

NAFTA at 20: Trade Creating or Trade Diverting?

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Abstract

This paper examines the impact of the North American Free Trade Agreement (NAFTA) on its member nations. It focuses on considerations about the potential trade creating and trade diverting effects of the treaty around the time of its initial negotiations and in the wake of its initial implementation, and attempts to determine whether these arrangements have resulted in significant trade diversion effects from outside countries. The results indicate that these arrangements have resulted in a genuine move toward freer trade because they have created more trade than they have diverted.

Viner (1950) pointed out more than a half century ago that regional trade agreements could be beneficial or harmful to the participating countries because the preferential nature of these trade deals can generate trade creation and/or trade diversion. Suppose two countries form a customs union in which they eliminate tariffs amongst themselves but maintain a common tariff blockade against the rest of the world. Further, suppose the tariff elimination causes consumers to switch from goods they previously imported from outside the union to goods produced inside the union. If the tariff reduction enables either member of the customs union to obtain goods from the other member who is a lower-cost supplier than the non-member they previously bought from, then trade has been created. However, if the customs union causes consumers to switch to imports from the customs union partner who is a higher-cost producer than the non-member they previously imported from, then trade has been diverted.

For instance, suppose that in the absence of a customs union, U.S. consumers face a choice between Taiwanese and Mexican sneakers. Suppose sneakers from Taiwan are \$20 a pair plus a \$5 tariff making them \$25 a pair. Furthermore, suppose that Mexican sneakers are \$17 a pair plus a \$10 tariff which makes them \$27 a pair. Naturally, U.S. consumers prefer sneakers from Taiwan. Even though Mexican sneakers are cheaper (due to lower labor costs for example), their higher tariff makes them more expensive and causes consumers to import Taiwanese sneakers instead.

Now suppose that U.S. and Mexico form a customs union in which the tariffs between all U.S. and Mexican goods are eliminated, while the tariffs on Taiwanese sneakers remain intact. While Taiwanese sneakers sell for their original price inclusive of the tariff, \$25, Mexican sneakers now sell for a mere \$17. Naturally, U.S. consumers switch to Mexican sneakers.

In this case, the customs union causes trade to be created. The removal of tariff barriers causes an increase in the intra-union trade between U.S. and Mexico that is deemed beneficial to welfare because it induces a switch in consumption from a higher-cost supplier outside the union to a lower-cost supplier inside the union.

Now suppose that sneakers from Taiwan are still \$20 plus a \$5 tariff making them \$25,

but that Mexican sneakers are \$22 plus a \$10 tariff making them \$32 a pair. Naturally, consumers prefer Taiwanese sneakers. However, after the customs union is formed, and tariffs on Mexican goods are eliminated, Mexican sneakers sell for only \$22 a pair. Naturally, U.S. consumers switch to Mexican sneakers.

In this case, the customs union causes trade to be diverted. The removal of tariff barriers causes an increase in the intra-union trade between U.S. and Mexico that is deemed detrimental to welfare because it induces a switch in consumption from a lower-cost supplier outside the union to a higher-cost supplier inside the union.

The above scenario of trade diversion is not really a move toward free trade. In fact, it is really just another form of protectionism for the Mexican sneaker industry. By allowing Mexican goods unrestricted access to American markets, the customs union is giving Mexican goods an unfair advantage over other lower-cost producers of sneakers. By lowering tariffs on Mexican sneakers while maintaining a tariff wall for other producers of sneakers, the U.S. is preventing its consumers from obtaining sneakers for a lower price which they would otherwise be able to obtain in the absence of tariff barriers on Taiwanese or other producers from outside the union.

At the same time, it is merely enlarging the protected market for Mexican sneakers. Previously, when U.S. tariffs on Mexican sneakers were in effect, Mexico only had its own domestic market protected by its own tariffs. After the union, Mexico has not only its own domestic market protected from Taiwanese imports, but the whole American market at its disposal with competition from cheaper Taiwanese imports eliminated. It is evident that such a trade arrangement is merely an extension of protectionism, not a move toward freer trade.

In 1992, the U.S., Canada and Mexico negotiated a customs union arrangement resulting in the North American Free Trade Agreement (NAFTA). The provisions of the NAFTA treaty went into effect in 1994. Krueger (1993) assessed the potential for trade diversion effects from East Asian imports from NAFTA and its implications for further economic integration of the Americas, and determined that trade diversion effects from East Asian countries would be limited because U.S. tariffs on Latin American goods were already small at that time compared to those on East Asian goods.¹ Even though Asian countries may be lower-cost producers of many manufactured goods for example, the lower tariffs on Mexican goods makes them cheaper than the Asian goods. U.S. consumers already prefer Mexican to Asian goods. If the tariff on Mexican goods is eliminated, Mexican goods become cheaper still, which only reinforces the American preference for Mexican goods. It does not create any new trade diversion effects that were not already present under the previous tariff arrangements.

In general, Krueger explains, American tariffs on Latin American and Canadian goods are low compared to those on the goods of most other countries, which limits the potential for trade diversion effects from the rest of the world. For instance, Hufbauer and Schott (1993) claimed that the potential for trade diversion in NAFTA was limited due to the relatively unhindered access Mexico already had in the American market. Moreover, in many areas NAFTA merely codified the preferences already given to Mexican firms in the U.S. market.² Therefore, NAFTA cannot create much more trade diversion than already exists under existing

¹ Krueger, Anne O., "American Bilateral Trading Arrangements and East Asian Interests," in Takatoshi Ito and Anne O. Krueger, eds., *Trade and Protectionism* (Chicago: University of Chicago Press, 1993), pp. 25-40, p. 27.

² Hufbauer, Gary C., and Jeffrey J. Schott. 1993. *NAFTA: An Assessment*. Washington, D.C.: Institute for International Economics, pp. 113-14.

trade arrangements between U.S. and Mexico.

Adcock, Rosson, and Susanto (2007) examined the effect of the U.S.-Mexico trade agreement under NAFTA. In examining commodities that were subject to non-zero pre-NAFTA tariff rates, they found that the average tariff rates from 1989 to 2005 for commodities imported from Mexico and the Rest of the World (ROW) were approximately the same, with values of 3.9% and 3.8%, respectively, which confirms Krueger's beliefs that tariffs were low to begin with; not only with respect to Mexico, but also with respect to the ROW, which limits the possibility of trade diversion. In examining Mexican tariffs alone, Adcock, Rosson, and Susanto found that the average pre-NAFTA tariff for Mexican products entering the U.S. (1989-1993) was 8.2%. In the first 6 years of NAFTA, this value was about 3.3%, and in the last 6 years 0.8%.³ This confirms Krueger's other prediction about NAFTA making Mexican goods cheaper still, and reinforcing the already-present American preference for Mexican goods.

At the time of the initial phasing-in and implementation of NAFTA, there was an uneasiness about the potential of trade diversion of East Asian goods from the Canadian and Mexican markets. Pre-NAFTA, Latin American and Canadian tariffs on American goods were generally much higher than American tariffs on Canadian and Latin American goods. Consequently, there existed the potential for trade diversion effects from NAFTA. If Canada and Latin America were to eliminate their tariffs on American goods, it was thought that this may divert some imports from lower-cost East Asian producers, for example.

Krueger ruled out that possibility out due to the fact that trade between East Asia and Canada and Latin America respectively is very small to begin with. In other words, there is not much trade to be diverted. Moreover, Krueger pointed out that the U.S. was already Canada's and Mexico's largest trading partner. Even with their relatively high tariff rates on American goods, the U.S. was where Canada and Mexico bought the greatest share of their imports from. Krueger believed that elimination of Canadian and Mexican tariffs on U.S. goods would merely reinforce that preference. It is highly unlikely that there was some other lower-cost producer who Canada and Mexico were buying from before, and who, because of tariff reduction from the U.S., would suddenly switch away from and buy from the U.S. instead.⁴

Hilberry and McDaniel (2002) compare the real value of U.S. goods trade with NAFTA partners and the ROW pre-NAFTA in 1993 with NAFTA seven years after in 2001 in 2001 dollars, and find little evidence of trade diversion of Canadian and Mexican imports away from the ROW in favor of the U.S. In 1993, Canada's imports from U.S. were \$107 billion. In 2001, they were \$145 billion, a percentage change of 35%, suggesting little trade diversion effects. In 1993, Mexico's imports from U.S. were \$47 billion, and in 2001 they were \$91 billion, a 93% increase. These are not astronomical figures, because if you compare these percentage changes in U.S. imports from Canada and Mexico over the same period, the percentage changes are much greater. In 1993, U.S. imports from Canada were \$129 billion, and by 2001 they were \$217 billion, a 69% increase. In 1993 U.S. imports from Mexico were \$45 billion, and by 2001 they were 217 billion; a 69% increase. The evidence does not appear to suggest that Canada and Mexico have to a great degree shifted their imports away from the ROW and towards the U.S. in such a significant degree to pose the possibility of trade diversion.⁵

³ Adcock, Flynn J., C. Parr Rosson, III, and Dwi Susanto, "Trade Creation and Trade Diversion in the North American Free Trade Agreement: The Case of the Agricultural Sector." *Journal of Agricultural and Applied Economics*, Vol. 39, No. 1 (April 2007), 121-134, p. 128.

⁴ Krueger (1993), p. 33.

⁵ Hillberry, Russell H., and Christine A. McDaniel, "A Decomposition of North American Trade Growth

Another point to bear in mind is the composition and substitutability of imports. Krueger states that since Canada's exports to the U.S. are largely natural resources, and East Asia's are largely manufactured goods, significant U.S. trade diversion away from East Asian imports in favor of Canadian imports is unlikely.⁶

As of 2012, there has been little change in the pattern of Canadian exports since this Krueger analysis. Statistics Canada shows in its Canadian 2012 export segments percentages report that Canada's greatest exports are energy products (oil, natural gas, other) comprising 23% of total exports, and metals and minerals at about 16% of total exports. While manufactured goods such as motor vehicles are important at about 15% of total exports, it appears that the majority of Canada's exports are in the form of raw materials. Furthermore, Statistics Canada shows that the U.S. is still Canada's largest trading partner, accounting for the vast majority of Canadian exports in 2012 at 73%, and 62% of its imports.⁷

Similarly, almost all of East Asia's exports to the U.S. consist of manufactured goods, whereas Latin America's exports to the U.S. are more highly concentrated in foodstuffs and raw materials.⁸ Lowering tariffs on these Latin American exports is unlikely to cause U.S. consumers to switch away from East Asian manufactured goods. The one exception to this trend is in machinery and transport equipment, where Mexico competes with East Asia for its share of the American market. There is thus the potential for trade diversion effects away from East Asian suppliers in favor of Mexican suppliers of machinery and transport equipment. However, it must be noted that these industrial categories are concentrated heavily in the Mexican *maquiladoras*. The *maquiladoras* are the plants that have grown on the Mexican side of its border with the U.S. The *maquiladora* program was initiated by the Mexican government in 1964 to provide employment to the Mexican workers returning from the U.S. as guest agricultural laborers. Under agreement with the U.S., U.S. exports of raw materials were permitted entry into these border regions free of duty, and in return were permitted to be re-exported to the U.S. with low or non-existent tariffs.⁹ Since these goods are already duty-free, or close to it, a customs union with Mexico is unlikely to give these industries any competitive advantage over East Asia that they do not already have.¹⁰

In assessing whether there has been any trade diversion away from East Asian manufactured goods in favor of Mexico, it is important to bear in mind that for a substantial number of commodities, such as pharmaceutical products and electric machinery, U.S. tariff rates on imports from Canada and Mexico were negligible even before 1994. In these cases, we cannot argue that NAFTA had a significant trade-diversion effect.¹¹

In some later studies, Krueger (1999, 2000) examined the changing patterns of trade

since NAFTA." Office of Economics Working Paper, U.S. International Trade Commission, No. 2002 12-A, December 2002, p. 2.

⁶ Krueger (1993), p. 33.

⁷ www.statcan.gc.ca.

⁸ Krueger (1993), p. 36.

⁹ Weintraub, Sidney. 1997. *NAFTA at Three: A Progress Report*. Washington, D.C.: Center for Strategic & International Studies, pp. 36-37.

¹⁰ Krueger (1993), p. 36.

¹¹ Fukao, Kyoji, Toshihiro Okubo, and Robert M. Stern, "An Econometric Analysis of Trade Diversion under NAFTA." School of Public Policy, The University of Michigan, Discussion Paper No. 491, October 30, 2002, p. 10.

flows and noted that the trade relationships among the NAFTA countries intensified considerably in the 1990s. But she did not find much evidence that imports from the rest of the world declined as intra-NAFTA trade increased. Krueger also concluded that tariff differentials for U.S. imports from Mexico and East Asia did not appear to have changed dramatically. Further, she conducted a “shift in share” analysis and found that the increase of Mexico’s share in its trade with the United States was not much different than with the rest of the world, reflecting both the impact of Mexico’s unilateral liberalization and the peso depreciation after 1994. Finally, on the basis of fitting some gravity equations, she found little evidence that trade patterns had been significantly altered by preferential trading arrangements, although the results did suggest that NAFTA countries imported less than predicted from nonmember countries. On the basis of the foregoing, Krueger concluded that NAFTA was almost certainly trade creating.¹²

An analysis of import shares held by different countries usually helps uncover trade diversion: as Krueger (1999) points out, a decline in the share of U.S. imports held by a given country or region and a concurrent increase in the import share of NAFTA countries would lead one to conclude that trade diversion is being observed. However, if the volume of trade with both NAFTA partners and other countries, say, in Asia, increases substantially in *absolute* terms during the sample period, it is possible that trade diversion will go undetected. The logic is fairly straightforward: when the U.S.-China and U.S.-Mexico trade volumes both increase, trade diversion may still be present as some of the new growth in imports from Mexico *would* have come from China in the absence of NAFTA. In other words, some of the increase in within-NAFTA trade is due to trade creation, some is due to trade diversion from other regions, but trade volumes with other regions may be increasing still due to some other force.

In a 2009 study, Datta and Kouliavtsev analyzed the weighted share of U.S. textile and apparel imports held by countries in several major regions from 1989-2000: Asia, Caribbean, Western Europe, Latin America, NAFTA and Others. They found that while NAFTA countries’ share in U.S. textile imports grew significantly since 1993, the share of Asian countries had not declined appreciably. Instead, the share of Western European nations showed the largest decline. The import shares for apparel, from the same regions, showed a somewhat different picture: the share of Asian countries in apparel exports to the U.S. showed a declining trend, while the NAFTA region and the Caribbean Basin countries registered a clear gain. The remaining regions remained fairly constant over this period. These results do not show a significant loss for Asian markets in favor of NAFTA or Latin America in textiles, therefore little trade diversion as a result of NAFTA. However in apparel, there is some possibility of trade diversion effects.¹³

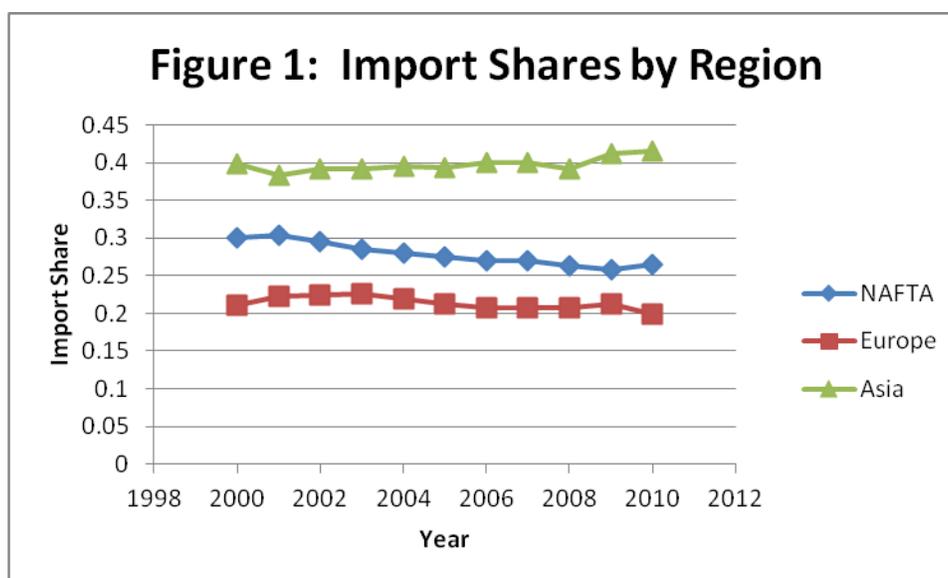
With recent data from the U.S. Census Bureau, I have constructed a similar analysis that picks up from where Datta and Kouliavtsev left off in 2000 that shows the weighted share of U.S. imports held by countries in several major regions from 2000-2010: Asia, Europe, and NAFTA (the sum of shares of Canada and Mexico in total U.S. imports) that is shown below in Figure 1.¹⁴ Figure 1 shows that the share of all three regions has remained fairly constant over this period, with no decline in the Asian share, and even a slight decline in NAFTA’s share. By

¹² Krueger, Anne O., “Trade Creation and Trade Diversion under NAFTA.” National Bureau of Economic Research, Working Paper No. 7429, December, 1999; -----, “NAFTA’s Effects: A Preliminary Assessment.” *The World Economy*, Vol. 23, No. 6 (June 2000), 761-775.

¹³ Datta, Anusua, and Mikhail Kouliavtsev, “NAFTA and the Realignment of Textile and Apparel Trade: Trade Creation or Trade Diversion?” *Review of International Economics*, Vol. 17, No. 1 (February 2009), 172-186, pp. 175-76.

¹⁴ www.census.gov.

this standard of measurement, it is very difficult to identify evidence of trade diversion of NAFTA nations at the expense of Asia.



In Adcock, Rosson, and Susanto's previously referred to study from 2007, they measured the composition of the U.S.'s imports by 3 "countries" from 1989-2005 to gain a sense of the pre- and post-NAFTA experience: Canada, Mexico, and ROW. They found that the share of U.S. imports from Canada and Mexico increased over this period. The share of U.S. imports from Mexico increased from 21% to 29% between 1989 and 2005. During the same period, the share of U.S. imports from Canada increased from 11.6% to 21%.

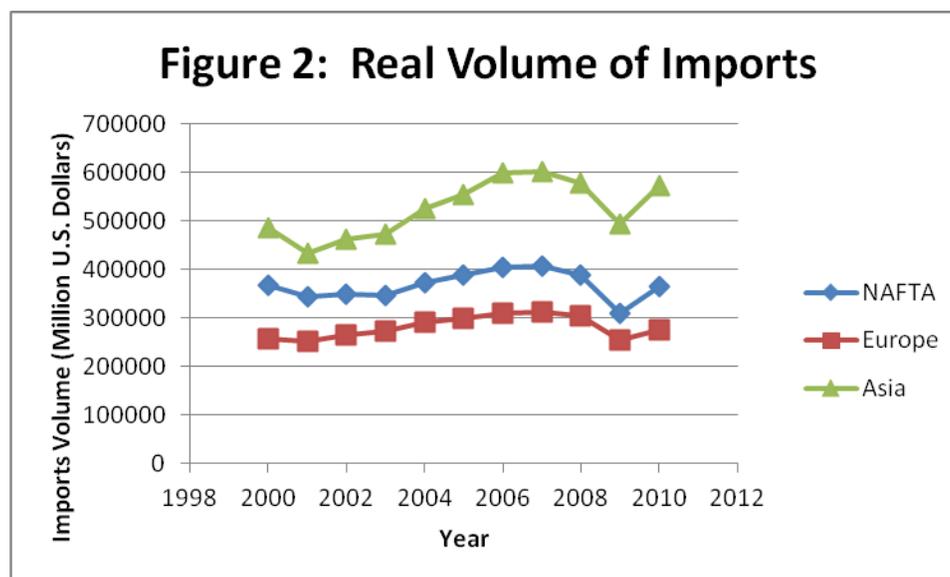
Now Adcock, Rosson, and Susanto found that the share of U.S. imports from ROW has degraded continually since 1989. U.S. imports from ROW declined from 67.1% in 1989 to 50% in 2005. Was this due to trade diversion? Adcock, Rosson, and Susanto do not believe this has happened; at least not in the agricultural sector. Adcock, Rosson, and Susanto measured U.S. real imports in billions of dollars over the same period for the same 3 "countries" and found that U.S. agricultural imports from Mexico, Canada, and ROW increased substantially from year to year. The trend of U.S. imports from NAFTA members and ROW suggest that the U.S. did not shift its imports away from ROW. The decline in the share of U.S. imports from ROW was due to the fact that U.S. imports from NAFTA members grew faster than those from ROW.¹⁵

More recent evidence on the absolute volume of U.S. trade with particular regions indicates that there has not only been increased intra-NAFTA trade, but increased trade with the ROW, further dampening evidence of significant trade diversion effects from countries outside the union. Figure 2 shows the real volume of U.S. imports from NAFTA, Europe, and Asia from 2000-2010 in millions of constant 2000 U.S. dollars, again using data provided by the U.S. Census Bureau and the Wholesale Price Index for conversion.¹⁶ For the most part, it shows a steady increase in imports from all three regions, apart from some dips around 2001 and 2009

¹⁵ Adcock, Rosson, and Susanto, p. 132.

¹⁶ www.census.gov.

corresponding to cyclical factors in the U.S. economy. During the in-between growth period of 2001 to 2009, it actually shows the share of Asian imports growing faster than that of either NAFTA or Europe, casting further doubt upon the possibility of significant trade diversion effects from NAFTA.



Hufbauer and Schott (1994) did a study that estimated the amount of trade diversion from different parts of the world created by a hypothetical Western Hemisphere Free Trade Agreement (WHFTA) by the year 2002.¹⁷ They estimated that East Asia would suffer a yearly average of \$7.3 billion of exports diverted from the U.S. as the result of the treaty. However, that is no more than 2.6 percent of its total projected exports to the U.S. in 2002. Similarly, they estimated that Western Europe would suffer diversion of \$5.7 billion of its annual exports to the U.S., which is no more than 3.5 percent of its total exports to the U.S. in 2002. In total, Hufbauer and Schott estimated that a WHFTA would cause third countries to lose \$27.6 billion of merchandise exports to the U.S. in year 2002, which is 2.8 percent of their exports to the U.S.¹⁸ Hufbauer and Schott's calculations show that third country exports to U.S. lost due to trade diversion effects, in all cases, never exceeds more than 4 percent of a nation's total exports to the U.S. This may even be considered a worst case scenario, since the U.S. is the largest economy, and therefore importer in the region. Trade diversion from the U.S. is likely to be a lot greater than that from, say, Venezuela. Again, since U.S. tariffs are already low, lowering them more or eliminating them with respect to Latin America will not create substantial trade diversion effects.¹⁹

¹⁷ A proposed agreement, later termed the Free Trade Area of the Americas (FTAA), to extend the liberalization of NAFTA to the entire Western Hemisphere. Due to the opposition of several Latin American countries during negotiations in Miami, United States in 2003, this plan has since faltered.

¹⁸ Hufbauer, Gary C., and Jeffrey J. Schott. 1994. *Western Hemisphere Economic Integration*. Washington, D.C.: Institute for International Economics, p. 163.

¹⁹ *Ibid.*, p. 164.

In sum, and in light of the above evidence of patterns of increasing import volumes from Europe and Asia, it would be reasonable to assume that whatever small trade has been diverted as a result of NAFTA, much more trade has been created which should more than offset the volume of trade that has been diverted.

Another point to bear in mind is that a customs union is only trade diverting if the tariff barriers imposed by the members on the rest of the world keep out lower-cost imports from outside the union in favor of higher-cost imports from inside the union. If a group of nations form a customs union and liberalize trade arrangements amongst themselves, and simultaneously liberalize with respect to the rest of the world, trade diversion effects can be averted.

Krueger (1993) observed that with respect to NAFTA, this would not be an unlikely scenario. According to Krueger, policy reform under way in Latin America at that time was expected to reduce its overall level of protection vis-à-vis all other countries, irrespective of NAFTA.²⁰ Other global free trade arrangements, such as the Uruguay Round of The General Agreement on Tariffs and Trade (GATT), if successful, would further tear down existing tariff barriers in the Western Hemisphere, thus lessening the scope of trade diversion effects.²¹ Sidney Weintraub, in his 1997 study of the effects of the NAFTA treaty, pointed out that the GATT and the World Trade Organization (WTO) require that tariffs on third countries after the formation of a customs union must be no higher than before the union was formed.²² Hufbauer and Schott too, believed that the Uruguay Round would lower tariffs of the WHFTA even more vis-à-vis third countries, making trade diversion effects even more unlikely.²³ Hufbauer and Schott point out that it is in the sectors where the potential for trade diversion is the greatest (e.g. textiles and apparel, autos and parts, and agriculture) where the greatest liberalization under the Uruguay Round was planned.²⁴ These global initiatives were expected to further reduce trade diversion effects.

Furthermore, NAFTA is subject to monitoring by GATT. GATT's Trade Policy Review Mechanism analyzes regional trade liberalization to ensure that it does not adversely affect the trading interests of third nations. Hufbauer and Schott recommended that each NAFTA country allow the GATT panel to review the trade effects generated by the NAFTA provisions, and provide compensatory measures to parties injured by trade diversion effects. Such measures on the part of the NAFTA members were designed to assuage the fears of some that NAFTA would become a regional trading block. It would also help demonstrate their commitment to GATT, while at the same time reaping the benefits of regional integration.²⁵

In assessing the degree of global liberalization since the inception and implementation of NAFTA, we find significant evidence of the success of these global initiatives in tearing down barriers to trade on a global level. Dumbravescu and Radulescu (2008) report that the average level of customs duties for industrial products for GATT and WTO members decreased from 5% in 1990, prior to the Uruguay Round, to 3% in 2000. This period encompasses both the completion of the Uruguay Round, and its essential implementation period.²⁶ Felbermayr and

²⁰ Krueger (1993), p. 38.

²¹ *Ibid.*, p. 40.

²² Weintraub, p. 16.

²³ Hufbauer and Schott (1994), p. 164.

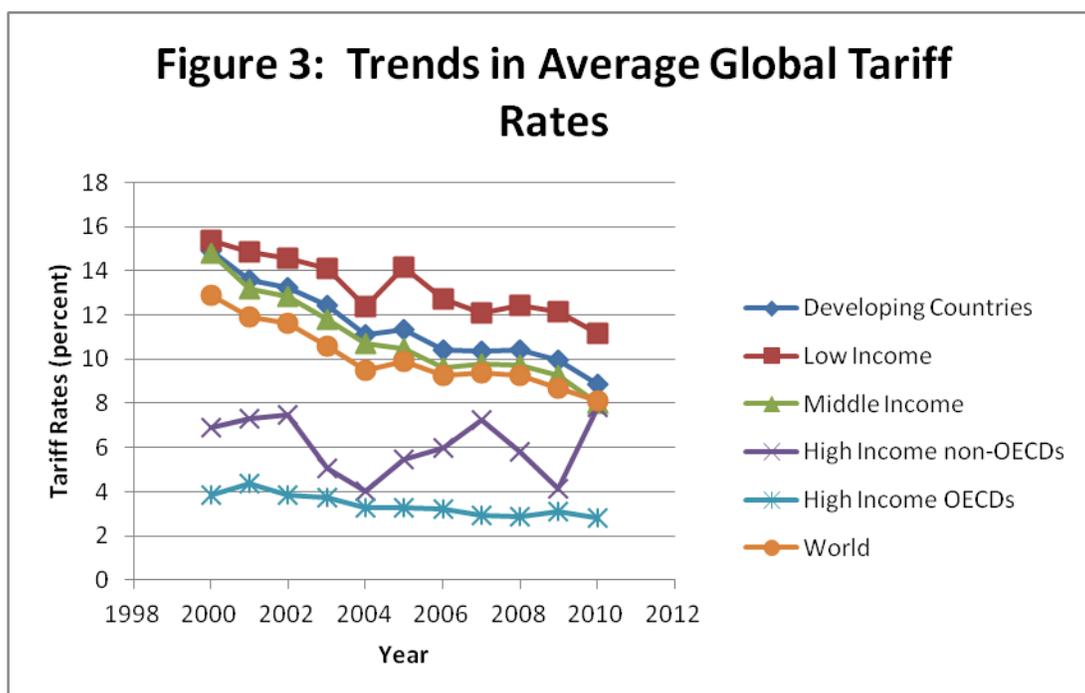
²⁴ Hufbauer and Schott (1993), p. 114.

²⁵ *Ibid.*, p. 113.

²⁶ Dumbravescu, Bogdan and Irina Gabriela Radulescu, "From GATT to WTO." *Petroleum-Gas University of Ploiesti Bulletin: Economic Sciences Series*, Vol. 60, No. 4 (2008), 21-30, p. 23.

Kohler (2010) report that as a result of the Uruguay Round, for the entire world, the World Bank estimates a reduction of the *unweighted average of import tariffs* tariff from 26.3 per cent in 1986 to 8.8 in 2007.²⁷ According to the World Trade Organization (2011), the process of most-favored nation (MFN) liberalization (i.e., the reduction of tariffs on an MFN basis for all WTO members) accelerated in the late 1980s and 1990s, when applied tariffs were reduced in many developing countries. The rates applied by developed countries were already low, at around 6 percent on average by the end of the 1980s. They continued to decline subsequently, to an average of approximately 3 per cent in 2009. Average applied tariffs have been falling in all regions. In South-Central America, the average tariff rate fell from over 30 per cent at the beginning of the 1990s to less than 10 per cent ten years later. Over the same period, tariffs in East Asia dropped from around 15-20 per cent to some 6 per cent in 2009. Similarly, in Africa, applied MFN tariffs fell from an average rate of roughly 30 per cent to some 12 per cent in 2009. The reduction of tariffs was more pronounced in West Asia, where the average MFN applied tariff rate fell from an average of about 45 per cent to below 15 per cent.²⁸

More recent data from the World Bank on reduction of global tariff rates is shown in Figure 3.²⁹ Figure 3 shows the trends in the average MFN Applied Tariff Rates in Developing and Industrial Countries from 2000-2010, Unweighted in per cent, separately for Developing countries, Low income, Middle income, High-income non-OECDs, High-income OECDs, and the World, which consists of all of the above. This represents the process of MFN liberalization referred to in the above WTO analysis. With only the possible exception of the High-income non-OECDs, it shows a consistent downward trend in Global tariff rates.



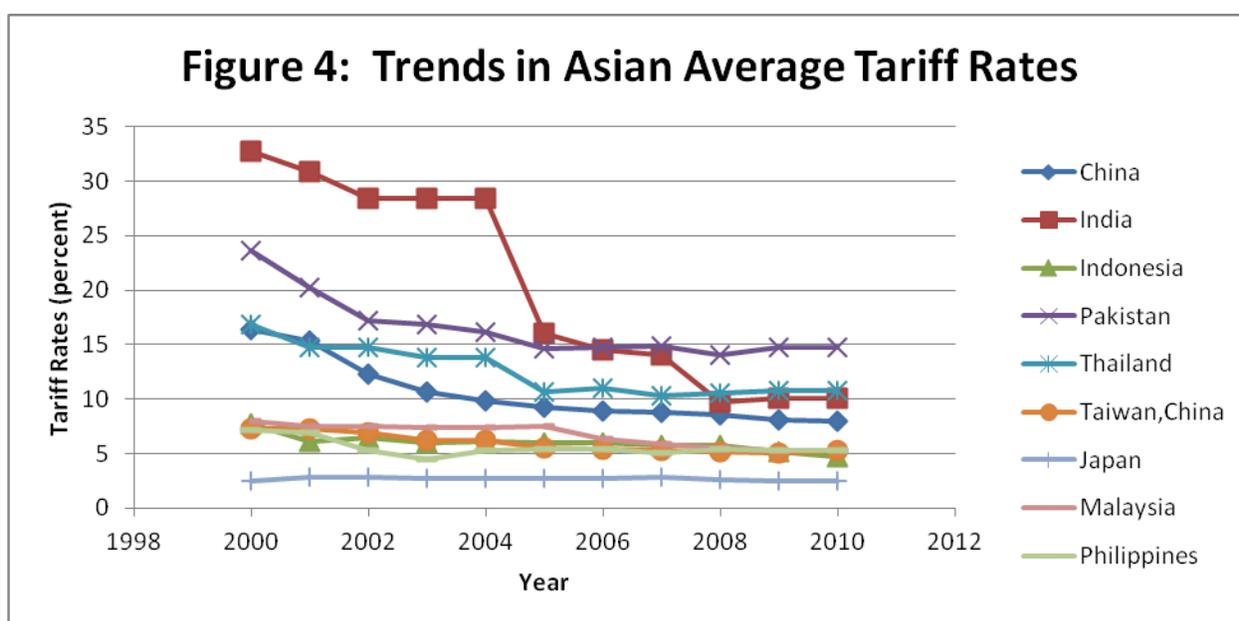
²⁷ Felbermayr, Gabriel, and Wilhelm Kohler, "Modeling the Extensive Margin of World Trade: New Evidence on GATT and WTO Membership." *The World Economy*, Vol. 33, No. 11 (November 2010), 1430-1469, p. 1431.

²⁸ World Trade Organization, *World Trade Report, 2011*, p. 124.

²⁹ <http://econ.worldbank.org>.

At the time of its inception, many NAFTA and WHFTA skeptics expressed the concern that further Western Hemisphere economic integration might form a union that would divert trade so much that East Asia might retaliate, and impose tariff barriers on Western Hemisphere goods. Hufbauer and Schott (1994) called these worries unfounded. East Asia is too much dependent on Western Hemisphere (especially American) trade to make such a policy worthwhile.³⁰ The amount of trade lost through trade diversion pales in comparison to the amount of trade that would be lost if East Asia embarked on such a policy. Their loss of American imports and foreign capital would hurt them more. And there is always the threat of a trade war erupting in which the U.S. would counter-retaliate, and close its borders to East Asian exports. If that were to occur, the East Asian economies would be devastated. In general, all the WHFTA nations were too dependent on a strong multilateral trading system and successful implementation of the Uruguay Round of GATT for a protectionist trading block to emerge in the Americas.³¹

Figure 4 shows the trends in the average MFN Applied Tariff Rates for selected Asian Countries from 2000-2010, Unweighted in per cent. It can be seen that the less developed or newly industrialized Asian countries of India, Pakistan, Thailand, and China have been steadily lowering their tariffs with respect to the ROW. Some whose tariffs were already low such as Taiwan, Malaysia, Indonesia have lowered them even more, approaching the consistently low levels of Japan. This shows no evidence of retaliation on the part of Asian countries to the trade diverting effects of NAFTA on their exports. And there has been no counter-retaliatory action by the U.S. either, as shown by an average tariff rate of 3.6 in 2000, 3.1 in 2005, and 2.9 in 2010. Tariff rates for most countries have, if they were low to begin with, either stayed the same or gotten lower, and if they were high to begin with, have gotten lower.³²



³⁰ Hufbauer and Schott (1994), p. 169.

³¹ Ibid., pp. 170-71.

³² Source: World Bank.

Regarding NAFTA, Hufbauer and Schott (1993) reported, in addition to East Asia, there was also the potential for trade diversion from the Caribbean Basin Initiative (CBI) countries in favor of Mexico; particularly in the area of textiles and apparel. If tariffs are eliminated on Mexican textiles while the current tariffs on CBI textiles remain, Hufbauer and Schott explain, there will undoubtedly be trade diversion effects. To avert these trade diversion effects, tariffs would have to be simultaneously lowered on textiles from the CBI while NAFTA goes into effect. One possible solution to the problem they proposed would be to extend the same benefits to CBI that are extended to Mexico under the NAFTA agreement. However, Hufbauer and Schott do not recommend extension of NAFTA benefits to CBI until they formally agree to the terms of the treaty. In lieu of joining NAFTA, Hufbauer and Schott advise the CBI to form their own independent initiative with the U.S. that provides the CBI access to the U.S. market for textiles which is commensurate with that granted to Mexico. At that time, the CBI nations were working on just such a proposal.³³

According to Weintraub (1997), there may have been some diversion of trade in textiles and apparel in favor of Mexico to the detriment of CBI competitors in 1995-96, which may have occurred as a consequence of NAFTA. Weintraub notes that U.S. imports of textiles and apparel from all sources grew by 6 percent in 1995, and apparel imports alone by 10 percent. However, Mexico took a disproportionate share of that increase the same year, with its share rising even more during the first quarter of 1996.³⁴

The fact that Mexican exports of textiles and apparel rose at the expense of other leading producers such as the CBI would appear to support the claim that trade diversion had occurred. However, the CBI countries also receive preferences in the U.S. market which give them considerable advantage.³⁵ If tariffs were low on both Mexico and CBI to begin with, it is unlikely that much of the consumption switch from CBI to Mexican textiles constitutes "trade diversion" in the true sense of the word. As stated above, tariffs on most Mexican goods are already low. If elimination of the already-low Mexican tariff caused a consumption switch to Mexican goods, CBI goods could not have been much lower in cost than Mexican goods to begin with. While trade diversion may have taken place, the welfare loss is insignificant due to the minimal cost advantage that CBI goods have over Mexican goods.

Furthermore, you could just as easily have a consumption switching activity which is trade-creating. Suppose that tariffs are \$2 and \$3 for CBI and Mexico respectively, but the price of jeans is \$19 in CBI and \$18.50 in Mexico. So CBI jeans sell for \$21 in U.S. and Mexican jeans for \$21.50. Naturally, U.S. consumers prefer CBI jeans. Elimination of the tariff on Mexican jeans lowers their price to \$18.50, and consumers switch to Mexican jeans. But the scenario is not trade-diverting, because Mexico is the lower-cost producer.

The above cases illustrate the point that if differences in tariff-rates between customs union members and third countries are small, elimination of tariffs on customs union members can have either trade-diverting or trade creating effects. It could very easily be the case that much of the trade lost by the CBI countries to Mexico was of the latter variety.

Furthermore, as alluded to above, there was considerable liberalization occurring in the textiles and apparel sector in the early 1990's which was expected to further dampen trade diversion effects. The textile and apparel industries have long been protected in the U.S., as

³³ Hufbauer and Schott (1993), pp. 45-46.

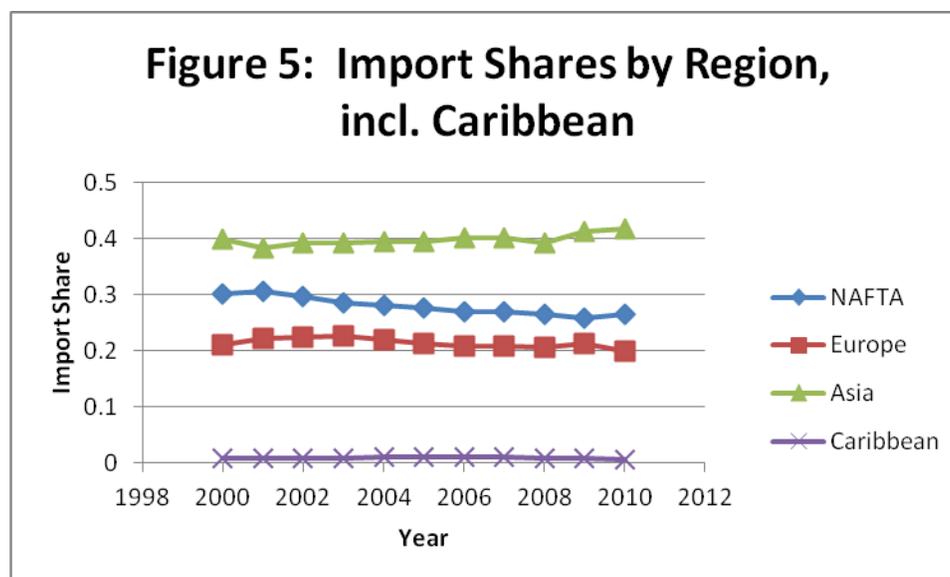
³⁴ Weintraub, p. 42.

³⁵ Ibid.

evidenced by the long-lasting import quota structure of the Multi-Fiber Arrangement (MFA) and its predecessors. Traditionally, this sector has been very important to the U.S. economy, accounting for a significant percentage of manufacturing output and employment. Together the two industries employed 1.4 million people and shipped about \$128 billion of output in 1990.³⁶ While quotas on textile imports imposed by the MFA were initially sanctioned in GATT, the Uruguay Round of GATT contained a provision to eliminate these quotas by 2005, raising hopes of an eventual complete phase-out of trade-diverting tariffs on textiles.³⁷

In assessing the effects of NAFTA on the textile and apparel industries, Datta and Kouliavtsev observed a significant reconfiguration of the structure of production and trade, as U.S. firms began to increasingly redirect their attention to Mexico, as a low-wage country with a well-developed production base and geographical proximity. Overall, Mexico quickly became the second largest trading partner of the U.S. after Canada, accounting for 11.5% of U.S. imports in 2001 and 13.9% of U.S. exports relative to 6.9% and 9.0%, respectively, in 1993. During the same period, U.S. textile and apparel exports to Mexico increased by 210%, while imports from Mexico increased by 283% between 1993 and 2001.³⁸ Datta and Kouliavtsev found that most textile tariffs have declined worldwide, with the exception of those applied to Asian nations. Apparel tariffs, on the other hand, register a sizable decrease only for NAFTA and Caribbean countries.³⁹

In order to analyze the shifts in the pattern of trade that may be due to NAFTA, and particularly in textiles and apparel as it concerns the possibility of trade diversion away from Caribbean countries in favor of Mexico, I have updated Figure 1 to include the share of U.S. imports from the Caribbean, shown below as Figure 5.⁴⁰



³⁶ Datta and Kouliavtsev, p. 174.

³⁷ Weintraub, p. 41.

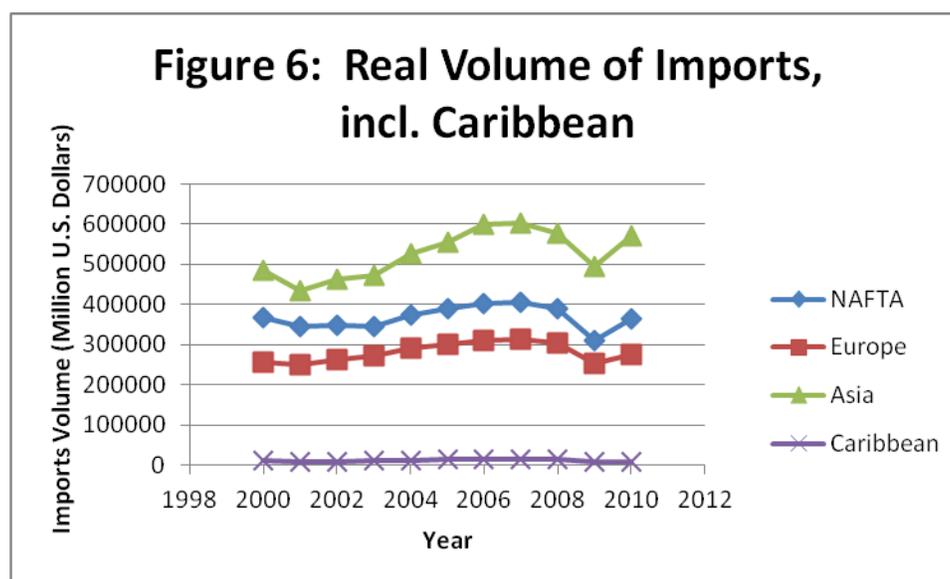
³⁸ Datta and Kouliavtsev, p. 172.

³⁹ Ibid., p. 175.

⁴⁰ Source: www.census.gov.

With Caribbean nations only comprising a small fraction of U.S. import shares over the decade, and NAFTA's share actually displaying a slight decrease, it is very difficult to detect any NAFTA gains at the expense of the CBI nations as having occurred. Given that U.S. effective tariff rates have been declining across the board, particularly as applied to NAFTA and the Caribbean countries and in textiles and apparel, we don't observe any strong negative relationship between tariffs and shares at all.

In response to declining tariffs, there has been an increased volume of trade with NAFTA, Europe, Asia. With respect to the Caribbean, as shown below in Figure 6, which updates Figure 2 to include the volume of trade held by the Caribbean nations, we see no dramatic losses in the volume of exports to the U.S.⁴¹ They remain at the low levels they started out with at the beginning of the decade. Overall, we find no evidence of a Caribbean loss of the U.S. export market to Mexico and/or Canada. While NAFTA has increased its exports, there doesn't seem to be any loss of any trade with the U.S. accruing to the Caribbean nations that would have occurred otherwise if not for NAFTA. In other words, there have been no gains in NAFTA exports to U.S. that have occurred to the expense or detriment of the CBI nations.



Hufbauer and Schott (1993) predicted there would inevitably be some unavoidable trade diversion effects from NAFTA, but pointed out some mitigating factors. Firstly, as trade increases between the NAFTA members, their incomes will grow. As incomes grow, so do imports. So while there may certainly be substitution effects away from third countries' imports as a consequence of NAFTA, there will also be compensatory income effects in favor of third countries' exports. In other words, for the trade diversion that occurs, there will simultaneously be trade creation. In fact, Hufbauer and Schott believe the trade created by growth in the NAFTA region should more than compensate for the trade that is diverted by the formation of the union.⁴²

⁴¹ Ibid.

⁴² Hufbauer and Schott (1993), p. 113.

By 1997, the resilience of NAFTA's trade creation effects had already been put to the test, and passed with flying colors. For a worst-case scenario, Weintraub recounts Mexico's severe balance-of-payments crisis of 1994-95 and its deleterious effect on the Mexican economy. Naturally, since Mexico's GDP declined in 1995, so did its imports. However, partly due to U.S. assistance during the crisis, and partly due to NAFTA, Mexico's imports from U.S. declined a lot less than its imports from other countries. Weintraub believes that this highly unbalanced shift in favor of American imports undoubtedly contained some diversion of trade from lower-cost third countries. However, due to the judicious handling of the economic crisis, the severity and duration of the crisis were alleviated. The Mexican economy made a good recovery in 1996 in which imports from all other countries rose. Provided Mexico continues its strong macroeconomic policies, Weintraub contended that the recovery should continue, raising imports from third countries, thus curbing trade diversion effects.⁴³

In assessing the impact of increased intra-NAFTA trade on the Mexican economy, Aghion (2012) notes that in 1993, trade among the three countries was worth \$297 billion, and since the agreement came to force, trading is now worth more than \$1.6 trillion, according to the latest estimates for 2009. In other words, the volume of trade increased eightfold over a nearly 15-year period. Furthermore, the volume of trade (exports and imports excluding oil) as a percentage of Mexico's GDP increased from 26 percent to 64 percent from 1985 to 2000. Non-oil exports increased from approximately \$2 billion to \$150 billion. While average economic growth rates in Mexico were 2 percent prior to the signing of NAFTA in 1980-1993, this doubled to 4 percent in 1996-2002.

These spectacular increases can be attributed partly to NAFTA, but also to economic reforms prior to NAFTA on two important fronts. First, on the trade front, accession of Mexico to the GATT, which dates back to 1985, had already eliminated most tariffs except in agriculture. And second, on the financial flows front, financial liberalization was initiated in 1989, which facilitated foreign direct investment (FDI).

One may then ask what was NAFTA's main effect on trade flows if trade barriers had already been lifted? The answer, according to Aghion, lies in investor's expectations. In particular, NAFTA made it increasingly difficult for Canada and the U.S. to revert back to the imposition of trade barriers. This, in turn, reduced the level of uncertainty among foreign investors, thereby enabling higher FDI to be poured into the trade sector in Mexico. A Banco de Mexico study of FDI flows into Mexico from 1980 to 1999 estimates that NAFTA is responsible for an increase in FDI in Mexico by approximately 70 per cent.⁴⁴

Another mitigating factor Hufbauer and Schott pointed out is the potential NAFTA offers for increased competitiveness of the industries of its member nations. The main idea of NAFTA is to make it harder for third nations to compete in the North American market--not through increased protectionism, but through greater specialization and division of labor.⁴⁵ It was hoped that as intra-NAFTA trade increased, it would foster the growth of North American industries that can beat outside competition not because of preferential tariff arrangements, but through lower-cost means of production. Dating back to Solow's Growth Model (1956), economists tend to view productivity as the main source of economic growth.

In this analysis, we have seen the absolute volume of U.S. imports from NAFTA increase

⁴³ Weintraub, pp. 30-31.

⁴⁴ Aghion, Edouard, "NAFTA and its Impact on Mexico." University of Munich, Munich Personal RePEc Archive Paper No. 36529, February 18, 2012, pp. 3-4.

⁴⁵ Hufbauer and Schott (1993), pp. 113-14.

over the past decade, and the evidence provided by Datta and Kouliavtsev showing the tremendous increase in textile and apparel imports from Mexico occurring between 1993 and 2001, in no doubt partly as a result of the treaty. As Adam Smith said, "The division of labor is limited by the extent of the market." Mexican firms, in time, may become lower-cost producers of textiles capable of beating the Asian competition for the American market without any tariff preference whatsoever. In effect, trade diversion can be transformed into trade creation.

This may very well have been the long-run impact of NAFTA at the present. In assessing the impact of NAFTA on Mexican productivity, Aghion notes that the main contribution to Total Factor Productivity (TFP) is productivity of labor, which has increased in Mexico by more than in the U.S. and Canada under NAFTA. Real wages on average have grown in Mexico due to an increase in labor productivity, which is the relatively low-skilled abundant factor of production in which Mexico has a comparative advantage relative to the U.S. and Canada. Moreover, this increase is observed most prominently in the manufacturing sector of Mexico's economy.⁴⁶

⁴⁶ Aghion, p. 6.

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