ECONOMIC IMPACT OF MEXICO´S INVOLVEMENT TO THE NORTH AMERICAN FREE TRADE AGREEMENT: THE CASE OF FOREIGN TRADE

Ingrid Majerová
e-mail: majerova@opf.slu.cz

Silesian University in Opava, School of Business Administration in Karviná, Czech Republic

Abstract. This article aims to analyze the effects of the involvement of Mexico to the North American Free Trade Agreement, in which the countries with different economic maturity are involved. The hypothesis of predominance of positive impacts on the US and Canadian economy, compared with fewer positives on the Mexican economy was determined and subsequently verified. The hypothesis was tested using calculations arising from the development of foreign trade of member countries, applying the method of description, analysis and comparison. Based on these calculations, the hypothesis was rejected due to NAFTA´s greatest impact on Mexico's foreign trade.

Key words: Canada, foreign trade, Mexico, North American Free Trade Agreement, U.S.

Introduction

The North American Free Trade Agreement (NAFTA) came into force in 1994 and it integrated three economies of the American continent – Canada, the United States of America and the Mexican Republic. This step was, from the trade perspectives on the North American continent, very important – one of the economically and demographically largest free trade areas in the world was created in that time. As the signatory countries were developing Mexico and highly economically developed United States of America and Canada, a unique integration grouping linking the countries with different economic maturity was born.

The central thrust of the agreement is to eliminate the vast majority of tariffs on products traded among the United States, Mexico, and Canada (Teslik 2008: 1). One of the biggest issues NAFTA accomplished was to cut steep Mexican tariffs on U.S. goods. Half of all American imports from Mexico were already duty-free before NAFTA establishment because of the 1976 Generalized

System of Preferences. Mexico, on the other hand, imposed brutal tariffs on American goods. The U.S. tariff on Mexican cars was 2.5 percents, the Mexican tariff on U.S. cars was 21.5 percents (Reynolds 2008: 1).

Numerous studies suggest that NAFTA achieved many of the intended trade and economic benefits (Hufbauer, Schott 2005; Weintraub 2004; U.S. Chamber of Commerce 2010). It is probable that NAFTA helped Mexico to improve its innovations (Lederman et al. 2005: 61)

There have been many positive changes connected with the creation of this free trade zone. One of them was a significant increase in intraregional trade flows of member countries. This specification of the problem was the basis for setting the aim of paper and subsequent hypothesis. The main aim of the paper is find out the influence of the involvement of Mexico into the integration grouping NAFTA. According it the hypothesis was determined: Has the creation of NAFTA significantly positive impact on the U.S. and Canadian economies and a less positive impact on the Mexican economy? This hypothesis is verified by comparing the percentage changes in the development of foreign trade between countries of agreements on the total foreign trade of each country. The secondary aim is to describe the impact of Mexico's participation in NAFTA through the comparison of macroeconomic indicators and the analysis of foreign trade development within the Member States before and after the formation of the North American Free Trade Agreement.

1. The impact of Mexico´s involvement into NAFTA integration group

After NAFTA implementation, the duties on nearly 50% of all industrial products imported from the United States were immediately eliminated in Mexico, the remaining tariffs on industrial goods were eliminated till 2003, and tariffs on exports of certain U.S. agricultural products to Mexico were gradually being abolished until 1st January 2008 (International Trade Administration 2008: 26).

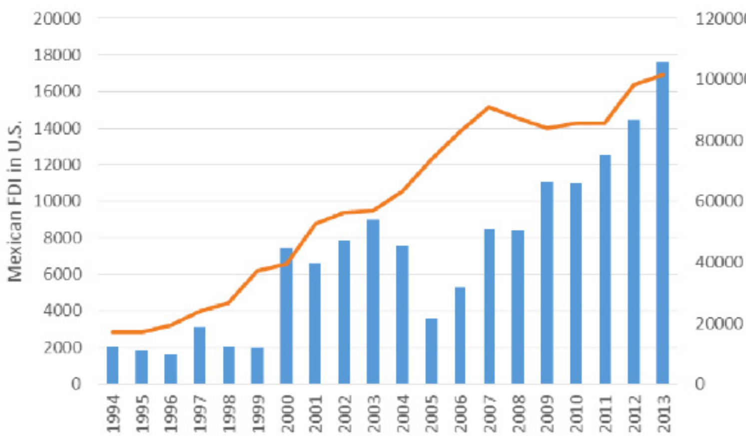
The elimination of tariffs between Canada, Mexico and the United States was innovative, risky and controversial. NAFTA has become the focus of complaints about globalization, capitalism and the decline of organized labor for many critics. Many believed that the contract will result in pay cuts, job losses and the destruction of the agricultural sector in the US. Instead, NAFTA supported the economies of all three signatory countries and has become a model for other free trade agreements (Boskin 2014: 1). However, it did not help to achieve large economic gains, as some of its supporters had expected, and despite the promises it failed to fulfill the gap in development between Mexico and the United States (The Economist 2014).

The overall success of the pact appeared to be significant in the first six years. The cross-border investments increased, and a rapid economic growth was followed by increasing shares of the U.S., Canada and Mexico on global production, which grew by 36% until 2001. After 2001, however, the progress of the countries stalled. This was caused by fears of terrorism in the United States, which led to a greater security on borders that prevented the free trade. The situation was even more deteriorated due to the ongoing drug war in Mexico. After China joined the World Trade Organization in 2001, US companies in Mexico decided to increase and focus their businesses across the Pacific Ocean. Although the later trade in North America began to rise again, the production fell back to 26% of the world production to 2011 (The Economist 2014).

The North American Free Trade Agreement has resulted in expanded Mexican exports, higher wages for Mexican workers, less poverty, more foreign investments, and a stronger agriculture sector in Mexico. Foreign direct investment, motor vehicle and its component trade and agricultural trade play an important role in U.S.-Mexico economic relations, despite the uneven size of these two economies.

The United States are the largest source of FDI in Mexico (Villarreal 2015: 5). The stock of U.S. FDI increased from $17.0 billion in 1994 to $101.5 billion in 2013. Mexican FDI in the United States is much lower than the U.S. investment in Mexico. In 2013, the stock of Mexican FDI in the United States totaled $17.6 billion (Figure 1).

Figure 1. Net inflows of foreign direct investment of Mexico and U.S. (in mil. $)



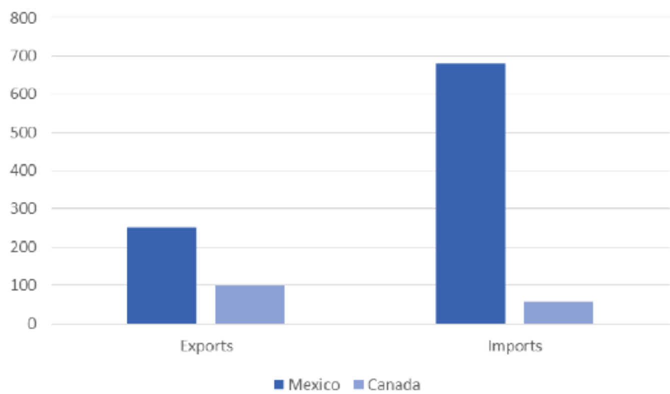
Source: own calculation based on Villarreal, 2015.

The two-way investments between Mexico and Canada are much weaker. Canada has strong investment in a few sectors including banking, mining and aerospace, but even though the stock of Canadian investment runs between $4 and $5 billion per year, Canada's investment presence lacks diversification. Mexico's investment in Canada is very small with the annual stock hovering around $200 million. However, the success of a number of Mexican firms in the U.S. market bodes well for expansion into Canada as well (Dawson 2014: 11).

The second monitored variable is the motor vehicle and (its) parts trade. In the automotive sector we can find the most significant changes. The specialization of production is deep – some of parts and components are produced in another member country and send to U.S. to assemble them to the cars. Then they are sold in Canada and Mexico. Mexico became a more significant trading partner of U.S. in this field after removing barriers.

U.S. exports of motor vehicles to Mexico increased 2300% and imports increased 1154% between 1993 and 2014. U.S. exports of vehicles parts to Mexico increased 195%, imports increased 442% between 1993 and 2014. U.S. exports of motor vehicles to Canada increased 228 percent and imports about 66 percent in monitored period. US exports and imports of vehicles parts to Canada increased only about 40 percent. The percentage change in total U.S. exports and imports to Mexico and Canada (both groups) is presented in the Figure 2.

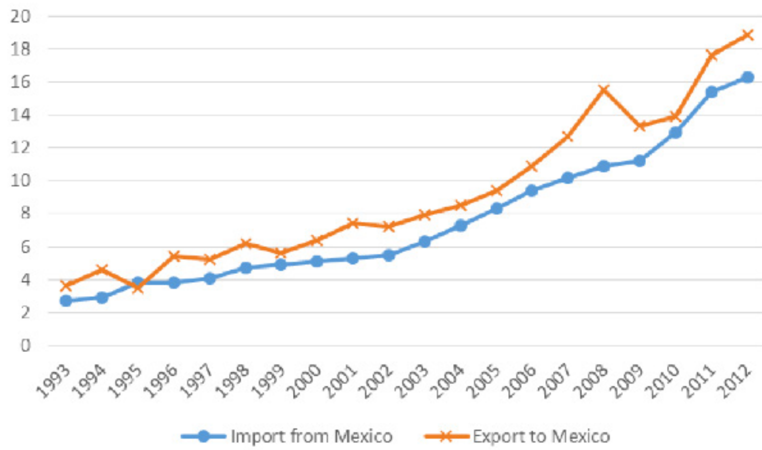
Figure 2. Trade of motor vehicles and parts between the member states (% change between 1993 and 2014)



The third monitored variable is the trade of agricultural products, the development of which between two major trading partners (U.S. and Mexico) is shown in Figure 3. This figure shows that the export of American agricultural products to Mexico rose after the conclusion of the agreement; in 1995 a decline was recorded because of the ongoing Mexican crisis in 1994-1995. The largest increase in exports in this sector was recorded regarding cotton (over two hundred percent), vegetable oils (almost two hundred percent) and fresh and frozen vegetables (more than one hundred and seventy percent).

The import from Mexico to the US grew continuously throughout the period. This increase included especially avocados (over a thousand percent), beef and veal (more than four hundred percent), sugar and related products (over two hundred percent) (Colyer 2011: 3). The consequences of this trade were declining food prices, from which especially the residents of Mexico have benefited and the Mexican economy has become much more competitive.

Figure 3. Trade of agricultural products between Mexico and the United States (in bn. $)



Source: own calculation according to USDA, 2014.

Canada and Mexico became the main export markets for the USA, where the production worth $ 625 billion was exported in 2014. The growth in trade has helped to create many new well-paid jobs (Boskin 2014: 1). NAFTA helped to open a nearly sixty years old protectionist-oriented economy. Among other things, this opening caused that the exports of U.S. agricultural products began to threaten some of the Mexican farmers, but on the contrary others were able to increase their exports to the United States and thus their profits.

For Mexico, joining NAFTA meant a rapid development of export industries, a growth in the volume of exports and a free access to the U.S. market. Changes in the amount of export and import a year before the establishment and ten years after the establishment of NAFTA are described in Table 1. Here we can see a substantial increase in exports of Mexico to the U.S. and to Canada (less progressive) between 1994 and 1995, in the initial operating period of NAFTA.

Table 1. Evolution of foreign trade between the NAFTA countries in 1993-2013 (in thousands $)

Year	MEXICO-CANADA		MEXICO-U.S.	
	Export	Import	Export	Import
1993	1 562 861	1 175 348	42 911 549	45 294 662
1994	1 519 486	1 621 214	51 618 594	54 834 155
1995	1 987 395	1 374 246	66 273 641	53 902 492
1996	2 172 004	1 743 555	80 570 022	67 536 101

1997	2 157 009	1 968 042	94 376 864	82 002 208
1998	1 519 281	2 290 204	103 001 767	93 258 366
1999	2 311 175	2 948 883	120 262 033	105 267 312
2000	3 340 006	4 016 558	147 399 940	127 534 433
2001	3 082 621	4 234 854	140 564 406	113 766 783
2002	2 991 325	4 480 300	141 897 649	106 556 722
2003	3 041 784	4 120 461	144 293 352	105 360 681
2004	3 291 538	5 327 479	164 521 981	110 826 707
2005	4 234 471	6 169 337	183 562 833	118 547 326
2006	5 176 217	7 376 211	211 799 370	130 311 025
2007	6 490 952	7 957 346	223 133 251	139 472 828
2008	7 102 347	9 442 473	233 522 728	151 334 587
2009	8 244 248	7 303 736	185 101 145	112 433 820
2010	10 685 646	8 607 477	238 684 422	145 007 347
2011	10 694 582	9 645 442	274 426 516	174 356 027
2012	10 937 578	9 889 847	287 842 151	185 109 805
2013	10 452 654	9 847 041	299 439 491	187 261 910

Source: author according to Secretaría de Economía 2011 a, b.

The growing trade between countries leads to greater specialization and extension of division of labor in the important sectors, such as the automotive industry, where production is realized with a larger share in Mexico and the textile industry, where spinning and weaving with higher technical requirements is done in the U.S., while lower-tech cutting and sewing is carried out in Mexico (Delong 2006: 1).

This efficiency growth, resulting from the scope of the market and promoting specialization, should produce rapid growth in Mexican productivity and increase wages. This policy did not bring them. It was due to prevailing economic shortcomings of Mexico (very low average number of school years, the same level of education for new and young workers in comparison with their older colleagues, low-job training, large bureaucratic load of companies and high crime rates).

The opportunities for synchronization of business cycles and side-impacts of economic activities in the countries came into existence with the rapid consolidation of relations between the NAFTA countries. The main challenge in determining the side-impacts of individual countries in the future is to identify the size and origin of each economy shock (Swiston, Bayoumi 2008).

2. The consequences of the entry of Mexico into NAFTA verified through the development of foreign trade

In this part of the article the impact of integrating Mexico into the NAFTA integration groupings will be examined, based on the hypothesis that provides the positive impacts of the integration on the US economy and on Canada, compared with fewer positives for the Mexican economy. This concept will be validated through the development of foreign trade of member countries, comparing with the development of the percentage share of export and import between the NAFTA countries in the total exports and imports of each country.

The export will be analyzed as a first, while the export development (Ex) between the NAFTA countries (Table 1) with total exports (Total Ex) NAFTA is compared in the Table 2.

Table 2. Percentage share of export development among the NAFTA countries on the total exports of the NAFTA countries in 1993-2013

	Share of Mexico Ex		Share of Canada Ex	Share of U.S. Ex
Year	Ex Mex-Can/ Total Ex Mex	Ex Mex-U.S./ Total Ex Mex	Ex Can-Mex/ Total Ex Can	Ex U.S.-Mex/ Total Ex U.S.
1993	2.55	69.89	0.69	7.05
1994	2.13	72.49	0.85	7.80
1995	2.23	74.20	0.63	6.79
1996	2.04	75.49	0.74	7.93
1997	1.77	77.60	0.79	8.78
1998	1.18	79.72	0.90	9.97
1999	1.56	81.21	1.04	10.87
2000	1.86	81.95	1.22	11.88
2001	1.80	81.97	1.36	11.27
2002	1.72	81.65	1.47	10.84
2003	1.71	81.35	1.25	10.27
2004	1.63	81.46	1.40	9.51
2005	1.84	79.71	1.44	9.20
2006	1.94	79.58	1.60	8.91
2007	2.24	77.09	1.60	8.43
2008	2.30	75.46	1.78	8.21
2009	3.37	75.61	1.87	7.11
2010	3.40	75.96	1.84	7.85
2011	2.93	75.07	1.77	8.24
2012	2.83	74.35	1.82	8.37
2013	2.61	74.75	1.80	8.23

Source: own calculation.

Table 2 shows that the biggest change in percentage share was triggered by the share of exports between Mexico and the US to Mexico´s total exports after the entry of Mexico into NAFTA. In 1993, before the emergence of NAFTA, the share was 69.9%. The share increased over the years, it exceeded 80% in the period 1999-2004. Then the share started to decline probably under the influence of the financial and then economic crisis. The smallest change in the percentage share is obvious in the share of Mexican exports to Canada of the total Mexican exports which decreases after the establishment of NAFTA, and began to increase in the last years. Other changes related to the share of Canadian-Mexican exports in the total Canadian exports and US-Mexican exports in total US exports were recorded in the table. These shares were increasing after the NAFTA establishment.

Table 3. Percentage share of import development among the NAFTA countries on the total import of NAFTA in 1993-2013

	Share of Mexico Im		**Share of Canada Im**	**Share of U.S. Im**
Year	**Mex-Can Im/ Total Mex. Im**	**Mex-U.S. Im/ Total Mex. Im**	**Can-Mex Im/ Total Can. Im**	**U.S.-Mex Im/ Total U.S. Im**
1993	1.52	58.51	0.92	6.02
1994	1.75	59.35	0.82	6.44
1995	1.67	65.60	0.99	7.44
1996	1.74	67.34	1.03	8.43
1997	1.61	66.98	0.90	9.05
1998	1.66	67.39	0.63	9.35
1999	1.88	67.29	0.89	9.76
2000	2.09	66.49	1.16	10.16
2001	2.28	61.30	1.14	10.25
2002	2.40	57.18	1.10	10.13
2003	2.18	55.84	1.02	9.52
2004	2.46	51.17	0.97	9.29
2005	2.54	48.73	1.10	9.19
2006	2.64	46.72	1.21	9.57
2007	2.60	45.56	1.38	9.48
2008	2.83	45.28	1.40	9.17
2009	2.81	43.26	2.01	9.42
2010	2.63	44.26	2.14	10.17
2011	2.53	45.74	1.88	10.27
2012	2.46	46.11	1.88	10.48
2013	2.38	45.27	1.80	10.89

Source: own calculation.

The percentage share of import development among the NAFTA countries on the total import of these countries (Table 1) are compared in Table 3. This share compared to the state before the emergence of a free trade zone between the US, Canada and Mexico increased in almost all cases. A decline of this development only occurred in the import share between Mexico and the United States on the total import of Mexico. At first the import raised, but afterwards it declined (since 2000), and it fell below its original level in 2002.

waThese two tables above show that the emergence of NAFTA had the greatest impact on the foreign trade of Mexico. As export is more beneficial than import for each country, the impact can be considered as positive. The examined percentage share of exports of Mexico to the US has increased, but it decreased regarding the Mexican import from the U.S. Other changes between exports and imports of NAFTA member countries are almost equal. The hypothesis based on these calculations is thus not confirmed.

Conclusions

The economic integration of countries is a very complicated process. Historically, NAFTA was not the first integration project in the North American continent. However, it was the first creation of this kind of grouping. One of the largest free trade zone in the world, which connected the countries with a different economic development, was created in that time. This article aimed to determine the impact of the access of developing Mexico into NAFTA on its member countries.

The emergence of NAFTA in 1994 led to elimination of the artificial barriers and liberalization of trade, boundaries, most customs duties and quantitative restrictions were gradually disestablished, resulting in increasing of the GDP growth of the signatory economies of almost 5.5 trillion US dollars during the ten years. The export and import between the signatory countries started to grow immediately after its emergence as well.

The establishment of NAFTA supported all three economies. Mexico achieved a greater access to foreign markets, reducing the size of transaction costs; there has been an increase of investments in Mexican industries and improvement of technological processes. Strengthening the trade ties between Mexico and other countries resulted in the development of export industries and in the increase of exports. On the other hand, the increase of salaries that was anticipated due to increasing specialization and division of labor did not achieve the expected rate; therefore the emigration of Mexicans to the U.S. continues to grow.

The main aim of the paper was to find out the influence of the involvement of Mexico into the integration grouping NAFTA. The hypothesis about mostly positive impact on the US and Canadian economies and a less positive impact on the Mexican economy was determined. This hypothesis was tested by comparing the percentage change of foreign trade among NAFTA member countries in total foreign trade of these countries. In this case, the hypothesis was rejected; the biggest impact of NAFTA treatment was on Mexico's foreign trade, which can be regarded as positive. The monitored share increased mostly in U.S. exports to Mexico. On the other hand the import share of the U.S. to Mexico declined.

References

Boskin, J.M. (2014), The next trade breakthroughs, available at: http://www.project-syndicate.org/commentary/nafta-growth-new-trade-opportunities-by-michael-boskin-2014-11 (accessed 1 February 2016).

Colyer, D. (2001), Impacts of NAFTA on U.S.-Mexico agricultural trade, availabe at: http://ageconsearch.umn.edu/bitstream/19105/1/cp01co01.pdf (accessed 1 February 2016).

Dawson, L. (2014), Canada's trade with Mexico: where we've been, where we're going and why it matters, Canadian Council of Chief Executives.

Delong, B.J. (2006), Has neo-liberalism failed Mexico?, availabe at: https://www.project-syndicate.org/commentary/has-neo-liberalism-failed-mexico (accessed 1 February 2016).
Hufbauer, G.C., Schott, J.J. (2005), NAFTA revisited: achievements and challenges, Washington DC: Institute for International Economics.
Hufbauer, G.C., Schott, J.J., Orejas, D. (2005), NAFTA revisited: achievements and challenges, Washington DC: Peterson Institute for International Economics.
International Trade Administration (2008), Top U.S. export markets, available at: http://trade.gov/media/publications/pdf/tm_091208.pdf (accessed 3 February 2016).
Lederman, D., Maloney, W.F., Servén, L. (2005). Lessons from NAFTA for Latin America and the Caribbean, Washington DC: The World Bank.
Reynolds, A. (2008), How Pennsylvania gains from NAFTA, Washington DC: Cato Institute.
Secretaría de Economía (2011 a), Balanza comercial de México con Canadá, available at: http://www.economia-snci.gob.mx/sic_php/pages/estadisticas/mexicojun2011/D9bc_ e.html (accessed 15 February 2016).
Secretaría de Economía (2011 b), Balanza comercial de México con Estados Unidos, aavailable at:http://www.economia-snci.gob.mx/sic_php/pages/estadisticas/mexicojun2011/G8bc _e.html (accessed 15 February 2016).
Swiston, A., Bayoumi, T. (2008), Spillovers across NAFTA, Washington DC: International Monetary Fund.
Teslik, L.H. (2008), NAFTA′s Economic impact, The Washington Post, 24 March 2008: 1-2.
The Economist (2014), Nafta at 20: ready to take off again? The Economist, 4 January: 1.
U.S. Chamber of Commerce (2010), Opening markets, creating jobs: estimated U.S. employment effects of trade with NAFTA partners.
USDA (2014), The agricultural trade between U.S. and Mexico, available at: http://www.ers.usda.gov/media/865916/strong_growth_d.html (accessed 3 February 2016).
Villarreal, M.A. (2015), U.S.-Mexico economic relations: trends, issues, and implications, Federation of American scientists U.S.-Mexico Economic Relations: Congressional Research Service.
Weintraub, S. (2004), NAFTA's impact on North America: the first decade, Washington DC: Center for Strategic and International Studies.

Acknowledgements

This paper was supported by the Ministry of Education, Youth and Sports of the Czech Republic within the Institutional Support for Long-term Development of a Research Organization in 2016.