Recommendations to Make the Affordable Housing Sector in Mexico More Efficient in Order to Increase the Welfare and Quality of Life of Mexicans

by

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Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development at the Massachusetts Institute of Technology

September, 2014

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Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate on July 30, 2014 in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

ABSTRACT

Enrique Peña Nieto, Mexico’s current president, voiced strong support for extending the social mission of INFONAVIT - the largest mortgage lender in Mexico - to embrace quality of life metrics. He also indicated a strong interest in expanding housing opportunities to segments of the population who are currently not being served by the housing funds and banks to the extent that the right to a dignified home is enshrined in Mexico’s Constitution. In order to continue giving greater importance to quality of life metrics and not just lending volumes, INFONAVIT strategy will focus on the creation of cities that are more efficiently organized and less segregated in an unprecedented effort to move towards an inclusive, prosperous Mexico on the basis of orderly and sustainable urban development.

INFONAVIT’s 2013-2022 financial plan projected cash flow growth of 8.82 % CAGR and its strategic agenda focused on four dimensions: i) Housing needs: providing funding and housing solutions that enhance the welfare of workers; ii) Social balance: ensuring housing quality and sustainability and promoting urban planning with a focus on employment growth; iii) Scope of policies: expanding connections with other housing institutions and aligning programs and policies with strategic sector guidelines; and iv) Risk & Return: sustaining strong financial and operational performance.

The process of urban development is incremental for low-income households in Mexico since a significant percentage of the population has no possibility of living in dwellings constructed by the formal sector. Mexico is currently facing significant challenges in its future housing requirements. Specifically, this thesis will focus on three different proposals that complement the vision of President Enrique Peña Nieto and that could enhance the affordable housing sector in Mexico in order to create a better future for local residents. The proposals are: i) the creation of affordable Mexican edge cities, ii) the exploration of the Section 8 tenant-based housing voucher program practiced in the United States, and iii) the use of housing development as a regional development tool coupled with an industrial policy to rescue the Mexican southern region from deep-rooted stagnation and to potentiate the multiplier effect on the economy.

Housing is a strategic sector for the economic growth and social development of Mexico since it triggers investment, creates jobs, strengthens the local market, and improves the quality of life of Mexican families. In order to analyze these proposals, this thesis reviews multiple reports from the Mexican government, industry, and academia. This is an exploratory document that will aim to provide useful information to policy makers in Mexico.

Thesis Supervisor: Dr. Albert Saiz
Title: Daniel Rose Associate Professor of Urban Economics and Real Estate
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Acknowledgements

First, I would like to thank God for giving me the strength and perseverance to achieve my dream of graduating from MIT. This past year was a life-changing experience. The entire faculty and staff, as well as my fellow classmates at the Center for Real Estate, have had a major role in making this journey unforgettable.

I owe a huge debt of gratitude to my husband, Antonio Osio, who gave me his unconditional support. Without him and his faith in me, I surely would not have been able to come this far.

I would also like to thank my family for their love. Special thanks to my parents: Francisco Medina and Alba Flores who have been my inspiration. I owe them everything that I am today.

My father transferred me his deep passion for real estate and urged me to prepare myself to help increase the quality of life of Mexicans. I also thank him for showing me what real leadership means and for motivating me to pursue ambitious goals, especially in regards to serving my country and making a difference in my community.

My thesis research wouldn’t be possible without the help and guidance from Dr. Albert Saiz, to whom I am extremely grateful.

All errors and omissions are solely the responsibility of the author.
Chapter 1: Introduction

This chapter introduces the purpose of my thesis, which is to analyze three proposals for the new national housing policy in Mexico. These proposals could enhance the affordable housing sector in the country in order to create a better future for local citizens and to change the way in which the majority of Mexicans currently live, work and play. The proposals include: i) the creation of affordable Mexican edge cities, ii) the exploration of the Section 8 tenant-based housing voucher program practiced in the United States, and iii) the use of housing development as a regional development tool coupled with an industrial policy to rescue the Mexican southern region from deep-rooted stagnation and to potentiate the multiplier effect on the economy. The former proposals will focus not only on promoting a welfare state, but also on creating a stronger sense of community.

Since cities are the cornerstones and milestones of our civilization, real estate developments in Mexico must be planned for the long-run and must promote "tomorrowland": a place where people can answer profound questions about identity, community, civilization, and soul, and all the other attributes of the good life for which we yearn (Garreau, 2001). Real estate planning in Mexico should not be shortsighted and must consider social and environmental perspectives. It is important to believe that for every problem there is a solution. The present affordable housing sector in Mexico is currently evolving, but in order for the process to be effective, the spirit of fatalism should be resisted.

The current macroeconomic environment has certainly contributed to housing market stability. Mexico has achieved significant progress in this matter over the last decade, with relatively low inflation rates of 3% (+/-1) and low interest rates, healthy public finances, and a solid banking system that supports consumer sentiment and spending and that stimulates business investment. Part of the investment thesis behind what many analysts call the “Aztec Tiger” or the “MeMo” (Mexican Moment) is due to Mexico’s growth potential
and sound economic fundamentals. Among G20 countries, Mexico is one of the best placed by the IMF regarding economic overheating indicators, showing no internal, external, or financial risk factors.

Currently, Mexico is the second-biggest economy in Latin America and the 14th in the world; however, experts including Goldman Sachs, Nomura, HSBC, and PWC predict that by 2050, Mexico’s economy will be the eighth largest worldwide. In the last census (2010), Mexico had a population of 112 million people; that represents the 11th-largest population in the world. Around 48% of this population is less than 25 years old, creating a remarkable demographic bonus. It is important to mention that 50% of the population is considered middle class. By 2025, the number of inhabitants is projected to increase to 133 million people and this population will be, on average, younger and with an increasingly higher purchasing power. The country has more than 90 cities with a population of more than 100,000 inhabitants, which together account for 88% of the total GDP. Mexico City, with more than 20 million people, is the third most populous city in the world (behind Tokyo – 37m and Delhi – 22m). The capital city represents 17% of the country’s GDP.

The housing market is currently facing a significant challenge in regards to meeting the growing housing deficit of about 9 million units. In 2030, government-estimated housing needs for household formation amount to 16.8 million. Mexico will need to provide about 26 million housing units by 2030, representing an annual demand of about 1.3 million housing units. In order for the local government to address population dynamics, the government plans to promote a million actions that include the creation of plots of land, construction, expansion, and home improvement, both in the countryside and in cities; more than 500,000 of these actions correspond to new constructions.

The new national housing policy is intended to promote public-private efforts over the next few years; it uses a model that incentivizes an orderly and sustainable development of the housing sector. These efforts are intended improve and regularize urban and rural housing. President Enrique Peña Nieto pointed out that the housing plan forms the basis for creating
the opportunities for urban development, access to services, and decent living that Mexicans expect, which will result in orderly, planned, sustainable, and intelligent cities with smart growth.

Four different pillars sustain the national housing policy:

- **Achieving more and better inter-institutional coordination, which is essential to the success and viability of the housing sector.** This is the main reason why in 2013 the Ministry of Urban, Territorial, and Agrarian Development (SEDATU) was created. The SEDATU will be the coordinating body for housing policy in Mexico and also the organism to lead the Inter-Secretarial Commission on the matter. As a consequence of the implemented changes, the National Housing Commission, the Commission for the Regularization of Land Tenure, and the National Fund for Popular Housing will be sectored and coordinated by SEDATU. This Secretariat will also sign agreements with INFONAVIT, state governments, and municipal authorities in the 60 most important cities with the highest population growth. SEDATU must also ensure that urban development (more than 70 million Mexicans divided into 383 cities) balances rural development (30 million Mexicans), and is undertaken with respect for the environment and our natural resources.

- **Moving towards a model of sustainable, intelligible urban development.** The President emphasized that the regulators will use housing funding in order to guide Mexico’s territorial and urban development. This strategy needed to be implemented due to the improper urban planning of cities, which has resulted in urban sprawl as well as in reduced competitiveness of cities. The government is going to promote a more dense approach via the construction of vertical housing. Since 2014, the operation rules of the subsidy programs offered by the government are going to put a strong emphasis in location, a strategy that was unsuccessfully trying to be implemented in 2011.
• **Reducing the housing gap of about nine million homes.** President Peña Nieto has instructed the director of SEDATU, in conjunction with the Secretariat of Finance, to implement a new social security mechanism that focuses particularly on the purchase of new housing for federal, state, and municipal police. In addition, President Peña Nieto instructed SEDATU to coordinate a strategy with national housing organizations to achieve the goal of ensuring that all popular housing financed or subsidized by the State has at least two bedrooms, thereby avoiding very small places for local families.

• **Ensuring decent housing for all Mexicans.** More than 320,000 home improvement actions will be implemented for the specific case of the countryside, while more than 97,000 actions will be implemented in rural housing.

President Peña Nieto voiced strong support for extending the social mission of INFONAVIT to embrace quality of life metrics. He also indicated a strong interest in expanding housing opportunities to segments of the population who are not currently being served by the housing funds and banks. Quality of life and property values are now promoted in the mission and the vision of INFONAVIT. Not only does the transformation in the housing system in Mexico impact participating households directly, but also, it has significant potential secondary impacts on urban and regional development in Mexico. This initiative is expected to finance homes to larger segments of the population while also bolstering Mexico’s economic growth and enhancing the livelihoods and well-being of families and communities across the country.

In sum, it is undeniable that the housing sector faces many challenges, but at the same time, many opportunities, as stated in the national housing policy. With the proposals analyzed in this thesis, the four dimensions of the strategic housing agenda of the current administration can be enhanced and promote a better tomorrow in Mexico. The objective of this thesis is to contribute to the national housing policy in order to transform the housing sector into one of the most competitive sectors in the country, with a relevant
Chapter 2: Affordable Housing in Mexico

2.1: General Overview

Article 123 of the 1917 Constitution (the one currently used) mandates the right to “comfortable and hygienic housing” among the guaranteed rights of workers, along with a standard workday of eight hours and the right to strike. Hence, housing and land reformation became pivotal elements in the social contract coupled with universal rights and pensions. The Constitution mandated that employers provide housing to their workers, but some exceptions were allowed; therefore, the mandate was not implemented. By 1972, there was a very strong demand for housing but not enough supply, causing a deep imbalance. The estimated difference was more than 2.3 million units and was growing exponentially.

It was this circumstance that made the government realize the acute situation and led to the creation of the formal housing sector in Mexico. The sector grew dramatically during the coming years and by 2013, it had created more than 7 million units of formal housing. It is important to mention that even though there was a considerable improvement in the current housing condition, there was still a lot to do in this regard since the majority of the population remained in the informal and hence unaffiliated sector.

Previously, the majority of households had acquired housing through an incremental, often informal, process of self-help, in which they would purchase land and oversee the construction of a house themselves and without access to credit. The new system frees homeowners from the obligation to act as general contractors in the construction of their houses and allows them to spend more time with their families and in their own professions.

In order to resolve the ongoing crisis, the government amended the Constitution in 1972.
The legislation passed new laws that established mechanisms for the creation and operation of a National Workers Housing Fund in order to provide mortgage loans to affiliated workers. The regulators established INFONAVIT to manage the Fund’s operations.

2.2: The Main Players

INFONAVIT (Instituto del Fondo Nacional de la Vivienda para los Trabajadores) is an autonomous institution granted with fiscal authority for loan and employer contribution collections. The institute was created by Mexican law in 1972 to provide mortgage financing to lower-income workers and to administer a portion of the pension fund for those workers. The institute, with more than five million mortgages in its books, is currently the largest financier of formally-built housing in Mexico and is funded by a compulsory contribution by employers of five percent of payroll employees’ wages. Affiliated workers are those employed by the formal private sector who had retirement savings accounts at the INFONAVIT.

INFONAVIT has a tri-partite governance structure to ensure balanced and fair representation of government, private companies (employers), and affiliated workers, with representatives of those groups comprising its Board. The corporate government includes equal participation of the labor sector, the employer sector, and the federal government. The worker contributions are deposited into a separate, named account for every member (called housing sub-accounts), which workers can access for down payments on houses, with balances available for withdrawal (partially or in full) upon retirement.

Aside from the five percent employee contributions, employers are required to deduct monthly mortgage payments from workers’ wages and to remit the funds to the institute in order to collect both the mandatory contributions and the mortgage payments. INFONAVIT has a dual nature in its balance sheet since it is a social mortgage lender and a pension fund.
In 2013, the institute had 17 million active affiliates and about 32 million total account holders. In 2012, it originated more than two-thirds of all housing loans in Mexico and its origination process usually required less than one month compared to six months at commercial banks. New loans are being originated every 30 seconds using a highly automated system with minimal paperwork, requiring borrowers to sign only a few documents at the closing.

The focus of INFONAVIT’s financing programs has evolved to offer alternatives that allow it to satisfy affiliates’ housing needs and preferences. The institutional strategy will continue to focus on financing housing solutions, looking to improve the quality of life through housing. Moreover, another of the main efforts during the current administration will be to

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1 INFONAVIT with CONAVI data as of November 2012.
2 INFONAVIT with CONSAR data as of October 2012.
focus on institutional consolidation by strengthening the institute’s core processes, such as fiscal collection, loan origination, loan collection, and sustainability.

Since INFONAVIT’s human capital is one of its most relevant strengths, the focus will be on continuity and long-term development. The current initiatives will seek, in accordance with the national housing policy, to expand the range of housing solutions and support other segments such as:

- Housing improvement and expansion (through “Mejora tu Casa”).

- Housing rental schemes: Rental is aimed at beneficiaries as a temporary solution until they are in a stronger position to purchase their own home or they have sufficient balance in their housing sub-account; it is also considered to be a solution to employment mobility. In particular, this product is expected to become more important as the labor market evolves towards greater mobility.

- Home acquisition platform for formal workers without housing social security.
The second-largest lender by loan volume is the Sociedad Hipotecaria Federal (SHF) that is owned by the federal government. In order to address entry-level home development, SHF was chartered in 2001 as a federal development bank to spur development of the secondary mortgage market by guaranteeing credits and creating a central database on borrowers. SHF supplies funding and guarantees to support mortgage lending as well as indirect partial guarantees to support housing construction. SHF has no retail presence and provides funds exclusively through wholesale channels.

FOVI (Fondo de Operación y Financiamiento a la Vivienda) – its predecessor – was established in 1963 as a trust fund to channel federal government money, as well as donations and loans from the World Bank targeted to housing. SHF channels funds through Mexican commercial banks and SOFOLES (Sociedades Financieras de Objeto Limitado). Nowadays, SHF offers loans to individuals (in Mexican pesos or in UDIs at a fixed rate or indexed to the minimum wage) for the purchase of new or existing homes for ownership or rental, as well as land development, commercial infrastructure, and home equity.
The second-largest public capital source after SHF is FOVISSSTE (Fondo de la Vivienda del Sistema de Seguridad Social para los Trabajadores del Estado). The institute was established in 1972 and is the public sector equivalent of INFONAVIT. Nonetheless, in FOVISSSTE, loans are allocated by lottery to eligible workers. Since 2002, the lottery has been altered to prevent disproportionate allocation in central regions (especially in Mexico City), which have a strong predominance of civil servants and have historically enjoyed a favorable treatment. Furthermore, FOVISSSTE has been using SOFOLES to service its mortgage loans.

Another institution worth mentioning is CONAVI (Comisión Nacional de Vivienda), a government agency that grants housing subsidies at the low end of the market, both in amount and in interest rate, through its “Esta es tu Casa” (This is your house) program. In 2014 the federal government will give subsidies of MXN$12bn through the aforementioned program to reduce the current backlog. Nevertheless, one of the main approaches will be to promote more dense projects inside the cities in order to prevent inappropriate spread of urban sprawl. This strategy will be promoted through extensions and improvements to existing homes.

**Figure 4: CONAVI: Annual Subsidy Program (billion MXN)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>8.2</td>
</tr>
<tr>
<td>2013</td>
<td>8.3</td>
</tr>
<tr>
<td>2014</td>
<td>12.6</td>
</tr>
</tbody>
</table>

2.3: INFONAVIT

Over its history, INFONAVIT led a transformation of the housing production system in

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3 BBVA Research with CONAVI Data.
Mexico, and it had made substantial progress in closing the housing gap. Initially it developed the houses itself since by then Mexico had no large, professional homebuilders and minimal construction standards. To fulfill the spirit of its mandate to be a housing supplier, INFONAVIT assumed the role of real estate developer: land acquisition, market research, designing housing developments, securing government approvals, and managing construction contracts.

The housing fund also fell victim to financial turmoil in the 1980s. Founded during a period of economic stability, INFONAVIT’s policy was to make long-term mortgage loans at a fixed interest rate of 4%, but by the mid-1980’s, inflation was running at 40% and topped out at more than 100%. Loans contracted in 1972 were virtually worthless by 1987, bestowing a substantial unintended subsidy on borrowers. Moreover, many people considered the loans to be more of a “government grant” than a financial obligation, and therefore, the default rate exceeded 40%.

Following reforms in 1992, INFONAVIT reoriented its priorities to transition away from construction and to focus on mortgages. Although it continued to perform the developer and general contractor roles in primarily rural locations, in urban areas where experienced housing developers had emerged, INFONAVIT adopted another model. Requests for proposals specified housing needs for an area, along with architectural design and construction standards. Selected developers were responsible for all development, permitting, and construction activities, with INFONAVIT guaranteeing that it would provide loans to workers who purchased the units. These modifications fostered the growth of large, professional housing developers, while also enabling INFONAVIT to have considerable direct influence over housing location, type, and quality.

Several years ago the institute launched loan programs for home renovation and self-construction. Most importantly, INFONAVIT also broadened its mission to focus on improving the quality of housing and on promoting environmental construction. By 2010, nearly 40% of loans were for purposes other than new house acquisition, a trend that
helped homebuyers but also enabled sellers to benefit from their accumulated housing wealth. INFONAVIT’s popular “Renueva Tu Hogar” (Renew Your Home) program allowed affiliated workers to use savings accounts as collateral for short-term loans from other financing companies for home improvement projects. By 2013 this program enabled 250,000 families to improve their homes.

Although the program exceeded planned targets, there was still considerably greater need than it could address. In 2012, it was estimated that more than 9 million homes in Mexico were in need of renovation or expansion due to over-crowding. Progress in enabling lower-income families to purchase homes had no counterpart in the formal rental market. In spite of the benefits that renting offered to low-income workers, and to younger, more mobile Mexicans, rental housing represented only 14% of household residences.

INFONAVIT’s ultimate goal is to be a social change agent capable of expanding the range of housing solutions to meet the needs and preferences of a growing share of the worker population. While focusing on providing housing that satisfies environmental, community, and urban planning goals and that extends to a larger segment of workers, the institute has to remain keenly aware of its responsibility to pay a rate of return higher than inflation on the workers’ savings accounts.

Because of this responsibility, along with a broadening sense of the social mission, the institute has been analyzing new opportunities to grow and extend the reach of its mortgage capabilities. INFONAVIT has recently expanded its product lines to meet loan demand for existing house purchase as well as renovation and improvements, but there appears to be further opportunity to better understand and address affiliate preferences.

Industry experts estimate that there is a housing gap for affiliated workers of between 2 and 2.5 million loans (Perkins, 2013). At its current rate of originations, INFONAVIT projected that it would fill that gap by 2017, after which point available funds would exceed new annual mortgage demand by its affiliated members. The institute would have a surplus
to invest, and its only currently available alternative to making loans to affiliated workers was to invest in short-term Mexican government “paper12”, which was unlikely to provide a return sufficient to enable INFONAVIT to meet its legislated mandate to pay workers’ accounts a return greater than inflation. In recognition of the pending surplus and the need to broaden its investment regimen, in 2012 the legislature modified the law governing INFONAVIT's use of its fund.

2.4: INFONAVIT and the New Millennium

The economic crisis of 1994 affected bank lending, and INFONAVIT’s market share was 73% in 2000 (by value – 52% by loan quantity), representing 250,000 loans originated that year. In spite of the success of the institute, there was still an acute shortage in the country, which incoming President Vicente Fox pledged to address. The stated compromise for his presidency was to increase annual home purchases from 476,000 in 2000 to 750,000 in

\[\text{INFONAVIT}\]
2006, and he expected INFONAVIT to fund half the target, which represented an increase of 50% in loan production YOY.

Victor Borras, the CEO of INFONAVIT at that time, restructured the organization in order to improve functionality and to ensure focus on the institute’s three primary business activities: i) loan origination, ii) fiscal collections, and iii) loan payment collections. Previously, the responsibility for the aforementioned activities was divided among different departments, promoting a lack of accountability and insufficient attention to relevant tasks. In 2006, the seven-department structure evolved into one with senior offices, which remained the structure in 2013.

In 2001 Mexico earned an investment-grade rating, which allowed mortgage rates to fall significantly and thus opened opportunities for thousands of Mexicans. This situation helped to ramp up mortgage lending from fewer than 100,000 loans per year in 1990s to almost 500,000 per year by 2008.

Until 2000, virtually all mortgage lending in Mexico was for the purchase of newly built houses. Funding for existing stock was rare; this situation posed significant challenges to low-income families because many of the existing houses were located close to urban centers and offered a wide variety of size and quality options that fitted a range of household budgets. With the advent of the new millennium, lending programs expanded to include “Build it yourself” options that benefited families with low income. According to the “Global Property Guide”, in 2000, as many as 70% of the new houses in the country were constructed by individuals rather than developers. INFONAVIT also began offering loans to finance the purchase of existing houses, home renovation and improvements, as well as land acquisition for self-built housing units. By 2010, nearly 40% of loans were for purposes other than new house acquisition.

When President Felipe Calderon took office in 2006, his administration proactively addressed deficiencies in the housing sector, In 2007 CONAVI launched “Esta es tu Casa”
(This is your House), a program to provide subsidies worth 20-25% of the acquisition costs of homes for families earning up to 4 TMW (Times Minimum Wage). To help accelerate such initiatives, the government granted credits, contracts, and favorable financing terms to private developers to incentivize green and low-income housing development.

The “Renueva tu Hogar” (Renew your Home) program allowed members to use their savings accounts as collateral for short-term loans from other financing companies for home improvement projects. By 2013 this program enabled 250,000 families to improve their houses. Even though the program exceeded expectations and plan targets, there was still considerably greater need than it could address. In 2012 it was estimated that more than 9 million homes in Mexico were in need of renovation or expansion.

In 2007 the introduction of the “green mortgage” acted as a catalyst for the housing sector. This mortgage has proliferated as a new standard for new dwellings. “Green Mortgages” require a minimum of eco-technologies in social housing in order to save electricity, gas, and water. Today it has originated more than 793,000 mortgages for the same number of “green house” purchases. If this trend continues, the vast majority of mortgages will soon have a green component.

In 2009 another innovation was executed for the first time: Integrated Sustainable Urban Developments (DUIS), a new housing development model in Mexico. The government needed the participation of the private sector in order to trigger the supply of sustainable housing options. CONAVI, in conjunction with several other organizations, created the DUIS certification program, whereby certified developers are selected for government financing, infrastructure and housing construction, equipment and land acquisition, bond structuring, promotion of private investment, as well as technical assistance.

DUIS certification allows private developers to undertake sustainable housing projects under more favorable financing terms. This is significant due to the credit scarcity in the local capital markets and government loans. DUIS are integrally planned development
areas that contribute to land management by states and municipalities in order to promote orderly and sustainable development of cities. DUIS are development drivers where infrastructure, equipment services, and housing contribute in order to promote regional development. The overriding goal of this model is to develop holistically sustainable projects where federal, state, and municipal governments need to participate in conjunction with homebuilders to achieve a sustainable and integrated development of cities.

The Mexican government has successfully managed to align interests of private sector developers with those of multiple public sector entities in order to promote public-private partnerships; these alliances have been instrumental in making the project financially viable and helping propel Mexico’s sustainable housing initiatives into the future. DUIS consider among other things:

- Connectivity to services and the workplace, light rail, subway, and public transportation

- Consolidation of new development poles with vocations and equipment to generate new jobs, services, and trade

- The use of alternative energies, eco-technology, bio-climatic architecture, management and reuse of water, and management and harvesting of solid waste

- Public spaces with more and better green areas and cultural areas, as well as sports and recreational activities that promote community integration

- Strengthening of the social fabric by mixing different types of housing as economic, affordable, middle-income and residential, predominantly vertical, and close to the workplace and services
DUIS are supported with incentives from the federal government that include technical assistance in the areas of transportation, solid waste, urban development, environmental sustainability, business and industry attraction, and subsidies for homebuyers. Under this scheme, developers create revenues generated from carbon-emissions trading. By reducing their carbon emissions, developers earn credits, which can be sold on the open market. Homeowners benefit as well, since reduced utility bills over the long term are expected to compensate housing price premiums that were not covered by the subsidy.

In sum, the Mexican housing sector is entering into a new era of sustainable growth based on the strengthening of housing entities coupled with government support. This has increased the industry’s capacity to meet an ever more sophisticated demand. This initiative is paving the way for private-sector developers to undertake more sustainable housing projects while, at the same time, achieving sustainable profitability. Nonetheless, it is important to mention that the efforts to address urban sprawl are still nascent; significant problems in the sector include vacant, abandoned properties and recently-built neighborhoods that lack adequate infrastructure as well as private services such as supermarkets, healthcare, and education facilities.

2.5: Affordable Housing in Mexico

Due to the deteriorating adherence to its social mission, in March 2002 INFONAVIT launched the Affordable Housing Program, defining “affordable” as a house worth up to MXN$150,000 (about US$140,000). While 74% of the affiliated workers had incomes lower than four TMW (Times Minimum Wage) – a metric tightly correlated with inflation – this group received merely 50% of the loans that were granted in 2001. The mortgages that were issued to the lowest income tier – two TMW – were declining considerably from 21% to 7% over that time frame. The program that was launched had three components designed to trigger the construction of affordable housing and to promote the purchase of those units.
• INFONAVIT set quotas on the maximum number of mortgages for “non-affordable” houses (>MXN$ 150,000) and on the minimum number of mortgages for “affordable” houses. The institute guaranteed to finance the purchase of all affordable units, while the customers of developers who built too many “non-affordable” houses risked having to secure loans from the private commercial banking sector. Over time, the fund lowered the quota for more costly housing and raised it for promoting affordable housing.

• Applicants for affordable house mortgages were moved to the head of the line and were given funding preference.

• The institute further encouraged affordable housing by offering a 50% reduction in the fee that it charged developers whose homes it financed.

<table>
<thead>
<tr>
<th>Affordable housing:</th>
<th>MXN peso</th>
<th>US dollar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>≤ 206,121</td>
<td>≤ 16,019</td>
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<td>Popular</td>
<td>≤ 349,357</td>
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<td>Traditional</td>
<td>≤ 611,374</td>
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<td>Middle</td>
<td>≤ 1,310,088</td>
<td>≤ 101,818</td>
</tr>
<tr>
<td>Residential</td>
<td>≤ 2,620,176</td>
<td>≤ 203,635</td>
</tr>
<tr>
<td>Residential Plus</td>
<td>≥ 2,620,176</td>
<td>≥ 203,635</td>
</tr>
</tbody>
</table>

In 2012 63% of INFONAVIT loans were to workers earning less than four TMW (approximately MXN$8,000 per month). Many people in such circumstances had no alternative means of accessing finance for housing. In addition, due to the institute’s economies of scale and scope, there was enough leverage to push developers to serve the lower-income segments well. This was possible through low-cost housing and

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5 Asociación Hipotecaria Mexicana. Dollar as of 05/28/2014 (US$12.867/MXN)
environmentally efficient technologies, municipal services, and even Internet access. As a consequence, developers were building 40-square-meter houses for prices as low as MXN$120,000, bringing housing to a segment of the population that had long been excluded from the market.

2.6: INFONAVIT and Mortgage-Backed Securities

In March 2004, after overcoming union resistance, INFONAVIT successfully issued its first mortgage-backed security called “CEDEVI” (Certificados de Vivienda del Infonavit) to finance a portion of its mortgage loans portfolio. The institute sold a bond backed by a tranche of mortgages for MXN$750 million in 12-year bonds in the private markets. INFONAVIT followed with a series of 20-year bonds backed by low-income mortgage portfolios, all purchased by Mexican institutional investors interested in long-term securities with stable, investment-grade ratings.

Mortgage securitization increased the institute’s liquidity, allowing the institute to be more aggressive in regards to lending. By the end of 2006, the securitization program captured more than MXN$11 billion and by 2013, about MXN$91 billion outstanding. Aside from increasing the institute’s cash position, the process of securitization promoted market discipline and institutionalization on INFONAVIT’s operations.

INFONAVIT forged alliances with commercial banks to offer co-financed mortgages, usually to higher-income workers who were not the primary target group for the Fund. Initial products used bank funding at varying levels to supplement funds from the institute and employed the individual housing accounts in many different ways.

Co-funding allowed the institute to increase its involvement in a segment of the market where it had been less active while preserving the majority of its resources for lower-income groups. The program also served to encourage private banks to re-enter the mortgage market. The use of co-funding allowed these quasi-public agencies to limit the
amount of resources they devoted to higher-income groups while still providing a possibility for them to access the mortgage market.

These programs were instrumental in luring private lenders into the mortgage market. In 2001 only about 1,000 mortgages were originated by private financial institutions. By 2003 this volume had increased to about 17,000 loans, but this was still a small amount in comparison to the lending volume offered through INFONAVIT and FOVISSSTE. The co-funding programs started in 2004 with a few thousand loans, but by 2008 more than 122,000 homes were purchased with the aid of these programs.

As of today, the range of mortgage products needs to be dynamic in order to expand the scale and the scope of mortgage lending through the quasi-public agencies INFONAVIT and FOVISSSTE while also increasing private sources of financing largely through the efforts of SHF. This strategy will help to meet both structural and short-term needs, as it has been doing, so as to cover larger segments of the populations that continue to be underserved.

2.7: The Problem of Abandoned Housing

It is crucial that the products of the new housing system follow effective demand and address quality of life metrics. Large developments of identical, frequently small houses without adequate infrastructure have resulted in “soulless” and unlivable places that are not aligned with the creation of a community.

In 2008, INFONAVIT began expanding its mission beyond simply maximizing the volume of houses that it financed. This strategy helped alleviate the entrenched problem of abandoned housing. Most of these areas were located at the urban fringe or far beyond the periphery of the city, where developers could find less costly and less complex land (with fewer title and geographic concerns) to purchase. That location allowed developers to build low-cost houses with an efficient use of time. Many of these developments for low-income
workers were located in remote destinations without access to transportation or municipal services.

A 2010 INFONAVIT study estimated that nearly 20% of houses purchased with agency institute financing were uninhabited, and that a third of those who abandoned their houses did so because of their distance from school, work, or family. In order to address the issue, the institute added performance metrics related to the housing quality, environmental impacts, and the strength of the community.

<table>
<thead>
<tr>
<th>Preferences - 2013</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home acquisition</td>
<td>50</td>
</tr>
<tr>
<td>Improvement/Expansion</td>
<td>12</td>
</tr>
<tr>
<td>Rental</td>
<td>5</td>
</tr>
<tr>
<td>Self-construction</td>
<td>10</td>
</tr>
<tr>
<td>Land</td>
<td>9</td>
</tr>
<tr>
<td>Investment</td>
<td>14</td>
</tr>
</tbody>
</table>

The initial focus was location, while avoiding siting developments without proper services, infrastructure, or transportation. Then, based on studies of real estate value-drivers, INFONAVIT launched a “green building” initiative and used its leverage to force developers to install efficient electrical and water-saving fixtures. By 2013, a significant majority of the institute’s loans were classified as “green”.

Another priority was community building to address the fact that many lower-income families in housing developments had moved from other locations and as a consequence, had lost their support network. In order to achieve this goal, INFONAVIT encouraged membership and engagement in neighborhood organizations. It also introduced the role of “community leader” (a certified position that functioned as a community social worker). In addition, the institute created a sustainable housing scoring system based on 17 indicators that measured the quality of life (e.g., location, services, digital access, etc.), which offered subsidies for developers to attain.
2.8: Unaffiliated Workers

INFONAVIT has some experience with unaffiliated workers. Of the five million loans that the institute serviced, nearly one third were with workers who were no longer formally affiliated with the institution. When affiliated workers with loans lost their jobs or moved into the informal economy, INFONAVIT was no longer able to receive mortgage payments deducted from a company. It had to create a personal relationship with the workers and receive payments directly, a process managed by a department called “Social Collections” whose main goal is to find ways to enable unaffiliated workers to keep their homes. This agenda proved to be very complex due to the fact that workers could be granted an automatic 12-month grace period when they lost their affiliation and INFONAVIT could lose track of borrowers during that year, especially if people relocated.

There have also been earlier initiatives to extend access to housing financing to unaffiliated sectors of the population. In 2001, when the government created SHF, the former channeled funds through private commercial banks and other financial intermediaries who made housing loans mostly to the bottom of the pyramid. The most important channels through which SHF operated were non-bank mortgage financing institutions referred to as...
“SOFOLES”.

Established in 1993, the SOFOLES grew in importance during the “Tequila Crisis” when loans declined dramatically and the commercial banks withdrew from the real estate market. SOFOLES specialized in the residential sector, filled the mortgage gap, and extended credit to underserved unaffiliated workers. SHF became a main source of funds for the SOFOLES during their growth in the early 2000s, channeling money to the firms from the federal government as well as the World Bank. In addition, the institute also provided mortgage insurance and payment guarantees in order to back the issuance of mortgage securities.

In 2008, SHF transitioned out of direct support for the SOFOLES and the government provided minimal regulatory oversight of these organizations, expecting that the markets could self-manage. Due to the global economic crisis coupled with excessive risks in development and mortgage lending, a year later the SOFOLES collapsed due to non-performing loans and lack of capital. In 2013 it was unclear whether the SOFOLES could regain their role in serving as a viable mortgage provider, especially to unaffiliated workers.

In 2013 INFONAVIT had 17 million active affiliates and another 9.3 million accounts that belonged to inactive affiliates. Of the approximately 34 million workers who were not affiliated with the institute, some 6.5 million were affiliated either with FOVISSSTE, the Armed Forces, or worked for an organization that provided housing. The remaining 27.5 million were considered to be unaffiliated workers. Efforts to expand the benefits of access to housing finance to those with part-time or informal work should be a high priority for government lenders.
While some progress has been made in regards to extending financing to unaffiliated households through the quasi-public institutions – and in providing alternatives to irregular settlements as a source of affordable housing for low-income households – much remains to be done in order to meet the magnitude of the need. Additionally, efforts to serve this segment of the population suffered a setback in 2008, when the global recession exposed the fundamental weaknesses in the model underpinning the country's private mortgage financing institutions, which represent the SOFOLES AND SOFOMS (Sociedades Limitadas de Objeto Múltiple).

The international economic crisis of 2008 revealed that the market forces alone were unable to oversee the activities of private lenders, a situation that caused high defaults and a loss of confidence in these institutions. Expecting that the private market would impose financial discipline on the SOFOLES, the federal government retained little regulatory oversight of these entities. SOFOLES took excessive risks in construction and mortgage

<table>
<thead>
<tr>
<th>Figure 8: Key Segment Profiles</th>
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<tbody>
<tr>
<td><strong>State and Municipal Employees</strong></td>
</tr>
<tr>
<td><strong>Small Business Owners</strong></td>
</tr>
<tr>
<td><strong>Domestic Workers</strong></td>
</tr>
<tr>
<td><strong>Ex-Affiliates</strong></td>
</tr>
<tr>
<td><strong>Informal Salaried Workers</strong></td>
</tr>
<tr>
<td><strong>Salaried Agricultural Workers</strong></td>
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<tr>
<td><strong>Independent Agricultural Workers</strong></td>
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lending and hence experienced high loss rates with the economic meltdown, with several SOFOLES going bankrupt.

The SOFOL industry essentially collapsed and will be difficult to revive, limiting the exposure to the private market, thus leaving a significant gap in regards to lending to unaffiliated workers. This situation continues to pose challenges to meeting Mexico’s need for adequate, affordable, and sustainable housing. Today there is still ambiguity about the role of SOFOLES in the near future since SHF is once again their main source of funding. A potential solution can be if the federal government provides a guarantee for bank loans to lower-income households in order for them to have access to credit, since banks focus their efforts in lending to the upper end of the income distribution.

Chapter 3: The Creation of Mexican Edge Cities

3.1: General Overview

Edge cities are constructed in the periphery of cities and become a center of employment, entertainment, and trade with a diverse, vibrant, and specialized community. The creation of jobs and wealth is their main purpose of existence; hence, industrial and warehouse space is available for the proliferation of blue-collar neighborhoods.

Old downtowns lack the competitive advantage of edge cities and have high costs of land as well as living costs. Here, companies are able to recruit at lower salaries against most people in major cities and with lower turnover ratios due to the quality of life they promote. The goal is to have the vast majority of the employees live within 20 miles of the workplace. In a downtown area, existing companies find it difficult to grow. The cost of everything has become prohibitive for many families (Garreau, 1991). A surging economy, like the one in Mexico City, can boost housing prices to the point where they begin to dampen economic growth. When growth of cities becomes constrained, the result is urban sprawl while the problem of affordability intensifies.
The edge city or “countrified city” model exemplifies the new mix of urbanity, demonstrating what people want, can afford, and can stand. These cities are the fruit of striking a delicate balance between the advantages and disadvantages of 19th-century cities and the opportunities and challenges of the coming age (Garreau, 1991). Edge cities are being copied all over the world and are the urban agglomerations of the values and attitudes of the 20th century.

Many employees want more than just money: they want a lifestyle with a sense of community and a livable environment. Today more than 80% of Americans live outside what has traditionally been defined as a big city. People need to have more than one dimension in their lives, more than just work; unbalanced behavior is associated with neurosis. Employees want to dedicate their lives to a more abundant life, not merely an increase in food but an increase in social enjoyment.

Edge cities can provide this meaningful life and can create aesthetically charming places with walkable and open space, proximity to jobs, and bigger spaces for families. These cities even promote the construction of churches or religious institutions to enhance the sense of community. They are places where employees feel personally safe and have connectivity. Key characteristics of some edge cities are proximity to airports, relatively low land costs, attractive housing, and adequate infrastructure, all of which enable jobs and create prosperity. These cities are normally close to a major interstate and offer room for expansion. Many of them are located in beltway-like bypasses around an old downtown and are crossed at right angles by freeways that lead out from the old center.

When edge cities began to erupt in the 1980s in the United States, all the elements were in place: an educated, affluent, and underemployed work force of women; a great deal of relatively cheap land for expansion; and business-oriented governments that saw in growth increased opportunities for tax money (Garreau, 1991). As women become more empowered in the workplace, they feel the pressure to combine raising a family and working; therefore, there is a strong argument in favor of companies that want to be near
where people live. Paradoxically, edge cities promote density and they prove that a market can thrive by bringing people together physically.

Edge cities put everything a person desires as close as possible to their house in order to offer convenience. When employees have a choice, like in a polycentric model, they opt for it, since typical commute distances are shorter and there is less stress in driving. Edge cities are almost always more economically healthy and offer better quality of life to people compared to old downtowns. Having a brand-new house in which nothing needs fixing, more space, and closer proximity to home is almost a return to a younger world where parents can eat in their homes during lunch (Garreau, 1991). These cities have a great relationship with nature and promote sustainable communities where people want to put down roots and feel like stakeholders in it. We are a product of our environment and, as Winston Churchill once wrote, “We shape our houses, then they shape us”.

Throughout human evolution, most people lived in the countryside while few were in the city. Only in the last century was that order reversed, with cities becoming much more densely populated. The edge city is changing that. The advent of these cities is what makes the new CBDs (Central Business Districts) more vibrant, since tourists do not enjoy visiting office districts but rather prefer to visit more interesting and cultural places that can only thrive if a significant portion of the population moves away from the CBD. It is believed that edge cities are helping with the myriad of social problems from old downtowns.

Edge cities in the United States are headquarters to diverse giants such as Motorola (Schamburg, Illinois), K Mart (Troy, Michigan), and Black & Decker (Hunt Valley, Maryland). The first step in recreating this concept in Mexico (since the former is not a service economy, jobs need to be coming from manufacture, industry, and warehouses) is to build houses with adequate infrastructure and access to public transportation, and then the jobs will follow. Edge cities cannot grow unless they create jobs, and there are no jobs unless there are workers to fill them. The creation of these cities requires a significant amount of government involvement and is a model of foresight for the long-term planning
and partnership between public and private interests.

Mobility is a major element in edge cities. The goal of this model of urbanism is to find a combination of “live, work, play” environment that is at most a 45-minute trip for each person in the family. A century ago, people concentrated in greater densities because there were only two technologies available to the masses for getting to work: walking directly to the jobs, or walking to the nearest station to take a railroad, subway, or streetcar and then walking to the workplace.

The Industrial Age produced a machine that would allow us to live at a certain distance from the social problems of old downtowns. Moreover, the telephone provided instant communication from different locations, and not only could industry produce its goods more cheaply and more efficiently away from the CBD, but workers were invariably happier to live in quiet country towns. This model of urbanism that emerged was much better at dispersing wealth and labor, and it was vastly more efficient than the centralized model of the 19th century (Garreau, 1991).

*American Demographics* magazine demonstrated in 1990 that there were two states that faced both slow growth and high crime in the late 1980s – Michigan and New York. In general, it is in places that have been destabilized by high growth where one finds a striking increase in crime rates. On the other hand, the Detroit region scored especially well in housing standards, large amounts of living space per person, low infant mortality rates, low high-school dropout rates, low cost of food compared to local wage, and the lack of traffic jams (Garreau, 1991).

Edge cities became the new standard form of American metropolis. They started to gain market share from the old CBDs and that was the time where density in this new model of urbanism started to increase to create agglomeration economies. In other words, it became more economically viable for highly specialized places to survive. The term “agglomeration economies” is used in urban economics to describe the cost or productivity advantages to
the clustering of work sites that are physically near each other.

Unlike scale economies, which require increasing quantity of production to obtain greater efficiency, agglomeration economies do not require increased quantity of production per se, but merely the clustering of production work sites. Agglomeration economies result from the ability of different types of workers and production processes to help each other if they are physically near each other (Geltner, 2014). As agglomeration or information costs become less important, cost-minimizing firms are better able to take advantage of the potential wage savings that come with more decentralized locations (Wheaton, 1996).

The idea that suburbs growing is the wrong way to develop and that it is preferable to protect the vitality of the CBD is unfounded. In edge cities, activities are redistributed and people are moved to more livable places in order for the CBD to thrive as cultural districts, become more vibrant, and attract more tourism.

The monocentric model promotes urban sprawl and attracts more problems like poverty, poor sanitation, and deficient sewer systems. Americans do not enjoy living and raising a family in a small apartment, nor do they appreciate living their entire lives within one square mile. Americans have much more individual lifestyles with their own individual spaces and their own park or backyard. If they wish to spend more time with their neighbors they can do that as well, but as an act of free will, not because they lack options.

The decentralizing forces that put a brake on urban agglomeration and result in a larger number of smaller cities include factors that make it less efficient or more costly to produce goods and services in large cities, or that reduce the quality of life of the inhabitants (Geltner, 2014). Examples include pollution, congestion, crime, and high intra-urban transportation costs, along with high rents and urban-land costs.

Additionally, a larger average size of cities relative to the total population of a country implies that the number of cities in the population must be fewer. For instance, a country
with 100 million city dwellers can have at most only 10 cities with 10 million inhabitants, but it could have as many as 100 cities with 1 million inhabitants. Spread out over the same geographical territory, the 10 “super-cities” would be on average much farther apart from each other and from the average rural point in the territory than 100 cities of 1 million inhabitants each similarly spaced throughout the same territory (Geltner, 2014). Larger (and thus fewer) cities will therefore tend to increase rural-to-urban transport costs, due to greater average transport distances.

Examples of edge cities include Irvine in California, The Woodlands in Texas, Westport in the New York area, Framingham in Boston, and Dearborn/Fairlane in Detroit, among many others. The important thing would be to study the model of American edge cities in order to adapt them with a “Mexican style” and potentiate the growth of the Mexican economy, while improving the conditions of affordable housing in the country.

3.2: The Alonso Model and the Positive Economic Externalities of Polycentric Cities

The “William Alonso model”, also called the monocentric model, predicts that land prices, population, and employment densities diminish with distance to an exogenous urban core. The hedonic value of land arises from a tradeoff of accessibility and commuting cost. In this model, economic activity is assumed to be concentrated within a one-dimensional urban core and urban railway stations are treated as perfect substitutes, disregarding the centrality of stations within the network and the possibility of heterogeneity in the network externalities. (Ahlfeldt, 2011).

The simple, monocentric city is a circle of a certain radius extending out from the CBD, to which all households must commute every day to produce some good that enables them to earn the income they must use in order to meet their housing costs along with consumption needs. From this income, people must pay the transportation costs for their daily commute. These transportation costs are a function of the distance of their houses
from the CBD. According to this model, in order to reach equilibrium, real property rent must rise as we approach the center at exactly the rate that transportation costs fall (Geltner, 2014).

Competition among residents bidding for centrally located lots, and among landlords owning peripheral lots trying to find tenants, would force the rent for the more centrally located lots up and the rents for the peripheral lots down until the relative levels were such that everybody was equally well off, considering both their housing rents and their commuting costs. Therefore, in equilibrium, the rents must be such that the total housing and commuting costs is the same across all distances from the center (Geltner, 2014). The bid-rent curve for housing in the Alonso model must have a slope equal to the transportation cost per mile per acre. This slope is known as the rent gradient. This gradient tells us how much the equilibrium real property rent per acre declines per mile of additional distance from the center of the city.

In polycentric cities, there are sub-centers and multiple major centers, making these cities collections of major and minor central points within the metropolitan area. These cities tend to be related in a less hierarchical manner. Here, land values as well as rent gradients are always determined by equilibrium by the usage with the highest bid-rent curve at each location, leading to land being used at its highest and best use (HBU) in the longer term (Geltner, 2014).

A general worldwide effect of polycentrism and edge cities in the 21st century is a flattening of the rent gradient. The development of multiple and mixed-use centers scattered throughout the metropolitan area has the effect of reducing the distance people need to travel, and this situation lowers commuting costs per acre even without affecting transportation costs per mile traveled, or reducing residential density. Hence, polycentrism appears to be a major way in which cities are evolving to deal with what otherwise would be higher transportation costs (Geltner, 2014). Nonetheless, it is important to mention that a relatively flat bid-rent surface does not necessarily preclude high land (location) values
within the central places, as physical agglomeration continues to be a valuable human phenomenon.

The only limiting factors that prevent firms from decentralizing are the impediments of the housing stock, local government institutions, and irregularities in the provision of infrastructure. There seem to be no economic limits to decentralization, but few metropolitan areas approach this pattern of complete decentralization. Instead, in most metropolitan areas, decentralizing firms tend to be clustered in any number of sub-centers. Over the years, economists have developed several arguments suggesting that firms clustering in larger sub-centers might receive benefits from agglomeration that can improve productivity, increase innovation, or reduce production costs (Wheaton, 1996). As agglomeration or information costs become less important, cost-minimizing firms are better able to take advantage of the potential wage savings that come with more decentralized locations.

Larger sub-centers can coexist with smaller sub-centers within a metropolitan area if they offer firms some production advantage through agglomeration. In equilibrium, the agglomeration advantage of greater size must be balanced by the larger sub-center’s longer commuting distances, which increase land rents and result in the need to pay higher wages to keep workers. At larger sub-centers, with agglomeration advantages, workers will have to commute farther, increasing residential and commercial land rents per acre. Because households use more land for their residence than workers use in their workplace, the impact of greater land rents is primarily to generate wage differences rather than differences in the rent for facility space to firms (Wheaton, 1996).

3.3: The Importance of Transportation, Employment, Income, and Consumption

Population growth is not the only phenomenon that affects cities. Another crucial element to analyze is transportation costs per person per mile, holding population and income
constant. Lower costs can occur through increased transportation technology or infrastructure. The advent of cellphones, the Internet, laptop computers, and other improvements in telecommunications will allow more flexible location. Greater fuel efficiency, reliability and safety, more efficient traffic control, and a more pleasant travel environment act effectively to reduce transportation costs (Geltner, 2014).

A reduction in transport costs per person per mile per year will reduce the rent gradient. This can have various effects on land values and urban form. If the population prefers houses with larger lots farther out on the periphery of the city, or in neighborhoods with more parkland or golf courses, such a density-reducing result of transportation improvements would have the effect of increasing land rents near the periphery and reducing land rents at the center of the city. The pure effect of density reduction of the city, even without a reduction in transportation costs, is to reduce the absolute land rents in the center of the city. A reduction in transportation costs will only magnify this reduction.

The other outcome would be if the city inhabitants decide to maintain their same level of residential density and not to expand the special area of the city in spite of the transportation improvements. This would happen only in cities that face severe physical or governmental constraints on spatial expansion. In this case, the transportation cost reduction causes land rents to decline everywhere in the city, except on the periphery (Geltner, 2014). Even in this case, rents decline more for locations closer to the center of the city.

The value of the land inside the urban boundary is explained because of its location premium. This premium only exists because of each location’s ability to save transportation costs. As improved transport technology or infrastructure reduces the costs, the value of its savings is reduced. Transport cost reductions reduce the value of geographic centrality of location, making all locations more equal. In case of income growth, holding population constant is more complex to analyze because people can elect to spend their increased income in diverse ways, and income growth can have secondary effects on transportation
costs. In case people decide to spend their incremental income in purchasing more urban land, the rise in income would spread the city out spatially and reduce its density (Geltner, 2014). While density reduction in general reduces the rent gradient, increasing the amount of unbuildable open space (e.g., parks, golf courses, etc.), it also reduces the “effective arc” of urban development, extending the urban radius without reducing the rent gradient. As a consequence, this situation increases the central rent and in any case, the effect will be to increase location rents near the periphery.

This city-expanding, potentially decreasing, result of income growth would be further complicated due to the indirect effect that higher incomes have on per capita transportation costs. A major component of urban transport cost is the value of people’s time wasted in traveling or commuting. This value per hour or per mile of travel is normally a positive function of per capita income (Geltner, 2014). Hence, the indirect effect of income will (if density were held constant) steepen the rent gradient and therefore offset, at least to some extent, the potentially gradient-decreasing effect of a rise in incomes.

Separate from the importance of income and transportation in urban economics is the relevant role of cities as centers of consumption. In the next century, as human beings continue to get richer, quality of life will become increasingly critical in determining the attractiveness of particular areas. There are four particularly critical urban amenities: i) the presence of a rich variety of services and consumer goods, ii) aesthetics and physical setting, iii) good public services, and iv) speed. As time becomes more valuable, individuals will particularly avoid areas where transportation costs are high (Saiz, 2001).

The movement to edge cities and the decentralization of employment have increased commuting distances but often decrease commuting times relative to traditional CBDs. In places where public transportation is less important and where gas taxes are low, low-density car cities will continue to thrive (Saiz, 2001). In the productive sector, it is clear that the advantages the cities once had from reducing transportation costs for
manufactured goods are no longer important and that consumers are becoming more relevant to the success of cities.

3.4: The Paradigm of Mixed-Use Developments

Planned mixed-use developments have been growing in popularity in the past decades, initially as urban redevelopment schemes, and today as suburban development hubs (Rabianski, 2009). Developments that provide a “live, work, play” community have been heralded as key components of urban regeneration, new urbanism, and sustainability. Fine-grain mixing of uses has created vibrant and successful neighborhoods. Therefore, it is imperative that the Mexican policy makers not only allow, but also foment mixed-use developments in affordable housing projects, a strategy that is unfortunately not used today.

The definition of mixed-use development is not as precise as for a single property type. The Urban Land Institute (ULI) says mixed-use is characterized by three or more significant revenue-producing uses that are significantly and functionally integrated and developed in conformance with a coherent plan. Other definitions include pedestrian-oriented places that maximize space usage, have amenities and architectural expression, and mitigate traffic and urban sprawl (Niemira, 2007). The physical components are functionally, physically, and commercially integrated.

The number and type of uses may vary from one development to another; however, a development that has retail space on the ground floor of an office building would not be considered to be a mixed-use development by most of the industry. Neither would a neighborhood that has organically evolved into a neighborhood containing a variety of land uses. These other developments would be considered to be multiuse. In sum, the mixed-use concept extends beyond use into planning, lifestyle, and design. In Europe these developments are associated with smart growth and postmodern designs of neo-traditional neighborhoods (Rabianski, 2009).
A compact city can be defined in many ways, but generally it refers to a relatively high-density, mixed-use city, with an efficient public transportation system and dimensions that encourage walking and bicycling. Smart growth is also defined in many ways. Ye, Mendpe, and Meyer (2005) found commonalities that they were able to identify that include the preservation of natural resources, providing transportation choice, developing a sense of community, and promoting livability. Downs (2005) suggests that there are six principles that are key elements of smart growth:

1. *Limiting outward expansion of new development*
2. *Increasing residential densities*
3. *Providing more mixed and pedestrian-friendly development*
4. *Emphasizing public transit*
5. *Shifting development cost to those who benefit via impact fees*
6. *Revitalizing older neighborhoods*

The factors generating interest in accommodating growth in mixed-use development include a range of public and private motives, as well as perceived changes in lifestyle preferences. In order for smart-growth programs to succeed, proactive state involvement in land-use planning is needed. Policies that promote smart growth and enforcement mechanisms can have measurable effects on sustainable growth management. Mixed-use development in a compact pattern helps preserve open space and reduce urban sprawl, resulting in cost savings for the population by reducing the need for publicly funded infrastructure.

### 3.5: Wellness, Quality of Life Metrics, and Sustainability

The concept of sustainable urban development is a complex activity that requires complementary approaches and appropriate strategies that incorporate, among other things, attractiveness of cities, support for innovation, employment, and governance, and urban regeneration. A partnership between the public and private sectors is very
important; the scale and scope of urban problems require the combined efforts of different levels of the government and diverse public institutions, as well as the private community in order to promote sustainable urban development.

Sustainability needs to be expanded beyond and within the scope of individual developments and to provide a context for the revitalization of cities. Industrialized countries have already applied approaches to urban development, oriented on the creation of a high-quality urban space and the achievement of ecological balance. Quality long-term balance became an important requirement for the long-term sustainability of cities.

The concept of integrally sustainable cities has significant potential to generate a positive cycle whereby higher-quality houses, cheaper utilities, cleaner water, improved access to education, and employment opportunities will promote a positive feedback loop that can put an end to the cycle of poverty that is currently fueling deep social problems in Mexico. The process of sustainable urban development is incremental for low-income households since a significant percentage of the population has no possibility of living in dwellings constructed by the formal sector. Structural adjustments need to be implemented in order to promote urban governance that fosters the creation of value-added jobs, the construction of dignified housing, greater security in property ownership, and the prevention of risks that come from constructing in inadequate places.

The housing sector is an engine of the domestic market and a crucial element to promote national development. It is a source of employment and a trigger for economic growth. The dissemination of economic opportunities needs to flourish in cities with harmonious order and with projects that incorporate the social, economic, and environmental elements that are required to achieve long-term sustainability. Loans and grants from the government should focus on the development of urban growth that promotes construction with minimal environmental impact, improves the quality of life of people, and increases access to financing to those at the bottom of the pyramid.
Additionally, urban sustainability in Mexico should include wellness objectives such as encouraging physical activity, improving the indoor environment, and promoting social engagement. Social interaction can be purposefully planned for and encouraged through the design of the project, choice, and placement of amenities, as well as programming. The former includes fitness classes, walking groups, and runs/races.

Mexico has become one of the most overweight countries on the planet, even more so than the United States. A quarter of its men and a third of its women are obese. It is estimated that almost a sixth of the adult population suffers from diabetes, mostly because of overeating and increasingly sedentary lifestyles. Diabetes today is one of the top causes of death in Mexico. It is crucial, therefore, that the sustainable communities of affordable housing built by the government in alliance with the private sector take into consideration wellness features in order to promote a healthier lifestyle and physical activity within the population (e.g., bike lanes, pedestrian and walkable areas, and parks).

Chapter 4: The Mexican Apartheid and How Section 8 Tenant-Based Voucher Programs Can Open Opportunities for Families at the Bottom of the Pyramid.

4.1: General Overview

Faced with few affordable options, many people attempt to find less expensive housing by buying or renting farther out; however, without adequate investment in infrastructure, long commutes often result in transportation costs that consume the savings on shelter. In the absence of affordable edge cities with mixed-use options, infrastructure, and employment opportunities, a well-located dwelling saves significant household travel costs and therefore improves overall family economics.

The availability of affordable housing in proximity to mass transit and linked to employment access has become increasingly imbalanced in this period of rapid urbanization and growing density convergence. In addition to the distress that it causes
families that are unable to find a dignified place to live, the lack of affordable housing has negative effects in the overall wellness of a community. Moreover, the aforementioned shortage can make low-cost labor scarcer and place a particular burden on local economies.

Income is the most important factor in determining housing affordability. Housing is often the biggest expenditure of low- and middle-income families, and consequently, it is their greatest source of wealth. The purchasing power of families can be enhanced through special tax and fiscal policies that can reduce the cost of mortgages and financing, among other strategies. Public policies should include the implementation of subsidies and incentives to increase the quality of affordable housing.

It is crucial that policy makers attempt to respond to the issue of affordable housing with public policy instruments that focus on the demand size of the market, and that help households reach their financial benchmarks of affordable housing. Additionally, policy instruments should also focus on production strategies that facilitate production on the supply side of affordable housing which can include new housing construction and refurbishment of old stock. The supply policies also include favorable land-use policies like inclusionary zoning, as well as the enforcement of affordable housing quotas in new developments.

The process of weighing the impacts of locating affordable housing is very complex and controversial and is laden with race and social class implications. Research, however, suggests that proximity to low-income housing developments generally has a positive impact on neighborhood conditions. The gap between the rich and the poor is patent in a housing system where public policy decisions favor the ownership sector at the detriment of the rental sector.

The contemporary housing landscape of Mexican cities has been profoundly marked by the legacy of residential discrimination and segregation. Residential segregation constitutes a major problem since it shapes the racial demographics of cities across the country. The
social harms wrought by this segregation are more than cosmetic and lock low-income households in spaces with limited mobility and opportunity, reinforcing their marginal status and preventing families from being organized as members of a larger community. Spatial inequality affects all aspects of life - social, economic, and political - of those who live in racially and social isolated places.

The new national housing policy in Mexico is intended to promote public-private efforts over the coming years, as well as to include housing rental schemes. The Section 8 tenant-based voucher program of affordable housing practiced in the United States offers a solution for social class and racial integration in Mexico in order to achieve a fair, inclusive, and prosperous country.

Under this program, people from both extremes of the income scale live across from one another; this represents a significant change in thinking about how to approach affordable housing. In order to ensure that the affordable units blend in, there are regulations that cover everything from appliance sizes and access to common space and an equitable distribution of views. Families have access to neighborhood safety, accessibility, and social integration, leading to economic and social advancement and not merely shelter.

These housing subsidies can enable low-income families to move into middle-class areas, helping them progress up the ladder of economic opportunity. This program, therefore, can considerably contribute to the deconcentration and eradication of poverty in Mexico and put an end to the segregation of socio-economic classes. The program promotes racial, social and economic mixing as well as the elimination of deeply entrenched social boundaries to promote a better country. The physical separation of low-income families, coupled with the exclusion of the indigenous population from the economic, political, and social benefits of home-ownership sends messages of social inferiority and maintains segregation in an array of other areas such as employment and education.

Critics of the public housing design point to the lack of defensible space, undifferentiated
housing units, the lack of defined territoriality in outdoor space, the small footprint of the houses, and the superblocks that interrupt the neighborhood grid and separate public housing from its surroundings (Goetz, 2012). The 80/20 proposed model helps address these issues of public housing and promotes a new urbanism. The former model de-concentrates poor households in need of support and promotes sound planning and responsible public policy.

In order for a unit of government to create a housing program, it requires legal authorization, as well as financial resources. Housing programs are typically authorized by legislation. Once the unit of government has legal authorization for the creation of the program, it often creates additional guidelines to administer it in the form of a competitive process.

Direct government subsidies are authorized by the municipal, state, or federal budget as well as an appropriation process. Often programs take advantage of multiple funding sources or change funding sources in line with budget conditions. The specific program is governed not only by its statutory and regulatory authority and the rules relating to the program, but also by the nature and source of funds. Generally, sources of funds can be grouped into different categories:

- **Public bond financing**: General obligation bonds or revenue bonds
- **Subsidy**: One-time or ongoing, grant or loan, categorical or block grant
- **In-kind subsidy**: Low-cost land property, or access to low-cost funds
- **Tax benefits**: Incentives, deductions, credits, and exemptions
- **Tools to leverage private sector funding**: Insurance or guarantees

With limited resources and persistent need, it is imperative that cost-effective interventions occur in Mexico in order to get people stably housed.

### 4.2: The History of Affordable Housing in the United States
In 1908, President Theodore Roosevelt appointed the President’s Housing Commission to look into the need for dignified housing for Americans with low income. It was not until 1918, after World War I, when the United States Congress made the United States Shipbuilding Corporation the first federal entity in the affordable housing sector. During that time, the main concern was to stabilize the housing market for middle-income Americans by creating a mechanism to encourage banks to lend money for home purchases.

The first seminal piece of housing legislation, the National Housing Act of 1934, created the Federal Housing Administration (FHA), today an integral part of the Department of Housing and Urban Development (HUD), in order to insure single-family housing loans. Congress amended this act through the years in order to insure multifamily projects, and added some subsidy programs as well. Basically, the FHA was regarded as an insurance company with middle-class housing as its main concern.

In 1937 Congress enacted the United States Housing Act and created the statutory structure for public housing that was for many years the most important affordable housing effort in the United States. This act created the United States Housing Authority (USHA) to administer the program. The former soon gave way to the United States Public Housing Administration (USPHA) as the program manager. Congress authorized this new body to make loans, capital grants, and annual contributions to local authorities. The public housing program focused on job creation through the production of new housing projects as well as on slum clearance and housing condition improvements for low-income families.

Afterwards, a hybrid (public, private, and non-profit) financing mechanism surged. The Local Public Housing Authority (PHA) would issue tax-exempt bonds to finance projects’ construction while the federal government would make annual contributions in amounts enough to amortize the principal and interest on the bonds. Under this structure, project tenants would pay rent in amounts that were just enough to cover operating expenses.
After World War II, returning veterans populated the projects at a time of severe shortages of housing. In the Housing Act of 1949, Congress decided to dramatically expand the program and authorized up to 810,000 units, and set the goal of “a decent home and suitable living environment for all Americans”.

The federal government began contracting with private parties to provide low-income housing in 1954. These privately owned and federally subsidized projects for low-income housing can be regarded as a separate category of federal programs to address problems related to low-income housing. Normally, under the terms of most of these programs, and in exchange for federal subsidies, private developers agreed to build or rehabilitate housing to conform to federal standards. Then the private developers agreed to provide this new or rehabilitated housing exclusively to households that meet certain income criteria.

Circumstances changed dramatically by the mid-1960s. Relatively easy terms in regards to ownership of houses forced middle-class families out of the projects, in order to be replaced by single-parent households, many on welfare. PHAs needed to charge rents to cover operating expenses, and these rents jumped to 60-70% of tenants’ income in many cases. As a consequence, Congress capped tenant rent at 25% of income (increased to 30% in 1981), but this needed federal payment of operating subsidies to the PHAs, accomplished by an amendment to the act.

As public housing tenancy has evolved, so too have the income limits. Up until 1981, PHAs had leeway in setting eligible tenants’ income generally below 80% of median income. That same year, Congress limited the occupancy of public housing to lower-income families, and required that 40% of public housing units be reserved for families below 30% of the median income.

During the second part of the 1960s, public housing was managed in a conservative way both by the U.S. Public Housing Administration and, after 1965, by HUD. It was not until the
late 1960s that HUD promulgated elaborate lease and grievance procedures in order to ensure tenants a modicum of due process in both administrations and evictions. Also, during that time, HUD created the Turnkey Program. Under this far more expeditious program, a private developer would build the project on its own land, and then turn the key over to the PHA. Additionally, in the late 1960s, HUD promulgated elaborate lease and grievance procedures to ensure tenants a modicum of due process in admissions, as well as in evictions.

In 1986, PHAs became more entrepreneurial. The most important impetus was the advent of the Low Income Housing Tax Credit (LIHTC). Several PHAs created limited partnerships as subsidiaries or affiliates and became general partners in tax credit projects. Proceeds from the resulting equity syndication achieved both goals of building affordable housing and producing revenue for the authority. These public-private ventures were the prelude to large-scale ventures under the HOPE VI program.

The National Commission on Severely Distressed Public Housing suggested, and in 1993 Congress adopted, the HOPE VI program to demolish distressed housing and to replace it with new developments. Normally, a limited partnership, with a PHA and developer general partner and a syndication entity as the limited partner, developed the project. These projects replaced the obsolete developments of the 1950s and 1960s.

In addition to HOPE VI funding, Congress allocates over US$2.5 billion annually for capital improvements in PHA projects. Moreover, as part of the 2010 stimulus package, Congress in the American Relief and Recovery Act funded US$4 billion for rehabilitation of public housing projects. In 2010, HUD proposed a new program known as Transforming Rental Assistance (TRA), where the traditional annual contributions contract would be replaced by a Section 8 project-based contract or by project-based vouchers. These projects would enable the local housing authority to own the project in a public-private partnership, to syndicate the project using the LIHTC, and to bring in revenue for project revitalization.
4.3: Section 8 and the Tenant-Based Voucher Program

In 1974 Congress amended the Housing Act of 1937 by passing the Housing and Community Development Act of 1974, creating the Section 8 tenant-based voucher program. It includes tenant-based rental assistance, project-based rental assistance (where the subsidy is tied to a particular unit), and even options for homeownership for those who qualify. The tenant-based voucher program offers eligible families the flexibility to choose any rental unit that meets Housing and Urban Development (HUD) standards in a community with a Section 8 program. Section 8 includes both the demand and supply interventions.

Section 8 certificates began in 1975 and by 1976 more than 140,000 households were being assisted. In 1986 Section 8 certificates were expanded and in 1980 tenant-vouchers began to be issued. This allows households to locate their own rental housing by searching the private housing market, while local housing authorities pay landlords directly. Unlike project-based federal housing programs, low-income tenants participating in the Section 8 tenant-based voucher program are not tied to a particular place, which gives flexibility to assisted tenants to be dispersed throughout the community and at rates greater than the project-based programs. Additionally, Section 8 vouchers seek to promote economically mixed housing while achieving greater integration.

The vouchers under this program are portable, which means that once in the program, assisted tenants can move to new residences, provided they could find a new and willing landlord as well as rental unit that meets the program’s specifications. Today the housing choice voucher program is the largest assisted-housing program administered by the U.S. Department of Housing and Urban Development. Section 8 embodies the new progressive property’s characteristic concerns for distributive justice, the equitable distribution of resource, and the protection of disadvantaged members of society.

In addition to conventional public housing, PHAs usually administer the tenant-based
Section 8 program. HUD makes federal Section 8 funds available to local PHAs, which are given great flexibility in managing Section 8 programs. Applications for these housing benefits need to be filed with the local PHA. The former collects and verifies information regarding family finances, citizenship, and composition. Afterwards, the PHA uses this information to determine the family's eligibility for Section 8.

Requirements include:

- **Family:** The definition of a “family” must be met. A family is defined by one or more persons who share a residence and “whose income and resources are available to meet the family's needs and who are related by blood, marriage, or the operation of law, or who give evidence of a stable relationship which has existed over time”

- **Income limits:** Household income must be within the applicable limit established by HUD. These limits are based on family size and locality

- **Citizenship:** Family members must be U.S. citizens or eligible aliens

- **Social Security Numbers:** Each person age six and older must disclose his/her number or certify that he/she has none

- **Resources:** There is no resource limit; however, income generated by assets is counted as part of annual income. Resources include financial accounts, stocks, bonds, investment accounts, individual retirement accounts, equity in real estate, cash value of trusts that can be withdrawn, and retirement funds to the extent they can be withdrawn without the employee having to retire or terminate employment

- **Transfer of resources:** Within limited exceptions, assets given away for less than market value during the two years preceding approval or re-certification for Section 8 are treated as still owned by the individual for purposes of determining annual
Because demand is much greater than the supply of vouchers, an eligible family is usually placed on a waiting list. Preference may be given to those who are homeless, who have been involuntarily displaced, who are living in substandard housing, who have disabilities, and whose rental payment is more than half of their income. When the applicant’s name is reached, the PHA contacts the family and issues a Section 8 voucher, which represents the PHA’s promise to pay part of the rent, with the family being responsible for the remainder. The PHA tells the voucher holder of the unit size for which he/she is eligible, taking into account family size and composition.

After the family receives the voucher, it is then responsible for locating a suitable housing unit with a landlord who participates in Section 8. The family is not restricted to subsidized housing projects, and it is free to select its own rental unit in the private market. Once the housing unit is selected, the family negotiates the term of the lease with the landlord. The PHA then evaluates the lease terms and inspects the unit to ensure compliance with health and safety standards. After the PHA approves the unit, the family and landlord sign the lease while the PHA and landlord sign a housing assistance payment (HAP) contract in which the PHA agrees to pay the landlord the portion of the market rent that is subsidized.

The total tenant payment is the highest of the following amounts:

1. 30% of adjusted monthly income;
2. 10% of gross monthly income;
3. The “welfare rent”, or
4. The minimum rent, which is between US$0 and US$50 as determined by the PHA.

After the economic downturn of the subprime crisis, opportunities opened up for Section 8 recipients to obtain housing in a number of predominately white communities that were formerly unavailable to them. Faced with the prospects of going into foreclosure or renting
to low-income Section 8 recipients, many landlords chose the latter. Landlords advertised acceptance of Section 8 vouchers, and recipients responded, seeking better opportunities for themselves and their families.

**4.4: Affordable Rental Housing in the United States**

The affordable housing sector in the United States consists of two broad categories:

1. **Deep Subsidy:** Programs that primarily serve the poorest households and are designed so that beneficiaries spend no more than 30 percent of their income on rent. These programs include public housing; other “project-based” federal subsidy programs for housing owned by for-profit and non-profit entities, and the Housing Choice Voucher Program. They also include several smaller programs that incorporate subsidies for rental housing located in rural areas, and for the elderly and disabled.

2. **Shallow Subsidy:** Programs that enable rents to be lower than what the market would charge, but not usually to the point where they are affordable to very low-income households. These programs include the Low Income Housing Tax Credit, tax-exempt housing bonds, and HOME investment partnership block grants. They also include several programs operated by the state and local governments.

The federal government currently provides deep subsidies to nearly 5 million households in the United States. This includes residents of 1.1 million units of public housing, 1.2 million federally subsidized units that are privately owned, and 2.1 million recipients of Housing Choice Vouchers (HCV). HCV is a demand-side program that allows recipients to rent privately owned housing that they choose. The HCV program has grown by 169,000 households from 2007 to 2012.

Approximately 2.5 million households live in housing that benefited from one or more
shallow subsidy programs. Unlike the deep subsidy programs, which have seen very little growth over the past three decades, the number of units with shallow subsidies increased steadily each year, with the exception of the beginning of the housing crisis. The single most important shallow-subsidy program is, by far, the Low-Income Housing Tax Credit (LIHTC). It has helped finance more than 2 million units from its inception in 1987 through 2012.

The LIHTC is often used in conjunction with other shallow subsidies, including tax-exempt bonds and/or block grants provided through the federal Home Investment Partnership program. In addition to the LIHTC and these two other federal programs, many states and localities have also provided shallow subsidies for rental housing, often through inclusionary zoning programs and housing trust funds.

Inclusionary zoning is a key mechanism by which local governments generate affordable housing. It incentivizes developers to set aside a portion of new housing for low- or moderate-income occupancy. As of 2008, about 500 mostly suburban communities located in 25 of the nation’s 50 states had instituted some form of inclusionary zoning (Mallach and Calavitia, 2010).

Most shallow subsidy programs are designed to leverage private investment. For instance, the LIHTC acts as an incentive to attract equity investment in low-income rental housing; tax-exempt bonds are sold by states and localities to private investors to provide below-market-rate interest mortgages to developers of affordable housing. Inclusionary zoning and most housing trust funds are directly tied to private development activity as well as other real estate transactions.

4.5: The Clarendon Condos and One Back Bay Appartments: A Development for the Elite Available to Low-Income Households
The Clarendon Street Associates, LLC ("The Clarendon"), is a sophisticated 33-story luxury condominium proposed by a joint venture between the Related Company of New York and Boston-based developer The Beal Companies. The project offers captivating, panoramic views of the downtown skyline, the Charles River, and the Boston Harbor. Owners and tenants enjoy an elegant lifestyle with world-class services and amenities.

The project is considered to be one of the best and most exclusive in the city of Boston and nonetheless, 20% is comprised by affordable housing. This is a clear example on how the highest and the lowest socio-economic classes can coexist in the same environment while opening opportunities for the bottom of the pyramid. Mexico can replicate this strategy and help reduce the tremendous social and economic differences that currently prevail in the country, especially regarding the indigenous population.
The Clarendon project site comprises approximately 45,000 square feet and is located at the intersection of Clarendon Street and Stuart Street, at the heart of Boston’s Back Bay (the center of the city’s best business, cultural, and shopping districts). Back Bay is home to landmarks such as the Boston Common, Copley Square, The Esplanade, and The Hancock Building, as well as the Boston Public Library. Moreover, only minutes away are Fenway Park, the Museum of Fine Arts, Symphony Hall, and renowned South End restaurants.

The site consists of a surface-level parking lot with 93 spaces, a four-story brick building, occupied by the United States Postal Service, as well as a nine-story building. The development project proposal included the construction of 350 residential units (mixed between rental and homeownership), along with a restaurant, health club, retail uses, and a new Back Bay post office. The nine-story building was occupied by the Hard Rock Café and offices and it was demolished in order to transform it into a state-of-the-art facility for the United States Postal Service. The project included 385,300 square feet of gross floor area and provided an underground parking garage for up to 393 vehicles; 300 of the parking spaces were allocated for the residents of the building and the rest were allocated as public parking.

The developers committed to allocate 15% of the market rate units as affordable housing. The rental component includes 20% affordable units and the balance is homeownership units. Out of the 350 units, 40 of the affordable units were created as rental units and six as homeownership units. The mix of rental versus homeownership affordable units is guided in part by the proponent’s proposed use of “80/20 model” tax-exempt financing for the rental portion of the development. The rental affordable units are leased to households with incomes at or below 50% of the median income.

The proponents entered into several affordable housing agreements with the BRA (Boston Redevelopment Authority) for the affordable units. The agreements were executed along with, or prior to, issuance of Certification of Compliance. The developers had to submit
separate affirmative marketing plans for the rental and homeownership affordable units to the Boston Fair Housing Commission and the BRA for approval, which needed to be in place before the execution of the affordable housing agreement. Preference was given to applicants who met the following criteria:

1. Boston resident;
2. Household size (a minimum of one person per bedroom); and
3. First-time homeowners (for homeownership units).

The affordable units were not marketed prior to the submission and approval of the marketing plan. A deed restriction was placed on homeownership affordable units to maintain affordability for a period of 50 years (this includes 30 years with an option to extend for an additional period of 20 years). The household income of any subsequent purchaser of the for-sale affordable units during this 50-year period was not able to exceed the maximum incomes set forth. The rental units are similarly restricted. Additionally, the affordable units were dispersed throughout the development and had finishes and attributes as approved by the BRA.

The private condominium residences range from one to four bedrooms, and from 710 square feet to more than 2,500 square feet respectively. Four full-floor 3,500-square-foot penthouses were constructed with 360-degree views. The Clarendon was the third building in Related Companies’ distinctive residential portfolio to offer both condominiums for sale and luxury rentals. “One Back Bay”, the building’s property with a separate entrance on Stuart Street, features luxury apartments from the 3rd-14th floors.

The Clarendon was registered with the U.S. Green Building Council and holds a LEED Silver Certification, the benchmark for high-performance sustainable design. The project offers world-class amenities such as:

- Exclusive clubroom with adjacent landscaped terrace
- Private fitness center
• Private library
• On-premises indoor valet parking
• Children's playroom
• Concierge and personal assistant
• Service provider

Chapter 5: Housing Development as a Regional Development Tool

5.1: General Overview

As of today, Mexico has the same policies to promote affordable housing in the different states of the Mexican Republic. The amount of the subsidies may vary across projects, but there is no differentiation in regards to the housing strategies across states. This situation is detrimental for the Mexican economy and the adequate urban planning of cities due to the tremendous heterogeneity that exists in the country.

Furthermore, since housing investment is primarily allocated based on the number of salaried workers in a state, it functions as a regional development policy as well, favoring manufacturing centers in the north over southern regions that depend more heavily on agriculture or tourism. The former industries have significantly lower shares of salaried employees. Additionally, a major restriction exists on lending for housing because the majority of mortgages are only available to formal, salaried employees.

From a geographic perspective, the states with the largest economies in the country, or the largest populations, also have the largest number of workers: 7 of the 32 states account for 50% of the workforce. The most highly paid jobs are almost exclusively created in the states with most developed economies. In addition to income, the benefits a worker receives provide a measure of the formal status of the job. Therefore, a more reliable indicator of potential demand than housing needs would be the number of well-paid workers with social security entitlements.
Moreover, formal employment is concentrated in the states with the largest economies. In the third quarter of 2013, the Federal District and the State of Mexico, Jalisco, and Nuevo Leon accounted for 39% of such jobs, with 69 million workers. The potential market for bank mortgage lending is limited for people earning over 5 TMS who are concentrated in the largest states and in the services, commerce, and manufacturing sectors. Residential segregation by ethnicity and socio-economic status has been significantly influenced by Mexico’s urban growth patterns. It is crucial that the policy makers assume an active role in shaping a national housing policy aiming to promote the competitive advantages of the different states of Mexico.

Policy makers should promote targeted incentives for development in states with less formal employment and more segregation. This would change the regional development impacts of the limitations that exist in southern states and promote a better spacial distribution in Mexico with less concentration in major cities. Directing investment in housing development to the far less developed southern states would significantly help reduce the severe regional inequalities in Mexico, but that strategy can only be implemented with an industrial policy to promote production, employment, knowledge, and technology in the south, otherwise it will create another problem of abandoned housing.

Mexico City is by far the largest city in the country with a population of more than 22 million inhabitants and growing. The demographic structure of the Mexican population shows that cities will continue to grow rapidly for at least the next 20 years. Families move to the major cities since formal employment is concentrated there, worsening the problem by relocating to already over-populated cities.

The high-density and peripheral locations of many new housing developments in Mexico’s biggest cities are departures from traditional urban growth patterns and have potentially negative impacts, especially regarding transportation and congestion. Additionally, the
restricted access to mortgages and housing finance is likely to produce communities that are even more segregated by income and socio-economic class than those built incrementally over time.

With special policies in place to foster regional development and housing investment in the southern states of Mexico, along with the implementation of industrial policies to cluster technology, production, and jobs, economic growth can be triggered. Although these tasks may seem difficult to implement, they are desirable and absolutely necessary for the advancement of Mexico, since the most important factor for housing demand is employment.

In the United States there are federal incentives as well as specific incentives created by each one of the states to advance their local economies and therefore grow the aggregate economy. Suburban living has been successful in the United States because formal jobs are dispersed and transportation is not expensive, lowering the overall cost of living of the majority of the population while raising quality of life. This strategy has allowed millions of low-income families to move to the middle class with more disposable income due to major savings in housing.

5.2: The North and the South: A Tale of Two Mexicos

The southern states of Mexico have a bigger proportion of indigenous population and are more mountainous and rural than the north. On almost every socio-economic indicator, these regions lag behind the rest of Mexico. Although politicians have long been aware of this gap, government efforts to tackle the problem have been unsuccessful. In a human development index that compares Mexican municipalities elaborated by the United Nations, 95% of the places in the bottom decile are located in the south.

According to the official registration of poverty headed by the CONEVAL (Consejo Nacional de Evaluación de la Política de Desarrollo Social) extreme poverty mostly affects the
southern states of Chiapas (32.2%), Guerrero (31.7%), and Oaxaca (23.3%) while the states with less extreme poverty are located in the north and the Federal District: Nuevo Leon (2.4%), Federal District (2.5%), and Baja California (2.7%). Programs and strategies to fight poverty, inequality, and social marginalization have had a variety of approaches and scopes, particularly since 1970; however, official figures indicate that social development policies and programs oriented towards overcoming poverty have been unable to reverse growth in this area. It is time to review and consequently adjust social policy in the framework of a new economic social growth strategy focused on social equality, collective welfare, and economic growth.

There are negligible incentives for private investors to go to the south because the population is impoverished and the political actors have not been able to attract non-governmental sources of investment. The roots of stagnation are complex and they include ethnic discrimination, poor education, and lack of infrastructure. Incompetence, corruption, and even violence are common.

The majority of the population in every one of Mexico’s 100 poorest municipalities is of indigenous descent. One policy designed to help the poor Indians is bilingual education so that they can speak Spanish, but the flaws of the public education system are magnified in the south and the teachers’ union controls the education system; the union sometimes appoints a teacher who speaks a different indigenous language from his pupils. A typical adult in the south has only six years of schooling; the corresponding figure in northern Mexico is 8.1 and 9.7 in Mexico City. Those years of schooling are not full years: local education officials report that in urban areas in the south, an average teacher spends only 110 of the notional 200 days of the academic year actually in the classroom.

The record is even worse in rural areas. Better infrastructure and education in the more urbanized north means that the benefits of Mexico’s membership of the North American Free-Trade Agreement have accrued there, while income in the south stagnates because of low productivity. Additionally, aside from some exceptions government agricultural
subsidies go disproportionately to the richer north.

In 1994 the Zapatista National Liberalization Army (EZLN) descended from the hills of Mexico’s impoverished Chiapas state wearing ski masks and armed with automatic rifles and started a unique armed struggle. The EZLN is largely an indigenous peasant based movement with some urban intellectual leadership most notably Subcommander Marcos as the groups spokesperson. Chiapas is a southern state dominated by indigenous communities that are largely excluded from capitalist development. It is estimated that 90% of indigenous households in the state live without electricity and running water.

The rebels combined forces with the church to help organize peasant communities and support their struggles. By working alongside with the most trusted and revered members in Mexican peasant communities the rebels were able to slowly earn the trust and support of the local peasants. Sharing the hardships and general state of hopelessness with the peasants changed the perspective of the rebels and they joined forces. Thus the guerrilla leadership did not take up arms and then call for local support. They consulted widely and thoroughly with local communities until they reached a consensus in favor of armed struggle. This rebellion raised Mexicans’ awareness of race discrimination, but it still remains a problem.

More recently, in 2014 the Vigilante groups in the southern state of Mexican state of Michoacán recently launched a large armed offensive against the Knights Templar drug cartel and are urging their supporters to stop the Mexican army from entering towns that are under their control. The Vigilante groups are defying government orders to lay down their weapons, as the Mexican army makes a new push to pacify this conflict-ridden and strategic part of the country.

Michoacán has long been a producer of methamphetamines that are exported to the United States. The state contains Mexico’s second busiest port on the Pacific ocean, which makes it a convenient location for the smuggling of chemicals arriving from Asia, that are required
to make drugs like crystal meth. However, Michoacán’s Vigilante groups are not too concerned with the methamphetamine trade. These groups were founded in early 2013 by cattle ranchers and lime farmers, who accuse the dominant cartel in the region, the Knights Templar, of taxing local businesses and kidnapping people for ransom. The Vigilante groups are basically trying to stop drug cartels from diversifying into other criminal activities. They argue that they have had to arm themselves because the Mexican government had done little to stop kidnappings and extortion in Michoacán.

There is a relationship between poverty and drug production in the southern states of Chiapas, Guerrero, and Oaxaca. Drug production is linked to poverty because it is driven in large measure by the failing agricultural economy as well as the lack of reasonable alternatives for much of the impoverished rural populace; the growing drug industry brings along with it a significant number of negative externalities that include violence and a culture of operating outside the law and the formal economy. This all works to dampen the creation of long-term economic growth and prosperity in the region because drug production and poverty are mutually reinforcing; they perpetuate poverty and limit the creation of economic alternatives.

Rural poverty in Mexico is concentrated in areas with large indigenous populations, notably in the southern states. According to a Konrad-Adenauer-Stiftung report, 75% of indigenous people in the country were living below the poverty line and 39% were in extreme poverty in 2009. In Oaxaca, Chiapas, and Guerrero states, extreme poverty affects more than half of the population. Rural poverty reflects the income inequalities that prevail in the region. For example, while Mexico’s GDP per capita is US$ 8,920, the average income of the poorest 20 per cent of the rural population is US$ 456 per year.

The causes of rural poverty in Mexico are partly structural. Poverty arises from a lack of access to basic services such as health, education, sanitation, and housing. It is also attributable to a lack of productive resources such as land, technology, knowledge, and credit, which would enable small farmers to increase production and income.
This regional divide contributes to political gridlock. The right plays to its electoral strength in the north, and the left to its constituents in the south, squeezing out opportunities for compromise and progress. The south instinctively prefers big government and mistrusts private initiative. With each passing year, the socio-economic gap widens. Monterrey, Mexico’s northern industrial capital, is starting to resemble south Texas while many parts of the south still look like a northern extension of Guatemala. Unless the government shows a greater ability and willingness to tackle its problems, the south will not just remain stuck in its poverty trap but risks handicapping the country as a whole.

5.3: The Role of Industrial Policies to Rescue the Southern States from Deep-Rooted Stagnation and to Trigger Economic Growth

Mexico has showed slow economic growth and a subsequent inability to generate necessary employment. On the basis of Kaldorian growth theory, it is supposed that this problem is the result of economic policy errors, in essence, the abandonment of active industrial policy in favor of structural change and economic development.6

Since 2008, the “Washington Consensus” has been unraveling at remarkable speed, as most developed countries, including the U.S., which is arguably the greatest supporter of the Washington Consensus, contemplated measures to ensure that their banking system didn’t fail. There has been a resurgence of the debate on government intervention and the issue spread beyond the banking sector and bank regulation to the broader economy. Many of the debates that are now taking place across the globe are concerned not only with how governments regulate the financial sector but also how government intervention can be used to stimulate growth in the stalled economies of the West (Lee, Clacher and Keasey, 2012).

In light of the aforementioned factors, the implementation of industrial policies as a way to induce economic growth is gaining greater attention. As of today, there is no general agreement on the definition of industrial policy but it may be referred to as encompassing almost all policies of the state to promote economic growth without promoting a “state corporatism”. Industrial policy should appropriately reflect the balanced roles of the state, entrepreneurs, and social context, and it should explain the dynamic nature of industrial policy over time.

Mexican industry needs strong, competitive, and innovative networks based on clusters, because they are recognized as chief drivers of innovation and economic growth. These clusters develop a collaborative and multi-sectorial approach that stimulates interactions between innovation actors. Innovative clusters are a framework for business development as well as collaboration between companies, universities, research institutions, suppliers, customers, and competitors in the same geographical area. This is a successful solution because it offers a combination of entrepreneurial dynamism, intensive linkages between companies and institutions that have top-level knowledge, and proactive synergies between the main actors of innovation (Matei, 2013).

According to Porter (1998), the cluster is defined as “a geographic concentration of interconnected companies and institutions in a particular field”. In this view, clusters contain a group of interconnected companies that are related by skills, technologies, and common inputs, as well as other important entities in terms of competition, suppliers of specialized inputs, etc. The implementation of industrial policies promotes the proliferation of clusters.

Industrial policies can be divided into three areas: i) creating a landscape; ii) fostering technological progress; and iii) redistributing resources in favor of specific industries or regions. Firstly, creating a landscape is the provision by the state of minimal institutional conditions such as company law, patent law, and a law enforcement system on which economic agents rely when they make a decision (Langolis & Robertson, 1995). Secondly,
since technological progress is widely accepted as one of the fundamental sources of economic growth, fostering technological progress by supporting innovations or imports and the adaptation of sophisticated technologies from first-world economies is a very relevant issue. Subsidies on R&D projects, public R&D centers, foreign direct investments, and training programs have been used as policy measures to this end (Cohen, 2006).

While promoting competition has often been argued, and sometimes used for this purpose, policies to restrict competition such as a protective trade system and intentionally fostering oligopolistic market structures have been employed often. Moreover, industrial policy often engages in redistributing resources in favor of specific industries, firms, or regions. Such targets are chosen by two criteria: the first one is to “pick the winners”, while the other one consists on “helping the losers”. To this end, the state provides some preferred conditions, access to resources, or incentives by distorting the market.

In order for an economy to transition from pre-industrial to industrial, there needs to be a “big push”. There are two theoretical bases for this. First, as (Nurkse, 1953) and (Gerschenkron, 1962) promote in their research, industrialization begins only if the industrialization movement can gain traction simultaneously along many lines of economic activity.

The “indivisibilities” in economic progress, therefore, prevent the development of one industry without the development of other complementary industries. For instance, industries cannot develop unless industrial infrastructure, such as utilities and transportation services, are available and well functioning. Another “big push” theory (Rosenstein-Rodan, 1943) with a similar insight argues that due to the existence of externalities between economic activities, comprehensive institutional change and investment are required in the beginning of industrialization to address these externalities effectively.

5.4: The Case of South Korea
Industrial policy was applied in South Korea for the period 1960 to 1996. The case of South Korea has illustrated the framework as the debate over the determinants of Korean economic development characterizes the difference between free market *laissez-faire* and interventionism.

The economic development of South Korea started in 1962 when the newly launched Park Chung-Hee military regime, which seized power through a military coup in 1961, initiated the “Five Year Economic Development Plan”. As a consequence of the Japanese Colonial period (1910-42), and the Korean War (1950-53), there was a virtually total absence of natural resources that could be accessible, as well as capital stock and technologies in the South Korean economy (Haggard et al.; 1997). Hence, the development strategy of the state focused on acquiring resources, and exporting was the only way to obtain the foreign currency to purchase them. Textiles and plywood became key exporting industries in this period.

In order to promote exports, sufficient infrastructure investment was necessary as well as reliable financial services. Because of the low levels of economic development, the private sector was unable to provide either of them effectively; the state took control. Afterwards, the government established several state-owned enterprises to provide the adequate infrastructure and secure a stable supply of raw materials. In 1961, the administration established the Korean Electric Power Corporation, followed in 1962 by the Korean-Trade Investment Promotion Agency. Five years later it established the Korean Resource Corporation as well as the Korean Water Resource Corporation to provide industrial raw materials and industrial complexes. Additionally, the Korean Expressway Corporation was established in 1969 to provide for industrial infrastructure. During this time various incentives were provided to exporting firms.

It was common for the exporting companies to make losses because of the combination of limited technology and managerial inefficiency (Y.J. Cho, 1997). In order to limit the losses
incurred from exporting, the state imposed import quotas and tariffs on foreign goods, thereby limiting competition in the local market from foreign imports. Exporting firms were able to compensate for their losses. In order to encourage the acquisition of advanced technologies, the South Korean administration used controls on cross-border financial flows, so foreign currency from exports could only be utilized to purchase state-of-the-art technologies or machinery.

The GDP growth rate ranged between 8% and 13% per annum and the share of manufacturing in Gross National Income (GNI) sharply increased from 13.6% to 20.4%. Most importantly, even though the main exporting items were low value-added goods such as textile products and plywood, the share of exports to GNI surged from 4.1% to 29.3%. In 1973, the President officially announced that the government would strategically promote six heavy and chemical industries, namely steel, non-ferrous metals, machinery, electronics, shipbuilding, and petrochemicals. This strategy exemplified the state’s ability to “pick winners” (infant industries that have grown and matured over time).

By 1980, the capital stock in the economy rapidly increased. This was largely due to aggressive investment by large business conglomerates, known as chaebol. Although the state had regulated the market entry of firms since the 1960s, it had a policy priority that provided a visible long-term commitment at the initial stage in order to stimulate private investment. Once the commitment was explicit, a significant number of private sector firms entered the market.

In sum, the adequate implementation of industrial policies in South Korea from 1960 to 1996 entailed a wave of innovations that raised competitiveness, expanded job opportunities, and advanced the construction of a clean energy economy. With industrial policy as a tool of a developmental state, a range of policy instruments and targets was put into place. The result was a state that promoted technology, productivity, competitiveness, and employment. It is patent how in some cases state intervention in the economy can be successful and a catalyst for economic growth. Nonetheless, this is only possible where
intervention is a dynamic policy, which is responsive to changes in the quality and quantity of the capital stock and the technological capabilities within the economy as well as the social context in which any policies will be implemented.

Chapter 6: Conclusion

The housing market in Mexico is facing significant challenges since there is a relevant deficit of more than 9 million units. Nonetheless, a significant number of affordable houses are being abandoned due to the current model in which affordable housing functions in Mexico. The current President, Enrique Peña Nieto, promoted a new national housing policy to address the current issues but there is still a lot of progress to be made in order to make the housing sector in Mexico more competitive, to reduce the social inequality, and to increase the overall wellness and quality of life of the population.

People are the product of their environment and they deserve to live in dignified places with adequate infrastructure, transportation, and services. Consequently, more efforts need to be made in order to attend to the growing challenges of the housing sector in Mexico. This thesis acknowledges the progress made by the new national housing policy; it also delves into some ideas that can be explored in order to make the sector better, and to use housing development as a regional policy to trigger economic development.

The availability of affordable housing in proximity to mass transit and linked to employment access has become increasingly imbalanced in this period of rapid urbanization and growing density convergence. In addition to the distress that it causes families that are unable to find a dignified place to live, the lack of affordable housing has negative effects in the overall wellness of a community. This housing shortage can also make low labor scarcer and place a particular burden on the local economy.

The first proposal is related to the need for the creation of affordable edge cities in Mexico. A surging economy like the one in Mexico City can boost housing prices to the point where
they begin to dampen economic growth and generate negative economic externalities. When growth of cities becomes constrained, the result is urban sprawl and the problem of affordability worsens. Mexican edge cities can become centers of employment, entertainment, and trade, constructed in the periphery of cities and with a mixed-use scheme. These cities would promote a vibrant and specialized community that can have high quality of life, convenience, and low living costs. Consequently, productivity would increase and families would not need to abandon their homes. Since Mexico is not a service economy, jobs need to be coming from manufacturing, industry, and warehouses that can proliferate in the periphery.

The second proposal is related to mobility, flexibility, and the eradication of racial and socio-economic discrimination. The new national housing plan is promoting more rental schemes aimed at beneficiaries as a temporary solution until they are in a stronger position to purchase their own home. In the current economic environment, employees need the flexibility to move from one city to another. In addition to including housing rental schemes, Mexico's new national housing policy is intended to promote public-private efforts over the next years. The tenant-based voucher program of affordable housing practiced in the United States offers a solution for social class and racial integration in Mexico in order to achieve a fair, inclusive, and prosperous country and put an end to the segregation of socio-economic classes. The program promotes racial, social, and economic mixing to create a better country with equal opportunities for everyone.

Finally, the last proposal is related to using the housing development as a regional development tool coupled with an industrial policy to rescue the Mexican southern region from deep-rooted stagnation and to potentiate the multiplier effect on the economy. In order for this to happen, it is important that policy makers implement a unique vision throughout the country in the new housing policy that includes sustainability, respect for the environment, wellness, quality of life metrics, and, most importantly, access to employment. It is imperative that the government utilizes different strategies in the different states of the Mexican Republic according to their particularities to bolster
economic growth through the exploration of competitive advantages. This is especially important in those states in the south of Mexico that are currently in deep-rooted social and economic stagnation.

Lack of employment in the south of Mexico is causing severe problems not only economically, but also socially. Because of the lack of opportunity, people are moving to big cities, contributing to the chaos, urban sprawl, congestion, and lack of urban planning, especially in Mexico City. Migration has been so intense that the supply has not been able to meet the demand and families are left to live in undignified places. If the current tendency continues, the country would become even more centralized and the problems would accentuate and grow exponentially, raising the cost of living as the rent gradient steepens. It is imperative that the government promotes an industrial policy as an intrinsic fundamental ingredient for development and helps the south go through a radical structural shift from an agrarian economy to an industrial economy. That change can only happen through the accumulation of knowledge, the implementation and adaptation of new technology, the coordination of many different sectors, and the use of special subsidies and incentives.

Industrial policies have been very controversial especially in developing economies where there is a lack of strong institutions. Nonetheless, a rapacious capitalism model without any counterpart from the government has also been widely criticized because self-interest does not always act in favor of the public good and there are limits to capital market liberalization. There is no doubt that capitalism has proven to be the best economic model, but it is also important to have a strong government that can oppose monopolies, protect the public goods and the environment, guarantee public safety and look up for those that are not favored by the market, such as the population with a handicap, the unemployed and the elderly population.

A strong government and a solid business culture is a middle ground between Smith’s invisible hand and Hobbes’ Leviathan. Democracy is a very powerful instrument that
empowers the citizens and acts as a third intermediary ("Check and Balances" of Montesquieu) to limit the abuse that either party could possibly exert and thus benefiting the economy as a whole and promoting an “entrepreneurship platform”. The “entrepreneurship platform” would bolster innovation and trigger Schumpeter’s “creative destruction” promoting not only economic growth but also a welfare state.

If we only take into consideration the market forces in the economy, the Mexican southern states will lose since the impoverished population is not a market and the workforce is under educated and without opportunities. The present population dynamics are worsening the problem by relocating people to already over-populated cities creating negative externalities and increasing labor cost, thus lowering competitiveness and economic growth. Allowing tremendous economic disparities among the different states of the Mexican Republic might have not been a problem in the past, but as the problem aggravates and social-economic differences widen, it causes severe problems in the country that eventually translate into armed conflicts.

The southern states have “survived” economically through a “Keynesian approach” of government spending to keep the economy going. Nonetheless, this strategy should only be used in the short-term (specially during recession periods) in order to influence aggregate demand and therefore increase consumption. However, this strategy is not sustainable in the long run since the aggregate demand is not coming from the productive capacity of the economy but instead, it is influenced by government spending.

As a consequence, it is imperative that the policy makers use an industrial policy in order to create a landscape to promote industry and employment in the southern states of Mexico. A landscape includes the provision of the state of minimal institutional conditions bureaucracy, and a scheme of fiscal incentives for certain economic activities in the region. This strategy along with the implementation of a strong law enforcement system on which economic agents can rely is a perfect recipe to end the deep present problem in the south of Mexico. Additionally, targeted incentives should be implemented in order to allow
unaffiliated workers in the south of Mexico to have access to a house since formal employment is concentrated in the states with the largest economies and less segregation. Therefore, the vast majority of the indigenous population is not affiliated to INFONAVIT and does not have access to dignified housing conditions.

Finally, with special policies in place to foster regional development and housing investment in the southern states of the Mexican Republic coupled with the implementation of industrial policies to cluster technology, production and employment the deep economic heterogeneity in Mexico can be eradicated. This strategy along with a policy to create affordable Mexican edge cities throughout the country and to explore the Section 8 tenant-based voucher programs would trigger economic growth, framing a new economic social growth strategy that promotes social equality, collective welfare as well as economic abundance.

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