo, "Experiments in Financial Liberalization," 425.

²⁷⁸ Hernández-Murillo, "Experiments in Financial Liberalization," 429; Goldberg, Dages, and Kinney, "Foreign and Domestic Bank Participation in Emerging Markets," 15–16.

prior with astounding results.²⁷⁹ By increasing competitiveness within the system, total credit by commercial banks, as well as, private sector credits by banks both declined considerably. This decrease in bank credits has been directly translated into consumer welfare gains. In addition to the decrease in bank credit, one of the largest problems leading to the 1994 banking crisis was corrected; the number and percentage of non-performing loans has been reduced to a manageable level.²⁸⁰

I. CONCLUSION

The economic reforms that were implemented following the 1983 and 1994 economic crises undoubtedly placed Mexico on a path towards economic growth. The question of “How much growth?” is still widely debated today. The next chapter will evaluate the effectiveness of the reforms and determine if, in fact, they did place the country on a path towards sustained development.

²⁷⁹ Hernández-Murillo, “Experiments in Financial Liberalization,” 429; Goldberg, Dages, and Kinney, “Foreign and Domestic Bank Participation in Emerging Markets,” 15–16.

²⁸⁰ Hernández-Murillo, “Experiments in Financial Liberalization,” 429.

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IV. RESULTS OF ECONOMIC REFORMS

A. INTRODUCTION

With Mexico implementing the orthodox economic policies that were recommended by the IMF in both the late 1980s and early to mid-1990s, the international community was expecting a remarkable turnaround; however, this was not the case. Even though Mexico did implement the reforms that the IMF called for in their tranche agreements and in their dealings with the major holders of international debt, economic growth never reached the levels that were achieved during the “Mexican Miracle.” This chapter will evaluate the results of the economic reforms that were discussed in Chapter III.

B. RESULTS OF TRADE LIBERILIZATION

As noted in Chapter III, Mexico’s trade liberalization program produced quite amazing results. Tariffs were drastically reduced, IPP and ILR were removed or considerably scaled down, and ORP were completely abolished. With this dramatic change in the structure of their economy, governmental leadership had placed Mexico on a path towards openness and competitiveness. Following these reforms, the Mexican economy has been hailed as one of the most open economies in the developing world.²⁸¹ This is largely thanks to the globalization strategy that Mexico has pursued following the 1983 LDC debt crisis and 1994 financial crisis. This strategy has resulted in Mexico placing approximately “90% of its trade flows under trade agreements with over 40 countries.”²⁸² Even though this aggressive globalization strategy has largely aided Mexico’s financial recovery following both crises, there were still domestic causalities

²⁸¹ Puyana and Romero, “Trade Liberalization in Mexico,” 2; Juan Carlos Moreno-Brid, Juan Carlos Rivas Valdivia, and Jesús Santamaría, *exico: Economic growth exports and industrial performance after NAFTA*. Mexico, D. F.: CEPAL, 2005. <http://www.eclac.org/publicaciones/xml/5/23725/L700.pdf> (accessed on 15 June, 2012), 12.

²⁸² Hernández-Murillo, “Experiments in Financial Liberalization,” 415.

along the way. The relatively strait forward process of liberalization resulted in massive suffering for businesses that had been receiving protection from the barriers that were in place during the ISI period. Often times, businesses filed for bankruptcy and were reorganized under a new owner, or they were sold off to the owners of the previously defaulted international debt.

Given the massive economic liberalization that occurred in the Mexican economy, why did it not lead to economic growth? One argument that is readily accepted throughout the field states that even though liberalization did occur, due to the substandard quality of Mexican industry and the resulting products, once the barriers and tariffs were removed, Mexican industry was not competitive in the global free market economy.²⁸³ Because Mexican firms were isolated from the major technological centers throughout the world (the industrialized countries such as the U.S. and Western Europe), technology transfers were not effectively or efficiently occurring, if at all. Once trade barriers were removed, the key industries found that their products were not competitive with the rest of the world. This led Mexico to continue to rely on the same exports (oil, commodities, and agriculture – in short, raw materials) that it had prior to the inward approach of ISI.²⁸⁴

Even though Mexico's economic growth has not returned to the "Mexican Miracle" levels that were present during the 1950s–1970s, trade liberalization should be considered a resounding success. This success can be viewed in absolute terms by evaluating Mexico's import and export composition and rate of growth following trade liberalization as compared to prior to the ISI period. Prior to trade liberalization (1940–1982), overall Mexican exports grew at an annual rate of 5.9%. In the post reform period

²⁸³ This theory is based on the basic economy theory present in the Technical Appendix under Monopoly Theory Section.

²⁸⁴ Robert Looney, "Politics of Global Economic Relations" (Class Lecture presented at the Naval Postgraduate School, Quarter 3, 2011).

(1980–2000), Mexican exports grew at an annual rate of 7.9%.²⁸⁵ This is largely the result of an increased manufacturing (18.8% annual growth in the post liberalization period as opposed to 7.8% during the ISI period) and agriculture sector expansion (6.2% annual growth in the post liberalization period as opposed to approximately 2% during the ISI period).²⁸⁶ Not only have exports increased considerably during the past three decades, the composition of these exports has drastically changed compared to historical trends. In 1980, the mining and oil sector represented 64.2% of all exports, manufacturing 23%, and agriculture 9.9%. By 2000, manufacturing had risen to 88% and the oil/mining and agriculture sectors decreased to 9.3% and 2.5% respectively.²⁸⁷ This change not only represents a clear break with the ISI policies of the past, but showcases how an economy can increase its growth potential through effective allocation of resources. Mexico has a massive work force and with the signing of NAFTA, they have a relatively unimpeded path to the number one economy in the world (the United States). When the two factors are combined, it accounts for the massive uptick in manufacturing (a labor heavy sector) and the respective decrease in the oil and mining sector (a relatively labor light, but technology heavy sector).²⁸⁸ This effective reallocation of resources, which would not have been possible without the reduction of tariffs and other barriers to trade, has increased the real GDP of Mexico by as much as 3% (as of 2001).²⁸⁹ Even though this increase in real GDP is not a large number on its own, the liberalization of the Mexican economy undoubtedly, indirectly affected other aspects of

²⁸⁵ Puyana and Romero, *Trade Liberalization in Mexico*, 3.

²⁸⁶ Puyana and Romero, *Trade Liberalization in Mexico*, 4; "Mexico-Industry," *Encyclopedia of the Nations*. <http://www.nationsencyclopedia.com/Americas/Mexico-INDU.S.TRY.html> (accessed on 15 June, 2012).

²⁸⁷ Puyana and Romero, *Trade Liberalization in Mexico*, 5; Juan Carlos Moreno-Brid, Juan Carlos Rivas Valdivia, and Jesús Santamaría, *exico: Economic growth exports and industrial performance after NAFTA*. Mexico, D. F.: CEPAL, 2005. <http://www.eclac.org/publicaciones/xml/5/23725/L700.pdf> (accessed on 15 June, 2012), 14.

²⁸⁸ This is also a byproduct of capital formation shortfalls and technology gaps associated with hold over effects from the ISI period. Máttar, Moreno-Brid, Peres, *Foreign Investment in Mexico after Economic Reform*, 11.

²⁸⁹ Puyana and Romero, *Trade Liberalization in Mexico*, 5.

economic growth. One second order affect is its role in increased investor confidence which resulted in increased FDI inflows to the Mexican economy in the early 1990s.²⁹⁰ Without this increase, the Mexican economy would probably not have experienced the economic resurgence that it has achieved up until this point.

Even though the reduction of trade restrictions has clearly increased the rate of Mexican economic growth, it is only one aspect and at best, only partially responsible. The other aspect of the liberalization puzzle is the large number of FTA that Mexico has joined. Since joining GATT in 1986, Mexico has increased their trading potential by establishing thirteen different trade agreements with 44 different countries.²⁹¹ While this increase is clearly important to their overall globalization strategy, it has had its drawbacks. In 1994, Mexico became a member of NAFTA; with this signing, Mexico has essentially fused their economy with that of the United States (“The United States accounts for 85% of Mexico’s total external trade and 80% of the flows of foreign direct investments the country receives.”) and Canada.²⁹² Even though this close relationship between the two economics has proven to be problematic in recent years, the benefits that Mexico has gained from this agreement far outweigh this negative aspect.²⁹³ Additionally, to help mitigate this strong relationship, Mexico has sense joined several free trade agreements which have helped diversify their export portfolio.²⁹⁴ A good example of this is their negotiation of a FTA with the entire European Union (the only country to achieve such a collective FTA with the EU).

This reduction of trade barriers and large number of FTA have clearly proven advantageous for Mexico and helped produce economic growth. Even though it can be

²⁹⁰ Máttar, Moreno-Brid, Peres, Foreign Investment in Mexico after Economic Reform, 10.

²⁹¹ “Background Note: Mexico,” United States State Department, revised on November 16, 2011. <http://www.state.gov/r/pa/ei/bgn/35749.htm#econ> (accessed on 15 June, 2012).

²⁹² Puyana and Romero, Trade Liberalization in Mexico, 7.

²⁹³ Carol Wise, “The North America Free Trade Agreement,” 145.

²⁹⁴ Jansen, Lennon, and Piermartini. “Exposure to External Country Specific Shocks and Income Volatility,” 15.

hard to determine the exact amount of economic growth that trade liberalization is individually responsible for, it has undoubtedly aided in Mexico's economic recovery from both the 1983 LDC debt crisis and 1994 Peso crisis.²⁹⁵

C. RESULTS FROM COMBATING MONOPOLY POWER

Chapter III showed a Mexican government who, after default, stood firm in their belief that the best economic system was based on free market competition with as little intervention from the state as possible. The governmental leadership decided to not only liberalize the trade regimes, but also sell off the vast majority of SOE. This was by no means an easy task and took the better part of a decade to achieve, yet by the early 1990s, the number of SOE had returned to pre-state intervention levels.²⁹⁶ Yet even with their massive commitment to reduce the level of state intervention, economic growth had not returned.

The reason that the reduction of state owned enterprises, and subsequently, the combating of monopoly power did not yield the hoped for results, can be attributed to two different problems; the first points towards an ineffective privatization process. Yes, the country did privatize a large number of SOE, but several monopolies simply continued to exist in the private sector, in essence transitioning from government run monopolies to private monopolies. A prime example of this is the telecommunications industry in Mexico.

Telmex was founded in 1947 when a small group of investors bought out Ericssons' business.²⁹⁷ By 1950, when Telmex bought out the ITT Corporation, they were the only telephone company in the entire country. Telmex continued to grow until 1972, when the Mexican government nationalized the company. Instead of the

²⁹⁵ Dornbusch, "The Case for Trade Liberalization in Developing Countries," 73.

²⁹⁶ Chong, Privatization in Mexico, 7.

²⁹⁷ "Telefonos de Mexico S.A. de C.V.," Funding Universe, <http://www.fundinguniverse.com/company-histories/Telefonos-de-Mexico-SA-de-CV-Company-History.html> (accessed on 01 September 2011).

government breaking up the monopoly once it was established in 1950, or not allowing the acquisition of ITT Corporation, they allowed it to continue to operate. By 1972, ISI was in full swing throughout Mexico and so once again, instead of breaking up the monopoly it was nationalized.²⁹⁸ Once the decision had been made in Mexico to privatize the telecommunications industry after the introduction of Pacto, a small group of investors led by Carlos Sims acquired the lion's share of the stock. This was a result of the auction method and overall goal of the Mexican government.

The overall goal of the privatization program was to raise as much money as possible for debt repayment through the selling of SOE. Given this goal, the most important aspect of a decision on the part of the government to sell, was the final sales price. In many cases, this was not merely a transfer of funds to the government from private investors, but involved complicated debt repayment structures and future profit allocations. When this is compared to other countries experience regarding the selling of SOE, the price is but a small aspect of a larger overall strategy, designed to increase economic efficiency, consumer welfare, and resource allocation.²⁹⁹

By 1990, the Mexican government had sold off the last stake of government ownership in the company.³⁰⁰ Although there are numerous phone companies operating throughout Mexico today, Telmex is still holds a death grip on the Mexican Phone Industry. As of January 2012, Telmex controlled 80% of the land lines in Mexico and their offspring cellular provider, Telcel, controls 70% of the market.³⁰¹ Even though this is just one example of how a private monopoly transitioned into a public monopoly, this

²⁹⁸ "Telefonos de Mexico S.A. de C.V.," Funding Universe, <http://www.fundinguniverse.com/company-histories/Telefonos-de-Mexico-SA-de-CV-Company-History.html> (accessed on 21 August 2011).

²⁹⁹ Pietrogiovanna, "The Benefits of Privatization?," 8–9.

³⁰⁰ "Telefonos de Mexico S.A. de C.V.," Funding Universe, <http://www.fundinguniverse.com/company-histories/Telefonos-de-Mexico-SA-de-CV-Company-History.html> (accessed on 01 September 2011).

³⁰¹ Organization for Economic Co-operation and Development, "OECD Review of Telecommunication Policy and Regulation in Mexico," OECD Publishing, 2012. <http://dx.doi.org/10.1787/9789264060111-en> (accessed on 12 July, 2012), 20.

same story can be repeated by major corporations such as Ferrmex, Cemex, Bimbo, and Maseca.³⁰² Even though they do all face minor competition, they are by far, the industry leaders and even though they do not fulfill the technical definition of monopolies, that is exactly what they are.³⁰³

The incomplete results of the state run privatization program is the second reason why monopolies still limit Mexican economic growth. Due to the Mexican constitution and the importance of certain key SOE, not all SOE / monopolies were privatized. Pemex, the oil company, and Federal Electricity Commission, the electricity provider, are still state run monopolies. They are monopolies in the truest sense of the word; there is no competition allowed in their industry by law.³⁰⁴ This lack of complete privatization by the Mexican government has led to several major problems.

As discussed in Chapter III, there tends to be a lack of R&D in monopolies. In some industries this is not a major issue, but in industries where technology plays a lead role, a lack of R&D can lead to bankruptcy. Pemex has found themselves trapped in a cycle where R&D has been neglected for too many years and now facing the consequences. Once one of the oil producing giants of the western hemisphere, Pemex has now begun to show signs of a slowdown that could not only be bad for the company, but it could prove disastrous for the entire country. Between 2004 and 2011, Pemex's oil output has dropped an amazing 24%.³⁰⁵ This decline is largely the result of a complete absence of R&D resulting from a lack of financial resources needed for investment into

³⁰² Looney, *Mexico on the Ropes*, 57; Tim Johnson, "Monopolies hold back Mexico's economy with high prices, poor service," *McClatchy*, 17 June, 2012, <http://www.mcclatchydc.com/2012/06/17/152221/monopolies-hold-back-mexicos-economy.html>.

³⁰³ Looney, *Mexico on the Ropes*, 57.

³⁰⁴ Looney, *Mexico on the Ropes*, 57.

³⁰⁵ Pemex issues private oil-production contracts, Adam Thompson, *Financial Times*, <http://www.ft.com/cms/s/0/959c20ca-c9d2-11e0-b88b-00144feabdc0.html#axzz1VhRqr8B9> (accessed 21 August 2011).

exploration (see Chapter III's discussion on taxation).³⁰⁶ Currently, Mexican oil export revenues are considerably lower than they were at the beginning of the LDC Debt Crisis, 16% as opposed to 35%, but the revenues still account for approximately 30–40% of government spending.³⁰⁷ Given how important Pemex is, the fact the Mexico is not reinvesting into the infrastructure and R&D of Pemex is astonishing. Pemex's main oil fields are showing signs of drying and if the current trend is not reversed, Mexico will become a net oil importer for the first time in its history by 2020.³⁰⁸ When this happens, the coffers of the government are going to run dry, leading to another massive economic crisis. After all, when a country loses 16% of its GDP, it is going to affect the overall economy. The only way to ensure that the oil revenue for the company and the country does not run dry, is to slowly allow outside companies to start drilling in Mexico; in short, start the privatization of Pemex. Without outside financing or technology transfers, there is no chance of things improving. Thankfully, this is what is finally happening.

For the first time in 50 years, Pemex has allowed an outside firm to enter into Mexico's restrictive oil and energy sector. "Petrofac, a UK-based oil services company, won two of the three contracts on offer...The contracts, which involve developing existing onshore fields in southern Mexico, are tiny in scale, representing only about 1.5 per cent of Mexico's total proven reserves of just under 14bn barrels."³⁰⁹ Even though this is a "tiny" amount of production, it is a huge step in the eventual privatization of Mexico's oil production sector.

Even though Mexico was able to reduce their debt, decrease the size of the government, and increase efficiency through the selling of the vast majority of SOE,

³⁰⁶ Pemex issues private oil-production contracts, Adam Thompson, Financial Times, <http://www.ft.com/cms/s/0/959c20ca-c9d2-11e0-b88b-00144feabdc0.html#axzz1VhRqr8B9> (accessed 21 August 2011).

³⁰⁷ Looney, Mexico on the Ropes, 57

³⁰⁸ "Mexico Could Become Oil Importer by 2020 Without New Investment," Science Daily, <http://www.sciencedaily.com/releases/2011/04/110429095117.htm> (accessed on 23 August 2011).

³⁰⁹ Pemex issues private oil-production contracts, Adam Thompson, Financial Times, <http://www.ft.com/cms/s/0/959c20ca-c9d2-11e0-b88b-00144feabdc0.html#axzz1VhRqr8B9> (accessed 21 August 2011).

without the breakup of the largest state run and private monopolies, this commitment to free market economics will only produce marginal economic gains. In order for Mexico to continue to economically grow, the government must continue to make strides in monopoly reduction and preventative legislation. It is due to these reasons that the combating of monopoly power is at best only partially successful.

D. RESULTS OF PACTO

In order to evaluate the effectiveness of Pacto, this section will evaluate the four supporting goals designed to achieve a decrease in, and subsequent stabilization of, the inflation rate in Mexico.

The first goal of restoring and subsequently maintaining international competitiveness was accomplished by depreciating the Controlled Preferential Rate by 17.4% on 14 December, 1987, reducing the gap between the controlled and free exchange rate to approximately 1.5%.³¹⁰ This depreciation was just the first in a long line of changes to the exchange rate system in Mexico that took place over the next five years until the new Mexican Peso was introduced on October 20th, 1992. Some of these changes included: a preannounced schedule of depreciations for the Peso, a constantly decreasing depreciation amount, the eventual simplification of the entire system from a two (and sometimes three) exchange rate system to a single, unified exchange rate system, and the introduction of a stabilization band designed to allow minor fluctuations in the exchange rate.³¹¹ These changes, when combined with other structural changes, resulted in increased consumer confidence that presented itself in the form of increased capital inflows into the Mexican stock market.³¹²

³¹⁰ “Historical Exchange Rate Regimes of Asian Countries,” International Economics. http://intl.econ.cuhk.edu.hk/exchange_rate_regime/index.php?cid=17 (accessed on 15 June, 2012).

³¹¹ “Historical Exchange Rate Regimes of Asian Countries,” International Economics. http://intl.econ.cuhk.edu.hk/exchange_rate_regime/index.php?cid=17 (accessed on 15 June, 2012).

³¹² Hale, “The Markets of Mexico,” 222–225.

The second goal was to strengthen the fiscal balance over the coming year. The target for this goal was to raise the fiscal surplus by 3% of GDP in 1988.³¹³ The methods used to accomplish this goal were increases in the prices of public goods and services, and increases in interest rates.³¹⁴ By the end of 1988, Mexico's current account as a percentage of GDP increased an astounding 3.5%. Even though this was temporarily accomplished, it was unable to be maintained. For the next five years the current account as a percentage of GDP decreased an average of 1.74% per year bottoming out in 1993 at negative 6.1%.³¹⁵

The third goal of further liberalizing trade policy was covered thoroughly in the sections above and will not be rehashed further. However, the fourth goal of establishing a permanent basis for maintaining a social consensus on wages policy was a resounding success. Pacto was responsible for the agreement between "the government friendly unions...representatives of the business community, and the government."³¹⁶ This pact was initially designed to run for two months, however due to constant renegotiations and extensions, Pacto endured from 1987–1993.³¹⁷

Given the general success that Pacto achieved in accomplishing three of the four afore mentioned goals, there should be no surprise that the Economic Solidarity Pact achieved its overall goal of reducing, and then maintaining a stable inflation rate. This is clearly evident when viewing Table 2.

³¹³ Boughton, *Silent Revolution*, 451.

³¹⁴ "Macroeconomic Management," *Country Studies*. <http://countrystudies.us/mexico/66.htm> (accessed on 15 June, 2012).

³¹⁵ "Mexico's Current Account to GDP," *Trading Economics*. <http://www.tradingeconomics.com/mexico/current-account-to-gdp> (accessed on 15 June, 2012).

³¹⁶ Dornbusch and Werner, "Mexico: Stabilization, Reform, and No Growth," 271.

³¹⁷ Dornbusch and Werner, "Mexico: Stabilization, Reform, and No Growth," 271–272.

Inflation and Depreciation in Mexico, 1987-1993					
Year	Producer	Consumer	GDP Deflator	Wage Inflation	Exchange Rate
	Price Index	Price Index			
1987	145.3	131.8	139.6	128.9	120.4
1988	99.3	114.2	99.4	109.7	62.9
1989	12.8	20.0	25.9	30.8	8.5
1990	22.7	26.7	29.5	30.6	14.3
1991	19.1	22.7	21.6	28.4	6.2
1992	12.0	15.5	16.2	26.6	2.6
1993	6.6	9.8	11.0	16.5	0.0

Figure 3. Inflation Depreciation in Mexico³¹⁸

Pacto was directly responsible for the reduction in Inflation, wage inflation, and a reduction in the exchange rate through the explicit price agreements between business, labor, and the government. Additionally, by allowing for the real appreciation of the currency, inflationary pressure was greatly reduced.³¹⁹ These two government policies, coupled with the above mentioned measures used to achieve three of the four supporting goals of Pacto, led to dramatic decreases in inflation.

Even though three of the four supporting goals were accomplished and the main goal of reducing and sustaining a stable inflation rate was achieved in the short run, several unintended consequences resulted from the programs long term, heterodox approach. The number one fear in using Pacto, was the potential the program possessed to induce “significant real exchange rate overvaluation, loss of competitiveness, and very large trade deficits.”³²⁰ This is exactly what happened as a result of the 1989 decision to relax capital controls and allow the inflow of short term capital into the Mexican

³¹⁸ Dornbusch and Werner, “Mexico: Stabilization, Reform, and No Growth,” 272.

³¹⁹ Dornbusch and Werner, “Mexico: Stabilization, Reform, and No Growth,” 275.

³²⁰ Edwards, “Bad Luck of Bad Policies,” 104.

economy. This inflow of capital into the system, fueled expenditures that created a consumption boom, put additional pressure on an ever increasing real exchange rate, and further fueled the increase in the current-account deficit.³²¹ These decisions played a key role in the onset of the 1994 Peso crisis.³²² The 1994 Peso crisis may have been avoided, or at least the severity lessened, had the program been ceased earlier in the 1990s. Once the inflation has been brought down to a manageable level, it is important to let the market correct itself and allow some inflation. However, the decision was made that the program should be extended until after the 1994 election.³²³

Even though Pacto played a major role in the 1994 Peso crisis, the program can still be considered a resounding success. Without the reduction in inflation that occurred during the late 1980s and early 1990s, Mexico would still be trying to recoup foreign direct investment and pay off outstanding international loans. In short, without reducing and controlling inflation, something which no other program until Pacto was able to achieve, Mexico would be in a far worse position than they currently find themselves.

E. RESULTS OF THE STRUCTURAL CHANGES THROUGHOUT THE TAX SYSTEM

The 1988 tax code bill that was signed into law in 1989 was relatively modest in size, however, resulted in major changes to the tax structure and enforcement methods. This section will evaluate the results of the 1989 tax bill and the changes that are still needed to raise the Mexican tax system up to levels consistent with the remainder of OECD countries.

The results of the relatively modest changes to the tax law / code are quite respectable. In 1994, Mr. Aspe was quoted during a Forbes interview saying,

³²¹ Edwards, "Bad Luck of Bad Policies?," 106.

³²² It is important to note that the use of Pacto by itself was not the reason that the 1994 Peso crisis occurred, however, it was a key contributing factor.

³²³ Dornbusch and Werner, "Mexico: Stabilization, Reform, and No Growth," 281–282.

“Our more simplified system with lower rates and fewer taxes and tougher enforcement has produced government revenues that are up 33% in real terms. During these years the GDP has increased 11% in real terms, so one-third of this increased revenue is just higher economic activity. But two-thirds come from the new tax system.”³²⁴

This increase in revenue is a direct result of the changes to the tax system. A majority of this increase can be credited to the increasing the tax base, resulting from the removal of MTPs and STBs, as well as the inclusion of the mandatory 2% asset tax. In addition to the increased tax base, the number of tax payers increased by over a million; some of this is no doubt due to population growth, but a greater majority is probably due to changes in enforcement and prosecution.³²⁵ Other statistics are equally impressive: total tax income has gone from 8.5% of GDP in 1987 to 10.8% in 1991. Income tax rose over the same four years from 4.0% to 5.1%, and VAT income has grown from 2.7% in 1987 to 3.3% in 1991.³²⁶

Even with these very respectable increases in revenue, the biggest change might be in the administration of the new tax laws. Due to the increased simplicity of the new tax code, the Servicio de Administracion Tributaria (SAT) now has the capacity to conduct effective audits. Prior to these changes, the complexity of the tax system allowed firms to evade full payment of their taxes due to the inability of SAT to effectively enforce the current laws. Even with these promising results, the tax code in Mexico still leaves much to be desired.

The tax base has expanded considerably as a result of the 1988/89 reforms, however, more than 90% of the population is still not paying taxes or their share of

³²⁴ Aspe, Interview, Forbes, 1994.

³²⁵ Elizondo, “In Search of Revenue, 183.

³²⁶ Elizondo, “In Search of Revenue, 184.

taxes.³²⁷ This is mainly due to the large informal sector of the economy (approximately 1/3 of employed Mexicans work in the informal sector).³²⁸ In 2009 alone, tax evasion amounted to \$25.6 billion dollars of lost revenue for the Mexican government.³²⁹ If the Mexican government hopes to raise revenue, it need not raise tax rates, implement new taxes, or even conduct a crackdown on the informal economy (none of which are viable political options), it need only increase its ability to collect taxes.

Even though the results of the 1988/1989 tax reforms are impressive, there is still much work that needs to be accomplished in Mexico. Even though the tax base has expanded, there is still considerable work that must be done in order to find a way to include the informal sector of the economy into the tax system. The informal sections of the economy employs approximately 15.5 million workers with most paying little to no income tax.³³⁰ If Mexico found a way to effectively tax the informal sector, they could increase output of the economy approximately 17%, while at the same time reducing the tax rate from 26% to 16%.³³¹ Even though these numbers are based on total enforcement, even a marginal increase in enforcement would benefit the economy. In order for this to occur, the ability of the SAT to effectively collect and audit individuals and corporations would need to be considerably increased.

Even after the 1988/1989 tax reforms were enacted (which simplified the tax structure), the tax code in Mexico is still extremely complicated and cumbersome for

³²⁷ Alferdo Corchado, "Exclusive: Mexico pays heavy price for tax evasion, report finds," The Dallas Morning News, Published on 28 January 2012.
<http://www.dallasnews.com/news/nationworld/mexico/20120128-exclusive-mexico-pays-heavy-price-for-tax-evasion-report-finds.ece> (accessed on 15 June, 2012).

³²⁸ Dalsgaard, "The Tax System in Mexico," 15

³²⁹ Alferdo Corchado, "Exclusive: Mexico pays heavy price for tax evasion, report finds," The Dallas Morning News, Published on 28 January 2012.
<http://www.dallasnews.com/news/nationworld/mexico/20120128-exclusive-mexico-pays-heavy-price-for-tax-evasion-report-finds.ece> (accessed on 15 June, 2012).

³³⁰ "Background Note: Mexico," United States State Department, revised on November 16, 2011.
<http://www.state.gov/r/pa/ei/bgn/35749.htm#econ> (accessed on 15 June, 2012).

³³¹ Ordóñez, Informal Sector, Productivity and Tax Collection, Cide, Mexico City, 3.

individuals as well as corporations. According to the World Bank, five key problems still remain that must be addressed if Mexico wants to fully utilize their current tax code:

a) evasion is too easy—rarely discovered and even more rarely punished; b) the payment process, even by those willing to pay, is too difficult; c) the tax code is too complex; d) the application of the code by those who administer it is inconsistent across taxpayers and across time; and e) the system collects insufficient information and fails to use it well.³³²

In order for Mexico to effectively increase their revenue, enforcement must become a top priority. The reforms did help, however, in comparison to other OECD countries, Mexico still lags behind in resources, and results. The administration must take a stand, not in policy, but with capital resources, training, and manpower to accomplish an effective auditing branch within the SAT and hold tax evaders accountable for their failure to abide by the law. Only then, will Mexico be able to usher in an era of compliance as opposed to evasion.

Only once a reliable and stable source of governmental revenue has been established can the final hurdle to an effective tax system be cleared...Pemex. As of 2001, Pemex has the following taxes levied against them: a 35% income tax in the form of the Impuesto a los Rendimientos Petroleros (IRP); a duty on oil extraction which is a cash duty levied based on total revenue minus total approved expenditures of Pemex Exploration and Production (PEP). It is levied at three different rates totaling 78.9%; the Petroleum Produces Tax, which is a gas and diesel tax levied against consumers; a Gross Revenue Tax levied against Pemex's gross revenues for all operations at a rate of 60.8%; and a Price Cap which amounts to a 39.2% tax on all crude produced when the price exceeds the estimated budgeted price agreed upon by Pemex and the Mexican Government.³³³ These five different oil and gas taxes end up providing the Mexican government with federal revenues totaling between 2.1% and 4.5% of GDP based on

³³² The World Bank, Mexico, A comprehensive development for the new era, 194.

³³³ The World Bank, Mexico, A comprehensive development for the new era, 183–184.

international crude oil prices on any given day.³³⁴ Until Pemex is released from the Mexican government's death grip, they will continue to be on the slow road of declining profits until death. It is completely acceptable to nationalize an essential business for national security proposes, as long as the revenue that is being produced is allowed to be reinvested as needed to ensure survival of the company. As has previously been stated, this has not been the case for Pemex.

Until these issues are corrected, the Mexican government will always be forced to maintain a low rate of governmental expenditures as a result of inadequate tax revenue. This will in turn, continue to hamper their development and economic growth for years to come. It is because of these reasons that Mexico's 1988 / 1989 tax bill is considered a short term success and a long term failure. Until a major reform, not an incremental remodel of the tax code is completed, Mexico will maintain below OECD average governmental revenue, effectively limiting the future economic growth potential.

F. RESULTS OF THE BANKING REFORM

The banking sector reforms that were implemented following the 1994 Peso crisis were ambitious in nature and were designed to save Mexico from plunging into a second major economic crisis in as many decades. The goals of the two major reform packages were to avert a total collapse of the banking sector, and induce systemic change so as to avoid a repeat of the current crisis. In order to determine the success of the reform packages, this section will evaluate the weather the reforms accomplished their stated goals, followed by an evaluation of the current state of the Mexican banking sector as it relates to the systemic changes of the second phase of the reform program.

The initial rescue package, implemented in 1995, that was designed to avoid the total collapse of the financial sector in Mexico was a success. The liquidity window programs, combined with considerable funds from the IMF, the U.S., Canada, BIS, and the private banking community, allowed the Banco de Mexico and FORBAPROA to

³³⁴ The World Bank, Mexico, A comprehensive development for the new era, 181.

issue loans that covered the necessary funds that the Mexico financial sector owed private and corporate lenders.³³⁵ The initial capitalization program was made available to banks that needed the extra capital to ensure they were in compliance with the 8% capital to asset ratio that the Basle Accords required. Even though some banks undoubtedly required assistance and did take advantage of the government sponsored initial capitalization program, most banks were already in compliance with the accords. When the crisis occurred in December 1994, the average Net Capital / Risk-weighted Assets ratio in Mexico was 9.72%. As the crisis worsened, the ratio continued to improve: 10.79% in 1995, 13.06% in 1996, and 17.22% in 1997. It was not until 1998 that the ratio dropped to 13.33%.³³⁶ Even though on paper, this ratio may look healthy, due to the lax accounting principles that were prevalent throughout Mexico in the early and mid-1990s, there is no doubt that the ratio was actually considerably lower than reported.³³⁷ Even with the questionable success of the initial capitalization program, the Banco de Mexico and FOBAPROA were successful at holding off a major financial sector collapse. This allowed the Mexican authorities to turn their attention to the systemic change that needed to occur throughout the entire financial sector.

The second phase consisted of several programs that were designed to prevent a systemic collapse of the financial sector. The main program to accomplish this goal was the Capitalization and Loan Portfolio Purchase Program (CLPPP).³³⁸ The basic goal of the CLPPP was to reduce the number of non-performing loans (NPL) present on the Mexican bank's balance sheets. Until NPL were removed from the balance sheet, the banks would remain insolvent. Over the course of several years the number of NPLs did decrease, however, it did not happen as the speed at which the government has hoped for.

³³⁵ Edwards, "Bad Luck of Bad Policies?," 265.

³³⁶ McQuerry, "The Banking Sector Rescue in Mexico," 25.

³³⁷ Thorne, "Mexico's Banks Still Undercapitalized," 17-18.

³³⁸ Hernández-Murillo, "Experiments in Financial Liberalization," 423; Montes-Negret and Landa, "Banking Sector," 243 and 245; González-Hermosillo, Pazarbaşıoğlu and Billings, "Determinants of Banking System Fragility," 298.

In fact, in the years directly following the onset of the Peso crisis, the percentage of NPLs actually increased.³³⁹ As some of the banks began to be unable to meet the requirements of the CLPPP, FOBAPROA began to take control of some of the banks daily operations, which eventually caused a decrease in the level of NPLs. This decrease was not the sole effect of the CLPPP, but a combination of debtor relief programs, increased transparency and accounting practices, and increased capital requirements of the banks. In the end, as a result of CLPPP, Anahuac, Capital, Cremi, Interestatal, Obrero, Oriente, Pronorte, and Union banks were liquidated and Serfin and Santander banks were merged with international financial institutions.³⁴⁰

The lax regulatory framework in place that played a part in the 1994 Peso crisis, led to the demise of FOBAPROA. To fill the void, the Protection of Bank Savings (IPAB) was created. IPAB was modeled after the U.S. FDIC, and has played a key part in the continued low number of NPLs present in the Mexican financial sector. To accompany IPAB, the Mexican GAAP was introduced which ensured increased transparency and responsible lending practices. Even though these changes have helped ensure responsible lending, there is no way to point to a causal relationship between responsible financial lending and IPAB / Mexican GAAP.

The most significant result of the financial reform package is the increased presence of foreign owned financial institutions that have come to dominate the Mexican financial system. In 1994, of the 35 banks that were present in Mexico, only two were foreign owned and they only controlled 7% of the total banking assets. Ten years later, in 2004, that share of total banking assets controlled had increased to 83%.³⁴¹ Even though

³³⁹ McQuerry, *The Banking Sector Rescue in Mexico*, 20.

³⁴⁰ Montes-Negret and Landa, "Banking Sector," 244; González-Hermosillo, Pazarbaşıoğlu and Billings, "Determinants of Banking System Fragility," 298; Goldberg, Dages, and Kinney, "Foreign and Domestic Bank Participation in Emerging Markets," 15.

³⁴¹ Rubén Hernández-Murillo, "Experiments in Financial Liberalization," 429; Goldberg, Dages, and Kinney, "Foreign and Domestic Bank Participation in Emerging Markets," 15–16.

Mexico has lost some financial independence, this change will ensure that the Mexican financial system remains competitive on the international financial stage.

Unlike the early 1990s, Mexico has learned from both the 1983 and 1994 economic crisis. Their large capital surpluses and low levels of NPLs have ensure that they are poised to ride out the current economic storm that is wreaking havoc on the rest of the world.³⁴² Even though the current globalized economy poses risks, thanks to the painful lessons of the past, Mexico is poised to succeed in the future. Because of the success of both the initial rescue package and the systemic changes enacted throughout the Mexican Banking Sector, the banking reform measures can be considered a resounding success.

G. CONCLUSION

After two decades of economic and financial crises, Mexico is still experiencing slow economic growth. As can be seen above, even though economic and financial reforms were implemented, the results were mixed. Trade liberalization and the banking reforms can be considered a success, but the controlling of inflation, combating of monopoly power, and tax reform pose a mixed bag. Is Mexico's lack of economic growth a result of this lack luster implementation of the afore mentioned reforms, or is it due to some other factor...something bigger. This is the question that will be discussed in the conclusion.

³⁴² Paula L. Green, Mexico's Uphill Struggle, Global Finance: March 2011, <http://www.gfmag.com/archives/136-march-2011/11104-mexicos-uphill-struggle.html#axzz1vdG3erUK> (accessed on 15 June, 2012).

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V. CONCLUSION

This thesis presented information regarding the economic policies that the Mexican government chose to pursue following the 1983 LDC debt crisis and the 1994 Peso crisis. Yet given this large amount of information, the principle question regarding Mexico's lack of economic growth remains unanswered. Close examination has revealed two possible reasons that may have contributed to Mexico's lack of economic growth; due to the incomplete nature of the economic reforms that were implemented following both economic crises, the Mexican economy remains constrained. The second possible explanation points to the possibility that economic reforms alone only address the symptoms, not the actual cause. This conclusion will address each of the two aforementioned explanations and recommend a possible alternative route to economic growth. The last section will look towards the future and determine if any recent programs are attempting this "alternative" approach to economic growth.

It is clear that the economic reforms that were implemented following both the 1983 LDC debt crisis and 1994 Peso crisis were both long overdue and absolutely needed. The analysis presented in Chapter IV showed that although the reforms were needed, not all were effectively implemented. Trade liberalization following the 1983 LDC debt crisis and the banking reforms following the 1994 Peso crisis were both very well executed and can be considered successful; however, the government's controlling of inflation, combating of monopoly power, and tax reform measures were only marginally successful. If these reforms were only marginally successful, then they must have effected Mexico's future economic growth. The question then becomes how much was the economy restrained by these ineffectively implemented reforms?

The use of Pacto shows that although the Mexican government was able to control the rate of inflation, it was a major contributor to the 1994 Peso crisis. However, the quick recovery following that crisis far outweighs the alternative of hyperinflation, or at a minimum, sustained extreme inflation. So, although Pacto was a major contributor to

the onset of the 1994 Peso crisis, it is not a contributor to restrained economic growth. However, the inability of the Mexican government to effectively combat monopoly power is a different story completely.

The government's marginally effective auction methods regarding the breakup of monopolies, although effectively reducing the size and therefore cost associated with running SOE, did effect future economic growth. As previously discussed, the economic costs associated with monopolies will have a clear long run effect, especially in terms of technology advancements and transfers, as well as, a lack of R&D, all resulting in reduced consumer surpluses. These monopoly practices clearly restrained overall Mexican economic growth, however, to what extent is hard to accurately estimate. In some cases, such as Bimbo's baked products empire, where monopolistic practices only marginally effect consumer surplus (if at all), plays little to no role in restraining economic growth. On the other hand, in companies such as Telmex, Pemex, and the Federal Electricity Commission, where technology plays a key role, the effect of ineffective monopoly regulation has greatly restrained economic growth. Until these key sectors are liberalized, Mexico's economic growth will remain restrained. Also, the government must stop using Pemex as their personal "piggy bank." Until Pemex's tax burdens are reduced, the company will continue to be unable to effectively reinvest in the necessary infrastructure and R&D that it requires to regain competitiveness in the international commodities market. Pemex's ridiculously high tax burden is merely the tip of the ice berg when it comes to problems regarding Mexico's tax structure.

Mexico's 1988/1989 tax reform bill, although increasing government revenues and the tax base, is only a temporary fix to a tax system requiring a major overhaul. The tax system in Mexico still remains a very complicated system in which evasion is a systemic problem. Until Mexico finds a way to effectively and efficiently combat evasion, the tax system will prove to be a burden to economic growth. This is not a simple fix and more importantly, not one that can be accomplished through government initiatives alone; it will require a mind shift of the Mexican populace. This is not something that happens overnight and more importantly, it is in direct conflict with the

large number of people employed in the informal economy. How Mexican officials plan to address the informal economy in terms of tax revenue remains an unresolved issue. These are all major issues that will require not just money, but time and patience. Even with the large problems that the Mexican tax system presents, government spending only marginally affects economic growth.³⁴³ Furthermore, following the 1983 LDC debt crisis, Mexico has adhered to strict government spending requirements so not to place their country into another financial crisis. This fiscal responsibility combined with relatively small government revenues, ensures that tax revenue will only marginally affect economic growth.

So, even though three of the five major reforms following the 1983 LDC debt crisis and 1994 Peso crisis were only marginally effective, their impact on long term economic growth remains minimal. This leads directly towards the second possible explanation as to why Mexico economic growth remains lackluster; economic reforms alone proved to be insufficient to achieve economic growth in line with Mexico's economic potential. To achieve greater economic growth, Mexicans need to address major social issues that continue to plague their society. As discussed in Chapter I, there has been considerable work done regarding the link between individual social factors and how they influence economic growth. According to current scholarship, there are several troubling social issues that Mexico must address in order to accelerate their rate of economic growth. Large amounts of poverty, rampant corruption, an ineffective education and judicial systems are just some of the issues which Mexican officials must continue to address if they hope to take full advantage of their economic potential.

The National Council for the Evaluation of Social Development Policy has recently reported that the number of Mexican living in poverty has increased from 49

³⁴³ Fan and Rao, *Public Spending in Developing Countries, I*; Mitchell, "The Impact of Government Spending on Economic Growth," <http://www.heritage.org/research/reports/2005/03/the-impact-of-government-spending-on-economic-growth> (accessed on 05 July, 2012).

million to 52 million.³⁴⁴ These numbers are staggering in an absolute sense, however, when viewing them against the total population in Mexico, which amounts to 46.2% of the population living in poverty. With nearly half of the country living in poverty, there is no surprise why Mexico is not experiencing rapid economic growth. The economic impact of having half of your countries population living below the poverty line is staggering. These individuals and families are concerned with surviving, not starting a small business or increasing their individual rate of production. Until poverty can be reduced, the human capital in Mexico will continue to be trapped in a self-repetitive cycle resulting in more poverty and continual restrained economic growth.³⁴⁵ Just as poverty is on the rise in Mexico, so is corruption.

Corruption is rampant in all aspects of the Mexican government. From the highest levels of state control down to individual police officers, corruption is affecting economic growth throughout the state. The direct costs of corruption (bribery, extortion, ect.) are not necessarily high, it is the secondary and third-order costs associated corruption that result in restrained national economic growth. When a country has large amounts of corruption, international companies are going to be less likely to invest or open up a branch in that country. This leads to minimal foreign direct investment, as well as reduced private investment.³⁴⁶ Until corruption is reduced, Mexico will continue to miss out on key investment opportunities.

These few examples of social issues influencing economic growth fill volumes in development journals and textbooks. Yet, if Mexico was able to fix every single social issue present, it would still not result in sustained economic growth if the economic foundations were not in place. It is this combination of both social and economic reforms

³⁴⁴ Tracy Wilkinson, "Poverty grew in Mexico to nearly half the population, study finds," Los Angeles Times, Published 29 July, 2011. http://articles.latimes.com/2011/jul/29/world/la-fg-mexico-poverty-20110730_ (accessed on 17 June, 2012).

³⁴⁵ Mayer-Foulkes, "The Human Development Trap in Mexico," 1.

³⁴⁶ Mauro, "Corruption and Growth," 3.

that Mexico requires to ensure sustained economic growth. Until both the economic and social issues are addressed, Mexico will continue to be a country trapped in a cycle of underproductive.

This idea of socioeconomic reforms has gained considerable international attention due to the resurgence of the Brazilian economy. Through their social spending initiatives, such as Bolsa Famiela, they have been able to redistribute wealth, reduce poverty, increase the education of their children, and increase the health of their population.³⁴⁷ Although the social spending programs in place in Brazil require an extremely high tax rate (combined corporate tax rate for 2012 is 34%), it is addressing both the social and economic problems plaguing their country.³⁴⁸ Although the differences between Brazil and Mexico are many, it shows that by addressing social and economic issues together, economic growth is possible. Mexican officials are heading the lessons of their Latin American counterparts, and are attempting to address their social and economic issues through international aid programs, as well as, domestic initiatives.

Internationally, through a partnership with the United States, Mexico is attempting to revise their aging and ineffective judicial system in an effort to combat Drug Trafficking Organizations (DTO). In 2008, the Mexican Senate finally passed a bill reforming the Mexican judicial system. This bill transitioned the Mexican Judicial system away from the Spanish Inquisitional system, or civil law based system towards a common law system (similar to the U.S. judicial system).³⁴⁹ This decision to completely change the way in which the judicial system is structured will reduce corruption as well as increase transparency and the public's faith in their system. At first it is hard to see the economic benefits of a judicial reform, however, upon closer evaluation, it becomes

³⁴⁷ Fishlow, *Starting Over*, 132–136.

³⁴⁸ "Brazil Income Taxes 2012," Worldwide-Tax.com, http://www.worldwide-tax.com/brazil/brazil_taxes.asp (accessed on 27 June, 2012).

³⁴⁹ Hector Tobar, "Judicial overhaul in Mexico OKd," Los Angeles Times, Publishd on 07 March, 2008. <http://articles.latimes.com/2008/mar/07/world/fg-mexjustice7> (accessed on 16 June, 2012).

clear. By increasing transparency and reducing corruption, Mexico will have taken an important step towards combat DTO, as well as providing an important indicator to the international community that Mexico is becoming a more stable and safe place to conduct business. The U.S. has backed the Mexican initiative and has pledged their support, both monetarily, through expenditures allotted to the Mérida Initiative, and through partnerships, such as the special training assistance programs taught by the U.S. Attorney's Office for Mexican Federal Prosecutors.³⁵⁰ In the long run, by addressing their difficult social problems, Mexico will increase FDI as well as private investment, thereby increasing economic growth. Even though this is just one example, it is a step in the right direction.

In closing, regardless of the flaws, Mexico has implemented meaningful and lasting economic reforms which have partially laid the foundation for prolonged increased economic growth. Although there is more work to be done on the economic issues address in this paper, until Mexico addresses their numerous social issues, their economic growth will remain at its current level. However, through continued economic and social reforms, Mexico can return to growth levels that rival that of the “Mexican Miracle.”

³⁵⁰ Brady McCombs, U.S. to aid Mexico's judicial reforms: Ariz. training to bolster legal fight vs. cartels,” Arizona Daily Star, Published on 27 September, 2010). http://azstarnet.com/news/local/border/article_7025a974-11b4-5544-b646-6a1f9e7215f7.html (accessed on 16 June, 2012).

VI. TECHNICAL APPENDIX

A. INTRODUCTION

This appendix is designed to aid in the understanding of economic issues through the use of basic economic theory. For each of the major economic reforms implemented following the 1983 LDC debt crisis, there is a complimentary section designed to help the most inexperienced economic readers in their understanding of basic economic theory. In each section, I have applied basic economic principles and theory towards the specific problem that Mexico was experiencing following the 1983 LDC debt crisis. By looking at the basic economic theory behind the principles, it will help the reader understand why the Mexican authorities choose the route they did on their way to economic freedom and prosperity.

B. TARIFF THEORY

Let's assume that a tariff has been placed on steel imports into Mexico. By placing this tariff on steel, Mexico is forcing consumers to buy domestically produced steel instead of steel imported from the U.S. In economic terms, this would be called increasing producer surplus.³⁵¹ Prior to the tariff, the producer surplus is equal to the area IDE (refer to Figure 4). After a tariff is imposed, this area is now equal to IAB (refer to Figure 4).³⁵² The tariff is responsible for a gain of an area equal to ABED (refer to Figure 4). Even though this has led to an increase in producer surplus, it has also hurt the consumers. Under the neo-classical model, consumers will either buy less steel, or they will pay a higher price, or any combination of the two.³⁵³ In Economic terms this loss is considered decreasing consumer surplus.³⁵⁴ Prior to the tariff, consumer surplus is

³⁵¹ Pugel, International Economics, 148.

³⁵² Pugel, International Economics, 149.

³⁵³ Pugel, International Economics, 149.

³⁵⁴ Pugel, International Economics, 149.

represented by an area equal to JHD (refer to Figure 4). After the tariff has been implemented, consumer surplus has fallen to JCA (refer to Figure 4). The loss of consumers is represented by the area ACHD (refer to Figure 4).³⁵⁵ The last element of the tariff levied on the Mexican steel industry is how much the government gains from the tariff. Economic principles tell us that because of the price increase, the amount supplied will be less and the amount requested in the market will be less. This reduced supply is represented as a movement from P1 to P2 (refer to Figure 4). On the demand side, it is represented by movement from P4 to P3 (refer to Figure 4). Because of this movement, the government gains are equal to the area FBCG (refer to Figure 4).³⁵⁶ Once you tally up the increases in government gains and producer surplus and subtract those from the consumer losses, you will find that a net loss in the Mexican steel industry has occurred. Graphically this can be represented by the two triangles EBF and CGH (refer to Figure 4).³⁵⁷ These are the inefficiencies that tariffs produce, and this is why almost every economic institution regards tariffs as the incorrect way to adjust the economic situation of a given industry.

³⁵⁵ Pugel, *International Economics*, 150.

³⁵⁶ Pugel, *International Economics*, 150–151.

³⁵⁷ Pugel, *International Economics*, 152.

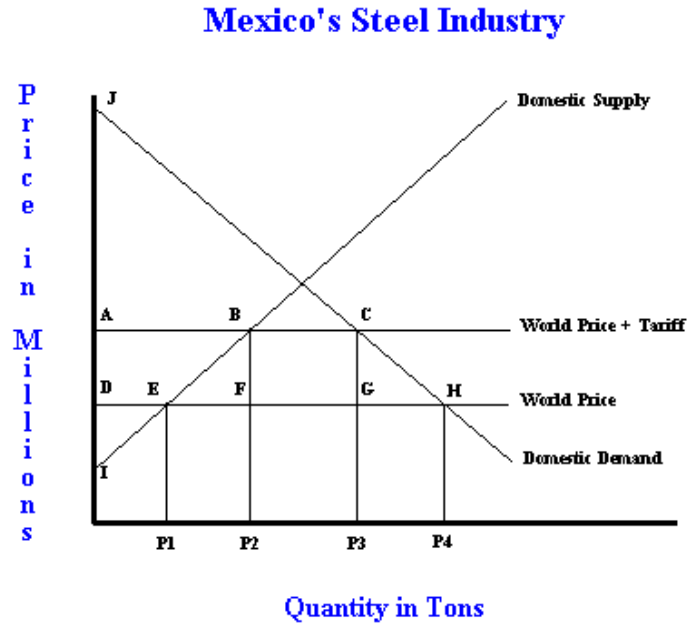


Figure 4. Tariffs in Mexico's Steel Industry

In reality, this is not necessarily what happened in Mexico. The tariffs that were imposed were placed so high, that they are designed to almost completely keep competitive imports out of the economy. If products were allowed to enter the market, they are priced in a way that the domestically produced product is considerably cheaper. So much so, that due to the lack of perceived difference in quality, almost no one will purchase the import.³⁵⁸

C. MONOPOLY THEORY

In some instances, a monopoly is not a bad way to organize a sector of the economy. For example, in the defense sector, the fact that there is only one National Army is a benefit of monopoly control. Due to the cost of maintaining an army or navy, if there were two firms it would be extremely expensive and would harm consumers.

³⁵⁸ Pugel, International Economics, 151.

However, in most circumstances, competition creates a better product and lowers costs for consumers. Basic economic principles uncover several problems with monopolies: first, due to the fact that there is only one firm producing a product or rendering a service, they have the ability to earn higher than normal profits, which in turn, reduces economic efficiency and consumer welfare.³⁵⁹ Second, due to the lack of competition present in monopolistic sectors, there is a lack of innovation and Research and Development (R&D) that occurs.³⁶⁰ These problems are further examined below.

As compared to a perfect competition model, monopolistic competition is a slightly more complicated model. First, because there is only one firm, the demand curve for the industry is the demand curve for the single firm (refer to Figure 5).³⁶¹ Additionally, marginal revenue for the firm will have to be plotted. Marginal revenue is the change in total revenue from producing one more unit of output; thus marginal revenue will lie below the demand curve (refer to Figure 5).³⁶² Also, marginal cost must be plotted. Similar to marginal revenue, marginal cost is the increase in total cost from producing one more unit of output. For the purpose of this simple example, you can think of marginal cost being equal to the supply curve (refer to Figure 5).³⁶³ In order to maximize profits, the monopoly will choose to produce a quantity where marginal revenue is equal to marginal cost. In order to determine what cost should be charged, monopolies follow the intersection up to the demand curve and figure price (refer to Figure 5).³⁶⁴ Next, average total cost curve needs to be plotted. This is just a mathematical formula that is equal to the total cost divided by the quantity produced.³⁶⁵

³⁵⁹ Lieberman, *Introduction to Economics*, 201.

³⁶⁰ Ruffin and Gregory, *Principles of Economics*, 663–664.

³⁶¹ Lieberman, *Introduction to Economics*, 204.

³⁶² Lieberman, *Introduction to Economics*, 205.

³⁶³ Lieberman, *Introduction to Economics*, 206.

³⁶⁴ Lieberman, *Introduction to Economics*, 206.

³⁶⁵ Lieberman, *Introduction to Economics*, 207.

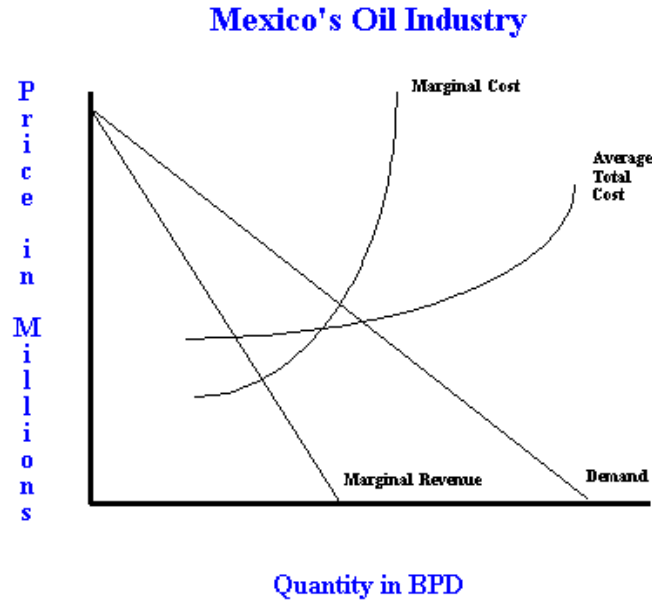
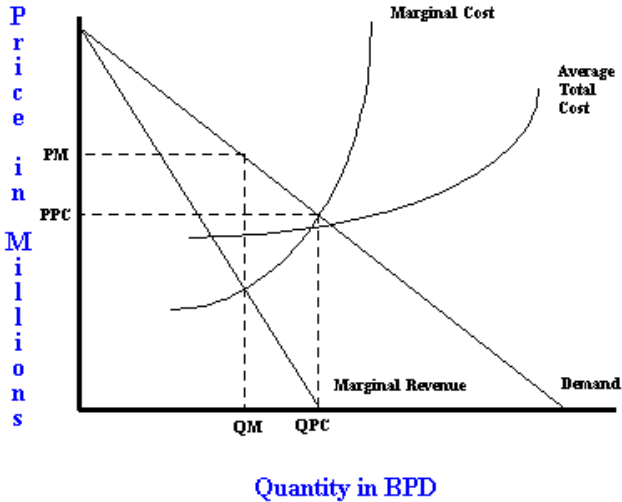


Figure 5. Monopolistic Competition Model

Just as before, now that the basic graph is drawn, one can start to determine if it is advantageous for Mexico to maintain their monopolies or to change structures and privatize. On the very basic level, it is known that monopolies produce less output at a higher price. In a perfectly competitive model, the firm would choose to produce where supply equals demand. Monopolies understand this, however, they produce where supply (in the case of monopolies, their marginal cost) equals marginal revenue (refer to Figure 6).³⁶⁶

³⁶⁶ Lieberman, Introduction to Economics, 206.

Mexico's Oil Industry



Mexico's Oil Industry

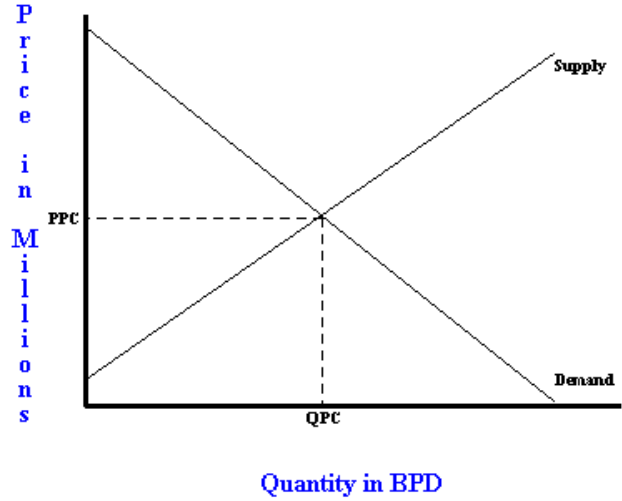


Figure 6. Monopolistic Competition compared to Perfect Competition

Mexico's Oil Industry

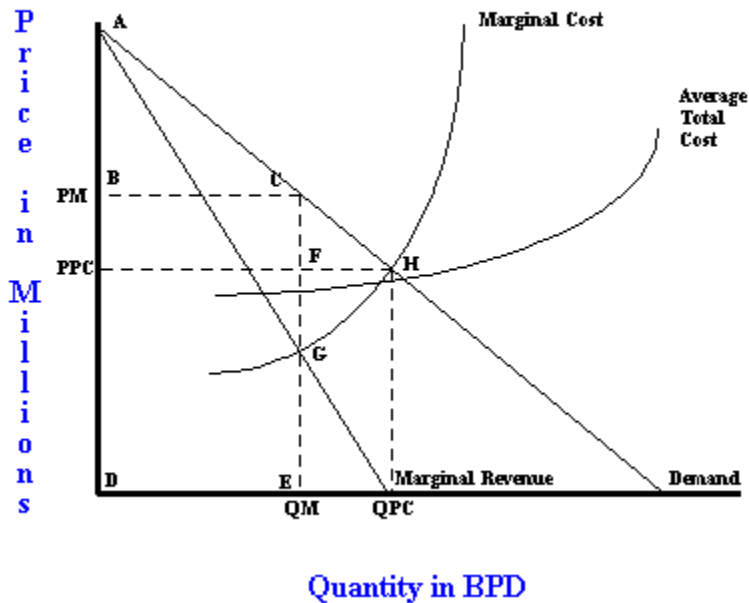


Figure 7. Producer and Consumer Surplus in Monopolistic Competition Model

Producer and consumer surplus in Monopolies have the same definitions as they do in perfect competition, however, they look drastically different. In monopolistic competition, deadweight loss is represented as an area equal to CGH . Producer surplus decreases by an area equal to FGH and consumer surplus decreases by an area equal to CFH (refer to Figure 7).³⁶⁷ Just as in the case of tariffs, there is a net social loss, hence the reason most developed countries do not tolerate monopolies.

The second problem that monopolies induce is a lack of competition. A lack of competition is not necessarily bad (just as in the case of the military), however, this lack of competition produces several second order issues; the biggest of which is the lack of innovation. When there is a lack of competition, firms do not devote as many resources into R&D. This leads to a lack of innovation. Under perfect competition condition, this

³⁶⁷ Lieberman, Introduction to Economics, 206.

firm would simply be eliminated, however, because there is no competition present in this sector, the firm continues to survive. Additionally, because there is only one firm present in this sector of the economy, the national sector of the economy falls behind others nations level of innovation. This national lack of innovation is usually mitigated by other international companies producing similar products, however, when an economy is closed, this sector has no reason to devote resources towards R&D. It is this type of second and third order consequences that hurts Mexico once the economy was liberalized.

D. BASIC ECONOMIC PRINCIPLES BEHIND INFLATION

Before analyzing Mexico's solution to inflation, a basic level of knowledge must be achieved in regards to what inflation is and how it compounded Mexico's economic troubles. "Inflation is defined as a sustained increase in the general level of prices for goods and services."³⁶⁸ Even though this can be a hard concept to grasp, it is easier to look at inflation in terms of purchasing power. "As inflation rises, every dollar you own buys a smaller percentage of a good or service."³⁶⁹ According to the IMF, inflation can "distort prices, erode savings, discourage investment, stimulate capital flight (into foreign assets, precious metals, or unproductive real estate), inhibit growth, makes economic planning a nightmare, and, in its extreme form (called hyperinflation), evokes social and political unrest."³⁷⁰ There are two main types of inflation; demand-side inflation and supply-side inflation.³⁷¹ "Demand-side inflation occurs when the amount of money

³⁶⁸ "All About Inflation," Investopedia, <http://www.investopedia.com/university/inflation/inflation1.asp#axzz1W4grbi00> (accessed on 2 April, 2012).

³⁶⁹ "All About Inflation," Investopedia, <http://www.investopedia.com/university/inflation/inflation1.asp#axzz1W4grbi00> (accessed on 2 April, 2012).

³⁷⁰ Guy Debelle, Paul Masson, Miguel Savastano, and Sunil Sharma, *Inflation Targeting as a Framework for Monetary Policy* (International Monetary Fund, 1998), <http://www.imf.org/external/pubs/ft/issues/issues15/index.htm> (accessed on 02 April, 2012).

³⁷¹ There are many different subsets of the two main categories of inflation listed, however, they all fall under the demand-side and supply-side categories.

purchasers of goods and services want to spend increases more rapidly than the supply of such goods and services, resulting in the bidding up of prices.”³⁷² This category of inflation is often referred to as “demand pull” inflation. “Supply–side inflation occurs when increases in prices of inputs caused by reductions in their supply generally cause fewer goods and services to be offered at prevailing prices, resulting in the bidding up of their prices.”³⁷³ This category of inflation is often referred to as “cost push” inflation. Even though inflation is dangerous, especially when it reaches rates that Mexico experienced in the 1980s, a little inflation is not necessarily bad.

1. Economic Theory Behind Inflation Rates

In the real world, not the self–imposed, controlled world that basic economic models are designed to work within, many indicators and variables are interrelated. For the purpose of this argument, the main indicators concerning inflation are GDP and unemployment. As was determined earlier, in order for Mexico to economically recover from the 1983 LDC debt crisis, long term growth must be achieved. If overall output of an economy is holding steady, companies cannot make profits, subsequently, leading to a lack of GDP growth. However, if the overall output is growing too fast, inflation will also increase at a greater rate. There is general consensus that a GDP growth rate of 2.5–3.5% is the highest percentage change that the U.S. economy can sustain without inducing negative consequences.³⁷⁴ Developing economies can sustain a higher GDP growth rate without suffering negative consequences, however, there is still a fine balance between growth and inflation. To understand the negative effects of increased GDP growth, unemployment is introduced into the equation. Historical data has shown that for every full percentage point GDP growth increases over 2.5%, national

³⁷² Ruffin and Gregory, *Principles of Economics*, 101.

³⁷³ Ruffin and Gregory, *Principles of Economics*, 101.

³⁷⁴ Ryan Barnes, “The Importance Of Inflation And GDP,” Investopedia, <http://www.investopedia.com/articles/06/gdpinflation.asp#axzz1quhJDjpc> (accessed on 02 April, 2012).

unemployment rates decreases by 0.5%.³⁷⁵ While this decrease in unemployment can be beneficial in some cases, if the trend continues uninterrupted for a considerable period of time, it can have devastating consequences for the national economy. As an economy approaches full employment, two unintended consequences occur: first, aggregate demand for goods and services will increase faster than supply, causing prices to rise, and second, companies will have to raise wages as a result of the tight labor market.³⁷⁶ This increase usually is passed on to consumers in the form of higher prices as the company attempts to maximize profits. These two trends, over time, will result in increased inflation. If this situation is allowed to continue for any considerable length of time, this cycle will have a self-perpetuating effect.³⁷⁷ This brief explanation of the negative consequences of inflation illustrates why the Mexican government had to slow their rate of inflation.

E. TAX THEORY

This section will not concentrate on the complex theories associated with taxation, but will focus on the main aspects of what makes a tax code effective. As was previously notes, the main problem in Mexico is their inability to bring in a sufficient amount of revenue given their public expenditures. Several aspects of the tax system can be evaluated in hopes of increasing the efficiency of the tax system. They include the tax structure, buoyancy of revenues, revenue stability, excess burdens, and economic distortions.

³⁷⁵ Ryan Barnes, "The Importance Of Inflation And GDP," Investopedia, <http://www.investopedia.com/articles/06/gdpinflation.asp#axzz1quhJDjpc> (accessed on 02 April, 2012).

³⁷⁶ Ryan Barnes, "The Importance Of Inflation And GDP," Investopedia, <http://www.investopedia.com/articles/06/gdpinflation.asp#axzz1quhJDjpc> (accessed on 02 April, 2012).

³⁷⁷ Ryan Barnes, "The Importance Of Inflation And GDP," Investopedia, <http://www.investopedia.com/articles/06/gdpinflation.asp#axzz1quhJDjpc> (accessed on 02 April, 2012). This example is based on the demand-pull inflation, however, the interrelated nature of GDP, prices, and unemployment are the same regardless of the inflation type.

The tax structure of Mexico is generally in line with most modern countries.³⁷⁸ It is a highly centralized country, with approximately 88% of general government revenue resulting from federal revenue.³⁷⁹ The number one source of revenue for the federal government is still income taxes. The Value Added Tax (VAT) is the second most lucrative source of revenue for the government. The third most important source of revenue for the federal government is hydrocarbon duties paid by PEMEX, followed by excise taxes.³⁸⁰ What is different about Mexico is the amount of revenue generated by PEMEX. When evaluating all different revenue streams, PEMEX provides 34% of the total federal government's revenue.³⁸¹ One of the most important aspects of the Mexican tax systems is the level of complexity that is built into the system. Because of the complexity of the tax system, Mexico often has to deal with high rates of tax evasion due to enforcement problems.³⁸² Even though Mexico's tax structure appears to be properly constructed (according to the adequate level of tax effort as a percentage of GDP), there is far too much reliance on PEMEX for revenue.³⁸³

An important aspect of a well-designed and properly functioning tax code "is the ability to generate automatic growth in fiscal revenues over time."³⁸⁴ In other words, as the economy grows, so should the ability of the tax system to collect additional revenue. At a minimum, the tax system should grow at the same rate as GDP. Buoyancy is "the ratio of the proportional change in tax revenues to the proportional change in the tax base

³⁷⁸ Dalsgaard, "The Tax System in Mexico," 8.

³⁷⁹ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 9

³⁸⁰ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 12–13; Fonseca and Ventosa-Santaulària, "Revenue Elasticity of the Main Mederal Taxes in Mexico," 90.

³⁸¹ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 13; Hartley and Medlock III, "The Revenue Efficnency of PEMEX," 5.

³⁸² Gemmell, "Tax Systems, Tax Revenue and Growth in LDCs," 84.

³⁸³ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 13; Dalsgaard, "The Tax System in Mexico," 9; Hartley and Kenneth B Medlock III, "The Revenue Efficnency of PEMEX," 5.

³⁸⁴ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 14; Jenkins, Kuo, and Shukla, Tax Analysis and Revenue Forecasting, 35.

of GDP.”³⁸⁵ From 1983 to 1994 (the period between the LDC debt crisis and the peso crisis), buoyancy for federal tax revenue averaged 0.85. Table 2 breaks down the federal tax revenue to each of the four major revenue sources based on buoyancy. Because this number was slightly below unity (unity represents the tax system growing at the same rate as GDP growth), the Mexican government was increasing their current account deficit. This is due to the Mexican government providing more goods and services than the tax revenue could support. Had the buoyancy been 1.00 or higher, they would have been able to either spend more money, increase goods and services to the public, or decrease the current account deficit (holding all other spending static).³⁸⁶

Year to Year Buoyancy of Revenue Sources												
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Tax Revenues	1.07	1.01	0.98	1.2	0.95	1.06	0.93	0.88	0.93	1.3	1.11	0.92
Income Taxes	0.75	1.02	0.97	1.09	0.93	1.19	1.03	0.81	1.06	1.74	1.61	0.42
Value Added Tax	1.47	1.1	0.95	1.02	1.03	1.05	0.7	1.49	0.8	-0.39	0.77	1.23
Excises	1.42	0.88	0.92	1.44	0.91	1.05	0.54	-0.41	0.51	2.09	0.55	2.98
Import Taxes	0.2	1.01	1.55	1.42	0.93	0.21	2.73	1.55	1.74	1.53	-0.14	0.02
Others	1.12	0.89	0.78	1.65	0.77	1.12	1.12	1.03	0.16	4.15	1.71	-0.56

Table 2. Buoyancy of Federal Revenue in Mexico (From Martinez–Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 44)

Revenue stability is often times a useful measure to determine if a tax system is properly structured. Revenue stability is the examination of the difference in variation relative to their mean over time.³⁸⁷ If a government collects too much tax from unstable sources, during a time of economic downturn, it will not be able to render the services that it is required to. Revenue instability is not necessarily a bad feature of the tax system. If revenue instability moves in sync with the business cycle, it can be a good thing. If tax revenue moves more violently when compared to the business cycle, it will

³⁸⁵ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 15; Gemmell, “Tax Systems, Tax Revenue and Growth in LDCs,” 87; Jenkins, Kuo, and Shukla, *Tax Analysis and Revenue Forecasting*, 35.

³⁸⁶ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 11–13 and table 7.

³⁸⁷ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 17

act as a stabilizing force during growth and contraction cycles. However, if they move counter to the business cycle, tax revenue can have a destabilizing effect on the economy.³⁸⁸ Mexico during the 1980s and early 1990s, showed two distinct patterns: first, tax revenue moved in sync with the business cycle, and second, non-tax revenues, mainly hydrocarbon duties, showed no discernible pattern. Unfortunately, due to the relative importance of hydrocarbon duties, compared to tax revenue, the former's influence on the economy was stronger.³⁸⁹ When this is coupled with “pro-cyclical discretionary tax policy (tax rates are increased during recessions and decreased during expansions)... Mexico’s tax system has provided an unstable foundation to the federal budget and the behavior of overall revenues has tended to increase rather than dampen the swings in real economic activity induced by the economic business cycle the federal tax revenues proved to be relatively.”³⁹⁰

Finally, an evaluation of excess burdens and the economic distortions that they produce should be conducted. When certain sectors of the economy are taxed at a lower rate, a need to collect additional taxes in another sector of the economy is created. This action created considerable consequences, one of which resulted in the mis-allocation of resources. This created an excess burden of taxation, which amounted to the economy producing less than optimal levels of income.³⁹¹ By closing some of the loopholes present in the tax system, a more efficient allocation of resources could be achieved, thereby, reducing the number of unintended consequences of a complex tax code.³⁹² There are measures that can be attempted to calculate this (such as the marginal effective tax rate), however, on a fundamental level, anytime an economy is less intruded upon, the

³⁸⁸ “States’ Revenue Estimating” by the PEW Center on the States and the Nelson A Rockefeller Institute of Government, March 2011, 3.

³⁸⁹ Dalsgaard, “The Tax System in Mexico,” 23.

³⁹⁰ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 18–19.

³⁹¹ Martinez-Vazquez, Mexico: An Evaluation of the Main Features of the Tax System, 19–20.

³⁹² Martin Wolk, “Why the tax system keeps getting more complex: An 'endless cycle' of loopholes, crackdowns imposes an economic cost,” MSNBC.com, http://www.msnbc.msn.com/id/12307554/ns/business-eye_on_the_economy/t/why-tax-system-keeps-getting-more-complex/#.T3SxptWyFZJ (accessed on 02 April, 2012).

more efficient the system will work.³⁹³ Based on this assessment of the Mexican tax code and administration, a solution was required.

³⁹³ There is also considerable attention paid to the reallocation of resources, however, for the purpose of this thesis, the more important issues is the lack of funds collected by the government.

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