

# **IMPLEMENTING ECONOMIC REFORMS IN MEXICO: THE WASHINGTON CONSENSUS AS A ROADMAP FOR DEVELOPING COUNTRIES**

## **ABSTRACT**

*The purpose of this paper is two-fold. First, is to provide an empirical analysis of the implementation of economic reforms in the areas of privatization, trade liberalization, and public expenditure priorities, using the Washington Consensus guidelines. Second, is to assess to continued viability of the Washington Consensus as a model for developing economies. The two methodologies used in this paper are case study and analysis of aggregated data. A case study of Mexico's economic reforms since the 1980's is used to assess whether those reforms have been implemented consistently. An analysis of aggregated data is then used to determine levels of implementation. The study finds that Mexico has failed to implement reforms in privatization, trade liberalization, and public expenditure priorities consistent with the ideals established by the Washington Consensus. It also recommends that developing countries continue to use the Washington Consensus as a blueprint for their own economic reforms.*

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# CHAPTER 1

## INTRODUCTION

Over the 1990's global poverty reduction started becoming entrenched on the international agenda (White 1999, 503). The Seattle riots over the World Trade Organization (WTO) meetings in 2000 symbolized a growing concern over the squalid living conditions of the world's poor.

Global poverty first started becoming a concern in the World Bank in 1990 (Onis & Senses 2005, 273). The World Development Report of that year emphasized the importance of good government and poverty reduction (World Bank 1990).

In September 2000, many of the world's leaders met at the United Nations in New York City for the Millennium Summit where they set a program of improving human welfare. One objective was the elimination of half the proportion of people living on less than \$1-a-day by 2015 (Besley & Burgess 2003, 3).

Although the percent of people living in poverty has fallen slightly the absolute numbers in poverty has shown little progress (Deaton, 2002). From 1990-1998, the percent of those in poverty has fallen from 29.3 percent to 24.2 percent, while the actual numbers dropped from 1.3 billion to 1.2 billion (Beasley & Burgess 2003, 5). However, most of these gains can be attributed solely to China. Other regions have not been as fortunate. In Latin America and the Caribbean, poverty rates have risen during this same time period from 15.3 percent to 15.6 percent of the population.

The reasons behind the recent surge to reduce global poverty are numerous. The first and most obvious is the moral sense of obligation of helping those in less fortunate situations. Another is the idea that growth and poverty reduction will bring about more

peace and stability (Oneal & Russett 1997). A rising standard of living is thought to lead a society's political and social institutions to greater openness and democracy (Friedman 2005). Rising living standards foster greater opportunity, fairness, and dedication to democracy. When living standards stagnate most societies make little progress towards those goals. The lack of progress is often a major factor in civil unrest like the kind seen in the Chiapas civil war in Mexico (Onis & Senses 2005, 272).

### **The Role of Growth**

The most common approach to reducing poverty focuses on economic growth (Besley & Burgess 2003, 12). Foreign aid and debt cancellation have been suggested, but remain inadequate. If the G7 nations (United States, Canada, United Kingdom, France, Germany, Italy, and Japan) met their aid target of .7 percent of GDP it would raise \$142 billion a year. The cost of giving everyone living below the poverty line \$1 a day would cost \$443 billion a year. Cancelling debt repayments would only net another \$1 billion per year (Besley & Burgess 2003, 19).

The burden of eliminating poverty clearly lies on the shoulders of domestic governments. The role of growth on poverty reduction is not disputed (White 1999, 511). Therefore, the economic policies of developing nations lie at the epicenter of the fight to reduce poverty. Only here can real progress be achieved.

### **The Washington Consensus**

Since the late 1980's reforms to correct the plight of the developing world economies have generally followed an economic blueprint rooted in neo-liberal thought.<sup>1</sup>

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<sup>1</sup> Neo-Liberalism in its international usage refers to a political-economic philosophy that rejects government intervention in the market. The philosophy specifically emphasizes free-market principles and the opening of foreign markets by political means. Neo-liberals argue that markets free of government influence are essential for sustaining economic prosperity (Beeson & Islam 2005, 199).

The embodiment of these theories was defined in a set of economic principles dubbed the “Washington Consensus”. The term, coined by John Williamson (1990), categorized a set of policy prescriptions that should enhance growth and are consistent with conservative economic principles. They are: privatization; trade liberalization; public expenditure priorities; fiscal discipline; tax reform; interest rate liberalization; competitive exchange rate; foreign direct investment; deregulation; and property rights.

Mexico started its own shift towards neo-liberal market ideals in the early 1980’s. Since that time, no other country has pursued export-oriented development more than Mexico (Cronin 2003, 63), nor has another country privatized more ambitiously (Overman 1995, 50). Even more noteworthy, Mexico’s policy reforms occurred during a time when only Chile, among all Latin American countries, was pursuing such a development strategy. In implementing the Washington Consensus policies Mexico has become a sort of “poster child” for neo-liberal reform in the region. This makes Mexico an ideal case study for economic reform policies in Latin America.

### **Research Purpose**

After nearly twenty years of policy guidance, the Washington Consensus has come under considerable academic dispute.<sup>2</sup> Although Mexico has seen some improvement in its economy since the late 1980’s, the reforms have not been as successful as once predicted (Santiso 2004). Since Mexico has been one of the most aggressive emerging markets in complying with the Washington Consensus, the results can only lead to one of three conclusions. First, although Mexican officials had the intent to model their reforms after the Washington Consensus the implementation of those reforms are inconsistent with the prescriptions. Second, the Washington Consensus

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<sup>2</sup> Beeson & Islam 2005; Besley & Burgess 2003; Naim 2000; Onis and Senses 2005; Stiglitz 2003

needs to be tweaked to include further reforms to account for unique characteristics inherent in developing countries. Third, the reforms proposed by the Washington Consensus are fundamentally flawed.

To settle the debate it is first necessary, then, to explore whether the Mexican reforms have been implemented consistently with the ideals proposed by the Washington Consensus. Until this question is settled it will be difficult for researchers to rule out. Therefore, the purpose of this paper is two-fold. First, is to provide an empirical analysis of the implementation of Mexico's economic reforms in the areas of privatization, trade liberalization, and public expenditure priorities, using the Washington Consensus guidelines. Second, is to assess to continued viability of the Washington Consensus as a model for developing economies.

### **Chapter Summaries**

Chapter 2 reviews the academic literature on the neo-liberal economic policies embodied by the Washington Consensus. From this literature, working hypotheses are developed that examine the implementation of three such policies in Mexico. These working hypotheses are presented in a conceptual framework that helps serve as a guide for readers.

Chapter 3 outlines the methodology used in this research, and limitations of these methods. An operationalization table is presented that links the conceptual framework to the research methods used by the study.

Chapter 4 presents the results of the study. A number of economic indicators are measured and compared. These indicators are used as evidence that either supports or fails to support the working hypotheses developed in Chapter 2.

Chapter 5 provides a conclusion by discussing whether the results of Chapter 4 support the working hypotheses. Finally, the chapter concludes by examining whether the Washington Consensus should continue to be used as a blue-print for other emerging markets.



## CHAPTER 2

### LITERATURE REVIEW

#### Chapter Purpose

This chapter first reviews the academic literature on the Washington Consensus and the use of neo-liberal policies to foster economic growth in developing economies. In particular it focuses on three broad tenets: privatization; trade liberalization; and public expenditure priorities. This is followed by a discussion of the slumping performance of countries, including Mexico, using the Washington Consensus as a blueprint for reform. This includes an examination of the three present diverging views of the Washington Consensus, and a review of Mexico's reform process. The chapter concludes by developing working hypotheses about the implementation of three tenets of the Washington Consensus policy.

#### The Washington Consensus Revisited

One set of economic policy suggestions used to stimulate growth, particularly in Latin America, is the "Washington Consensus". John Williamson (1990) used the term to describe the neo-liberal orthodoxy that prevailed in the US Treasury, the World Bank, and the International Monetary Fund. The policies recommended by the Washington Consensus are summarized below (Williamson 1993, 1332-1333):

- *Fiscal Discipline*: Budget deficits should be small enough to be financed without repercussion to the inflation tax. This typically implies a budget surplus of several percentage points of GDP, and an operational deficit of no more than 2 percent GDP.
- *Privatization*: Governments should privatize all inefficient state owned enterprises (SOE).

- *Trade Liberalization*: Trade restrictions should be replaced with uniform tariffs in the range of 10 percent. These should occur in a recommended time span of 3-10 years, but slow down in the face of adverse economic conditions.
- *Public Expenditure Priorities*: Policy reform should redirect expenditures from areas which typically receive more resources than their returns justify, toward those with high economic return, such as primary health, education, and infrastructure.
- *Tax Reform*: countries should broaden the tax base and cut marginal tax rates. Another important aspect is improved tax administration.
- *Interest Rate Liberalization*: The goal is market-determined interest rates or, at the very least, abolishment of preferential interest rates for privileged borrowers.
- *Competitive Exchange Rate*: Countries need a unified exchange rate sufficiently competitive enough to induce rapid growth in non-traditional exports.
- *Foreign Direct Investment*: Barriers to foreign competition should be abolished. Foreign and domestic firms should be allowed to compete on even terms.
- *Deregulation*: Governments should abolish regulations that impede the introduction of new competitors to the market. Sufficient regulatory institutions should also be in place to assure proper competition.
- *Property Rights*: A legal system should be installed that ensures secure property rights without excessive costs.

These policies were meant to roll back the reach of the state. Neo-liberalism proponents argued that market economy when free of intervention is critical for sustaining economic prosperity. The Washington Consensus then is based on an understanding that imperfect markets are superior to imperfect states (Onis & Senses 2005, 264).

Due to the limited nature of this project the paper focuses exclusively on three of the ten principles: privatization, trade liberalization, and public expenditure priorities. These three principles were picked because they (1) are the three most likely to stimulate economic growth; (2) all contain a substantial amount of academic literature; (3) enjoy

the some of the greatest amount of consensus among academics (Williamson 1993); and (4) can be measured using available aggregated data. What follows is an academic link to these specific policies and economic growth.

### **Privatization**

Privatization has been characterized as the transfer of productive assets from the public sector to the private sector (Parker & Kirkpatrick 2005, 514). Transfers can be accomplished either through a public share issue or a direct sell to another company. Privatization usually occurs in highly concentrated industries such as airlines, banking, telecommunications, oil or generally any industry where one or two firms tend to dominate a market (Ramirez 1998, 421). Levels of privatization efforts in a particular country can be measured in several ways including: the number of state owned enterprises in a country; a percentage of value added to GDP by state owned enterprises; and the amount of subsidies given by the government.

State-owned enterprises are often unprofitable because they are burdened with objectives such as retaining high numbers of jobs and supporting underdeveloped regions (Megginson et al. 1994, 424). In return governments offer incentives such as subsidies, lower input costs, or even a promise to cover operating losses.

Privatization is pursued by governments as a measure to combat the inherent inefficiencies of state-owned enterprises. Governments sell state-owned enterprises in hopes that performance can improve with the discipline of private ownership (Megginson et al 1994; Ramirz 1998; Parker & Kirkpatrick 2005). According to Megginson et al. (1994, 407), the objectives of most privatization initiatives are: (1) to raise revenue for the state; (2) promote increased efficiency; (3) reduce government interference; (4)

promote wider share of ownership; (5) introduce competition; and (6) create greater exposure to market discipline.

Advocates of privatization cite principle-agent theory as a theoretical rationale for its use. According to principle agent theory, efficiency should rise because privatization transfers control of cash flow rights to managers with greater interest in profits and efficiency than state controlled managers (Boubakri & Cosset 1998). The benefits and pitfalls of market monitoring leave employees with a single objective of raising revenues and lowering costs. With the government no longer in place to cover operating cost deficits the threat of bankruptcy motivates searches for more efficient operation.

The academic literature supporting the benefits of privatization efforts is strong.<sup>3</sup> One study, by Galal et al. (1994), compared the performance of 12 large firms in three developing countries (Chile, Mexico, and Malaysia) and one developed country (England). The 12 firms consisted primarily of airlines and utilities, two of the most commonly privatized industries. The study concluded that in 11 of the 12 cases net welfare gains resulted.<sup>4</sup> Another study, Megginson et al. (1994, 448), reported that privatization was associated with higher profitability, more efficiency, larger sales, and more capital investment.

One limitation of the two previously mentioned studies is that they did not separate results for developing and developed countries. This is important since developed and developing countries do not operate in environments that contain the same set of characteristics likely to influence the success of a privatization process

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<sup>3</sup> See Parker & Kirkpatrick 2005; Galal et al. 1994; Megginson et al. 1994; Ramirez 1998; Boubakri & Cosset 1998.

<sup>4</sup> An important aspect of this study is that Galal et al. isolated the effect of privatization itself. They compare the actual performance with the predicted performance if the firm had remained in government hands

(Boubakri & Cosset 1998, 1081). Developing countries are often plagued by greater corruption, weak financial markets, insufficient regulatory institutions, and lack of capital.

However, Boubakri and Cosset (1998) looked solely at developing countries undergoing some type of privatization effort. The study examined the performance of 79 privatized firms in 21 economies between 1980 and 1992. Their study revealed results similar to Megginson et al. (1994). Profitability, operating efficiency, capital investment, output, total employment, and dividends all showed significant improvements (Boubakri & Cosset, 1998 1084).

Many sectoral studies have also found that privatization is linked to positive economic growth. In particular, many studies have examined the telecommunications industry. Ross (1999) found privatization and competition to be positively correlated with technical efficiency and network expansion. Wallsten (2001) focused on privatized telecommunication firms in 30 developing economies of Africa and Latin America. He found that the increased competition, resulting from privatization, was significantly associated with increases in per capita access and decreases in the price of local calls.

Ros and Banerjee (2000) used panel data on 23 countries, and found a positive and significant relationship between privatization and network expansion and efficiency in the Latin American region. According to the authors, state owned enterprises had historically kept prices artificially low in hopes of expanding service to as many citizens as possible. Artificially low prices, however, only resulted in excess, unmet demand and little supply. Low penetration of basic service in the area was not a problem of unaffordable high prices associated with privatization, but artificially low prices were too

low to induce service providers to meet levels of demand. They found that a 10 percent increase from the average residential price in Latin America is likely to reduce unmet demand by approximately 4.1 percent. Additionally, privatization was found to reduce unmet demand by approximately 28 percent (Ros & Banerjee 2000, 233).

### **Trade Liberalization**

Trade liberalization has become a regular element of neo-liberal policy advice for the last two decades (Winters 2004, F4). As policy advice, Williamson (1993, 1333) suggests that trade restrictions be replaced by a uniform tariff system. These tariffs should remain in the range of 10 percent, or at most 20 percent. The process should be implemented in phases over 3 to 10 years, and allow for slow down of the process during unfavorable macroeconomic conditions.

Liberal free trade theory traces its roots to Adam Smith's *The Wealth of Nations*. He believed free trade would force nations to specialize and allow for the optimal utilization of resources. Economists have refined Smith's theory and now maintain "free trade also maximizes consumer choice, reduces prices, and facilitates efficient use of the world's scarce resources" (Gilpin 2001, 198). Trade protectionism, according to Gilpin, imposes unnecessary costs on economies by protecting declining, non-competitive industries.

The theoretical linchpins of trade liberalization and growth stem from the idea that liberalization policies will boost income because they enlarge the set of opportunities for economic agents. In particular, trade liberalization is thought to increase efficiency through increased competition and technological spillover.<sup>5</sup>

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<sup>5</sup> For more on this discussion see Winters 2004, Iscan 1998

First, trade liberalization increases competition by opening up domestic markets to foreign competitors. The increased competition fosters positive impacts on a developing country's productivity levels, quality, and variety. With the increased competition, domestic firms must utilize their resources more efficiently, and improve their productivity levels (Iskan 1998, 124).

Second, trade liberalization allows for greater technological spillover which in turn leads to greater productivity. As countries begin to import from foreign firms their knowledge and technology become available. This knowledge can then be used to increase efficiency in the domestic market. Coe and Hoffmaister (1997) confirm this. They found that access to foreign knowledge, as a result of an importing country's openness, has a statistically significant, positive effect on the growth in total factor productivity.

The most commonly cited work of trade liberalization proponents is Rutherford and Tarr (2002). They used a Romeresque model over an infinite timeline. The study showed that reducing a uniform tariff from 20 percent to 10 percent increases steady-state growth of 2 percent to 2.6 percent over the first five decades, and 2.1 percent after (Rutherford & Tarr 2002, 216).

Another study, by Vamvakidis (1999), used a 40-year panel of over 100 countries from the years of 1950-89. The study found that multilateral liberalizations were associated with increased rates of growth, while discriminatory regional alliances were not. Frankel and Ros (2002), included geographical and institutional variables in their

growth equation, and still suggested that openness plays a role in growth even after allowing for geography.<sup>6</sup>

In Mexico, reducing effective rates of protection has contributed positively to productivity levels (Iscan 1998, 144). After the liberalization period in 1986 the average total factor productivity levels increased by around 5 percent. This was largely due to the increasing share of exports in total output, or factors such as technology transfers and foreign investment which are correlated with exporting.

### **Public Expenditure Priorities**

Public expenditure priorities, as defined by the Washington Consensus, entail shifting of government funds away from resource consuming, non-productive sectors<sup>7</sup> to ones that help promote human capital.<sup>8</sup> Investment in human capital is thought to generate economic growth by creating more productivity and greater technological adoption. Public policy can be influential in economic growth by providing skills training, education, and technology development that can reduce imbalances in regional performance (Solow 1956). It is important to note that expenditure priorities are the one Washington Consensus policy to deviate from the neo-liberal concept of unfettered markets.

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<sup>6</sup> Variables in this model included: population, land area, and borders

<sup>7</sup> Williamson (1993, 1332) suggests redirecting expenditures from areas that consume more resources than their economic returns justify such as: defense, administration, subsidies, and white elephant programs

<sup>8</sup> Becker (1993, 15) recognized people's knowledge and skills as forms of capital that can yield income. Since these skills derive from a person the term "human capital" was developed.



Of all the possible human capital investments education remains the most essential (Wolf 2004, 317). Education can take the form of traditional schooling or work skills training. Both are important and major contributors to economic growth.<sup>9</sup>

Investment in education can be used to attack poverty by encouraging growth and distribution (Besley & Burgess 2003, 14). Kreuger & Lindahl (1998) found that a country's average level of schooling is positively correlated to its rate of economic growth. Likewise, Griliches (1977) found a positive rate of return for each and every additional year of education. Jordaan & Blignaut (2005, 53) found "a 1 percent increase in tertiary school enrollment leads to a .65 percent increase in capital per capita."

Education and skills training encourage growth in two primary ways. First, education creates a more productive workforce. Productive workforces create greater output, which in theory leads to greater trade. Several studies have linked education training to worker productivity. Jones (2001) did a study on education levels and productivity in the Ghanaian manufacturing sector. The study found that education was highly correlated with productivity. Jones (2001, 159) concluded "that workers with tertiary schooling are more productive than those with secondary school education; workers with secondary school education are more productive than those with no formal education."

Deichmann et al. (2004, 380) studied firms in Southern Mexico and found that employee training also had positive effects on productivity. Firms with employee

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<sup>9</sup> See Winters (2004); Jordaan & Blignaut (2005); Wolf (2004); Jones (2001); Gilpin (2001)

training programs were 31 percent more productive than those without. In addition, a 1 percent increase in the number of skilled workers increased productivity by .5 percent.<sup>10</sup>

Second, education and skills training allows for greater technology adoption. Human capital is a key input to the research sector, which generates new products or ideas that underlie technological process (Romer 1990). Educated workforces also absorb new products and ideas that have been discovered elsewhere more easily (Jordaan, Blignaut 2005, 46). Educated workers have a comparative advantage because they have a better idea of how to use technology, and also learn more from each use (Rosenzweig 1995).

Deichmann et al. (2004, 380) highlight the importance of technology adoption by linking technology use to greater levels of productivity. They found that adopted generic technology increased productivity 46 percent. Firms that adopted automated equipment increased productivity by 50 percent. Finally, firms that adopted computerized numeric control (CNC) technology increased their productivity by 126 percent.

### **Performance of Washington Consensus Reforms**

Today the legitimacy of the Washington Consensus is being questioned (Beeson & Islam 2005, 198). Two decades of reforms have ended with a sense of frustration and unmet expectations (Santiso 2004, 828). Since neo-liberal reforms started taking place in the 1980's little progress has been made in growth, poverty reduction, or inequality.<sup>11</sup>

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<sup>10</sup> Interestingly this coincides with Lucas's (1988) findings that a worker's ability is increased if others are also more able. Thus, an increase in the quantity of human capital per person increases per capita growth. It would seem from these findings that the greater the absolute numbers trained or educated the greater the actual return on investment.

<sup>11</sup> For more on rising poverty and inequality numbers see Beeson & Islam 2005; Besley & Burgess 2003; Onis & Senses 2005

The impact of reforms on growth has been particularly disappointing (Santiso 2004, 837). Post-reform growth was below 4 percent during the 1990's and 5.2 percent between 1950-1980 (Stalling & Peres 2000). Mexico fared even worse. Gross domestic product growth fell from 5.8 percent between 1961-1985 to 2.6 percent between 1985-2002 when reforms first took place (Pancheco-Lopez 2005, 396). Poverty in Latin America is actually higher since 1980, real wages are barely equal, and inequality remains high (Beeson & Islam 2005, 205).

This lack of performance has produced three diverging views about the Washington Consensus failures: (1) those that argue the Washington Consensus is fundamentally flawed and needs to be reversed; (2) those that believe Washington Consensus policies have been inadequately applied and need to be reaffirmed; and (3) those that believe the original Washington Consensus was incomplete and too narrow in scope (Santiso 2004, 832).

The first school of thought says that the Washington Consensus policies are inherently flawed and should be reversed. Critics argue that reformers should instead consider country specific social structures while creating growth strategies (Santiso 2004, 834). The argument, however, does recognize the importance of sound macroeconomic policies as an essential precondition of development. These arguments seemingly contradict the academic literature seen previously in this chapter linking Washington Consensus policy prescriptions to economic growth. Critics offer no blueprint that specifies an alternative way to achieve economic growth. Furthermore, any study on the performance of the Washington Consensus must first determine whether those policies

have been implemented consistently. This particular school of thought tends to ignore that issue. This paper, then, focuses exclusively on the next two competing arguments.

The second school of thought holds that the Washington Consensus policies failed only because they were inconsistently or partially implemented (Santiso 2004, 835). Advocates claim that reforms failed not because of bad policy, but instead from the implementation failures of state bureaucracies. Each step of the implementation process has a chance of failure so that the actual implemented policy can become radically different from the one created legislatively.

Supporters of this line of thinking contend that the first stage of reforms were incomplete and need to be reaffirmed so that they can produce the types of results expected. In order to do so several barriers common to the developing world should be overcome. Political leadership should limit activism and allow technocrats the freedom to pursue market-oriented economic agendas (Beeson & Islam 2005, 198). The implementation process often runs into resistance from economic agents looking to take advantage of the rents and privileges associated with protectionist policies (Onis & Senses 2005). Implementation, then, should be shielded from rent-seeking lobbyists intent on protecting their own interests which can in turn skew the optimal outcomes of the reform policies (Buchanan & Tullock 1962).

The specific circumstances in which reform policy is created and applied essentially limit what is acceptable and feasible (Beeson & Islam 2005, 200). It is therefore, imperative to reaffirm the Consensus policies in ways that achieve adequate political backing. Without adequate political backing there is no reason to believe that the Washington Consensus would ever be properly implemented.

The final school of thought contends that the original Washington Consensus was too narrow and neglected important areas.<sup>12</sup> Advocates claimed that the original Washington Consensus focused too much on accelerating growth and assumed that trickle-down effects would reduce poverty (Santiso 2004, 838). They believe that the original agenda should be further complemented with second-generation reforms. The second-generation is commonly referred to as Post-Washington Consensus.

The new agenda places greater emphasis on institutional reforms and sequencing. In the post-Washington Consensus states have an important role to play in the development process (Onis & Senses 2005, 275). States should now look at establishing key regulatory and social reforms necessary for success such as: regulation of financial institutions; greater support for education; increased infrastructure; development of technology; and safety nets to help promote equality and alleviate poverty.

Key to the new institutionalism is the creation of social structures to alleviate poverty. Growth per se is insufficient to deal with poverty (Senses 2001). In Latin America, the historical growth rate is less than half the growth rate needed to halve poverty (Besley & Burgess 2003, 7). Instead, attention needs to be paid to the distributional impact of growth. Besley and Burgess (2003, 11) supports this by finding a one standard deviation change in inequality would reduce poverty in Latin America by 45 percent.

Another change sought in the Post-Washington Consensus is the need for sequencing in the reform process (Stiglitz 2003). Washington Consensus hardliners underestimated the importance of democratic institutions by emphasizing the importance

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<sup>12</sup> See Stiglitz 2003, Naim 2000; Beeson & Islam 2005; Onis & Senses 2004;

of making reforms quickly in order to avoid interference from rent-seekers (Onis & Senses 2005, 276). Instead reforms should take place in a sequenced way to allow for growth. Liberalization and privatization efforts should not occur before proper regulatory bodies are in place to ensure a fair process free of corruption.<sup>13</sup> Also, a nation's infant industries should be protected until they are strong enough to compete in the international market (Stiglitz 2003).

What is lacking from the post-Washington Consensus is a blueprint for achieving its agenda. Rodrik (2002) described this new post-Washington Consensus as impossibly broad and undifferentiated. It describes desirable features, but does not show a realistic way of getting there. It also ignores the formidable obstacles they may face by powerful vested interests (Onis & Santos 2005, 279).

In order to further explore the debate between the original Washington Consensus and the post-Washington Consensus it must first be determined that the original Washington Consensus policies have been implemented consistently with its ideals. If the advocates of the original Washington Consensus are correct its failures are a result of failed implementation and the policies may still have merit. A case study of a developing country who implemented these reforms would go a long way in exploring this issue.

Mexico is a good place to start.

### **Mexico's Economic Reforms**

Mexico is often referred to as a "poster child" of neo-liberal reforms in the Latin American region. Any case study on implementation of Washington Consensus reforms

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<sup>13</sup> For a detailed account of the follies associated with "fast-tracking" reforms in Russia see Stiglitz's book *Globalization and Its Discontents*.

must first be able to show that these policies were indeed pursued by the national government. This section helps in that regard by linking the paper's conceptual framework to Mexico's pursuit of reforms in the areas of trade liberalization, privatization, and education expenditures.

The talk of neo-liberal reforms in Mexico started with the Presidency of Miguel de la Madrid in 1982 (Cronin 2003, 65). Until this time, Mexico and the rest of Latin America, had been dominated by the use of import-substitution strategy (ISI). Import-substitution is an economic policy based on the idea that a developing country should substitute products it imports with locally produced ones. These policies are typically supported by three forms of trade controls: import tariffs, licensing restrictions, and official reference prices (Pancheco-Lopez 2005, 597). Import substitution strategy also advocates artificially overvaluing currency in order to allow for easier purchase of foreign goods and inputs. Most Latin American countries adopted import-substitution after the New York Stock Exchange crash in 1929, when it became apparent that economic crisis in one country can negatively affect another. Nations began to extend import substitution often at the expense of macroeconomic discipline (Cronin 2003, 77).

#### *Mexico's trade liberalization intentions*

The first supporters of economic liberalization were officials in the de la Madrid presidency. These officials came from the Central Bank and the Ministries of the Treasury and Budget and Programming (Corrales 2003, 65). They were graduates of Mexico's neo-liberal economic departments that promoted the orthodoxy associated with the Washington Consensus. They believed that wholesale structural reforms were the

only answer to Mexico's problem. In general, trade liberalization was unopposed. It was much rather a question of how much and when (Cronin 2003, 71).

In 1984, the National Program for Foreign Trade and Development (PRONAFICE) was negotiated by government officials and the industrial sector. The program called for slow phased trade liberalization that would leave government officials in charge of determining protection changes. The country was to switch from the use of import permits to a tariff-based trade protection. It would be a three-phase process with almost half of 1983 import permits remaining until the final phase in 1989. The plan also allowed for protection of "strategic and sensitive" sectors (Cronin 2003, 71).

De la Madrid decided to move forward with the economic reforms in 1985. The economic downturn during the first half of the year was all the spark proponents of reform needed. Until this time, some trade protectionists had still believed that Mexico would recover from its economic problems (Cronin 2003, 75).

The first stage of reforms was implemented in June of 1985. Import licenses were reduced from almost 3,600 tariff lines to just 908 still in control. Domestic production covered by import licensing fell from over 90 percent in June 1985, to less than 20 percent in 1989 (Ten Kate, 1992).

The last major reduction in Mexico's unilateral trade liberalization program came in 1987 with the signing of the Economic Solidarity Pact (*Pacto*). The *Pacto* was created after negotiations with government, labor, and business leaders who all gave some concessions. Government officials agreed to further spending cuts, increases in the price of services, and a devaluation of the peso. Labor leaders agreed to wage increases below the rate of inflation. Finally, business leaders agreed to tariff reductions from a 40



percent top rate to 20 percent (Cronin 2003, 85). This is significant in that it signaled the intent of Mexico to shift to a tariff rate within the 10-20 percent range suggested by the Washington Consensus.

*Mexico's privatization intentions*

The 1917 Mexican Constitution established the framework that defined the role of the State in the economy (Chong & Lopez 2004, 6). By 1982, after the country's banks were nationalized, the government controlled over 1,100 firms in all sectors of the economy. At this time state-owned enterprises (SOE) accounted for 4.4 percent of the country's labor force, 30 percent of fixed capital formation, and received subsidies equal to almost 13 percent of the GDP (Chong & Lopez 2004, 6).

Since this time, however, the Mexican government committed to a substantial privatization effort. Today, government ownership has declined and remains significant only in some entrenched sectors with considerable political clout. The privatization effort reached its climax during the Salinas administration from 1988-1993 (Chong & Lopez 2004, 10). The administration pursued rapid privatization in hopes of salvaging the Mexican economy. The banks and state telephone monopoly Telmex were quickly privatized in hopes of increasing competition and efficiency (Country Watch 2006, 11). To help manage the privatization effort the Office of State-Owned Enterprises was created to coordinate the process (Chong & Lopez 2004, 10).

Successive administrations have also followed the Salinas privatization efforts. In December of 1994 President Zedillo privatized major state enterprises as a condition of US backed financial bailout (Country Watch 2006, 12). In 1995, regulations were issued, which for the first time allowed private sector participation in transportation, distribution,

and storage of natural gas. Also, in that year, the Constitution was amended to allow investment in railroads, satellite transmission, and telecommunications. The privatized railroad system now allows 50 year concession contracts to run parts of the national system. Likewise, the airport law, passed in December of 1995, provides for 50 year operation concessions (Country Watch 2006, 76).

Table 2.1 was taken from Chong and Lopez's paper on Mexico's privatization efforts. It tracks the buildup of Mexico's state-owned enterprises to a peak in 1982 till the present day. The table is divided into specific eras of state development and the number of state-owned enterprises at the end of that era. The drastic decline in the absolute number of state-owned enterprises demonstrates Mexico's commitment to privatization reforms.

**Table 2.1:** *Numbers of State-Owned Enterprises in Mexico*

<b>FOCUS OF ACTIVITY</b>	<b>TIME PERIOD</b>	<b>NUMBER OF SOEs</b>
Public Administration	1917-1946	36
Import Substitution	1941-1954	144
Stable Development	1971-1975	504
Planned Expansion	1976-1982	1,155
Divestiture of State-Owned Sector	1983-1993	258
Consolidation of Privatization Program	1994-2003	210

Source: Chong and Lopez 2004,8

### *Mexico's Education Expenditure Intentions*

Mexico's intentions to invest in education and skills training is more difficult to pinpoint. Yet, the rhetoric of Mexico's most prominent politicians clearly demonstrates the country's intentions to do just that.

During the 2000 elections Vicente Fox ran on a platform promising drastically increasing spending on education (Country Watch 2006, 15). This attracted throngs of middle class voters looking for ways to boost economic growth. After the election, Fox crafted a 25 year development plan that emphasized education as a way to keep the Mexico's working force globally competitive (Country Watch 2006, 17)

Tracking Mexican expenditures on education also shows a commitment to the Washington Consensus agenda. Data from the World Bank's *World Development Indicators Database* shows that both public expenditures per student and total expenditures on education have risen from 1999-2003. Public expenditure per student is the current public spending on education divided by the total number of students at the primary level, as a percentage of GDP per capita. It rose from a low of 12 percent of GDP per capita in 1999 to a high of 16 percent in 2003. Total expenditures on education consist of current and capital public expenditure on education plus subsidies to private education at the primary, secondary, and tertiary levels. It too shows an increase in spending from 4 percent of total GDP in 1999 to 6 percent in 2003. This data combined with the demonstrated commitment from Mexico's politicians should be enough to confirm Mexico's recognition of the Washington Consensus policy on redirection of public expenditure towards education.

## **Conceptual Framework**

The purpose of this research is two-fold. First, is to provide an empirical analysis of the implementation of Mexican economic reforms in the areas of privatization, trade liberalization, and public expenditure priorities, using the Washington Consensus guidelines. Second, is to assess the continued viability of the Washington Consensus as a model for developing economies. Since there is little scholarly literature on Mexico's implementation of Washington Consensus' principles this research is exploratory, and uses working hypotheses as its conceptual framework. The exploratory nature of the research is a signal that the analysis is in its early stages (Shields 1998, 211). The working hypotheses used in this paper serve as guides to investigating the research purpose, and provide insight into any future directions of inquiry (1998).

## **Working Hypothesis**

The review of literature in both Chapter 2 leads to the following observations: (1) reducing global poverty must be accomplished primarily through domestic economic growth; (2) the Washington Consensus has been the prevailing orthodoxy since the 1980's and its policies have the potential to accelerate growth; and (3) Mexico has aggressively pursued economic reforms since 1986 using the Washington Consensus as a guideline.

Accordingly, Mexico should have seen significant economic growth since reforms were implemented in the late 1980's. Nevertheless, as discussed previously this has not been so. That can only lead to one of two conclusions: (1) the implementation of Mexican economic reforms has not been consistent with the ideals established by the Washington Consensus; or (2) the original Washington Consensus is too narrow in scope

and needs to be complemented by additional reforms suggested by the Post-Washington Consensus orthodoxy. The latter conclusion can only be considered after the first has been examined. Therefore: one must expect that:

***Working Hypothesis 1 (WH1): Mexico's implementation of economic reforms has been inconsistent with the ideals established by the Washington Consensus.***

### **Sub-Hypotheses**

In order to test the working hypothesis (WH1), three sub-hypotheses are used to explore the scope of policy implementation since the economic reforms of the late 1980's. As discussed earlier, the three sub-hypotheses focus on policy issues concerning privatization, trade liberalization, and public expenditure priorities. The connections between these three issues and the corresponding sub-hypotheses are discussed below and shown in Table 2.2

#### *Privatization*

The Washington Consensus suggests as a policy initiative the privatization of all inefficient state owned enterprises. Unfortunately the term "inefficient" is ambiguous. It is possible, however, to use an operational definition of inefficient and focus on highly concentrated industries such as banking, transportation, and telecommunications. Other studies have also used these as barometers.<sup>14</sup> The privatization of these industries is seen as essential for the success of any privatization policy.

Governments sell off state owned enterprises in hopes that performance will improve with the discipline of private ownership (Megginson et al 1994; Ramirez 1998; Parker 2005). As discussed previously in the chapter the correlation between

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<sup>14</sup> See for example Galal et al 1994; Ros 1999; Ros et al 2000; Wallsten 2001; and Ramirez 1998.

privatization and economic growth is positive and significant. Yet, despite Mexico's privatization efforts its economy still remains stagnant. Therefore one would expect:

***Working Hypothesis 1A (WH1a): The implementation of Mexico's economic reforms to privatize state owned firms in the essential industries of banking, transportation, and telecommunications has been inconsistent with the Washington Consensus.***

#### *Trade Liberalization*

As Williamson (1993, 1333) suggests, proper implementation of a trade liberalization policy replaces trade restrictions with a uniform tariff system. These tariffs should remain in the range of 10 percent, or at the most 20 percent. According to the academic literature above, the lowering of trade barriers will increase economic growth by increasing competition and technological spillover (Iskan 1998; Winters 2004). Yet, despite Mexico's efforts to dismantle its own trade barriers the economy still remains stagnant. Therefore, one would expect:

***Working Hypothesis 1B (WH1b): The implementation of Mexico's trade liberalization policies has been inconsistent with the Washington Consensus.***

#### *Public Expenditure Priorities*

The Washington Consensus also suggests that states shift government expenditures away from resource consuming, non-productive sectors to ones that help promote human capital such as education, health, and infrastructure (Williamson 1993). The academic literature from this chapter does indeed show strong correlations between these policies and economic growth. Of all the possible expenditures education and skills training are the most essential. These help stimulate growth by creating greater

efficiency in the work force and technology adoption.<sup>15</sup> Still, despite Mexico's best efforts to adopt the Washington Consensus principles its economy still remains sluggish. While the intent may be strong, the actual implementation of these policies may face several unforeseen hurdles. Therefore, one would expect that:

***Working Hypothesis 1C (WH1c): The implementation of Mexico's public expenditure reforms in the area of education has been inconsistent with Washington Consensus.***

## **Summary**

Table 2.2 summarizes the working hypotheses used to explore the economic reforms taken by Mexico since the late 1980's. The table helps by linking the hypotheses to the academic literature. The next chapter discusses how the hypotheses are to be tested.

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<sup>15</sup> For further review see Deichmann et al. 2001; Jones 2001; Jordaan & Blingnaut 2005; Romer 1990; and Rosenzweig 1995.

**Table 2.2:** *Conceptual Framework Link to the Literature*

<b>Working Hypotheses</b>	<b>Sources</b>
<b>WH1:</b> Mexico's implementation of economic reforms has been inconsistent with the ideals established by the Washington Consensus.	Williamson (1990); Williamson (1993); Williamson (2000); Srinivasan (2000); Gilpin (2001)
<b>WH1a:</b> The implementation of Mexico's economic reforms to privatize state owned firms in the essential industries of banking, transportation, and telecommunications has been inconsistent with the Washington Consensus.	Parker (2005); Galal et al. (1994); Boubakri et al. (1998); Megginson et al. (1994); Ramirez (1998); Williamson (1990, 1993, 2000)
<b>WH1b:</b> The implementation of Mexico's trade liberalization policies has been inconsistent with the Washington Consensus.	Winters (2004); Iscan (1998); Coe & Hoffmaister (1997); Panchenco-Lopez (2005); Rutherford & Tarr (2002); Williamson (1990, 1993, 2000)
<b>WH1c:</b> The implementation of Mexico's public expenditure reforms in the area of education has been inconsistent with Washington Consensus.	Diechmann et al. (2004); Solow (1956); Becker (1993); Kreuger & Lindahl (1998); Jordaan & Blingnaut (2005); Grilliches (1997); Jones (2001); Williamson (1990, 1993, 2000)



## **CHAPTER 3**

### **METHODOLOGY**

#### **Chapter Purpose**

The chapter starts with a discussion of the two research methods employed: case study and aggregated data analysis. Then the chapter provides an overview of how the working hypotheses are operationalized, followed by a demonstration of the links between the research purpose, the conceptual framework, and research methods. Finally, the chapter concludes with a review of the strengths and weaknesses of the research methods to be used.

#### **Methodology**

This research project is a case study of Mexico's economic reforms. Mexico was chosen as a case study because of its aggressive pursuit of the policy ideals promoted by the Washington Consensus. In addition, its size, abundance of resources, and proximity to the United States make it an ideal candidate to succeed. If the Washington Consensus ideology can not work in Mexico it is unlikely to succeed in other developing economies that lack Mexico's inherent advantages.

In order to have greater confidence in the results, this case study tests various economic variables using aggregated data analysis. Several variables are tested for each working hypothesis to achieve triangulation. By using multiple sources of evidence the findings will be more valid (Yin 2003). The variables were selected from the most common measurements used in academic literature.

The research examines existing data compiled from various databases including: World Development Indicators Database (World Bank 2006b); World Bank (2006a); and IMF (2002, 2005). Findings from other academic literature are also included.<sup>16</sup> This technique is the best available for this particular research purpose for two reasons. First, due to time and financial restraints the research has to rely on previously collected data. Second, since the research is exploratory in nature this will allow the use of several variables in order to test their feasibility in future research.

Any indicators measured are shown for the most recent year for which data is available, and in most cases an earlier year for comparison. Examining existing data, however, does have limitations. By basing research on existing data the researcher is limited to that data which already exists. The data examined may not be a valid representation of the concept from which conclusions will be made (Babbie 2004, 327). Furthermore, the analysis of existing data depends heavily on the statistics themselves. Given the transparency issues of developing countries the accuracy of the data may be questionable. Special care, then, must be given when trying to interpret the data. Statistical systems in developing countries are still weak and data collection may not be complete. For these reasons, “interpretations should be understood only as indicating trends and characterizing major differences among economies rather than offering precise quantitative measures of those differences” (World Bank 2006a).

Several countries are also analyzed along with Mexico to provide a simple comparison point. Special consideration was given when choosing these countries. When possible, Mexico’s indicators are compared to measurements in the United States

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<sup>16</sup> The paper also uses data from Unal & Navarro 1999; Rammamurti 1996; Ramirez 1998; Mariscal 2002; Hanson, 1994; Consorcio Aeromexico (2005)

and Chile. Indicators in these two countries serve as benchmarks for comparison. The United States because of its role as the planet's prominent economic power, and Chile as the example of proper economic reform in Latin America. For further analytical depth countries in Latin America (Argentina, Brazil, and Costa Rica) and others from around the world (Botswana, Lebanon, Malaysia, and Poland) are also compared. These countries were selected due to the proximity of each other's gross national income (GNI) per capita levels (see table 3.1). The World Bank (2006a) classifies upper middle income countries as between 3,255-10,066 GNI per capita.

**Table 3.1:** *A selection of countries for comparison*

<b>Country</b>	<b>GNI per capita 2004</b>	<b>Population (in millions) 2004</b>
<b>Mexico</b>	<b>6,790</b>	<b>104</b>
<b>Argentina</b>	<b>3, 580</b>	<b>38</b>
<b>Brazil</b>	<b>3,000</b>	<b>184</b>
<b>Costa Rica</b>	<b>4,470</b>	<b>80</b>
<b>Lebanon</b>	<b>6,010</b>	<b>4</b>
<b>Malaysia</b>	<b>4,520</b>	<b>25</b>
<b>Botswana</b>	<b>4,360</b>	<b>2</b>
<b>Poland</b>	<b>6,100</b>	<b>38</b>
<b>Chile</b>	<b>5,220</b>	<b>16</b>
<b>United States</b>	<b>41,440</b>	<b>294</b>

Source: World Bank (2006a)

The primary research question was organized into one working hypothesis with three sub-hypotheses. Table 3.1 operationalizes these hypotheses and shows how the

research uses existing data for statistical analysis. Each hypothesis is listed along with criteria for successful implementation and variables analyzed.

Working hypothesis 1a is operationalized by analyzing the implementation of privatization efforts in the industries of banking, telecommunications, and airlines. These three industries are chosen due to the emphasis of academic literature on these types of firms.<sup>17</sup> Working hypothesis 1a will only be accepted if all three criteria are met for each industry. The three criteria established are: (1) the sale of all state-owned enterprises in each industry; (2) increased competition; and (3) increased efficiency.

State-owned enterprises are defined as government owned or government controlled economic entities that generate the bulk of their revenues from selling goods and services. For the banking industry these include all 18 banks nationalized by Mexico in 1982. Telecommunication state-owned enterprises consist of Telefono de Mexico (Telmex). The airline industry includes Aeromexico and Mexicana. For the first criteria to be met all government owned shares must be sold in the listed firms.

The Washington Consensus emphasizes privatization in hopes of creating greater competition and efficiency which in turn leads to greater economic growth. Therefore, both concepts are established as criteria for consistent implementation.

Competition in the banking industry is measured by: the number of bank branches; the number of deposit accounts; and domestic credit. Competition for both the telecommunications and airlines industry are determined by consumer costs and entry of new competitors.

Efficiency for the banking sector is measured by several variables: credit information infrastructure, nonperforming loans, capital asset ration, and interest rate

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<sup>17</sup> See Boubakri & Cosset 1998; Galal et al. 1994; Megginson et al. 1994; Parker 2005; Ramirez 1998

spread. The telecommunications sector is analyzed by: labor productivity, network expansion; and fixed lines. Finally, the airlines are measured with: revenue passenger kilometers (RPK); available seat kilometers (ASK); load factor ratio; and yield.

Working hypothesis 1b is operationalized by analyzing the implementation of trade liberalization in Mexico. Working hypothesis 1a will only be accepted if all three criteria are met. The three criteria established are: (1) an effective applied tariff between 10-20 percent; (2) tariffs are uniform; (3) reduced trade barriers. The first criteria is determined by the simple mean tariff rate calculated from the World Bank (2006a). Uniformity is measured by the percent of tariff lines with international peaks determined as above 15 percent. Reduction of trade variables is decided using several variables including: ownership barriers; discriminatory procedures; regulatory barriers; and tariff barriers. These variables are measured on a scale of 0-6 with 6 being the most restrictive. The variables are compiled from an OECD survey on trade restrictions (OECD 2005).

Working hypothesis 1c is operationalized by assessing the implementation of Mexico's education reforms. Three separate criteria are established to confirm consistent implementation with Washington Consensus ideals. These criteria include: (1) increased education expenditure since 1991; (2) increased performance of the education system; and (3) increased technological adoption. The first criteria is measured by the change in public expenditures per student as a percent of GDP per capita from 1991-2004. Increases in performance are calculated by three variables: primary completion rates; net enrollment rates; and youth literacy percentage. Lastly, increases in technology adoption will be determined by: technological readiness scores; number of researchers in R&D;

number of technicians in R&D; percent of GDP spent on R&D; and high tech exports as a percent of manufactured exports.

Finally, working hypothesis 1 explores whether the economic reforms taken by the Mexican government since the late 1980's are implemented consistently with the Washington Consensus. The results of the three sub-hypotheses are used as evidence to determine the acceptance of the hypothesis. Only if all three sub-hypotheses are accepted will working hypothesis one be confirmed.

The next chapter provides a discussion of results from analyzing the economic indicators established in the conceptual framework. The results of this analysis give an indication of supporting or failing to support the working hypotheses.

**Table 3.2: Operationalization of Conceptual Framework**

<b>Working Hypotheses</b>	<b>Variables</b>	<b>Criteria</b>
<p><b>WH1a:</b> Mexico's privatization efforts in the industries of banking, telecommunications, and airlines are implemented inconsistently with the Washington Consensus</p>	<p><b>Competition</b> --Banking-- Number of Bank Branches Number of deposit accounts Domestic Credit --Telecommunications and Airlines-- Entry of Competitors Customer Rates</p> <p><b>Efficiency</b> --Banking-- Credit Information Infrastructure Nonperforming Loans Capital Asset Ratio Interest Rate Spread --Telecommunications-- Network Expansion Labor Productivity --Airlines-- On-time Arrival Revenue Passenger Kilometers Available Seat Kilometers Load Factor Ratio Yield</p>	<p>(1) Sale of all state-owned enterprises per industry (2) Increased Competition (3) Increased Efficiency</p>
<p><b>WH1b:</b> Mexico's trade liberalization efforts are implemented inconsistently with the Washington Consensus</p>	<p><b>Tariff Rate</b> Simple Mean Tariff <b>Uniformity</b> Tariff lines with international peaks <b>Trade Barriers</b> Ownership Barriers Discriminatory procedures Regulatory Barriers Tariff Barriers</p>	<p>(1) Average applied tariff between 10-20 percent (2) Uniform tariffs (3) Reduced trade barriers</p>
<p><b>WH1c:</b> Mexico's public expenditure priority reforms are implemented inconsistently with the Washington Consensus</p>	<p><b>Expenditures</b> Public expenditure per student as % of GDP per capita <b>Performance</b> Primary completion rate Net enrollment rate Youth literacy rate <b>Technology</b> Technology Readiness Researchers in R&amp;D Technicians in R&amp;D R&amp;D expenditure as % of GDP High-tech exports as % of manufactured exports</p>	<p>(1) Increased education spending (2) Increased performance (3) Increased technology adoption</p>
<p><b>WH1:</b> Mexico's implementation of economic reforms has been inconsistent with the ideals established by the Washington Consensus.</p>		<p>Acceptance of all three sub-hypotheses WH1a, WH1b, and WH1c</p>

## CHAPTER 4

### RESULTS

#### **Chapter Purpose**

The purpose of the study is two-fold. First, is to provide an empirical analysis of the implementation of Mexico's economic reforms in the areas of privatization, trade liberalization, and public expenditure priorities, using the Washington Consensus guidelines. Second, is to assess the continued viability of the Washington Consensus as a model for developing economies. In this chapter, the indicators established in Chapter 3 are analyzed and compared in order to assess the implementation of Mexico's economic reforms. The analysis gives an indication on whether the working hypotheses are supported or not supported.

#### **Working Hypothesis 1a: Privatization**

##### *Banking*

On September 1, 1982 President Jose Lopez Portillo announced an expropriation of Mexico's private banks on grounds that they had generated excess profit, created monopolies, and facilitated capital flight (Unal & Navarro 1999, 63). Articles 28 and 128 of the Constitution were amended to prohibit any private ownership of banks. Of the 60 banks operating in Mexico at the time 58 were purchased by the state.<sup>18</sup> The 58 banks nationalized were eventually consolidated down to 18 (Banco de Mexico 1992).

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<sup>18</sup> Only Banco Obrero & Citibank Mexico were exempted.



In December of 1989, President Salinas took office and recommitted to sound macroeconomic performance. In order to increase efficiency a re-privatization process of state-owned banks was initiated (Unal & Navarro 1999, 65). A constitutional amendment was quickly submitted to Congress that excluded banking from the list of activities reserved for the state (Article 28 of the Constitution). The amendment passed with almost no opposition (Unal & Navarro 1999, 66).

Rules for privatization were outlined in the Credit Institutions Law and Federal Groups Law enacted in July 1990. Article 11 of the Credit Institutions Law established the following series of shares (Unal & Navarro 1999, 66):

1. Series "A": can only be owned by Mexican individuals, the Mexican government and the country's development bank and must always represent at least 51 percent of the bank's total capital
2. Series "B": can be purchased by Mexican financial institutions and corporations, and can be issued between 19-49% of banks total capital
3. Series "C": could be owned by anyone up to 30 percent

From June 1991-July 1992 the 18 banks were sold, and by 1994 a total of 35 Mexican owned banks received charters. This represents a drastic increase in levels of competition. A number of indicators from the World Bank are presented in Table 4.1 and Table 4.2 to further illustrate the depth and efficiency of Mexico's current financial sector. All operational definitions are taken from the World Bank's World Development Indicator's Database. Mexico's numbers are weighed against several other countries to

give an idea of how they compare. An interpretation of these indicators is discussed subsequent to the tables.

**Table 4.1:** *Competition Variables in Mexico's Banking Industry*

	<b>Bank Branches</b>	<b>Bank Deposit Accounts</b>	<b>Domestic Credit</b>
	<b>Per 100,000 people 2001-2004</b>	<b>Per 1,000 people 2001-2004</b>	<b>% of GDP 2004</b>
<b>Mexico</b>	<b>7.6</b>	<b>310</b>	<b>38.4</b>
<b>Argentina</b>	<b>10</b>	<b>369</b>	<b>45.5</b>
<b>Brazil</b>	<b>14.6</b>	<b>631</b>	<b>98.8</b>
<b>Costa Rica</b>	<b>9.6</b>	<b>...</b>	<b>42.3</b>
<b>Botswana</b>	<b>3.8</b>	<b>...</b>	<b>-3.0</b>
<b>Lebanon</b>	<b>18.0</b>	<b>383</b>	<b>179</b>
<b>Malaysia</b>	<b>9.8</b>	<b>1,250</b>	<b>138.7</b>
<b>Poland</b>	<b>7.6</b>	<b>...</b>	<b>34.6</b>
<b>United States</b>	<b>30.9</b>	<b>...</b>	<b>215.5</b>
<b>Chile</b>	<b>9.4</b>	<b>1,045</b>	<b>70.2</b>
<b>Upper Middle Income</b>	<b>7.1</b>	<b>1,096</b>	<b>47.4</b>
<b>Latin America and Caribbean</b>	<b>9.9</b>	<b>500</b>	<b>56.6</b>

Source: World Development Indicators Database 2006

### *Competition*

Three measures are used to examine the scope of competition in Mexico's banking sector: number of branches; banking deposit accounts; and domestic credit

provided. The number of branches gives an indication of the depth of the banking sector. Bank deposit accounts give an indication of actual bank use. Finally, domestic credit provided is a measure of banking depth and development in terms of size.

Mexico has a limited number of bank branches at 7.6 per 100,000 people. This falls way short of access available in the United States. This should be expected given Mexico has only privatized its banking system since the 1990's. A better indication is its proximity to the rest of Latin America's 9.9 branches per 100,000 people. Although Mexico's number of branches is small it is not too low to assume it should grow in time.

The number of deposit accounts gives another indication of Mexico's lack of access to the banking industry. Here, Mexico's 310 accounts per 1,000 people are very low, and below the Latin American average of 500 per 1,000 people. In comparison, Chile and upper middle income countries both had deposits over 1,000 or more than one deposit per person. Little is known what to make of this discrepancy other than perhaps Mexico's lack of faith in the financial sector and reliance on the "informal" market.

Domestic credit provided by the banking industry is given as a percent of total GDP. The score helps reflect the size and depth of the domestic financial institution. Higher scores signify more robust financial sectors. Mexico's domestic credit provided was only 38.4 percent of GDP as compared to the United States' 215.5 percent. These comparisons can probably be dismissed due to robustness of the US, but Mexico's measure also fell short of the other similar Latin American countries such as Brazil's 98.8 percent, Chile's 70.2 percent, and Costa Rica's 42.3 percent.

### *Efficiency*

Four separate measures were also examined to determine the efficiency and strength of Mexico's newly privatized banking system: financial information infrastructure index; bank capital to asset ratio; non-performing loans; and interest rate spread (see Table 4.2).

**Table 4.2:** *Efficiency Variables in Mexico's Banking Industry*

	<b>Financial Information Infrastructure Index *</b>	<b>Bank Nonperforming Loans</b>	<b>Capital Asset Ratio</b>	<b>Interest Rate Spread</b>
	<b>2005</b>	<b>% 2005</b>	<b>% 2004</b>	<b>% 2004</b>
<b>Mexico</b>	<b>8.0</b>	<b>2.5</b>	<b>11.5</b>	<b>4.5</b>
<b>Argentina</b>	<b>7.5</b>	<b>13.3</b>	<b>11.3</b>	<b>66.9</b>
<b>Brazil</b>	<b>4.0</b>	<b>3.9</b>	<b>16.0</b>	<b>39.5</b>
<b>Costa Rica</b>	<b>6.5</b>	<b>2.0</b>	<b>11.9</b>	<b>13.9</b>
<b>Botswana</b>	<b>...</b>	<b>2.8</b>	<b>9.7</b>	<b>5.9</b>
<b>Lebanon</b>	<b>6.0</b>	<b>1.1</b>	<b>8.2</b>	<b>4.2</b>
<b>Malaysia</b>	<b>6.5</b>	<b>11.8</b>	<b>8.1</b>	<b>3.0</b>
<b>Poland</b>	<b>7.5</b>	<b>15.5</b>	<b>8.2</b>	<b>3.8</b>
<b>Chile</b>	<b>6.5</b>	<b>1.2</b>	<b>7.0</b>	<b>3.2</b>
<b>United States</b>	<b>...</b>	<b>.8</b>	<b>10.3</b>	<b>...</b>
<b>Upper Middle Income</b>	<b>...</b>	<b>3.2</b>	<b>8.9</b>	<b>5.8</b>
<b>Latin America and Caribbean</b>	<b>...</b>	<b>5.2</b>	<b>11.0</b>	<b>7.6</b>

Source: World Development Indicators Database 2006b

\* Index 0 = less developed; 10 = more developed

The financial information structure index is based on 10 measures, 6 covering the scope, quality, and availability of credit reporting data and the existence of a basic legal framework for credit reporting, and 4 covering the availability of public registry data for collateral and corporate registries and court records (World Bank 2006b). The index ranges from a scale of 0 (less developed) to 10 (more developed). The development of credit markets depends on timely and accurate credit data. Using Chile's score of 6.5 as a benchmark for an efficient information infrastructure, Mexico scores very high with an 8 out of possible 10. In fact Mexico's score was higher than any of the other countries that are compared. This indicates that credit data in Mexico is accurate and available. The high score also shows the Mexican banking sector as being increasingly efficient and fails to support working hypothesis 1a.

Capital to asset ratio is the ratio of bank capital and resources to total assets including funds contributed by owners, retained earnings, general and special revenues, provisions, and valuation adjustments. The ratio measures the strength of a banking system by measuring the extent to which it can deal with unexpected losses. Mexico's ratio rested at 11.5 percent. This is fairly comparable to the US ratio of 10.3 percent. Latin American and upper middle income country averages were also comparable at 11.0 percent and 8.9 percent respectively. The solid Mexican ratio signifies that the financial system is stable enough to avoid disrupting financial activity which could put a large burden on the Mexican economy.

The nonperforming loans score is the value of nonperforming loans divided by the total value of the loan portfolio. It measures the health and efficiency of the banking system by identifying problems with the asset quality of the loan portfolio. Mexico's

ranks as the fourth best at only 2.5 percent. The percentage doubles the US and Chile benchmarks of .8 and 1.2 percent. Mexico's percentage, however, was actually much lower than Latin America and Caribbean, and upper middle income countries. These numbers are very good for Mexico and show an ability for the Mexican banking industry to pursue solid investments.

Interest rate spread is defined as the interest rate charged by banks minus the interest rate paid by banks for demand, time, or savings deposits. The interest rate spread helps measure the efficiency by which the financial sector intermediates funds. A small interest rate helps reduce overall costs for investment. Mexico's 4.5 percent rate was bested only by Chile and Malaysia. The 4.5 Mexican rate was much lower than the 5.5 percent Latin American and Caribbean average and the 5.8 percent average of upper middle income countries.

In all the World Bank numbers demonstrate a mixed bag of results concerning the implementation of privatization in the banking sector. Mexico has managed to sell off all state-owned banks, and their numbers have grown from the 18 original nationalized banks. However, Mexico has a low number of branches per 100,000 people, a very low number of bank deposit accounts, and low levels of domestic credit. All of which adds up to low levels of competition. This was probably confirmed by the extremely high prices paid to purchase the state-owned banks. Buyers may have paid those prices only because they anticipated a very weak competitive environment (Gruben & McComb 1997, 23).

On the other hand Mexico's banking system appears stable and efficient. The banking sector has a very good financial information infrastructure capable of producing

quick and accurate data. The nonperforming loans ratio is very good at only 2.5 percent. The capital asset ratio is similar to the US and the rest of Latin America. Finally, interest rate spread is nearly as good as Chile and much better than Latin America and upper income country averages.

**Table 4.3:** *Levels of Competition and Efficiency in Mexico's Banking Sector*

<b>WHIA: CRITERIA</b>	<b>LEVEL OF ATTAINMENT</b>
<b>COMPETITION</b>	<b>Low</b>
Number of branches	<b>Low</b>
Number of deposit accounts	<b>Very Low</b>
Domestic Credit	<b>Low</b>
<b>EFFICIENCY</b>	<b>High</b>
Credit Information Infrastructure	<b>Very Good</b>
Nonperforming Loans	<b>Very Good</b>
Capital Asset Ratio	<b>Average</b>
Interest Rate Spread	<b>Good</b>

#### *Summary*

One must conclude, then, that the privatization of Mexico's banking sector has been implemented consistently. Nearly all of the criteria have been met. Mexico sold all of its state-owned bank and efficiency is high. The only criteria lacking is in competition. However, most of this can probably be attributed to the infancy of the privatization process which only started to occur in the early 1990's. These results are highlighted in Table 4.3 below.

**Table 4.4:** *Criteria Analysis of Banking Privatization*

CRITERIA	RESULTS
(1) All state-owned banks are sold	Yes
(3) Created sufficient competition	Partial Yes
(4) Created efficient banking system	Yes
<b>Conclusion</b>	Banking privatization has been implemented consistently to Washington Consensus ideals

*Telecommunications Privatization*

The privatization of Mexico's telecommunications sector was seen as a vital piece of Salinas' modernization program. Government owned issues of Telemex were sold in December of 1999 and its 56 percent share of ownership was eliminated (Megginson et al. 1994). It was hoped the process would create increased profitability, efficiency, investment, and output in Mexico's telecommunication industry.

A study by Mariscal (2002) gives a detailed account of the actual process of privatizing Telmex. Before the process started government officials had to decide whether to keep it a vertically integrated firm or split it into regional monopolies. Another option was to split Telmex horizontally and sell the different services (local, long distance, cellular, etc.) separately. In the end, the less competitive vertical integrated option was adopted. Officials chose this route due to the time frame necessary to maximize support and reduce political instability. This decision was in direct contrast to World Bank and foreign investor views. They preferred the divided regions or



separate services policies. These two policies were thought the best options in terms of social welfare. Instead, impatience of Mexican officials led to the more quickly implemented vertical integration (Mariscal 2002).

Today, competition in Mexico's telecommunications sector is very weak. The vertical integration policy assured Telemex as a virtual monopoly. Telemex maintains exclusive rights to negotiate settlement rates that keep the other carriers from negotiating lower rates. The government also does not permit reselling of long-distance public networks. This practice only reinforces Telmex's market dominance and erodes any chance for effective competition (Country Watch 2006, 77). US carriers remain very dissatisfied with Mexico's willingness to engage in anti-competitive behavior.

The performance of the telecommunications sector after privatization is mixed. Ramamurti (1996) found that the 3-4 years after privatization, network expansion grew at 13 percent annually, which exceeded targets set by the government. In addition, labor productivity also grew at 13 percent.<sup>19</sup> In fact, productivity from 1995-1999 was significantly higher than many Organization for Economic Cooperation and Development (OCED) countries (Mariscal 2002, 94).

Unfortunately, lack of competition has resulted in few incentives for Telemex to expand its penetration rates or lower consumer prices. The number of fixed lines per 100 people did rise from 6.4 in 1990 to 12.47 in 2000, but this is still considerably lower than other countries with similar GDPs. Also, Mexico's telephone rates are higher than international standards (Mariscal 2002, 95). Even when compared to other Latin American countries Mexico's usage rates are higher than average.

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<sup>19</sup> Labor productivity was defined as the number of lines per employee

### *Summary*

Therefore, one must conclude that Mexico has failed to meet the criteria established in this study for successful implementation of telecommunications privatization. While, Mexico did manage to sell all state-owned shares in 1990 competition remains very low. The performance after privatization has been mixed. Efficiency has risen, but the sector still suffers from low penetration rates and high consumer prices.

**Table 4.5:** *Criteria Achievement for Mexico's Privatization Efforts*

<b>Criteria</b>	<b>Performance</b>
(1) Sell off state-owned enterprise	Yes
(2) Increased competition	No
(3) Increased performance	Mixed
<b>Conclusion</b>	<b>Telecommunication privatization has not been applied consistently with the Washington Consensus.</b>

### *Airline Privatization*

Key to Salinas' liberalization program was the re-privatization of Mexico's airline industry. Between 1988-1991, Mexico dismantled its regulatory system governing air travel in two stages. The first stage privatized the two state-owned airlines Aeromexico and Mexicana. The second stage overhauled regulations governing entry and consumer prices (Hanson 1994).

Aeromexico was sold to Dictum for 300 million in October of 1988. The government had owed a 65 percent stake at the time. In August 1989, Grupo Falco paid

140 million for a 25 percent share. The government kept a 40 percent stake, but majority voting rights were retained by Grupo Falco. The two firms were later merged in 1993 when Aeromexico acquired a 55 percent ownership of Mexicana. This merger escaped new antitrust laws implemented just four months later (Hanson 1994, 204).

After the peso crisis in 1994 the airlines were bailed out of bankruptcy and purchased by the Cintra group, which essentially put them back into the control of the state. The government stake in Cintra was close to 45 percent (between the Ministry of Finance, and the state development bank Nafinsa and Fobaproa) (Belejack 1998). The airlines were just recently split and re-privatized. Mexican was sold to Grupo Pesadas late in 2005. Aeromexico remains under the Cintra umbrella.

Despite the sale of the two carriers, a competitive environment in Mexico's airline industry has remained elusive. The merger in 1993 essentially created a de facto monopoly. The two airlines coordinated fares, frequent flyer miles, ground services and crews, and computer reservation systems. At that time the two firms controlled 70 percent of the domestic market and had almost complete control over the most traveled trunk routes (Ramirez 1998, 425).

Perhaps the only ground gained in competition was the entry of Taesa into the market. They offer a no-frills service much like Southwest in the United States. Taesa has failed, however, in breaking Aeromexico-Mexicana's grip on major domestic routes (Hanson 1994).

Despite the lack of competition, efficiency has improved since the initial privatizations of Aeromexico and Mexicana. Customer prices are above average, but this is mainly attributed to the market dominance of the two major carriers (Hanson 1994,

205). On time arrival for Aeromexico rose from 75 percent in 1988 to just over 90 percent in 2005 (Conсорcia Aeromexico '05 Annual Report). Mexicana's on time arrival rose from 73 percent in 1989 to 86 percent in 1989.

Table 4.6 was taken from Consорcia Aeromexico's 2005 Annual Report and shows the operational statistics of the two major carriers. It shows that supply, demand, and income have all risen from 2002 to 2005. Available seat kilometers (ASK) measures supply and is calculated by taking the number of available seats and multiplying it by the number of kilometers that those seats are flown. Revenue passenger kilometers (RPK) measures demand by multiplying the number of kilometers by the number of revenue passengers. Load factor ratio represents demand as a proportion of capacity. Yield is average passenger income per RPK.

All four measurements show increases in efficiency. Since 2002 the number of available flights and seats has risen. The number of passengers has risen. Finally, the amount of revenue per passenger has risen. Uses of these indicators are limited in that they show increases in efficiency, but not necessarily actual efficiency.

**Table 4.6:** *Operating Statistics of Aeromexico and Mexicana 2002-2005*

	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>Revenue Passenger Kilometers (millions)</b>	<b>13,104</b>	<b>13,411</b>	<b>14,381</b>	<b>14,955</b>
<b>Available Seat Kilometers (millions)</b>	<b>21,141</b>	<b>21,072</b>	<b>22,266</b>	<b>22,322</b>
<b>Load Factor Ratio (percent)</b>	<b>61.98</b>	<b>63.64</b>	<b>64.59</b>	<b>67.00</b>
<b>Yield (peso cent)</b>	<b>117.73</b>	<b>113.72</b>	<b>118.45</b>	<b>119.15</b>

Source: Consорcia Aeromexico 2005 Annual Report

### *Summary*

Therefore, one must conclude that Mexico's privatization of its airline industry has only been partially implemented consistently with the ideals of the Washington Consensus. Only two of the three criteria established by this paper have been realized (See table 4.7). Aeromexico and Mexicana were sold by the government late in 2005, and efficiency of the two airlines has risen. Nevertheless, competition still remains woefully inadequate. Only one other domestic airline has entered the market. The two major firms still maintain a dominant market share, and consumer prices remain artificially high as a result.

**Table 4.7:** *Criteria Achievement for Airline Privatization*

<b>Criteria</b>	<b>Performance</b>
<b>(1) Sell of state-owned enterprises</b>	<b>Yes</b>
<b>(2) Increased competition</b>	<b>No</b>
<b>(3) Increased efficiency</b>	<b>Yes</b>
<b>Conclusion</b>	<b>Airline privatization has only been implemented partially consistent with the Washington Consensus.</b>

### **Working Hypothesis 1b: Trade Liberalization**

Mexico has taken many great strides in opening its markets. As a result trade has grown to a great extent. Merchandise trade as a percentage of GDP rose from 32.1

percent in 1990 to 58.5 percent in 2004 (World Bank 2006a). Most of the increase in trade can be attributed to a growing number of regional trade blocs Mexico has entered.<sup>20</sup>

The Washington Consensus suggests lowering tariffs to the range of 10-20 percent. Mexico has managed to do this. In 2004, Mexico's simple mean tariff split the mark at 14.6 percent (World Bank 2006a). Simple mean tariff is the un-weighted average of effectively applied rates or most favored nation rates for all products subject to tariffs calculated for all traded goods. It's also important to note that 100 percent of the applied tariffs were bound. Bound rates eliminate discriminatory practices by making sure all importers pay the same rates. This can be important since firms charged above the bound rate they retain the right to receive compensation.

While, Mexico has become well known for its open trade regime there still is plenty of room for improvement. In particular three areas of concern have somewhat curtailed the reform effort: (1) lack of uniformity; (2) comparatively high tariffs; (3) non-tariff barriers.

John Williamson stated (1993) that tariffs should remain in the 10-20 percent range, but they should also be uniform. Some countries are selective in applying tariffs rates in hopes of protecting certain industries. The share of tariffs lines with international peaks measures uniformity by giving an indication of how selective these tariffs are for a particular country. Mexico's percent of tariff lines with international peaks were at 38.5 percent. The measurement shows a high degree of non-uniformity when compared to other similar economies. South Korea, another recent member to the OECD, was only at 5.2 percent. Other emerging economies such as China and Chile were at 14.9 and 0 percent respectively.

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<sup>20</sup> As of 2006 these include: APEC; NAFTA; FTAA; ACS; Group of Three; LAIA;

Furthermore, despite an average applied tariff that falls within the 10-20 percent range Mexico's rates of protection still rank high when compared to other similar countries. According to the IMF (2006) the most favored nation applied tariff for Mexico was at 15.3 percent higher than both Chile (6 percent) and China (10.5 percent).

From 1998-2006 other OECD countries around the world have managed to liberalize while Mexico has stagnated and regressed somewhat (IMF 2006). Barriers to foreign competition in Mexico have been on the rise since 2000. OECD research showed that Mexico discriminated against foreign firms more than all but one OECD country (IMF 2006, 16). Table 4.8 highlights the degree of barriers to trade and investment in a handful of OECD countries. The ratings are measured on a scale of 0-6 with 6 being the most restrictive. Mexico ranked highest in nearly every category. While most of the measurements weren't particularly high it did do very poorly in tariffs with the worst ranking of 6.

**Table 4.8:** *Barriers to Trade and Investment in OECD Countries*

	Ownership Barriers		Discriminatory Procedures		Regulatory Barriers		Tariff Barriers	
	1998	2003	1998	2003	1998	2003	1998	2003
<b>United States</b>	2.9	1.8	.3	0.0	0.0	0.0	1.0	1.0
<b>Korea, Republic of</b>	2.5	2.2	0.0	0.0	2.3	0.0	4.0	3.0
<b>Hungary</b>	3.8	1.9	0.0	0.0	2.3	0.0	4.0	3.0
<b>Mexico</b>	2.9	2.8	1.4	1.4	.3	0.0	4.0	6.0
<b>Poland</b>	4.5	3.7	4.4	.3	4.4	1.6	4.0	4.0

Source: IMF (2006, 18)

### **Working Hypothesis 1c: Public Expenditure Priorities**

Low average levels of human capital may explain a major part of Latin America's high degree of inequality. Government policies can be an important means for shaping more equal income distribution. Education investment is particularly significant. Since reforms started taking place Mexico has put greater emphasis on education investment. Between 1990-1994 federal spending on education rose from 3 percent of GDP to 4.6 percent reflecting a new emphasis on the education sector as a core element of future economic growth (IMF 2002).

According to World Bank (2006a) figures, government spending on education continued to rise to 5.3 percent of GDP in 2005. Education expenditures are concentrated principally in the tertiary level. Table 4.9 shows that tertiary spending levels as a percent of GDP per capita were 45.3. This doubles spending at the secondary levels of 20.3 percent, and more than three times primary spending at 13.6 percent. This is significant because higher education has been proven to have higher rates of return in Mexico (IMF 2002, 24). The IMF (2002) study suggests that although spending at basic levels are better for inequality it can also result in lower technology adoption.

**Table 4.9:** *Public expenditure per student as % of GDP per capita*

	<b>1991</b>	<b>2004</b>
<b>Primary</b>	10.3	13.6
<b>Secondary</b>	15.6 (1999)	20.3
<b>Tertiary</b>	41.2 (1999)	45.3



Source: World Development Indicators 2006

While increased education investment is necessary it is also important that spending be done wisely to assure greater outcomes. The standard education system output indicators in Mexico have generally improved over the 1990's. Years in formal education increased from 6.3 in 1990 to 7.6 years in 2000. Youth literacy rates increased into the high 90 percentile for both males and females. Most importantly is that primary completion rates rose from 86 percent in 1991 to 97 percent in 2004. The primary completion rate is measured as the percent of students completing the last grade of primary school. The rate is used as a gauge of an education system's performance; it reflects both the coverage of the education system and the educational attainment of students (World Bank 2006a). In addition, net enrollment rates were 100 percent for primary schooling in 2004 and 62 percent for secondary enrollment. All indicators compared favorably to most other countries (Table 4.10). The only point of contention is a relatively low enrollment rate in secondary level education.

**Table 4.10: Education Completion and Outcomes**

	Primary Completion Rates		Net Enrollment Rates		Youth Literacy Rates	
	1991	2004	Primary (2004)	Secondary (2004)	Male (2002)	Female (2002)
<b>Mexico</b>	<b>86</b>	<b>97</b>	<b>100</b>	<b>62</b>	<b>98</b>	<b>97</b>
<b>Argentina</b>	...	<b>102</b>	...	<b>81</b>	<b>99</b>	<b>99</b>
<b>Brazil</b>	<b>93</b>	<b>111</b>	<b>97</b>	<b>75</b>	<b>96</b>	<b>98</b>
<b>Costa Rica</b>	<b>74</b>	<b>92</b>	<b>92</b>	<b>50</b>	<b>98</b>	<b>99</b>
<b>Botswana</b>	<b>79</b>	<b>92</b>	<b>82</b>	<b>60</b>	<b>85</b>	<b>93</b>
<b>Lebanon</b>	...	<b>94</b>	<b>93</b>	...	<b>95</b> (1990)	<b>89</b> (1990)
<b>Malaysia</b>	<b>90</b>	<b>95</b>	<b>93</b>	<b>70</b>	<b>97</b>	<b>97</b>
<b>Poland</b>	<b>96</b>	<b>100</b>	<b>98</b>	<b>91</b>	...	...
<b>Chile</b>	...	<b>97</b>	<b>86</b>	<b>78</b>	<b>99</b>	<b>99</b>
<b>United States</b>	...	...	<b>94</b>	<b>89</b>	...	...
<b>Upper Middle Income</b>	<b>88</b>	<b>96</b>	...	...	<b>98</b>	<b>97</b>
<b>Latin America and Caribbean</b>	<b>86</b>	<b>97</b>	<b>96</b>	<b>65</b>	<b>96</b>	<b>97</b>

Source: World Development Indicators 2006

Another component of education reform is a need to place an emphasis on technology. It's important to have a workforce that can quickly and efficiently adopt new technologies in order to achieve greater economic growth. Countries that can access, produce, and apply scientific knowledge will have a competitive advantage over those that cannot. The indicators in Table 4.11 give an idea of an individual countries technological base.

Mexico compares fairly poorly to the other countries. The educational system has only produced 268 researchers in R&D per one million people, and only 96 technicians per one million people. Both numbers rank much lower than most other countries, and compares favorably only to Malaysia. The low numbers reflect a failure of Mexico in promoting technology in its schooling system. This finding is also reinforced by two

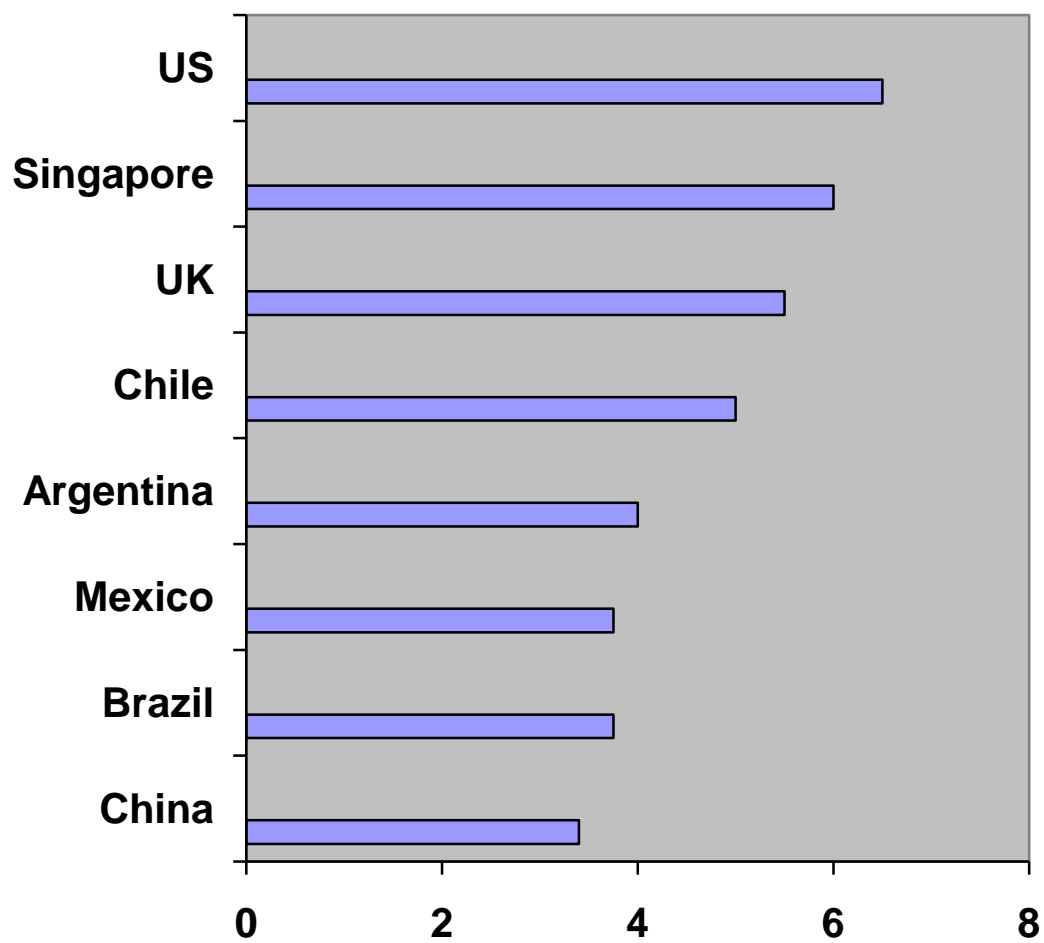
other indicators: expenditures for research and development; and Mexico's technological readiness score. Between 1996 and 2003 Mexico only invested .41 percent of its GDP on research development. The investment score fell far short of the two benchmark countries. The United States spent 2.6 percent and Chile .61 percent. Mexico also scored low on technological readiness. On a scale of 0 (worst) to 7 (best) Mexico only scored a 3.75 (Figure 4.1).

Mexico's high tech exports, on the other hand, scored surprisingly well at 21 percent of manufactured exports. This is much better than Chile, Argentina, and Poland whose high tech exports were all under 10 percent. However, there is still room for improvement. The United States, Malaysia, and Costa Rica all have more than 30 percent of its manufactured exports as high tech.

**Table 4.11:** *Technological Adoption Indicators*

<b>Country</b>	<b>Researchers in R&amp;D</b>	<b>Technicians in R&amp;D</b>	<b>Expenditures for R&amp;D</b>	<b>High-Tech Exports</b>
	<b>Per million people 1996-2004</b>	<b>Per million people 1996-2004</b>	<b>% of GDP 1996-2003</b>	<b>% of manufactured exports 2004</b>
<b>Mexico</b>	<b>268</b>	<b>96</b>	<b>.42</b>	<b>21</b>
<b>Argentina</b>	<b>720</b>	<b>316</b>	<b>.41</b>	<b>8</b>
<b>Brazil</b>	<b>344</b>	<b>332</b>	<b>.98</b>	<b>12</b>
<b>Costa Rica</b>	<b>368</b>	<b>...</b>	<b>.39</b>	<b>37</b>
<b>Malaysia</b>	<b>299</b>	<b>58</b>	<b>.69</b>	<b>55</b>
<b>Poland</b>	<b>1,581</b>	<b>282</b>	<b>.56</b>	<b>3</b>
<b>Chile</b>	<b>444</b>	<b>303</b>	<b>.61</b>	<b>5</b>
<b>United States</b>	<b>2,706</b>	<b>...</b>	<b>2.6</b>	<b>32</b>

**Figure 4.1:** *Technological Readiness Scores of OECD countries*



Source: IMF (2006, 27)

## **CHAPTER 5**

### **CONCLUSION**

#### **Chapter Summary**

In Chapter 2 a review of academic literature revealed several points: (1) economic growth is essential for poverty reduction; (2) the Washington Consensus has been the prevailing economic orthodoxy for developing economies since the 1990's; (3) the Washington Consensus policy recommendations do empirically lead to economic growth; (4) Mexico has adopted these policies; (5) since adoption little improvement has been achieved in growth or poverty reduction; and (6) there are now three diverging views of the Washington Consensus.

Based on these findings a conceptual framework was developed to assess whether the Washington Consensus policies of privatization, trade liberalization, and public expenditure priorities were implemented consistently by Mexico. Variables were created to examine the levels of consistency and compared to ideals established by Washington Consensus when possible, and other countries when not. The results from the analysis can be found in Chapter 4.

This chapter examines the results and connects them to the original purposes of this research. Based on the findings, this chapter gauges the level of support for the working hypotheses found in the Mexican case. In addition, the viability of the Washington Consensus for other emerging markets is considered.

## **Findings**

A summary of the findings can be found below in Table 5.1. The three sub-hypotheses are accepted as long as at least one criterion was not implemented consistently with the Washington Consensus guidelines. Working Hypothesis 1 is accepted if all three sub-hypotheses are accepted.

Variables used to evaluate privatization demonstrate that Mexico has failed to implement privatization policy consistently with the Washington Consensus. Of the three industries examined in this study only the banking sector privatization can be seen as being implemented consistently. There were efficiency increases in all since privatization was initiated. Unfortunately, a general lack of competition continues to plague the Mexican economy. This lack of competition may be one of the reasons the expected economic growth of Washington Consensus policies has yet to be realized.

Mexico has been able to accomplish an average applied tariff of 14.6 percent. This is well within the Washington Consensus guidelines of 10-20 percent. It has, however, failed to meet two other criteria used for this paper. First, the tariffs have not been applied uniformly. Mexico's percent of tariff lines with international peaks were at 38.5 percent. The measurement shows a high degree of non-uniformity when compared to other similar economies. Second, there are still significant barriers to trade. Tariff rates are somewhat high, and non-tariff barriers remain in place. Therefore, one must conclude that Mexico's trade liberalization reforms have been implemented inconsistently with the ideals established by the Washington Consensus.

The indicators used to evaluate Mexico's investment in education demonstrate mixed results. On the one hand, education expenditures, literacy rates, and the percent of those achieving a primary education have risen. These figures also were similar to levels in other comparable countries. On the other hand, technology has failed to be emphasized. Mexico scored low in several of these indicators including technology readiness, and numbers of researchers and technicians in R&D. The low scores mean that Mexico has satisfied only two of the three criteria for consistent implementation of the Washington Consensus on public expenditure priorities. Education spending has risen. Education outcomes have risen. Conversely, technology adoption has remained low. Therefore, one must conclude that Mexico has failed to implement public expenditure reforms consistently with the ideals established by the Washington Consensus.

Since all three sub-hypotheses have been confirmed Working Hypothesis 1 must also be accepted. Mexico's implementation of economic reforms has been inconsistent with the ideals established by the Washington Consensus. Before an effective evaluation of the original Consensus can be made, it must first be determined these policies have been correctly implemented. Before consistent implementation is found any research on the effectiveness of such policies will be imperfect. In the future, other case studies should be performed to see if proper implementation has been accomplished elsewhere.

For now then, it is recommended that emerging economies continue to use the Washington Consensus as a guideline for their own reforms. The individual policies are proven to lead to economic growth. Even Mexico with imperfect implementation has seen some improvements most notably in increased trade and greater efficiency. Trends,

although still low, have been rising in virtually every category analyzed by this paper. With time one can assume that performance will be even better. Therefore, government officials should look to recommit and reinforce the reforms that have already taken place.

The reforms proposed by the post-Washington Consensus are intriguing and probably should be examined for adding to the original ten Washington Consensus principles. An emphasis on pro-poor growth and stronger institutions could go a long way in reducing poverty and inequality. However, at this time the post-Washington Consensus offers no real blueprint as does the original. Nor does it address how reforms are to be passed in light of rent-seeking opportunists bent on maintaining their assets.

It's important to note the limitations of these findings. The paper focused on only three areas of reforms while ignoring other important aspects like tax reform, interest rates, deregulation, and fiscal discipline. A study including all of these principles would go much further in evaluating the true implementation of Washington Consensus reforms. Second, the variables used in evaluating reforms in Mexico only give a general overview of implementation. Any conclusive analysis of implementation should dig much deeper. Finally, as suggested earlier this study focused solely on Mexico. Findings here are not a reflection of other emerging markets around the world.



**Table 5.1:** Findings on Mexico's implementation of Washington Consensus Reforms

<b>Hypotheses</b>	<b>Criteria</b>	<b>Results</b>	<b>Conclusion</b>
<b>WH1a:</b> Mexico's privatization efforts in the industries of banking, telecommunications, and transportation are implemented inconsistently with the Washington Consensus	<ul style="list-style-type: none"> <li>(1) Sell of all state-owned enterprises per industry</li> <li>(2) Increased Competition</li> <li>(3) Increased Efficiency</li> </ul>	<ul style="list-style-type: none"> <li><b>(1) Implemented Consistently</b></li> <li><b>(2) Implemented Inconsistently</b></li> <li><b>(3) Implemented Inconsistently</b></li> </ul>	<b>Accepted:</b> Mexico has sold all state-owned enterprises, but has failed to increase competition and efficiency.
<b>WH1b:</b> Mexico's trade liberalization efforts are implemented inconsistently with the Washington Consensus	<ul style="list-style-type: none"> <li>(1) Average applied tariff between 10-20 percent</li> <li>(2) Uniform tariffs</li> <li>(3) Reduced trade barriers</li> </ul>	<ul style="list-style-type: none"> <li><b>(1) Implemented Consistently</b></li> <li><b>(2) Implemented Inconsistently</b></li> <li><b>(3) Implemented Inconsistently</b></li> </ul>	<b>Accepted:</b> Mexico has an average applied tariff between 10-20 percent, but has not implemented uniform tariffs or reduced trade barriers.
<b>WH1c:</b> Mexico's public expenditure priority reforms are implemented inconsistently with the Washington Consensus	<ul style="list-style-type: none"> <li>(1) Increased education spending</li> <li>(2) Increased performance</li> <li>(3) Increased technology adoption</li> </ul>	<ul style="list-style-type: none"> <li><b>(1) Implemented Consistently</b></li> <li><b>(2) Implemented Consistently</b></li> <li><b>(3) Implemented Inconsistently</b></li> </ul>	<b>Partially Accepted:</b> Mexico has seen increases in education spending and performance, but failed to emphasize technology adoption.
<b>WH1:</b> Mexico's implementation of economic reforms has been inconsistent with the ideals established by the Washington Consensus.	Acceptance of all three sub-hypotheses WH1a, WH1b, and WH1c	<ul style="list-style-type: none"> <li><b>WH1a: Accepted</b></li> <li><b>WH1b: Accepted</b></li> <li><b>WH1c: Partially Accepted</b></li> <li><b>Accepted</b></li> </ul>	<b>Accepted:</b> Mexico's implementation has been inconsistent with the ideals established by the Washington Consensus.

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