The economic and social cohesion of the NAFTA countries – selected aspects and policy recommendations

Countries forming an integration grouping set different objectives. The leading goals include accelerating economic growth, ensuring further socio-economic development of the member states, creating welfare, and increasing the standard of living. The aim of the paper is to discuss the impact of the functioning of NAFTA on socio-economic disparities within this group and to indicate changes taking place in the field of cohesion after the financial and economic crisis. The development of the regions of the NAFTA countries was also affected by the crisis. In the case of functioning in a given integration grouping, it is necessary to strengthen economic policies of individual member states to ensure cohesion, especially its social dimension. The following research methods have been used in the paper: critical analysis of source literature and analysis of statistical data.

Keywords: cohesion, NAFTA, regions, regional development, interregional disparities

JEL classification: F15, R12
Introduction

Countries forming an integration grouping set different objectives. The leading goals include accelerating economic growth, ensuring further socio-economic development of the member states, creating welfare, and increasing the standard of living. It is expected that all members will benefit from trade liberalisation and free flow of production factors. Nevertheless, the development of the particular economies is uneven. In addition, integration processes may cause various regional effects. On the one hand, they may contribute to improving the dynamics of regional development; on the other, some territorial units may experience certain negative effects, which may, in turn, result in deepening interregional disparities, and thus affect the cohesion of the group.

This entails the need to implement economic policy instruments, in particular regional ones, aimed at supporting the development of regions and raising their competitiveness. In groups characterised by a low degree of institutionalisation, the implementation of common policies aimed at strengthening regional development is not envisaged, and therefore the main burden of financing changes in territorial units which experience difficulties rests on individual member states. The North American Free Trade Area (NAFTA) includes: the US, Canada, and Mexico – countries that differ not only in terms of economic potential and production structure, but also the level of development of individual regions.

The aim of the paper is to discuss the impact of the functioning of NAFTA on socio-economic disparities within this group and to indicate changes in cohesion taking place after the financial and economic crisis. It is claimed that cohesion within the group as well as within the individual countries changed over the years 2003–2015 and the crisis had a strong impact on the economic situation of some regions. In the case of functioning in a given integration grouping, it is necessary to strengthen the economic policies of individual member states to ensure cohesion, especially its social dimension. The following research methods have been used in the paper: critical analysis of source literature and analysis of statistical data.

1. Spatial consequences of the functioning of NAFTA

Integration groups fulfil specific objectives mainly related to ensuring economic growth and increasing its dynamics in the member states, developing cooperation, and improving the welfare of citizens, which is reflected in the provisions of NAFTA. This free trade area was established under a treaty signed in 1992, which entered into force on 1 January 1994. In the preamble, in addition to the implementation of provisions directly related to trade, the parties undertook,
e.g., to strengthen the cooperation, create appropriate conditions for business and investment, promote creativity and innovation, create new employment opportunities, improve working conditions and living standards, ensure flexibility in securing the welfare of people, and promote sustainable development. In other provisions of Chapter One of the treaty, the parties undertook to establish a free trade area (Art. 101) and thus to eliminate barriers to trade, promote conditions of fair competition, create opportunities for investment, protect intellectual property rights, ensure proper procedures for the resolution of disputes (Art. 102), and “establish a framework for further trilateral, regional and multilateral cooperation to expand and enhance the benefits of this Agreement” (Art. 102f).

Source literature indicates the effects that may occur as a result of the establishment of a free trade area in relation to the elimination of customs duties and other barriers to trade, including both static short-term effects – i.e., trade and non-trade effects occurring in the sphere of investment, production, and consumption – and dynamic effects which refer to the intensification of the economic growth rate [Boźyк, Misala, 2003, pp. 88–109]. Deepening processes of economic integration affect the economic and social situation of individual regions [Gawlikowska-Hueckel, 2003, pp. 130–179; Balassa, 2011] and thus the cohesion of the group. The establishment of a free trade area carries not only benefits but also risks which may result from the gradual reduction of market protection, as the sensitivity of regional economies to trade liberalisation is diversified and depends on several factors. In the short term, this process may have negative consequences for regions with a traditional production structure and an unattractive export offer, while in the long term the functioning of a free trade area may lead to gradual structural adjustments and an improvement of welfare [Gawlikowska-Hueckel, 2003, pp. 130–132]. In the social aspect, trade liberalisation should be an important mechanism leading to poverty reduction; however, it is only one of many contributing factors. It also causes distributional effects, limiting the welfare of some people, including the poor. The final effects of eliminating barriers to trade vary depending on a number of factors – including the initial situation, the reform measures undertaken to reduce poverty, who the poor are – and thus on the environment in which the liberalisation process takes place [Winters, McCulloch, McKai, 2004]. It can be concluded that “trade liberalization can be an important component of a ‘pro-poor’ development strategy” [Winters, McCulloch, McKai, 2004, p. 108].

As follows from the conducted analyses, the functioning of NAFTA should contribute to improving the welfare of citizens of the member states and their regions. It should be noted that the precise determination of the effects of its func-

\[1\] See, e.g., the issue related to the deepening of regional integration and the occurrence of territorial disparities in terms of income level and production structure in: [Puga, 1999].
tioning causes certain difficulties due to the fact that a lot of factors, including those not directly related to the agreement, such as the devaluation of the peso and the financial and economic crisis, affected the structure of trade and investment as well as the development of the economies of the member states. Attention is drawn to both general benefits of the functioning of NAFTA, such as economic growth, and short-term adjustment costs experienced by individual partners [Villareal, Fergusson, 2015, pp. 10–27]. In particular, the effects of NAFTA were largely affected by the changes in trading and investment conditions with Mexico, as a free trade area between the US and Canada had already existed [Villareal, Fergusson, 2015, p. 10].

The reduction of customs duty rates within NAFTA affected the changes in trade and the improvement of the welfare of its member states, mostly Mexico and the US; in the case of Canada, it deteriorated. Most of the benefits are associated with trade growth. It is emphasised that trade developed better between the members states than in relation to third countries [Caliendo, Parro, 2014]. This is also pointed out by Krueger [2000], who notes the positive effect of the intensification of mutual trade, even though it is not significant. However, as shown by Coughlin and Wall [2003] based on the analysis of the US and its regions (states) as well as their export of goods, the effects of NAFTA at the regional level are diverse and differ from its consequences for the entire country. According to the presented research results, most US regions (states) experienced an increase in exports to Mexico and Canada, although to a different degree, but some recorded a decline. NAFTA also affected exports of US regions to third countries.

The functioning of NAFTA has spatial effects as well. Economic growth was observed in Mexican regions characterised by higher added value; consequently, as a result of trade liberalisation, disparities deepened instead of being reduced. Wealthier Mexican regions on the border with the US recorded higher economic growth rate than those located away from the border. Larger municipalities and cities, in particular in the north of Mexico, enjoyed the benefits of NAFTA, which was reflected in increased GDP per capita. As a result, the North–South divide that had already existed deepened. An increase in the concentration of economic activities in richer regions in the north of Mexico was observed, which also resulted in an increased inflow of employees [Garduño Rivera, 2012, pp. 2, 4–24, 75].

Other consequences concerned migration. Before the establishment of NAFTA most workers migrated to the northern border states of Mexico, especially urban ones. After its establishment there was an increase, and not a decrease, in internal migration; an increase in migration to the US was also observed [Garduño Rivera, 2012, pp. ii, 2, 31–50]. The process of trade liberalisation contributed to the reduction of income inequalities, and thus to a slight polarisation. While low-wage employees fully benefited from NAFTA, high-wage workers did not experience such beneficial effects. Low-wage employees worked mainly in regions lo-
cated far from the US–Mexico border and were more likely to migrate [Garduño Rivera, pp. ii–iii, 2–3, 58–72, 76].

Analysing the impact of the opening of the economy of Mexico as a result of economic integration within NAFTA on regional disparities in this country, Sánchez-Reaza and Rodríguez-Pose indicate the occurrence of shifts in the growth patterns and deepening of inequalities. Rapidly growing states (according to data from 1993–1998) are located along the border with the US, taking advantage of the proximity to this border and of the access to a large market; central states were characterised by different (both high and low) growth rates, whereas states in which the oil industry played an important role – Campeche and Tabasco – achieved a negative increase per capita. Factors that affect the economic growth in the NAFTA regions include access to the international market, proximity to the US, investments made in maquiladoras, etc. The process of economic integration within NAFTA and the opening of the Mexican market had a positive influence on the economy of this country in general; however, as it has already been pointed out, it led to territorial polarisation and deepened the gap between the most developed and the poorest regions. States located in proximity to the US market enjoyed the greatest benefits. As this may lead to the deepening of disparities between the northern and the southern regions in this country, there is a need to support the development of the South to reduce economic polarization. Analysing the impact of integration on the convergence of income at the regional level in 1993–2006, other authors indicated the output absolute convergence in Mexico, except that its rate is higher in the states located along the northern border. The states close to them quickly increased the convergence rate, unlike the southern states, which turned out to be unable to improve their situation; the convergence rate in the central regions was lower. The authors emphasise the impact of trade, foreign direct investment, and international migration on GDP per capita [Cabral, Varella Mollick, 2012].

Other studies show that not only trade, but also inequalities between the partners increased. NAFTA was least beneficial to Mexico, which experienced an increase in unemployment, regional disparities, and regional income inequalities [Hartman, 2011]. The opportunities offered by NAFTA did not contribute to reducing poverty, as the richer regions of this country in the period of 1994–2007 enjoyed higher benefits [Alvarado, 2008].

The results of the analysis carried out by Costa-Font and Rodriguez-Oreggia [2005] concerning the impact of trade, public investment, and other factors on regional income, i.a. on Mexican regions in the years 1993–2000, show that regional inequalities are, to a large extent, related to the export potential of a given region. Factors such as being a cross-border region have an impact not only on income, but also on economic growth, and actions aimed at eliminating differences in the human capital contribute to the reduction of regional income inequalities. Cough-
lin and Wall [2003] point out that faster growth was observed in the case of the US regions which are more susceptible to export-related effects within NAFTA.

Income inequalities also bring up questions concerning the effects associated with it, in particular with regard to economic growth within NAFTA. It is pointed out that the gap between the rich and the poor contributes to slower economic growth, which is more beneficial to the rich, as shown by the results of the research carried out by the OECD. In the OECD countries, in the analysed period of 1970–2010, a long-term increase in disposable income inequalities affected economic growth in the long run. They acted as a brake on economic growth not only in developed countries, but also in emerging economies. Redistributive measures taken to reduce such inequalities do not result in lower growth, but additional solutions are still being sought. This growing gap has the greatest impact on growth, at the same time reducing the potential of the poorest to invest in education and qualifications. Therefore, it is important to ensure equality of opportunities [OECD, 2015, pp. 2–27, 60].

These considerations lead to the question concerning the current cohesion in NAFTA. Cohesion can be understood as “the degree to which disparities in social and economic welfare between the different regions or groups within the EU are politically or socially tolerable” [Molle, 2007, p. 5] and seen from economic, social, and territorial perspective. Further considerations concern cohesion in terms of GDP and welfare of citizens.

2. Cohesion of NAFTA in the years 2003–2015²

2.1. Changes in the economic potential in the NAFTA countries

NAFTA was an “experiment” [Zołądkiewicz, 2001, pp. 121–122]³, because it was established by countries that differ not only in economic potential but also in the level of socio-economic development. Currently, according to the International Monetary Fund [2017, pp. 221–222], the US and Canada constitute “major advanced economies”, and Mexico is classified as an “emerging market and developing economy”. Therefore, it is important to identify the existing disparities in the economic potential of the NAFTA member states and their regions, the welfare of citizens, and ongoing transformations taking place over the years. GDP was used to measure the economic potential, and GDP per capita to determine the wealth of the citizens. The analysis covered the years 2003–2015⁴.

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² Section 2 of the paper uses data derived from the OECD database.
³ More information on the impact of the functioning of this free trade area on the economies of individual member states in: [Zołądkiewicz, 2001, pp. 120–178].
⁴ Diversified time range of data results from their availability for the regions.
The US is the dominant economy in this group; in 2003, its share in its total GDP was 83.71%, i.e., USD 13,350,800 mn (PPP, constant prices, base year 2010). The share of Canada was 7.58%, and Mexico 8.71%. In 2015, GDP of the entire group amounted to USD 19,878,650 mn, which represents a value higher by 24.6% as compared to 2003 (25.4% higher for Canada, 34.9% for Mexico, and 23.5% for the US); the share of the US slightly decreased and amounted to 83%, whereas the shares of Mexico and Canada increased and amounted to 9.4% and 7.6%, respectively. Therefore, the highest real increase in this period was recorded in Mexico.

The analysis shows that in the years 2003–2015 GDP systematically increased in each of the countries, but the financial and economic crisis undermined the positive changes. In 2009, the US, Canada, and Mexico experienced a decline in GDP, which was lower by 2.85%, 2.9%, and 6.3%, respectively, as compared to 2003. Therefore, it can be concluded that 2009 was the year in which the structure changed.

The analysis of GDP per capita confirms its systematic growth. In 2015, it amounted to USD 51,303 in the US (PPP, constant prices), 42,273 in Canada, and 14,482 in Mexico. Significant differences between GDP per capita of the US and Mexico still persist. In 2003, GDP per capita in Mexico was 3.5 times lower than in the US; in 2015 the difference slightly decreased and it was 3.4 times lower.

![Figure 1. GDP per capita in the NAFTA countries (USD, PPP, constant prices, 2010 = 100)](source)

The analysis of the average rate of changes in GDP per capita in the NAFTA countries shows that in the case of Canada and Mexico it was higher in the years 2003–2008 than in 2009–2015. However, in the case of the US, the average rate of changes in GDP per capita increased in the post-crisis period as compared to the years 2003–2008.

Deepening income inequalities in the NAFTA countries are observed. For Canada, the Gini coefficient amounted to 0.315 in 2003 and 0.318 in 2015 (accord-
ing to the new definition of income). For the US, it amounted to 0.374 in 2003 and 0.389 in 2012 (according to the definition applicable until 2011), but to 0.396 in 2013 and 0.39 in 2015 (according to the new definition). The largest inequalities still occur in Mexico, for which the Gini coefficient amounted to 0.474 in 2004 and 0.482 in 2012 (according to the definition applicable until 2012), 0.457 in 2012 and 0.459 in 2014 (according to the new definition).

Figure 2. Average rate of changes in GDP per capita in the NAFTA countries
Source: Own elaboration based on data from the OECD database.

Mexico is economically divided – the central and northern states are more dynamic and advanced, with highly productive modern economy and more highly educated workforce, while the southern states have a less productive traditional economy and more people employed informally and with limited access to education. “Two Mexicos” are therefore distinguished [GPF, 2017a; OECD, 2017, p. 10]. Geopolitical factors (e.g. the colonization era) have a strong impact on the disparities in the Mexican economy [GPF, 2017b]. Cultural factors, including different education levels, also contribute to the existing disparities. The share of people with tertiary education aged 25–64 in Mexico was low (18.6% in 2015, compared to 34% in the OECD countries). There are also significant regional differences in educational outcomes and lack of skills is reported by companies as a constraint. There are also large gender inequalities; women suffer from discrimination, earn less than men, and their participation in labour force is low. Employment rate for women aged 15–64 was 44.7% (58.5% in the OECD) while for men 78.3% [OECD, 2017, pp. 8, 10, 32–36].

2.2. Regional cohesion within NAFTA in terms of GDP per capita

These analyses lead to the question whether the positive effects related to the improvement of the economic situation of the NAFTA countries were also observed in their regions and, at the same time, whether the economic crisis affected
the dynamics of changes in their welfare. The regional analysis covers territorial units defined as large regions according to the OECD, i.e., 13 regions in Canada, 32 in Mexico, and 51 in the US.

In each country there are leading regions that contribute most to GDP. In 2015, in Canada, 4 regions generated over 86% of total GDP: Ontario (38.4%), Quebec (19.2%), Alberta (16.4%) and British Columbia (12.6%). In Mexico, such high concentration is not observed; in 2015, the Federal District had the largest share in GDP (16.74%), followed by Nuevo Leon (7.53%) (USD, PPP, current prices). In the US, California is the leading state (13.85%), followed by Texas (9.10%), New York (8%), Florida (4.96%), and Illinois (4.34%). This indicates disparities in the development of these countries and a concentration of growth rate in several territorial units.

The analysis of the average rate of changes in GDP per capita (USD, constant prices, PPP) in the two analysed periods, i.e., 2003–2008 and 2009–2015, shows that the growth rate was different in each of these countries – there were regions that experienced significant declines and other that recorded economic growth.

![Figure 3. Differences in average growth rate of GDP per capita in Canada, 2003–2008 and 2009–2015](image)
Source: Own elaboration based on data from the OECD database.

It is worth analysing the situation of the border regions of Mexico. A decrease in the growth rates of GDP per capita in the years 2009–2015 as compared to 2003–2008 was observed in some regions, including Baja California, Sonora, and Nuevo Leon near the border as well as the Federal District of Mexico, Veracruz, Tabasco, Campeche, and Yucatan along the Gulf of Mexico.

In 2015, the average GDP per capita in the US increased as compared to 2008 and 2003. However, this was accompanied by an increase in regional disparities. While in 2003 the ratio of GDP per capita of the richest region to the poorest was 4.97, in 2015 it amounted to 5.1. In 2015, the District of Columbia was the richest region with the highest GDP per capita amounting to USD 167,205.

In Mexico, regional disparities in terms of GDP per capita are very high. The ratio of the richest region to the poorest was 14.99 in 2003, over 21 in 2008, and 8.76 in 2015. Campeche was the richest region in 2003 with GDP per capita amounting
to USD 90,186; in 2015, this indicator decreased to USD 53,582 (constant prices). In 2003 and 2015, Chiapas was the poorest region. Regional disparities increased until 2008, and then decreased, even though they are still as high.

In Canada, there was a decrease in regional disparities in terms of GDP per capita in the years 2003–2015, but the financial and economic crisis resulted in a slight increase.
Table 1. Disparities in the regional development of Mexico, the US, and Canada in terms of GDP per capita in light of selected dispersion measures (USD, PPP, constant prices, 2010 = 100)

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Average</th>
<th>Median value</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Lower quartile</th>
<th>Upper quartile</th>
<th>Standard deviation</th>
<th>Coefficient of variation</th>
<th>Ratio of GDP per capita</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>2003</td>
<td>14,992.50</td>
<td>11,602.50</td>
<td>6,016</td>
<td>90,186</td>
<td>8,895.500</td>
<td>15,026.50</td>
<td>14,581.66</td>
<td>97.25968</td>
<td>14.99</td>
<td>84,170</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>17,886.06</td>
<td>12,799.50</td>
<td>6,130</td>
<td>131,034</td>
<td>10,046.50</td>
<td>17,413.00</td>
<td>119.9877</td>
<td>21.38</td>
<td>124,904</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>16,320.53</td>
<td>14,122.00</td>
<td>6,118</td>
<td>53,582</td>
<td>11,073.50</td>
<td>18,705.00</td>
<td>55.76718</td>
<td>8.76</td>
<td>47,464</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>2003</td>
<td>46,254.84</td>
<td>43,292.00</td>
<td>30,032</td>
<td>149,403</td>
<td>40,253.00</td>
<td>49,223.00</td>
<td>36.02640</td>
<td>4.974794</td>
<td>119,371</td>
<td>137,547</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>50,494.75</td>
<td>46,568.00</td>
<td>33,607</td>
<td>171,154</td>
<td>41,615.00</td>
<td>52,167.00</td>
<td>39.55344</td>
<td>5.092808</td>
<td>134,663</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>51,652.92</td>
<td>48,408.00</td>
<td>32,542</td>
<td>167,205</td>
<td>43,433.00</td>
<td>55,590.00</td>
<td>36.45826</td>
<td>5.138129</td>
<td>134,663</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>2003</td>
<td>39,724.92</td>
<td>34,315.00</td>
<td>26,782</td>
<td>88,369</td>
<td>32,011.00</td>
<td>40,236.00</td>
<td>40.37563</td>
<td>3.299567</td>
<td>61,587</td>
<td></td>
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<tr>
<td></td>
<td>2008</td>
<td>45,979.08</td>
<td>38,876.00</td>
<td>28,200</td>
<td>95,394</td>
<td>33,340.00</td>
<td>50,823.00</td>
<td>40.57411</td>
<td>3.382766</td>
<td>67,194</td>
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<tr>
<td></td>
<td>2015</td>
<td>46,242.77</td>
<td>42,210.00</td>
<td>32,165</td>
<td>83,259</td>
<td>35,193.00</td>
<td>53,515.00</td>
<td>31.15326</td>
<td>2.588497</td>
<td>51,094</td>
<td></td>
</tr>
</tbody>
</table>

Source: Own elaboration based on data from the OECD database.
Conclusions

The above analyses show that the establishment of NAFTA contributed to the development of its member states; however, it also carries certain negative territorial implications. The regional development of these countries was also affected by the financial and economic crisis, as a result of which in the years 2009–2015 the growth rate of some regions decreased.

The economic policies of the analysed member states have prioritised measures to ensure cohesion. The economic policy in Mexico should focus on the development of infrastructure, training, and health to reduce the existing disparities and promote inclusive growth. Measures aimed at poverty reduction should also be developed. Structural reforms are being introduced since 2012 to address some of the problems, e.g., poverty, insufficient educational achievements, low participation of women in the workforce. Reforms at an advanced stage of implementation concern the tax policy, financial sector liberalization, competition policy, regulatory reform, and the opening of the energy market [OECD, 2017, pp. 10, 14].

The Ministry of Agrarian, Territorial, and Urban Development, established in Mexico in 2013, is responsible for urban and housing development on a federal level. One of the strategic areas of the 2013–2018 National Development Plan is a “transition towards a model of sustainable urban development”. The development of regional clusters of innovation and sectors is also promoted. In Canada, regional development agencies promote innovation and skills on a regional level as well as a national innovation policy. In the US, attempts have been made to more efficiently coordinate and integrate regional development policies. The policy of the US focuses on the development of rural businesses as well [OECD, 2014, pp. 226, 260, 286].

Further research should focus on identifying the causes of such diversified growth rates of regions, their internal and external factors, and on a detailed analysis of cohesion, taking smaller territorial units into account. The ongoing changes in GDP per capita are more pronounced at the intra-regional level. Other indicators of the existing disparities – in terms of, e.g., R&D – should also be included in the analysis.

References


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