

# Regional Economic Development in Mexico: Past, Present, and Future



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**Abstract** To talk about Regional Economic Development in Mexico, we first need to understand Regional Economic Development (RED). RED is the search for a better standard of living for all people. However, RED explores a better standard of living for all the people in all regions and sectors of a nation. To reach this goal, there are several factors involved. Some of the factors that have been studied and proved to affect (positively or negatively) are Climate, Security, Production, Specialization, Trade, Infrastructure, and Investment. In addition, these factors influence topics such as the concentration of economic activity, production efficiency, economic growth, the mobility of factors such as labor and foreign direct investment (FDI), economic integration, regional convergence, and gender participation in the formal economy. This chapter will analyze these factors and their effect on the Regional Economic Development in Mexico in the last years and what would happen in the future.

**Keywords** Regional history · Regional economic development · Regional economic activity · Regional migration · Wage differentials · Trade and labor market interactions · Size and spatial distributions of regional economic activity · Firm location

**JEL Codes** N96 · O18 · R11 · R23 · J31 · F16 · R12 · R30

## 1 Regional Economic Development (RED)

RED is an economic area specializing in (among other things) economic growth, socio-economic development, and the standard of living of all the different regions (Dziembała 2018). Therefore, it is of extreme interest to analyze how Mexico has behaved in this aspect during the last three decades.

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Lomelí Vanegas (2012) does an extraordinary work analyzing what has happened in Mexico, in terms of economic development, during the twentieth century. This analysis shows the vicissitudes of the economic development in Mexico and how, after all these decades, Mexico still lacks sustainable economic development. Another study that discusses RED in Mexico is by Ascani et al. (2012), where they mentioned the emergence of spatial inequality caused by development processes and innovative activities. They conclude that Mexico's trade liberalization has benefited Mexico City and cities near the US border, causing more regional, sectorial, and individual disparities. However, both studies focus on the big picture, mainly in the macroeconomic frame, leaving behind the analysis at the regional level. They had also been done almost a decade ago, and there have been many changes in that period. Therefore, this chapter will focus on analyzing the RED in Mexico has had in the last years, at the regional level, and pay particular attention to the studies done in the last decade. Nevertheless, instead of presenting an analysis divided by subsectors, this chapter will focus on dividing this chapter into the different factors and their effect on different regions. Thus, considering the studies done during the last decades and what lays ahead.

Results suggest that many factors influence Regional Economic Development in Mexico. But the most important to consider is trade openness. We observed that trade openness increased regional disparities, internal migration (mainly from the rural south to the urban North), and migration to the U.S., reducing wage inequality. In this way, we are creating an uneven RED across Mexico. In addition, we observed that Mexico benefited from specialization/concentration since it promotes innovation and competitiveness (among firms in the same sector). Finally, we also notice that road infrastructure investment boosts Mexico's economic growth through increased trade, structural transformation, and agglomeration. The policy implications of these results are that Mexico should focus on a unique sector (mainly manufacturing) to increase its economic activity and regional economic development.

In the next section, we look at trade openness and the changes it has caused in the world, particularly in Mexico. Next, we analyzed how Trade openness has affected wage inequality in Mexico. Section 4 explores how trade openness influences internal migration in Mexico and the US. Section 5 explores how specialization has impacted RED across Mexico and sectors and benefited more from that. Section 6 explores the regional convergence across Mexico. Section 7 studies how road infrastructure influences RED through Mexico. Section 8 studies the RED challenges that the current Mexican government face. And finally, Sect. 9 concludes.

## **2 Trade Openness (Globalization)**

Globalization has opened markets to products and services, often through international agreements that facilitate trade. While economists generally agree that trade can deliver benefits to an economy, the distribution of those benefits has been

questioned (Anderson and Van Wincoop 2004). One of the criticisms of globalization is that by benefiting some regions and workers, globalization may accentuate economic inequality and induce greater mobility of people (Anzaldo Gómez et al. 2008).

Developing countries, such as Brazil, China, India, and Mexico, have experienced rapid economic growth. As a result, they have made significant policy adjustments to foster globalization, including lowering tariffs and other trade barriers, reducing foreign direct investment (FDI) barriers, and entering into complex trade agreements. The main motivation for these changes was the promise of growth, higher wages, and lower income inequality (Robertson 2007; Harrison 2007). While increased trade may have benefited the Mexican economy, some initial evidence shows that North American Free Trade Agreement (NAFTA)<sup>1</sup> may have worsened inequality in Mexico (Baylis et al. 2012; Nicita 2004). Not only income inequality but also regional and sectoral inequality too.

New Economic Geography also generates predictions about which regions might reap the gains from trade. For example, the economic effects of trade may increase the concentration of economic activity in certain regions more than others (Krugman 1991). This concentration generates increased labor demand in these regions and their sectors, which results in increased wages in these markets. As a result, labor migrates to these regions to take advantage of these higher wages. Other effects of the trade such as skill-biased technological change, modifications in industry-specific wage premiums, foreign investment, quality upgrading, skill scarcity, exchange rate, and demographic changes have all been suggested as being more accurate explanations for the increase in wage inequality (Robertson 2007; Ranjan 2008).

Mexico's trade liberalization, via NAFTA, created important changes in regional economic growth, exacerbating the disparities between the North and South of Mexico which have existed since industrialization began in the 1930s (Walton and López 2005; Hanson 2007; Baylis et al. 2012; Alvarez et al. 2017). Geography may also play a role in determining the distributions of trade benefits (Esquivel 2000). In the case of Mexico, one might anticipate that, due to lower transportation costs, regions closest to the U.S. border, which also tend to be wealthier, might stand to gain from trade (Blankespoor et al. 2017; Baylis et al. 2012). Similarly, those regions with pre-existing export industries, such as the Northern manufacturing centers, would likely benefit the most from trade (Rostow 1990). Further, the urban labor market will benefit more (than workers in rural regions) because of their higher reliance on skilled wages, whereas rural labor tends to work more in agriculture and often consumes most of what they produce (Nicita 2009). Thus, we may expect increasing inter-regional wage disparities, inducing migration (Robertson 2000, 2004). I will analyze these effects in the next sections.

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<sup>1</sup>Since July 1, 2020, it has become the US–Mexico–Canada Agreement (USMCA) and entered into force. <https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement> accessed on October 18, 2020.

### 3 Trade Liberalization and Wage Inequality

One of the main topics of trade liberalization is induced wage inequality since a trade agreement benefits only certain regions, sectors, and individuals (Beaulieu et al. 2004; Mercenier and Schmitt 2002; Hanson and Harrison 1999). This brings an uneven regional economic development in the country. The Heckscher-Ohlin trade model states that countries should benefit overall from trade, particularly low-skilled labor should reap higher wages in developing countries where such labor is abundant. If inputs were not completely mobile across sectors and regions, we would expect factors employed in the export-oriented sectors to benefit more than those in import-competing industries. Further, we expect those regions with lower transport costs to benefit more, which may improve or exacerbate wage inequality if labor is not freely mobile, depending on whether those same regions were relatively high or low income before the trade.

Several studies shed light on the impact of trade liberalization on wage inequality in Mexico<sup>2</sup>. For example, Nicitá (2004) shows that trade benefits have not spread to all households and have primarily gone to more skilled workers, especially in Mexican states close to the US border<sup>3</sup>. Similarly, Hanson (2007) and Baylis et al. (2012) find that Northern states, which have greater access to the US market than the Southern states, benefit more from trade by obtaining higher prices because lower transportation costs translate into higher labor income. However, one disadvantage of these papers is that they do not consider that households may respond to variations in labor demand by changing the type of labor they offer or relocating<sup>4</sup>.

The distribution of benefits from NAFTA will presumably not only accrue to those already working in export industries and/or living in regions close to the US border but also to those who can more easily migrate into those regions and sectors. There is a growing literature on the effect of trade liberalization and migration on wages in Mexico, primarily focused on the effect of the international labor movement, but not many on internal migration. Mishra (2007) finds that “emigration has a strong and positive effect on Mexican wages due to changes in local labor supply” (p. 180). Unger (2005) also finds a positive link between migration and local development, working through remittances, boosting average wages. On the other hand, Aroca and Maloney (2005) find that trade and FDI slow migration. Increased linkages to global markets decrease the incentive to emigrate due to helps the

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<sup>2</sup>Some of them are Esquivel and Rodríguez-López (2003); Airola (2008); Cragg and Epelbaum (1996); Feenstra and Hanson (1996); Feliciano (2001); Hanson (2003); Hanson and Harrison (1999); Revenga (1997); Robertson (2007); Chiquiar (2005).

<sup>3</sup>Robertson (2007) finds that the expansion of assembly activities in Mexico has increased the demand for less-skilled workers, and Chiquiar (2005) finds that physical capital and infrastructure are the main reasons why Northern Mexican states reaped the benefits from trade liberalization more than the Southern states. While insightful, these papers do not explicitly analyze the distribution of gains across income levels and geographical regions.

<sup>4</sup>For example, Hanson (2007) assumes that “labor is sufficiently immobile across regions of Mexico for region-specific labor demand to affect regional differentials in labor income” (p. 419).

average wage in the origin region. However, if trade affects different regions within a country differently, it might induce internal migration, making benefits from trade available primarily to those households who can move (Arends-Kuenning et al. 2019). I will discuss the effect of trade on migration in the next section.

While workers close to the US market have a higher wage, workers far away from the United States receive a lower income. This spread reduces over time as the tariff decreases. However, north-south disparities are only one part of the story. Also, large manufacturing sectors seem to be associated with a smaller wage. This implies that because trade benefits manufacturing, it decreases income disparity.

The studies cited show that trade liberalization has reduced wage inequalities, leading to a smaller regional polarization. However, large traded sectors also induced migration, particularly for the poor, and offered a higher wage overall, increasing wage inequality because it has only benefited workers in traded sectors but not in non-traded sectors.

Potential policy implications are that investment in manufacturing can be used as means to ease regional wage inequality. The evidence shown in previous studies also suggests that policies that facilitate internal migration will be good for economic growth and reduce income inequality. However, it is important to mention, that those policies should have broad access to ensure it reaches all the households and regions. In this way, it will avoid increasing inequality among households and regions.

## 4 Trade Openness and Internal Migration

Another effect of Trade Openness is migration, as mentioned before: Since labor is one of the main factors of production, its reallocation is vital for the boost of economic activity in a region and for the improved standard of living of those labor that manages to migrate in search of a better-paid job (Todaro and Smith 2011). However, only a limited number of papers study how internal migration responds to international trade in a developing country like Mexico (Arends-Kuenning et al. 2019; Aroca and Maloney 2005; Aguayo Tellez 2005; Flores et al. 2013), and much of the internal migration literature has failed to find a significant impact of international trade on internal migration. Baylis et al. (2012) showed that NAFTA increased regional disparities in Mexico, which might be mitigated through internal migration. Conversely, the structural shift in the economy brought about by trade penalized those who face higher migration barriers most of the time. Failure to account for labor migration may result in an over-estimation of the growing income in the region receiving migrants since 3.98 million Mexicans (4% of the total population in 2000) and 5% of working-age men migrated from one state to another between 1995 and 2000 (Vega 2005; INEGI 2008)<sup>5</sup>. Most of these migrants are workers from the Southern states of Guerrero, Oaxaca, Veracruz, Puebla, and Hidalgo (SEDESOL

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<sup>5</sup>Between 1985 and 1990, the interstate migration was 6% and for 2005 to 2010 was 4%.

2004). The recipient states are in the North—mainly Sinaloa, Sonora, Baja California, and Baja California Sur. By exclusively looking at growth within a region, one will overestimate the benefits of pre-existing residents and estimate a higher increase in income disparity in Mexico because of NAFTA.

Arends-Kuenning et al. (2020) find that the effects of trade liberalization, such as regional transportation benefits, have slightly increased migration towards the US–Mexico border. This evidence agrees with Krugman and Livas-Elizondo’s (1996) finding that trade leads to more migration because the US market appears to be increasing in importance. One of the latest researches (Arends-Kuenning et al. 2019) studies whether migration has increased in response to increased U.S.-Mexico trade and explores factors that facilitate and hinder labor mobility within Mexico.

Unlike earlier work, to identify the effect of NAFTA on internal migration, Arends-Kuenning et al. (2019) estimate the effect of trade openness on the economic activity of different sectors in different locations; then, they estimate the effect of this activity on migration. In this way, they explicitly measure the effect of NAFTA on migration through its effect on regional economic output. Second, they use migration flows at the state-to-district level (instead of the state-to-state level that used previous studies) to identify the relationship between trade and internal migration more clearly. Using spatial state-district level regressions increases the number of observations and the ability to observe geographic patterns. Finally, they explicitly control the spatial nature of the data by using a spatial econometric gravity model of origin-destination flows (LeSage and Pace 2008).

As a result, from previous studies and especially from the latest study (Arends-Kuenning et al. 2019), we conclude that trade openness has increased internal migration in Mexico. But the trade openness effect has diminished across time since Mexico has followed a trade openness policy ever since it joined the GATT in 1986. They also found that the Mexican labor migration to the USA instead of reducing (due to the increase in migration costs and border security), has increased, especially due to the stable US economic growth, especially years after NAFTA, that attracted more Mexican migration (Luckstead et al. 2012). This agrees with Audley et al. (2004), which expected to see a “hump” on Mexican migration to the USA after a trade agreement. This finding contradicts what Aroca and Maloney (2005) discovered: FDI and trade deter Mexico’s out-migration.

Arends-Kuenning et al. (2019) also find other discoveries like increased rural-to-urban migration after NAFTA<sup>6</sup> and how other factors influence migration, such as income disparities in origin and destination regions decreased migration. In addition, investment in infrastructure attracts labor, while the lack of it generates out-migration.

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<sup>6</sup>Like Aguayo Tellez (2005).

## 5 Specialization

Economic inequality has been a challenge throughout Mexico's history (Lomelí Vanegas 2012). It represents a problem with social, political, and economic implications. According to the World Bank, the Gini index in Mexico reached its highest point (since 1990) in 1996 (54.8) and has been declining until then, reaching 45.4 in 2018.<sup>7</sup> Also, Esquivel (2015) mentions that Mexico belongs to the 25% of countries with the highest rate of inequality in the world. In the face of this background of inequality in Mexico, it is necessary to promote public policies that reduce the gap between rich and poor. Specialization could reduce the asymmetry between regions by promoting economic growth and development and increasing the productivity of the less developed regions.

Specialization can foster competitiveness among firms of the same sector, considering that they have a common market. However, this can be challenging for new firms with competitive disadvantages, making them vulnerable against large firms with an established market, suppliers, and customers. In this context, small firms face high entry barriers. In contrast, clustering may cause a market saturation and thus a price reduction. If a region specializes in a certain product, a market saturation can originate competition between producers in terms of prices. The increase of competition (and thus the price reduction) would cause those companies that exceed the market price to leave the market, leading to an oligopolistic market. Consequently, over-saturation of the market would lead to price competition between companies without focusing on achieving innovation or improving the product (Pacheco-Vega 2007).

Also, there is the risk of over-specialization. That means that if most regional production is concentrated in a sector and that industry collapses, the risk of the region's economy being heavily affected increases (Palazuelos 2005). Finally, a large proportion of the economic policy of clusters implies long-term processes that evaluate these policies highly difficult (Navarro 2003). However, despite the risks that exist for markets, the government is an actor that regulates and monitors the markets.

Several case studies in Mexico analyze the effects of different factors in specialized regions. Some of them are Unger (2003), Unger and Chico (2004), Dávila Flores (2008), Pérez and Palacio (2009), and Monge (2012). However, none of them analyzes the impact of specialization on regional economic growth. Only some works analyzed this impact. Díaz-Dapena et al. (2019) find that specialization plays an important role in Mexico's regional economic growth. Conclusion: Better policies fostering specialization, especially through tradable sectors (i.e., manufacturing), will help avoid regional disparities and create more even regional economic growth. In a regional efficiency study, Alvarez et al. (2017) find that states

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<sup>7</sup>See <https://data.worldbank.org/indicator/SI.POV.GINI?locations=MX> accessed on May 16, 2020.

with more specialized economic activity increase output. This also enhances regional economic growth.

As a result, specialization has positively impacted on the region for the Mexican case since it promotes product innovation and competitiveness among firms in the same sector, improves concentration, lowers transaction costs, and impels foreign trade. However, it is worth mentioning that specialization does not imply market concentration or relies on a single regional economic activity. The role of the state, as discussed above, must consider that specialization leads to greater economic growth. Therefore, it must encourage specialization in different productive sectors. In this sense, specialization can be achieved in different economic sectors in the same region. This would transform a municipality or region into a diversified and specialized area.

The conclusions of these studies have far-reaching implications for public policies. Mainly, the results suggest that a region should focus on a unique sector. It must look for the specialization of sectors to increase its economic activity and regional economic development. Therefore, as mentioned before, regional economic policymakers must seek to specialize. And that they should do a rigorous analysis of the municipality's conditions before promoting a strategy of clusters as a trigger for regional economic development.

## 6 Economic Integration and Regional Convergence

Economic integration has a positive impact on the gains of international economics (Paelinck and Polèse 1999). For this reason, it has taken a very important role in the regional economic development literature in the last years. One method to make sure all different regions benefit from economic integration, and there is no evolution of disparities among regions, is using spatial conditional  $\beta$ -convergence.

Among the many papers on convergence applied to the case of Mexico, the following stand out for being the most recent and for their use of more advanced estimation techniques: Díaz-Dapena et al. (2017, 2019), López-González (2016), Rodríguez-Benavides et al. (2016a, b, c), Mendoza and Valdivia (2016), Asuad and Quintana (2010), Carrion-i-Silvestre and Germán-Soto (2009), Gómez and Ventosa-Santaulària (2009), Pedroza et al. (2009), Villarreal and Tykhonenko (2007), Aroca et al. (2005), Chiquiar (2005), Rodríguez-Pose and Sánchez-Reaza (2005), Esquivel and Messmacher (2002), Esquivel et al. (2002) and Sánchez-Reaza and Rodríguez-Pose (2002). Particularly, Sánchez-Reaza and Rodríguez-Pose (2002), Rodríguez-Pose and Sánchez-Reaza (2005), Villarreal and Tykhonenko (2007), and Gómez and Ventosa-Santaulària (2009), found that Mexican States doing more trade with the USA grew faster than others, but that there was no significant change in this pattern after NAFTA was signed. However, they do find evidence that the economic pull of Mexico City lessened after entering NAFTA, lending support to the hypothesis that trade has decreased agglomeration in Mexico. Gómez and Ventosa-Santaulària (2009) underline that trade reforms negatively affected Mexico City and the poorest



states in Mexico, while López-González (2016), Rodríguez-Benavides et al. (2016c), Pedroza et al. (2009), Chiquiar (2005) and Carrion-i-Silvestre and German-Soto (2009) find convergence, but mainly during the 1980s, which is to say that while a convergence process continued after NAFTA, it was less intense. They also find that (richer) Northern States converged faster than the rest of the country, widening the disparity between the Northern States and the rest of the country. This divergence among North and South of Mexico is particularly explored by Esquivel et al. (2002). Rodríguez-Benavides et al. (2016b) find evidence of relative convergence, forming six convergence clubs, when analyzing the period 1970–2012. These results agreed with Rodríguez-Benavides et al. (2016c) where, using a period of 70 years (1940 to 2010), find signs of convergence for the period 1940–1985, but no-evidence of convergence for 1986–2010. Rodríguez-Benavides et al. (2016a) also find divergence across time on all the Mexican states: Only the richer 11 states present convergence during the 1980s period. In contrast, Aroca et al. (2005) do not find that NAFTA substantially changed growth patterns in Mexico, and instead argue that agglomeration has emerged in the form of several income clusters. Similar conclusions were reached by Valdez (2019), Díaz-Dapena et al. (2017) and Baylis et al. (2012), although, different from previous work, they use a spatial growth model and municipal level data.

Apart from Baylis et al. (2012), Díaz-Dapena et al. (2017), and Valdez (2019), the rest of the previously mentioned empirical studies use state-level data, which masks the spatial distribution of economic activity and severely restricts the number of observations. Only Díaz-Dapena et al. (2019), applies this approach to municipal data to observe the intra-state differences that may be occurring. The main sources of agglomeration externalities arise from improved opportunities for labor market pooling, knowledge interactions, specialization, the sharing of inputs and outputs, and the existence of public goods. As the scale and density of urban and industrial agglomerations grow, the external benefits available to companies are also expected to increase (Graham 2006).

Studies done until now agree with each other and show that the integration process has significantly changed the economic activity in Mexico. The results found so far also agree with Paelinck and Polèse (1999) that economic integration has increased regional disparities for the case of Mexico. In addition, there is evidence of a lack of convergence after the signing of NAFTA, increasing regional disparities. There are also proofs that proximity to the USA-Mexico border affects convergence: those places closer to the US border have a higher convergence speed than their counterparts in all the other regions.

As in the other sections, these results highlight the need for a regional development policy; otherwise, regional disparities will continue increasing over time. This policy should foster infrastructure, education, and specialization, especially in those regions that have not converged, such as the south. In addition, however, it would be interesting to analyze how the new political and economic changes in the USA and Mexico since 2017 have affected the regional economic development in Mexico. For this reason, it will be necessary to study how the regional economic development

(and the regional divergence) behave under these new scenarios once the data at the municipal level is available.

## 7 Road Infrastructure and RED

One of the main factors that influence RED is infrastructure, especially road infrastructure. In previous studies, we have seen how market proximity obtained through investment in road infrastructure fosters economic activity in the presence of trade openness (Baylis et al. 2012). Moreover, this investment generates agglomeration and increases productivity: those locations that get better market access (through investment in infrastructure) become more attractive to firms and FDI, which become more productive, concentrate economic growth, generate regional economic development, and, as a result, increased the living standards of the people on the region (Blankespoor et al. 2017).

Mexico experienced large roads in the last decades, mainly from the Federal government (Bess 2014, 2016a, b, 2017). For this reason, Mexico is an excellent place to study how this investment triggered regional economic development and to what sectors and individuals benefited. It is also important to observe how trade openness combine with road investment helped the economic growth in certain areas. Therefore, this section discusses some of the studies done analyzing this factor. One of the latest studies is Blankespoor et al. (2017), which studies how roads influence economic activity in Mexico. Blankespoor et al. (2017) find that road infrastructure has a positive and significant effect on specialization, which, as discussed previously, boost economic activity. These results also agree with Duran-Fernandez and Santos (2014a, b), who find that road infrastructure enhances productivity in Mexico's manufacturing sector. This also fosters regional economic activity. These results agree with previous studies like Calderón et al. (2015), who find that a 10% investment in infrastructure increases GDP per capita between 0.7 and 1%. Due to the lack of infrastructure in Latin-America, the impact is higher (Blankespoor et al. 2017).

Consequently, investing in road infrastructure fosters economic activity, especially in those regions that are left behind. Also, developing nations, such as China and Mexico, are experiencing an increase in transportation demand that must be taken advantage of (Kaack et al. 2018). Thus, Mexico could take this opportunity to boost the economic activity in those regions that are lagging.

There have been other studies on Mexico's road infrastructure. However, there is still a lack of researches that analyzes issues like how railroads<sup>8</sup> and maritime and airports influence economic activity in Mexico. In addition, most of the studies focus on the USA, Canada, and Europe, but not on developing countries.

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<sup>8</sup>Also, due to environmental concerns, we should explore shifting as much freight as possible, from road to rail transportation (Kaack et al. 2018).

As a conclusion of this section, we observed that investments in road infrastructure boost Mexico's economic growth through increased trade, structural transformation, and agglomeration. Moreover, this investment helps creating better trade networks and facilitates the mobility of goods and labor at a lower cost and time. Thus, these studies confirm that investment in infrastructure can help less favored municipalities achieve regional economic development.

## 8 RED Challenges for the New Government

The new president of Mexico, Andres Manuel Lopez Obrador (AMLO), took office on December 1, 2018, and in his inauguration speech, he asked to leave the neoliberalism that had caused so many problems and so much corruption (Mares 2018). Indeed, the model that we have followed has not helped reduce poverty and regional, sectoral, and income disparities in recent years. On the contrary, it has increased them. But we were not told what role model the government would follow. And apparently, the recipe that the president has continued after two years continues to be purely neoliberal (Flórez-Ramírez 2018).

Nevertheless, can we assume that leaving neoliberalism means that Mexico will enter Marxism? Is that what the new government is trying to pursue? In the next paragraphs, we will confront the new government's plan with the effect on RED across Mexico and Mexico's challenges in the next years.

Marxism plays a fundamental role in local and regional development as it studies the correct allocation of production factors (land, labor, capital, and entrepreneurial skills). Capitalism also studies the correct allocation of the factors of production. But for Marxism, the allocation and valorization of labor play a fundamental part. Marxism sought the most efficient allocation of each labor unit to the process where it provides the best profit (utility). Logically, the payment is given to the worker to attract him and make sure he does not go with the competition, also comes into play. It is always seeking to improve the economic well-being of all people and, in this way, society.

Another fundamental factor that comes into play is the factor's mobility (Pike et al. 2016). Especially (again) the workforce. Not only national but also international. Since the early 1900s, people began to migrate to places where there was work, better pay, security, infrastructure, and possibilities for development. The world wars did not help much either in that respect, as people left unsafe places for places where they could grow professionally. This made for an attraction towards growth poles such as the USA or Argentina. Mexico and the US governments created the "Brasero program" (from 1942 to 1964), where many Mexicans migrated to the USA to help Americans produce whatever was necessary to win the war. Most Mexican worked in agriculture. The Mexicans were expected to return to Mexico at the end of the program. But most stayed there, causing the first wave of illegal migrants from Mexico to the USA (Hanson 2006).

In the same way, growth poles were also created, such as rural areas in Mexico where there was no possibility of obtaining work or having growth and where most of the young people migrated to the big cities. This generated economic, social, gender, and even ethnic disparities. Thus, the marxist economic policy focuses on external forces transforming the economy and social change in localities and regions (Pike et al. 2016).

In Mexico, this created a “black hole:” Mexico City grew insatiably at the expense of the surrounding regions. But it created a lack of growth on the periphery. Everything that was produced in the province was to satisfy the growth of Mexico City. Even the human factor from any part of the provinces decided to migrate to Mexico City because it was the only place that offered a stable and secure job. Without knowing that even within Mexico City, an income disparity was brewing between the various social classes, which would lead to the Tlatelolco massacre (which we will explain later). This caused decades of regional disparities that only came to a minority with the North American Free Trade Agreement (NAFTA). Although it created a new regional disparity: the border states began to grow rapidly, leaving the rest of the country behind (Sánchez-Reaza and Rodríguez-Pose 2002).

During the late 1960s through the 1980s, the structural changes caused by capitalism created a renewed interest in Marxism. The growth disparity that caused countries in the Northern Hemisphere to grow while countries in the Southern Hemisphere lagged was believed to be due to colonialism and the capital system that came with it (Pike et al. 2016). The force of Marxist perspectives then fell on the study of classes and their problems. Mainly in its economic problems and how they can be solved through political institutions addressing these problems. That is why the role of the state is so important in Marxism. This was what caused various social groups to take up arms in 1967 in France and Chile. This was reflected in the student uprising (better known as the 1968-movement), which ended in the “Plaza de las 3 Culturas” massacre on October 2, 1968. Hence, the Marxist movements began to fade to the point that, by the end of 1969, there was no longer the same force.

The neo-Marxist ideas began in the 1970s, where political reductionism and a movement towards the social bases of power are sought, without an armed struggle, but rather, a social analysis of adaptation. It is of interest the concern for issues as important (and essential) as housing for society. Since it was thought that housing was an emphasis towards “tenure policy.” The state’s political power over private capital stands out to provide housing to all social groups (Kemeny 2013).

In the 1980s, the Marxist theory of the state came to life, particularly in ideological terms where the return to the state is sought again. But unfortunately, for the Mexican case, this never happened. On the contrary, they only sought to solve the problems in the short term, which was detonated in the armed uprising of the EZLN in Chiapas on January 1, 1994.

It is through examples such as Mexico that Marxism interpreted economic growth as episodes of convergence and divergence. Thus, criticizing neoliberalism creates these geographic disparities and fragmentation in different social classes (Pike et al. 2016). For example, this is what caused the uprising in arms of the Zapatista Army in Chiapas in 1994: Seeing so much disparity, so much class struggle, and the

ignorance of the federal government headed by President Carlos Salinas de Gortari towards the problems of Chiapas, an armed group decided to rise in arms and take several municipalities. For these same reasons that Neo-Marxism became so important in the late 1960s in Mexico.

We can conclude, for this section, that both Marxism and Neo-Marxism of the twenty-first century seek a large State that influences, as a political instrument and mediator, in the search and satisfaction of the interests of society. But it is no longer a Marxism like that of Marx and Engel, which sought to liberate the workers from the yoke of the capitalists (bourgeoisie) through the revolution. Rather, it is a Marxism that measures its forces to seek, from the state's economic policy, to intervene, as an arbitrator, in which the minimum standards for the workers are met. Thus, ensuring that societies are cared for. Especially the low-income groups. It is what is now known as a paternalistic state or social capitalism.

As I have tried to explain, neoliberalism is concerned with economic growth, income, regional disparities, and convergence. We colloquially call "free markets," where international trade and comparative advantages are key to success. In a way, Marxism is also concerned with economic growth. But it focuses on the division of labor and on monitoring the equity of benefits to workers. Thus, both ideologies are not opposites or substitutes for each other. Rather, they are complementary: one needs the other because while neoliberalism is concerned with economic growth, it neglects its inequalities in its wake. Marxism worries that the lower social classes do not lack anything. It is like capitalism with a paternalistic state or social Neoliberalism.

History has shown us that either of these two ideologies alone does not guarantee a good result. That is why Mexico will have to get the best of each one and adapt it to our case, "Tropicalize it to our environment," because each of them has shown us failures. Flaws that the other ideology has tried to correct. And that, as a conclusion, we have to look for the resources and capacities that we have so that (under a neoliberal social model) we look for our comparative advantages and thus achieve sustainable economic growth. And that, with strong institutions, we achieve a paternalistic State that implements social programs that manage to correct the market failures that cause these disparities (regional, income, and sectoral). But that we cannot only focus on creating social programs since we would have a fiscal deficit, and the new administration has been hectic to increase taxes to have a balanced budget. It has taken decisions to reduce government expenditure instead. Therefore, we have to grow the economy first to collect more taxes and then create social programs and monitor effectiveness. As Antonio Solá, political strategist, said, "govern the business community with the right hand [using a neoliberal model] and the sectors and social programs with the left [using a Marxist model]." That is why the best model that AMLO could follow, but has not followed, is a Social Democratic government, which considers the private property of capitalism and the private initiative of neoliberalism. But continues to care about society, especially the most vulnerable.

During the last 2 years, Mexico has experienced a recession that has been worsened by the COVID pandemic in most of 2020, creating a severe economic

crisis. Unfortunately, the second wave of infections in October 2020 forecast that the economic recovery will take many years to recover the GDP Mexico reached in 2018. OECD (2020) forecast that Mexico will have a GDP growth in 2020 of  $-9\%$  and unemployment will reach  $8.5\%$ . These will create a heavy burden on RED in Mexico. There will be more regional disparities. Regions that have had stable growth in the last years (i.e., the US–Mexico border region, the Bajío) will continue growing at a lower phase. But regions with low (or no) economic growth in the last decade will lag further. These will create a larger diversion among regions. These effects will also be noticed among sectors: tradable sectors will reactivate faster than non-tradable sectors, leaving a large disparity. This will also create a larger internal migration than the one seen before. People will leave south/rural areas for north/urban areas, close to the border, search for better and more secure income. Unfortunately, AMLO's administration has not presented a regional policy to foster economic growth in those regions lagging. Neither have they presented a regional policy to counteract this pandemic. This lack of a real regional policy will create an even lengthier recuperation and heavier regional disparities. Therefore, the challenge facing the new future is to have a regional policy focused on regions, sectors, and individuals more vulnerable to the crisis. As Ascani et al. (2012) mention, Mexico should focus on a devolution: to transfer the central power to a more local/regional administration to reach regional economic growth and avoid regional disparities. No better entity knows the needs of the region than their local government. Without a regional policy, at a local level, Mexico will only increase its spatial inequalities. Therefore, It is impossible to reach RED in the future without a devolution. To analyze the challenge each region and sector faces in the next decade to tackle it and reach RED.

## 9 Conclusions

As discussed in this chapter, many factors influence Regional Economic Development in Mexico. Here I focused only on a few of them. First, we discussed how trade openness increased regional disparities, increased internal migration and migration to the USA, and reduced wage inequalities, evading an even regional economic development. Second, regions closer to the US border, which tend to be wealthier, benefited more from trade to grow faster than other regions. Similarly, those regions with pre-existing export industries, such as the Northern manufacturing centers, benefited the most from trade. Third, the urban labor market benefited more (than labor in rural regions) because of their higher reliance on skilled wages, whereas rural labor tends to work more in agriculture and often consumes most of what they produce. Finally, we observed an increasing inter-regional wage disparity, which induced more internal migration and migration to the USA.

We observe that trade liberalization reduced wage inequalities, leading to a smaller regional polarization. However, large traded sectors also induced migration, particularly for the poor, and offered a higher wage overall, increasing wage

inequality because it has only benefited workers in traded sectors but not in non-traded sectors. Potential policy implications are that investment in manufacturing can be used as means to ease regional wage inequality. The evidence also suggests that policies that facilitate internal migration will benefit economic growth and reduce income inequality. However, those policies should have broad access to make sure it reaches all household and regions. In this way, it will avoid increasing inequality among households and regions.

Trade openness has increased internal migration in Mexico. But the effect of trade openness has diminished across time since Mexico has followed a trade openness policy ever since it joined the GATT in 1986. We also learned that Mexican labor migration to the USA instead of reducing (due to the increase in migration costs and border security) has increased, especially due to the stable US economic growth, especially years after NAFTA, attracting more migrants. Also, we learned about an increase in rural-to-urban migration after NAFTA and how other factors influence migration: income disparities in origin and destination regions decreased migration. The policy implication of this is that investing in infrastructure will attract labor.

We learn that Mexico benefited from specialization in the region since it promotes product innovation and competitiveness among firms in the same sector, improves concentration, lowers transaction costs, and impels foreign trade. The policy implications of these results are that Mexico's regions should focus on a unique sector to increase its economic activity and regional economic development. But, a rigorous analysis of the conditions of each municipality should be done before promoting a strategy of clusters as a trigger for regional economic development.

From the convergence studies, we learned that there is a lack of convergence after the signing of NAFTA, increasing regional disparities. And that proximity to the US–Mexico border affects convergence. Therefore, there is a need for a regional development policy since the regional disparities will continue increasing over time. This policy should foster infrastructure, education, and specialization, especially in those regions that have not converged, such as the south.

We observed that investments in road infrastructure boost Mexico's economic growth through increased trade, structural transformation, and agglomeration. Moreover, this investment helps create better trade networks and facilitates the mobility of goods and labor at a lower cost and time. Thus, these studies confirm that investment in infrastructure can help less favored municipalities achieve regional economic development.

Finally, we also notice that the current federal administration does not count with a regional policy. And that the lack of it during the recession and the pandemic Mexico has suffered in the last year will hinder the RED of most of the Mexican regions for the next years. The situation Mexico is having in the last two years will increase the spatial inequalities across the nation. To avoid that, Mexico should create a regional policy focus on devolution. This will let each region focus on their comparative advantages, create programs that will allow them to face their problems better, and reach sustainable economic growth faster.

This chapter has some limitations. For example, it does not study the impact climate has on regional economic development. This is because there are no studies yet analyzing this impact in Mexico. I have also left out the studies done about how

security, or lack of it, has also influenced regional economic development. For this topic, I recommend Alvarez et al. (2017), Nuñez et al. (2017), Garduño-Rivera and Nuñez (2014), Nuñez and Garduño (2014), among others.

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