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14. ABSTRACT

Implemented almost 18 years ago, the North American Free Trade Agreement (NAFTA) spurred great trade activity and promised rapid economic convergence among its three signatories Mexico, Canada, and the United States. Hampered by insufficient policy and institutional reforms, Mexico's impressive trade and foreign investment performance did not translate into corresponding, equal developmental improvements. This paper examines Mexico's top foreign trading partner, the United States, in association with its most important and influential trade policy, NAFTA. As a main objective, this analysis will explore what industrial reform policies might have allowed Mexico to achieve and take advantage of the full potential of NAFTA as envisioned. A secondary aim will focus on past government deficient industrial principles and their debilitating effects on Mexico's industry. This exploration of industry reforms will center on innovation, productivity, competition, and regulatory steps. Finally, the paper presents recommendations for further consideration by the Mexican government and the U.S. Northern Command (USNORTHCOM).

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The NAFTA Effect: Mexico's Unfulfilled Dream

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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28 October 2011

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Abstract

The NAFTA Effect: Mexico's Unfulfilled Dream

Implemented almost 18 years ago, the North American Free Trade Agreement (NAFTA) spurred great trade activity and promised rapid economic convergence among its three signatories Mexico, Canada, and the United States. Hampered by insufficient policy and institutional reforms, Mexico's impressive trade and foreign investment performance did not translate into corresponding, equal developmental improvements. This paper examines Mexico's top foreign trading partner, the United States, in association with its most important and influential trade policy, NAFTA. As a main objective, this analysis will explore what industrial reform policies might have allowed Mexico to achieve and take advantage of the full potential of NAFTA as envisioned. A secondary aim will focus on past government deficient industrial principles and their debilitating effects on Mexico's industry. This exploration of industry reforms will center on innovation, productivity, competition, and regulatory steps. Finally, the paper presents recommendations for further consideration by the Mexican government and the U.S. Northern Command (USNORTHCOM).

Introduction

Wielding a free market economy of over a trillion dollars, Mexico has traveled far economically since its time of closed trade markets. Surprisingly, the days of protectionism in Mexico are relatively recent in commerce terms – just 25 years ago. Practiced from the 1930s through the mid 1980s, Mexico supported a domestic-led industrialization policy and upheld a solid protectionist trade strategy to maintain independence from foreign influence.[1] Domestic-led steps also called an import substitution industrialization (ISI) strategy; placed protective barriers around the industrial sector to deter imports and control foreign direct investment (FDI) activities. Mexico believed, as many other developing countries did at the time, that ISI would encourage domestic growth and thus overall development. Experiences from various East Asian countries would later prove this assumption false.

Following the 1982 debt crisis and after over 50 years of restrictive trade actions, Mexico embarked on a new policy of trade liberalization. This openness began with membership in the General Agreement on Tariffs and Trade (GATT), in 1986. Membership in the Organization for Economic Cooperation and Development (OECD) followed in 1994. Not their first free trade agreement (FTA) but certainly their most important, Mexico entered into the North American Free Trade Agreement (NAFTA) in 1993. This step was vital to Mexico's conviction that this new trade pact would increase trade, accelerate technological change, improve efficiency, and enhance economic growth.[2] Unfortunately, 17 years later, a few of these original convictions remain unfilled – but not due to any fault by NAFTA.

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[1] M. Angeles Villarreal, *Mexico's Free Trade Agreements. Report for Congress* (Washington, DC: Congressional Research Service, 2010), 2.
[2] Olajide S. Oladipo, "Does Trade Liberalization Cause Long Run Economic Growth in Mexico? An Empirical Investigation," *International Journal of Economics and Finance* 3, no. 3 (2011): 63.

Mexico has failed to achieve and take advantage of the full potential of NAFTA because of inadequate industrial reform policies.

Background

Enacted on January 1, 1994, between Mexico, Canada and the United States, NAFTA is the world's largest free trade area. An immense and influential trade agreement, NAFTA links 440 million people and with the elimination of trade barriers and produces $15.6 trillion worth of goods and services annually.[3] Since the treaty came into effect, Mexican exports to the United States have grown 364 percent and 641 percent to Canada, with total exports of over $298 billion for 2010.[4] Mexico is the second largest market for U.S. exports and Canada's third largest trade partner in the world. To review NAFTA's main objectives used in my analysis and for the reader's consideration, it is as follows:

> "To eliminate barriers to trade in, and facilitate the cross-border movement of, goods and services between the territories of the parties; promote conditions to fair competition in the free trade area; increase substantially investment opportunities in the territories of the parties; provide adequate and effective protection and enforcement of intellectual property rights in each party's territory (*NAFTA, Article 102*)".[5]

I will use these five central objectives as a point of reference in my discussion of the various industrial sectors and their historical policies. Finally, during my research of this subject, it became clear that there existed major structural reform policies that fell beyond the scope of my thesis, but not my analysis. These areas specifically included education, infrastructure, and governance. I gave less than serious attention to these sectors in the interest of available space and substance to the main thesis of this paper. The main

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[3] U.S. Department of State, "U.S.-Mexico at a Glance," *U.S. Embassy Mexico,* http://mexico.usembassy.gov/eng/eataglance_trade.html. (accessed September 6, 2011).
[4] Central Intelligence Agency. CIA - The World Factbook: Mexico, last modified October 6, 2011, https://www.cia.gov/library/publications/the-world-factbook/geos/mx.html.
[5] Oladipo, *Does Trade Liberalization*, 71.

arguments will cover four key industrial reform areas, to include innovation, productivity, competition and regulatory steps.

Discussion

An Innovation Deficit

By most estimates, Mexico has benefited greatly from its participation in NAFTA, perhaps most impactful is the increase in investment opportunities in industry writ large. This positive outcome, or “NAFTA effect”, was indeed encouraging – but it could have been more. Mexico’s reforms, to complement and enhance NAFTA’s objectives over the last 17 years have been largely ineffective. Despite impressive gains in trade and FDI, economic growth has been sluggish, and job creation has been feeble.[6] Unquestionably linked to this meager performance has been Mexico’s lack of innovation reforms in its industrial sectors. In no other sector has this been more apparent than in manufacturing. This sector has played a critical part in Mexico’s development and integration in the global market. These export-oriented, cheap-labor operations have dominated their manufacturing activities.

Mexico’s largest manufacturing industry is the *maquiladora* or export assembly sector. This industry imports products from abroad, assembles them into final products, and exports them as finished goods. Not surprisingly, these imports and finished goods destination have predominantly been to the United States. A vital contributor to Mexico’s gross domestic product (GDP), these assembly plants, make up 20 percent of its value added and 50 percent of the country’s manufacturing exports (in 2006).[7] Principal to the automobile industry in Mexico has been auto parts exports and assembly of small cars for the

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[6] Eduardo Zepeda, Timothy A. Wise, and Kevin P. Gallagher, *Rethinking Trade Policy for Development: Lessons from Mexico under NAFTA,* December-Policy Outlook, (Washington, DC: Carnegie Endowment for International Peace, 2009), 1.
[7] Gordon H. Hanson, “Why Isn't Mexico Rich?” *Journal of Economic Literature* 48, no. 4 (2010): 18.

United States. Mexico is the top foreign supplier of auto parts for the United States, its assembled components being critical to their finished products.[8] While this has been a growth industry for Mexico, spurred on by NAFTA, the Mexican government expected industrial growth results similar to Korea, Hong Kong, and Taiwan. This economic growth never materialized.

While these East Asian countries began their industrial expansion relying on similar export assembly activities, they gradually transitioned into something more – an innovative agenda. Through innovation and with policies to support, these Asian firms successfully graduated from limited specialization, to original-equipment assembly and country-brand production.[9] This advancement up the industry sophistication chain required larger domestic production of inputs and fabrication of outputs. In other words, these successful industry graduations were linked to moving from assembling car doors to designing, producing, and exporting entire cars. While Mexico has progressed in levels of production, from assembling apparel to assembling electronic items, it has remained specialized in labor-intensive processing of foreign inputs – mainly from the United States.[10]

Progression of production in this case speaks directly to the levels of the technology involved in the process of assembly. Technology advancement and its origin are central to when businesses make the jump to higher design and production ventures. Mexico's specialized manufacturing highlights this point. While technology advanced manufactures like the United States supply the high-technical components, developing countries like Mexico are simply assembling these components. This process of assembling parts defines a

[8] James M. Cypher, "Mexico since NAFTA: Elite Delusions and the Reality of Decline." *New Labor Forum* 20, no. 3 (2011): 67.
[9] Hanson, *Why Isn't Mexico Rich,* 19.
[10] Ibid., 19.

sector, distinguished by low-technical complexity, little value added in terms of production and low skilled labor.[11] Mexico, lacking adequate industry reform, has sentenced certain *maquiladora* segments to a business plan that requires greater productivity, at the expense of ever-lower wages, to maintain comparative advantage with other labor-intensive manufacturing countries.

Mexico did not take full advantage of NAFTA's stimulus of increased investment and protection of intellectual property guidance, to enact reforms to transition to higher wage level industries. Mexico's inability to acquire comparative advantages in increased human capital and technology intensive goods highlights a sizable deficit in other innovation related areas. Compared to successful economies like Korea, Mexico falls far behind in innovation performing measures, such as research and development (R&D) and patenting activity. Used as a measure of a country's national innovation system (NIS), patent action, is generally a solid indicator of a credible and functioning NIS. When utilizing a patent count, Mexico's rate of innovation lags behind its NAFTA partners, numerous Latin American countries, and countries in East Asia.[12] Simply stated, for the level of its development, Mexico is not producing the number industrial patents it should be.

Mexico's R&D efforts reflect a dismal future for NIS performance. Over the years, meager funding from the government or universities to industry and industry to the public sector reveal not just a reform policy failure, but also an educational shortfall. Mexico has fallen behind in producing student high achievers. When contrasted against other like economies, using a globally accepted standardized test, Mexico falls behind those students

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[11] Juan Carlos Moreno-Bird and Jaime Ros, *Development and Growth in the Mexican Economy: A Historical Perspective* (New York: Oxford University Press, Inc., 2009), 230.

[12] Daniel Lederman, William F. Maloney, and Luis Serven, *Lessons from NAFTA for Latin America and Caribbean Countries: A Summary of Research Findings*. *Research Project* (Washington, DC: The World Bank, 2003), 214.

attaining an advanced score by an average 10 percent.[13] These high achievers are vital to increasing a country's learning capacity and subsequent human capital. Both of these elements have proven to link directly with increased GDP and international economic convergence. Besides connections to productivity, a highly educated population would ease comprehension of technology transfers from both NAFTA partners and expand innovation.[14]

Declining Productivity

Preceding innovation, productivity increased in Mexico's domestic manufacturing sector by 80 percent due to competition with the other NAFTA partners.[15] Following similar free trade agreement results, this efficiency gain came as no surprise to sectors where actual open competition existed. Further, compared to its two economically developed partners, Mexico's productivity level had only one direction to travel since 1994 – up. However, a closer inspection of the increased productivity data reveals a regional disparity to the northern states, and a direct link to higher FDI ratios. Overall, the remaining Mexican industrial sectors have actually regressed in worker productivity and efficiency. State-controlled sectors aside, it has been sectors that espouse to low-value-added operations like the *maquiladora* or tourism that have especially perpetuated the low gains in productivity.[16] The connection here relates to the type of labor required and its potential for greater productivity.

Low-value-added professions require cheap, un-skilled labor and do not require growing productivity to succeed. By contrast, skilled labor and its related vocations, require constant investments to increase productivity levels and grow. Mexico, though provided

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[13] Hanson, *Why Isn't Mexico Rich,* 16.
[14] Daniel Lederman, William F. Maloney, and Luis Serven, *Lessons from NAFTA,* 218.
[15] Eduardo Zepeda, Timothy A. Wise, and Kevin P. Gallagher, *Rethinking Trade,* 4.
[16] Christian Stracke, "Mexico-The Sick Man of NAFTA," *World Policy Journal* 20, no. 2 (2003): 31.

with ample time through NAFTA, failed to develop and nourish its most precious business resource – its human capital. Nowhere is this more prominent, than in the agricultural sector with the rural farmers or *campesinos*. Representing around 25 percent of the population, though only generating six percent of the country's income (in 2004), the *campesinos* live in poverty in the southern states.[17] Unable to compete with NAFTA agricultural imports, most rural farmers, un-educated and un-skilled, have migrated to urban areas to survive. Forced into the urban informal sector as street vendors, these marginalized workers have remained underutilized and unappreciated.

Mexico's inability to transition these marginalized workers to the formal market have impeded the productivity gains made in the dynamic economy. Additionally, due to mismanaged economic policy and low growth, numerous high-skilled, efficient workers have departed the country for better opportunities. Many of these high productivity workers, upwards of 20 percent of their most educated, have ended up in the U.S. job market.[18] This brain drain and brain neglect (in the case of the *compesions*), has negatively affected GDP and undermined the advantages from the "NAFTA effect".

If Mexico desires to embrace the full, positive impact of NAFTA, significant industry changes in productivity and efficiency will need to be completed. An article published in "Policy Options", in 2007 speaks to this:

> "To take full advantage of NAFTA's opportunities, Mexico must invest heavily to redress its own energy shortages and to upgrade its roads, ports, telecommunication networks, and public services. Doing so would create better opportunities for economic development in the poor regions of southern Mexico and would curb the "Mexico cost" that weighs heavily on the international competitiveness of Mexican industries."[19]

[17] Sidney Weintraub, *NAFTA'S Impact on North America: The First Decade* (Washington, DC: Center for Strategic and International Studies, 2004), 11.
[18] Christian Stracke, *Mexico-The Sick Man of NAFTA*, 31.
[19] Gary Clyde Hufbauer and Jeffrey J. Schott, "NAFTA Revisited," *Policy Options* 28, no. 9 (2007): 4.

Targeted attention and investments in productivity would assist in enhancing this advantage. The trade processes involved in the movement of goods across the shared U.S.-Mexican border is in critical need of efficiency improvements. The automotive sector between the NAFTA partners demonstrates this deficiency in terms of movement of auto parts. Along the U.S.-Canada border, shipment of auto parts has reached a high level of sophistication. Just-in-time inventory systems allow an U.S. automaker on the northern border, to order necessary parts from Canada only hours before they are required for assembly.[20] This level of border-efficiency has yet to reach the southern border with Mexico.

The NAFTA induced seamless border has improved since 1994 and has encouraged greater trade. A large obstacle to this and a similar Canadian inventory system is Mexico's custom procedures. The process requires better goods synchronization and trade acceleration improvements. Productivity is being lost in endless paperwork and bureaucracy. As an example, it takes three days for a truck to cross the border at Laredo, Texas into Mexico – a distance of only three miles.[21] Likewise, a load of goods originating in the United States is handled by close to seven entities in Mexico before it clears. To take full advantage of NAFTA, especially the full elimination of barriers, and faster cross-border movements, Mexico will need to renovate this process. Included in these reform measures and perhaps most essential is the need to improve competition.

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[20] Sidney Weintraub, *Unequal Partners: The United States and Mexico* (Pittsburgh: University of Pittsburgh Press, 2010), 9.
[21] Andrea MacDonald, "NAFTA: A Delicate Balance," *World Trade* 100 22, no. 10 (2009): 32.

Lacking the Competitive Spirit

Mexico's economy has a great deal of potential. Last year, Mexico traded more than Brazil and Argentina combined, and more per person than China.[22] This robust trade volume has been continuous and impressive over the years. Nevertheless, this has not equated to any lasting economic growth since NAFTA was implemented. Mexico's GDP since the early 1990s has been anemic, displaying average percentages well below comparable developing economies in the world. Likewise, for 17 years Mexico's GDP per capita has hovered around pre-NAFTA levels, and at that, representing only a sixth of its northern neighbor.[23] While certain macroeconomic policy defects could explain the lackluster growth, if cannot explain all of the culpability. The main reason rests in Mexico's ineffective reform policies to eliminate monopolies and oligopolies. These dominating, unproductive market entities have sapped Mexico's dynamism from industry. Left to multiply and corrupt, markets and consumers have suffered under these anti-competitive structures. A principle element of NAFTA, i.e. promoting conditions for fair competition, has failed to blossom in Mexico, especially in the energy and telecommunication sectors.

State owned Petroleos Mexicanos (Pemex), Mexico's oil and gas sector contributes around nine percent to the country's GDP (in 2006).[24] A vital and important funding source for the government, Pemex's monopoly origin can be traced back to early Mexican nationalism and its constitution. Established in 1938, Mexico's oil and gas fields, developed by foreign interests, were seized by the government and nationalized. This important

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[22] The Economist, "Mexico's economy: Making the desert bloom," *The Economist* 400, no. 8747 (2011): 59.

[23] Woodrow Wilson International for Scholars. *The United States and Mexico: Towards a Strategic Partnership. Four Working Groups on U.S.-Mexico Relations* (Washington, DC: Woodrow Wilson Center, 2009), 26.

[24] James M. Roberts and Israel Ortega, *How Reforms in Mexico Could Make the U.S. More Secure*, Executive Summary – Backgrounder (Washington, DC: The Heritage Foundation, 2008), 8.

symbolic action reinforced growing sentiment against outside control and enhanced nationalistic attitudes in the country. While important for nationalism, Mexico's management of the energy sector has benefited the few, neglected the many, and depleted precious resources. Reform could help, as it is estimated that a full 2.5 percentage points could be added to Mexico's GDP growth rate, if this industry was open to the competitive free market.[25]

An opening of Pemex to competition would also require a serious reorganization of their labor force. One of the largest and richest, the Pemex workers union, is largely over manned and extremely influential in the government. Prone to abundant corruption and graft, this union has assisted in creating an environment of stagnation within the entire sector. Contrary to NAFTA principles but endorsed by government policies, Pemex has embraced inefficiency and undercapitalization in the interest of blind capital expenditures. Falling behind other oil developing economies like Brazil, Mexico only replaces a fifth of the petroleum reserves it depletes.[26]

Now deep in debt, Pemex has failed to discover adequate new reserves, which now lie at depths thousands of feet below the sea floor, beyond Mexico's capability to extract. As one of the world's least efficient petroleum producers, Pemex has forced Mexico to be a net importer of oil, which is ironic considering the preferential time they were allotted to manage effective industry change. Mexico's inability to inject competition in the oil and gas sector through reforms and privatization has inhibited investment and greatly dampened the "NAFTA effect".

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[25] The Economist, *Mexico's economy: Making the desert bloom*, 61.
[26] James M. Roberts and Israel Ortega, *How Reforms in Mexico Could Make the U.S. More Secure*, 9.

Mexico's culture of anti-competition has also impinged on the telecommunication sector. Once a government owned company, Telmex went private in the early 1970s. Its largest shareholder is Carlos Slim, the richest person in the world, whose personal worth is estimated to increase by 24 million dollars a day. A virtual empire, the Slim family, manages companies that account for one-third of the investment value of the entire Mexican stock exchange.[27] An ambitious industrialist, Mr. Slim has steered Telmex to near market domination in Mexico. An extremely powerful monopoly, Telmex has retained full control over 90 percent of all fixed (landline), and 75 percent of all mobile telephone services in Mexico.[28] When compared to other developing or developed nations, Mexico ranks the highest in single-firm telecommunication concentration, business landline costs, and lowest in number of broadband providers. Similar to Pemex, Telmex and Mr. Slim have exerted substantial sway over key regulatory and political decision makers.

Adding to the "Mexican cost" of production and facilitating this anticompetitive atmosphere, is Mexico's weak anti-trust agency, the Federal Competition Commission (FCC). Referred to as a literally toothless and impotent organization by the OECD, the FCC has struggled to implement any effective policies to address the lack of competition in telecommunication or any other sector.[29] A principal benefactor and obstructionist of NAFTA, the Slim-dynasty has continued on an unbridled diversification into other sectors, including retail and television. Privatization once hailed has a lasting solution to Mexico's growth and development issues, is now one of the key complications to that goal. Engulfed by monopolistic-privatization, Mexico's economy is now losing efficiency and competitive footing to other countries like China. Fighting against an industry mogul whose wealth

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[27] Ibid., 11.
[28] Hanson, *Why Isn't Mexico Rich,* 14.
[29] James M. Roberts and Israel Ortega, *How Reforms in Mexico Could Make the U.S. More Secure*, 11.

amounts to 6.3 percent of Mexico' GDP will be difficult but it is necessary. To move forward and reap the benefits of NAFTA, Mexico will need to become more aggressive in its enforcement of competition and anti-trust laws.[30]

Having strong parallels to Pemex, Mexico's electric generation sector is also deeply entrenched in national sovereignty sensitivities. Historically a state-owned monopoly, the Federal Electricity Commission (CFE) has constitutional rights to provide electric services throughout the nation. This legal mandate has included control over the entire system, from generation to distribution. Lacking competition and free market influence, CFE has gradually become seriously outdated and inefficient. Well behind twenty-first century standards, continuous absence of investment in generation and grid upgrades, have added untold expenses to Mexican production costs. In 2003, the government estimated a cost of $100 billion to upgrade over the next ten years, just to meet growing demand.[31] Attempts to reform the industry, such as a move to privatization, have met tough political and social resistance. Government electricity subsidies (residential) and strong labor unions have prevented this needed step. Declining federal income from oil will make public investment for these reforms more difficult as time goes by. And it is private investment that will be needed to span the chasm to sector reform. Mexico's inadequate electricity network has obstructed many of NAFTA's objectives, and in many ways increasing, a strong discouragement to foreign and private investment.

<u>Ineffective Regulations</u>

Lastly, infrastructure improvements aside, Mexico has failed to enact the corresponding industrial, regulatory improvements encouraged by NAFTA. Hampering

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[30] The Economist, "The Americas: Bringing NAFTA back home; Mexico's economy," *The Economist* 397, no. 8076 (2010): 37.
[31] Christian Stracke, *Mexico-The Sick Man of NAFTA*, 34.

economic integration with global partners, Mexico has scored low on OCED's business rankings. Starting a business in Mexico takes 74 days (double the average) and exporting a shipment requires five forms and 17 days, at an average cost of $1,302 per container (well above the regional average).[32] Linked directly to this poor performance indicator is the oppressive amount of bureaucratic red tape. Overly restrictive, bureaucratic policies have damaged both FDI and free market competition. As an example, one recent study showed Mexico well above other competing economies in required bureaucratic measures to open a manufacturing facility. In this case, Mexico had over 359 steps, compared to China's 22 steps.[33] This grossly unequal comparison highlights a regulatory structure sharply stacked against anti-monopoly rules, but supportive of the status quo and the special interest groups it benefits.

Banking reform has also not proceeded as envisioned by the NAFTA Mexican-drafters, especially the domestic credit market. According to a 2004, World Bank Doing Business Indicator, Mexico scored a zero out of four in protections provided to creditors, placing it among the lowest in the category (bottom 11 out of 132).[34] Reductions in credit and local-capital have adversely affected improvement and growth in domestic businesses. Likewise, since a high majority of the banks are foreign-owned, local Mexican interests and businesses are often overshadowed by foreign interests. Linked to the absence of reform, but especially in industry, is the much needed regulatory reform of the courts and rule of law. Mexico's courts are notoriously unhurried and corrupt. Disastrous to NAFTA aims, few cases end up in court, due to the prolonged period it takes to reach a conviction – in most

[32] Clay Risen, "Failed Promise? Mexico and NAFTA, 15 Years Later," *World Trade* 21, no.11 (2008): 18.
[33] Christian Stracke, *Mexico-The Sick Man of NAFTA*, 35.
[34] Hanson, *Why Isn't Mexico Rich,* 6.

instances years.[35] This reality has emboldened a business culture of widespread corruption and fraud. Domestic and foreign businesses alike have suffered, reporting annual losses in the hundreds of millions of dollars. A true blocker to competitive markets, corruption has been reported to extend to all levels of relations between citizens and the government.[36] Lack of faith in the legal system has stifled reform and growth throughout the entire economy.

Finally, major regulatory reforms are needed in the government's handling of subsidies. Deeply anti-NAFTA, subsidies have been defined as a trade barrier by making domestic goods artificially competitive against imports. Unique to the energy sector, Mexico's electricity prices have been described has profoundly and disproportionately subsidized, with average residential subsidies at more than 50 percent.[37] This distortion has come with a degree of economic price, mainly how to offset the cost of the subsidies, by charging non-subsidized consumers higher rates. This artificial boosting policy has directly contributed to higher production costs and has damaged the competitive position of non-subsidized businesses. Funding these dependent, competition-breaking subsidies has had a lasting effect on the Mexican budget. As petroleum revenue has decreased, pressure on government expenditures has increased, as has the pressure on the correct funding priority. Power consumption subsidies have not come cheap, with the Mexican government earmarking close to 1.1 percent of GDP in 2007 to pay for it.[38] Highly inefficient, this wasted funding had better uses, such as innovation, productivity, and infrastructure improvements. NAFTA may have spurred the need for regulatory reforms, but the Mexican government has failed to follow through and take the required action.

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[35] Clay Risen, *Failed Promise*, 18.
[36] Ibid., 20.
[37] James M. Roberts and Israel Ortega, *How Reforms in Mexico Could Make the U.S. More Secure*, 16.
[38] Ibid.

Counter Argument

How ever important these industrial reform policies are to realizing NAFTA's original purpose, they are not the main reason behind Mexico's failure to fulfill that potential. Industrial reforms would have minimal effect on improving Mexico's gains from NAFTA. Reforms in education, infrastructure, and governance would enhance the "NAFTA effect" considerably more. In many ways, most of what NAFTA could deliver to Mexico was achieved. NAFTA's two central objectives, increasing mutual trade and encouraging FDI in Mexico, were a success – even if they came at a cost.[39] Where the objectives lagged was in the stimulating of economic growth, noted by Mexico's poor GDP growth since NAFTA took effect. Linked to the weak GDP rates is the continuing large disparity in income – the failed wage convergence. Many experts believe this gap relates directly to the quality gap in public institutions in Mexico, mainly education and infrastructure.[40]

NAFTA has had unintended consequences on Mexico, especially on the poor and specific domestic sectors. Many Mexican small and medium businesses that had produced for the domestic market collapsed under this free trade agreement. Local part manufactures experienced high bankruptcies, as they were unable to compete with multinationals importing parts from home suppliers. A majority of these workers sought employment in the *maquiladora* industry. Touched on briefly, another sector decimated by NAFTA and lack of effective reforms was the rural agriculture industry. Located mostly in the undeveloped central and southern areas of Mexico, local farmers, priced out of market by food imported

[39] Sidney Weintraub, *The Unending Campaign against NAFTA,* Published Research (Washington, DC: Center for Strategic and International Studies, 2010), 1.
[40] Richard Newfarmer, *Trade, Doha, and Development*: A Window into the Issues. Trade Department Report (Washington, DC: The World Bank, 2006), 261.

tariff-free, simply abandoned their properties to seek employment in the North.[41] Both of these sectors have suffered under NAFTA, but more important, neither would benefit from reforms in industrial policy. In fact, many of these reforms would escalate the issues and the destructive aspects of NAFTA.

Greater innovation, productivity, and competition in industry would heighten the growing geographical inequality between the southern and northern regions of Mexico.[42] An immediate by-product of this inequality, many southern workers absent of any marketable skills, has entered into the northern states and the informal (underground) economy. Estimated at around 25 percent of the entire population, the underground economy now leads other economic sectors as the primary job engine in Mexico.[43] Attracting the uneducated and unskilled worker, this informal environment has sapped Mexico of its true labor-output potential and contributed little to GDP. Lacking the modern infrastructure of its northern neighbors, the southern regions of Mexico have been unable to benefit from the promises of NAFTA. Their inclusion into the formal economy would not be hastened by improvements in innovation or productivity. Heavy investments and reforms in education and infrastructure would achieve better results than industrial reform policies.

Finally, the massive displacement of workers into the informal and unskilled economy has decreased wages across the country. By one estimate, wages have fallen to 25 percent of their equivalent in 1976 (calculated in real terms).[44] NAFTA, perhaps not by design, has solidly attached Mexico's workforce to a low-wage export business model. This business strategy has contributed to the low economic and low employment growth

[41] Elisabeth Malkin, "Nafta's Promise, Unfulfilled," *The New York Times*, March 24, 2009, B1.
[42] Eduardo Zepeda, Timothy A. Wise, and Kevin P. Gallagher, *Rethinking Trade,* 15.
[43] Ramon Eduardo Ruiz, *Mexico: Why A Few Are Rich and the People Poor* (Berkeley: University of California Press, 2010), 211.
[44] Ibid.

experienced since the mid 1990s. While there were modest wage increases in the *maquiladora* industry, real manufacturing wages across the country are down. In the interest of remaining globally competitive, Mexico has instituted a policy-base wage repression structure, which has pushed overall labor productivity to stagnation.[45] Collectively, reforms in education and governance would assist in improving labor related issues and drawing closer to the full potential of NAFTA. Industrial reforms will not create effective policies that will restructure the economy by diversifying trade and protect domestic at-risk production sectors.[46] Embracing adequate education, infrastructure, and governance reforms are the wiser solution to achieving the full potential of NAFTA.

Conclusion

At its foundation, NAFTA is a commercial, trade contract. Two core goals of this contract, to increase export capacity and attract FDI, were by all accounts hugely successful in Mexico. Estimates indicate that, without NAFTA, exports and FDI would have been 50 and 40 percent lower than was the case in 2008.[47] Mexicans would have almost certainly been less well off, especially in per capita income, if the country had not become the exporting powerhouse that it is today. While I would acknowledge that there were various negative consequences from NAFTA, I would submit that the Mexican NAFTA drafters already knew of the potential adverse outcomes – but simply did not act to prevent them. Mexico's failure to address considerable policy and institutional reforms early contributed directly to these underperforming consequences becoming real.

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[45] James M. Cypher, *Mexico since NAFTA*, 62.

[46] Laura Carlsen, "Mexico and the Crisis of a Dependent Economy," *CIP Americas*. October 11, 2009. http://www.cipamericas.org/archives/1906.

[47] Sidney Weintraub, *Unequal Partners: The United States and Mexico* (Pittsburgh: University of Pittsburgh Press, 2010), 33.

The promise of NAFTA required not just urgency to act but bold government initiatives to match the vision. Time was of the essence here, i.e. the clock was ticking. For 15 years after NAFTA came into effect, Mexico had preferential access to the largest free market economy in the world – the United States. Enjoying this special privilege and the advantage of geography over other developing countries, Mexico was in a unique economic position. To capitalize on this extremely valuable trade arrangement, Mexico required the right type of reforms, implemented at the correct time. This would have included preparing vulnerable sectors of the economy (agriculture, domestic manufacturing) to the oncoming competitive tsunami of NAFTA. Mexico did not do enough here, failing to implement programs that were to assist 20 million *campesinos* to switch to export crops to compete globally.[48] Mexico also did not transition and cultivate small businesses to a local supply network for the now import-dependent *maquiladora* industry. Currently, less than three percent of the industry's parts and components originate in Mexico. This represents a huge loss of potential GDP growth.[49]

These few reforms would have made a great deal of difference to effectively moving Mexico's economy to the world of globalization. Certainly a goal of NAFTA, globalization, required the prerequisite of being able to compete globally in the free market. Mexico's bifurcated economic condition, those with and those without, highlight not just the lack of specific reforms made under NAFTA, but also its limits. NAFTA is not, nor was it every intended to be an all-encompassing developmental or economic growth boosting agreement. Reforms to education, infrastructure, and governance are developmental focused, and though complementary are not critical to NAFTA's fulfillment. These reforms are unrelated to the

[48] Geri Smith and Cristina Lindblad, "Mexico: Was NAFTA Worth It?" *Businessweek Online* December 22, 2003, http://www.businessweek.com/magazine/content/03_51/b3863008.
[49] Ibid.

agreements core issues. To achieve the most from the key objectives of NAFTA will require reforms in industrial policies. One expert comments that Mexico's growth problem derive from its inability to deal with structural problems affecting monopolies, labor, energy, and taxes.[50] Not a panacea to all, NAFTA with adequate reforms in innovation, productivity, competition, and regulatory structure; represents the best complimentary solution to addressing these problems.

Recommendations

Mexico has thrived under NAFTA. However, not all have equally felt this prosperity. The regionally disparity between the haves and have not's accentuates the need to enact the reforms I reviewed above to appreciate the key objectives of NAFTA. These industrial reforms will require immense political will and tenacity. China provides an excellent example of what steps Mexico should take to improve trade. First, Mexico's few remaining state-owned banks should increase financing of domestic industry modernization projects. Second, Mexico should offer large tax breaks to FDI efforts that focus on the poorer central and southern regions.[51] Third, Mexico needs to transition its value-added assembly operations to adjust to globalization, in order to remain a competitive alternative. Lastly, Mexico needs to follow through politically on its promises to assist small farmers to become more efficient, by reversing subsidies that favor large farms, installing irrigation systems, and providing incentives to switch crops.[52]

From a USNORTHCOM perspective, I believe there is very little the combatant command could implement or accomplish to address Mexico's lack of vital industrial

[50] Sidney Weintraub, *The Unending Campaign*, 1.
[51] Editorial, "Happy Birthday, NAFTA," *Businessweek Online,* December 22, 2003, http://www.businessweek.com/magazine/content/03_51/b3863147_mz029.htm.
[52] Geri Smith, "NAFTA: Two Mexicos, Two Outcomes*." Bloomberg Businessweek*, February 12, 2008: 22.

reforms concerning NAFTA. These reforms require a political solution vice a military one. However, USNORTHCOM utilizing its interagency team may offer a few but important capability and capacity tools to Mexico. Working through the Department of State (Chief of Mission - Mexico) in a supporting role, USNORTHCOM interagency members from the U.S. Trade Representative office, U.S. Trade and Development Agency, Department of Agriculture, and the Department of Commerce could advise on effective solutions and support to Mexico in implementing and improving industrial reform initiatives.

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