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TRADE PATTERNS FOR THE NORTH AMERICAN REGION: BEFORE AND AFTER THE IMPLEMENTATION OF NAFTA

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ABSTRACT

The North American Region formed a Trade Agreement that eliminated tariffs between Canada, Mexico and the United States. The purpose of this study is to determine the impact of the integration by examining trade activity within the Region for the period 1987 through 2000. Trading activity during the pre-NAFTA period of 1987-1993 was compared and contrasted to the seven year period, since the implementation of NAFTA, from 1994-2000. The study also examined trends in the member nations growth patterns and changes in their employment activity. The economic data examined confirmed that NAFTA had a positive impact on the North American Region with Mexico being the greatest beneficiary economically. Increases in member nations GDP and Labor Force employed could not be directly credited to NAFTA, but it is evident that integration had done more to enhance the North American Region economies than to the contrary.

INTRODUCTION

Since the end of World War II, cooperation among nations increased substantially. Often, the cooperation begins as a free trade area, develops into a custom union, then evolves into a common market, and eventually the group of nations may move to a complete economic integration The European Union has played a large role in the recent surge of activity with the implementation of the Single Market Program in 1992 enlargement of its membership and numerous agreements with other countries. These agreements account for two-thirds of the agreements notified to GATT/WTO since 1990 and include the European Economic Area, the Europe Agreements with the countries of Eastern Europe, the EU Turkey customs union, and the development of a Mediterranean policy potentially incorporating regional agreements with most countries on the southern and eastern shores of the Mediterranean. In Latin America. MERCOSUR was formed in 1991 and the Group of Three in 1995. The Andean Pact and Central American Common Market (CACM) were resurrected in 1991 and 1993, respectively. In Sub-Saharan Africa, the agreements in West Africa were reformed and reorganized. The Southern African Development Community (SADC) developed out of an earlier defense-based organization, Southern African Development Coordination Conference, and was supplemented, for many of its members, by the Cross-Border Initiative. The East African Cooperation sprang up where the East African Community had failed (Ball, 2008).

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The Middle East witnessed the development of the Gulf Cooperation Council (GCC), and in 1997 Arab League members agreed to cut trade barriers over a ten -year period. In Asia, the Association of Southeast Asian Nations (ASEAN) countries developed twenty-five years of political cooperation into a free trade area in 1992, with the formation of the ASEAN Free Trade Area. The South Asian Association for Regional Cooperation agreed in 1997 to transform itself into the South Asian Free Trade Area becoming, in terms of the population it represents, the world's largest regional agreement. New ground was broken in 1994 when the Canada-U.S, Free Trade Area was extended to Mexico through NAFTA. For the first time a developing country joined industrial countries as an equal partner in a trade agreement designed to increase economic development in all three economies. Ties between high-income and developing countries were also being forged in the Asia Pacific Economic Cooperation (APEC), established in 1989 as a loosely knit organization committed to trade liberalization on a non- preferential basis, by 2010 for industrial country members and 2020 for developing countries (Robbins & Coulter, 2005).

PURPOSE

From the inception of NAFTA there have been many reports from proponents and opponents alike. Proponents had high praises for the agreement, while opponents, on the other hand, gave NAFTA failing grades in all respects. This study was conducted to determine the impact of the agreement on member nations by examining changes in economic activity within the Region for the period 1987 to 2000. This study first examines the volume of trade between the three countries, specifically, the volume of exports and imports. Then compares the pre-NAFTA period from1987 to 1993 with the seven year period since its implementation, from 1994 to 2000. The study also examined changes in the member nations Gross Domestic Product (GDP) and active labor force for trends and growth patterns.

REVIEW OF THE LITERATURE

It has been fifteen years since NAFTA went into effect on January 1, 1994. NAFTA's impact on the North American Region still remains inconclusive. There are several regional characteristics that are worth mentioning. First, the region is not homogeneous in terms of economic, cultural, and political features. Second, the region's population has been growing faster than the U.S. national average. Next, when compared to U.S. data, the region's unemployment rates are high and labor force participation rates are low. Finally, an agreement already existed between U.S. and Canada (Peach & Adkisson, 2000).

When the agreement was implemented, the United States had already been involved in a free trade agreement with Canada, which was signed in 1988 and implemented in 1989. As a result, some analysts are of the opinion that NAFTA would bring little change to U.S.-Canada trading (Adibi & Dott, 2001; Peach & Adkisson, 2000). The Agreement's passage made tariff reductions which were broad-based and included such manufactured goods as machine tools, medical devices, semiconductors, and telecommunication and electronic equipment. The agreement also led to the elimination of tariffs on sixty-five (65%) per cent of all U.S. exports of industrial products to Mexico. These industrial products included light trucks, auto parts, and paper products. NAFTA provisions also made it possible for U.S. exporters to Mexico to

benefit from the removal of import licenses which had acted as quotas that limited the importation of certain products into the Mexican market (Adibi & Dott, 2001; NAFTA Facts, 2000). Many other Mexican trade barriers relating to local production and export performance requirements were also eliminated under NAFTA provisions. Also, farm products and equipment were scheduled to be phased-out over a fifteen-year period.

NAFTA's potential impact on the U.S. was examined extensively in the years prior to its actual implementation. For example, the U.S. Federal Reserve Bank of Chicago estimated that NAFTA would produce 'output gains' for all three nations, increasing the U.S. GDP by 0.24%. Mexico's GDP by 0.11% and Canada's GDP by a sizeable 3.26% (Kengor, 2000). Studies measuring the actual impact of NAFTA were produced after 1994. In a 1997 study by the Heritage Foundation, NAFTA was acclaimed with remarkable success on all areas of measurement from job creation to increased exports to economic growth. The study noted that U.S. exports to Mexico had increased by 37% from 1993 to 1996, reaching a record $57 billion. During the same five year period, U.S. exports to Canada rose by 33%.

It makes sense to discuss why the prediction that the region would be better off with NAFTA than without it. This prediction can be compared to Ricardo's Theory of Comparative Advantage (Campolo, 1998). The theory predicts that participants of a free trade agreement benefit as each member specialize in their area of greater factor productivity. The Heckscher Ohlin (HO) Theory (Campolo, 1998) agrees with this premise and shows that if one nation is capital intensive and another is labor intensive, each nation will specialize in goods and services that uses its most abundant resources. Applying NAFTA to this theory, the US and Canada which are capital abundant will complement Mexico which is labor intensive. Through this application it is fair to draw the inference that NAFTA will have a positive impact on the North American member nations.

Studies pertaining to NAFTA's state-level effect were scarce, but one of the few studies done by the Allegheny Institute for Public policy focused on NAFTA's impact on Pennsylvania. The study found that Pennsylvania exports to Mexico and Canada reached record levels within the first year of NAFTA's implementation. Mexico exports increased by 31% and Canada's by 11%. A breakdown by industry showed that 20 of 30 industries experienced export gains to Mexico, while 26 of 32 experienced export gains to Canada. These gains in exports resulted in an extra $616 million in Pennsylvania exports (Kengor, 2000). In a 1994 article in Fortune magazine, it was predicted that Texas would experience significant gains specifically for Dallas and Houston. The article predicted that in the Dallas area alone NAFTA would create 75,000 jobs in the banking and other traditional business industries. Other research has shown that there has been an impressive jump in Texas exports to Canada and Mexico. Under NAFTA, Texas experienced the second largest gain in total exports among all fifty states. Over half of its added $21 billion in exports from 1993-97 came from new exports to Canada and Mexico (Kengor, 2000). This means that that Texas' exports to two (Canada and Mexico) of the world's nearly two hundred nations, accounted for half its rise in exports since NAFTA.

In another border-state with Mexico, California, the impact of NAFTA was less dramatic than with Texas. California's exports to Canada were not significantly impacted by NAFTA, while exports to Mexico increased significantly by 10.0% increase in 1994 to 21.8% increase in 1997 (Adibi & Dott, 2001). Textile is one of the industries most significantly impacted by

NAFTA. Export data out of New York indicated textile exports in 2000 totaled $10.5 billion, a 15.8% increase from 1999. The increase was significant, considering that exports in prior years only grew between one to four per cent annually. So far 2001 seems geared to another exciting year for the industry as in the first three months exports rose by 8.6% to $2.7 billion. Much of the textile industry's success has to be attributed to NAFTA as exports to Canada and Mexico accounts for more than 60% of total textile exports and most of the growth (Leizens, 2001). Research has also predicted that NAFTA's impact on the economic growth of the member nations would be neutral to insignificant (Peach & Adkisson; 2000, Weintraub, 2000) and its overall impact on the active labor force of each country will be negative (Gail Group, 2001; Weintraub, 2000).

THEORETICAL FOUNDATION

The impact of trade on the economies of nations has often been aligned to the market model which suggests that the best economic results are experienced by nations that adopt a policy of free flow of export and imports without trade restrictions. While linking trade to economic development, Grossman and Helpman (1990) concluded that nations practicing a free trade policy grew at a faster rate than those that did not practice such a policy. The researchers also concluded that developing nations stood to gain more from unrestricted trade as in some instances developing nations do not possess the necessary resources to properly and effectively conduct the developmental research that is required for new product development.

Grossman and Helpman research studies confirmed the earlier research of Heller (1977) and Balassa (1978) that established that increased exports will successfully accelerate the economic growth of the nations since exports are the main component of national outputs. In order to quantify exports as a viable component of economic development, Tyler (1981) established that 17.5 per cent increase in exports resulted in an incremental increase of 1 per cent in GDP and that nations that do not conform to free trade policies will result in increased exports and economic growth being hampered. This finding can be represented by the following equation:

$$17.5\%\ \text{Exports} = 1\%\ \text{GDP} \qquad \text{Equation 1}$$

Feder (1982), in an attempt to quantification, even separated the export from the non-export components of output and used the simple equation:

$$Y = N + X. \qquad \text{Equation 2}$$

Where the GDP (Y), was equal to N + X, and N represented the non export sector and X the export sector. Therefore, it is fair to assume that regional integration and its export promotion policies are critical factors in advancing economic growth and development. With derivates and some manipulation, this equation can be converted into an identity relating growth rates as follows;

$$y - p = [1 - (X/Y)](f - p) + (X/Y)(x - p) \qquad \text{Equation 3}$$

(where lower case letters represent the per annum growth rate of the corresponding capital letter symbol, and p is the population growth rate).

It is evident from Equation 3, that any change in rate of growth of per capita exports (x – p) will change the output growth rate (y – p) in the same direction even if there is no change in the growth rate of the other components of output (f –p).

Hypotheses: There are two hypotheses that were addressed in the study:

H_1 : Regional integration in the North American Region had a direct and positive impact on member nations economic growth through increased trading between the members.

N_1 : Regional integration in the North American Region had no impact on member nations economic growth through increased trading between the members.

H_2 : Regional integration had a direct and positive impact on member countries as a result of increased employment activities.

N_2 : Regional integration had no impact on member countries as a result of increased employment activities.

DATA COLLECTION

The data necessary for this study was collected as follows:

- Employment data on the North American Region was obtained from the US Department of Labor-Bureau of Labor Statistics, and The International Labor Organization-Yearbook of Labor Statistics.
- Gross Domestic Product data was obtained from International Monetary Fund, International Financial Statistics; OECD National Accounts and Economic Outlook; and World Bank Country Statistics.
- Trade data (imports and exports) was obtained from Lloyd's Register of Shipping, World Fleet Statistics, IMF Direction of Trade Statistics Yearbook, and The Balance of Payments Year Book.

METHOD

The periods being reviewed are (i) from 1987 to 1993 (the seven years prior to NAFTA's implementation or the pre-NAFTA period), and (ii) 1994 to 2000 (seven years since NAFTA's implementation). In order to ascertain whether the prior findings of Tyler and Feder have any merit, the changes in trade levels between the two periods are calculated and the per centages determined. The trade volume that occurred among Canada, Mexico, and the United States as related specifically to exports and imports generated among the three countries were isolated from trade with other trading partners. The trade data was then analyzed and compared for the purpose of:

(a) determining the impact of NAFTA on each participating country's trade, GDP, and active Labor Force;

(b) determining the member nation that had benefited most from the agreement, and

(c) determining, in general terms, the treaty's success or failure.

The employment data for the three countries were also analyzed to determine any changes (% increase/decrease) in the level of employment among the pre- and post integration periods. The GDP data for the three countries were analyzed to determine the changes (% increase/ decrease) that occurred for the period 1994–2000, the post-NAFTA period. The per centage change in GDP, exports, imports, and employment will be calculated for the seven years since the implementation of the agreement, and SPSS will be applied to each country's changes independently so that the results are not impacted by the presence of the data from the other members of the pact. The results of the regression analysis as determined will be further analyzed and results reported. Regression analysis was introduced to the dependent variable, that is, % changes in GDP and independent variables, that is, % change in exports, imports, and employment data. The level and direction of the correlations were recorded. Each country's data was analyzed separately to ensure that the correlations were not influenced by the data of the other two countries. The descriptive statistics, that is, mean, dispersion (variance), and standard deviation, were calculated and reported for each country's data.

RESULTS

Export Data

The export data between Canada, Mexico, and the United States for the periods 1987–1993 and 1994–2000, for all industries, are tabulated in Table 1. The data shows that U.S. exports to Canada from 1987 to 1993, the pre-NAFTA period, increased by $41.1 billion, and to Mexico an increase of $26.9 billion over the same period. During the NAFTA period, from 1994-2000, U.S. trade to Canada increased by $64.3 billion and to Mexico the increase was $60.8 billion. The increase in U.S. export trade from the pre-NAFTA period to the NAFTA period to Canada and Mexico was $23.2 billion or 56% and $33.8 billion or 125% respectively during the NAFTA period over the pre-NAFTA period. During the pre-NAFTA period, exports increased at total of $40.1 billion and since the implementation of NAFTA exports increased $100.8 billion. Canada overall increase in export trade was $60.7 billion or a whopping 151%. Canadian exports to Mexico also showed increases. The overall increase from the pre-NAFTA period to the NAFTA period was $1.1 billion or 169%. Mexico's exports to the U.S. and Canada also related in increased trade of $66.8 billion or 340% to the U.S. and $2.1 billion or 83% to Canada. The overall impact of NAFTA exports to its member nations increased over the seven years after NAFTA was implemented.

Import Data

The Import data for the U.S., Canada, and Mexico are presented in Table 1. The U.S. imports from Canada and Mexico increased by a total of $127.4 billion relating in a 213% increase. Imports from Canada increased by $60.7 billion or 151% during the NAFTA period. Similarly, U.S. imports from Mexico from the pre-NAFTA period to the NAFTA period increased by $66.7 billion or a massive 340% increase. The import data clearly indicates, that like their U.S. partner, that both Canada and Mexico imports from NAFTA countries also show sizeable increases. Canada imports from Mexico and the U.S. increased by $25.4 billion during the NAFTA period. Canada imports from the U.S. increased by $41.1 billion to $64.3 billion an

Table 1
Total Regional Exports by Individual Countries 1987-2000

(Millions of US Dollars)

	USA			*Canada*			*Mexico*		
Year	*Region*	*Canada*	*Mex*	*Region*	*USA*	*Mex*	*Region*	*USA*	*Canada*
1987	73,900	59,318	14,582	71,439	71,085	354	21,286	20,271	1,015
1988	91,713	71,070	20,643	86,358	86,020	338	24,505	23,178	1,327
1989	103,235	78,253	24,982	88,438	88,017	421	28,873	27,169	1,704
1990	111,342	81,025	30,317	84,265	83,674	591	30,519	28,770	1,749
1991	118,427	85,150	33,277	91,844	91,064	780	33,864	31,130	2,734
1992	131,186	90,594	40,592	99,415	98,630	785	37,962	35,211	2,751
1993	142,025	100,444	41,581	112,204	111,216	988	43,507	39,917	3,590
1994	165,283	114,439	50,844	130,013	128,406	1,607	53,958	49,494	4,464
1995	173,518	127,226	43,292	145,782	144,370	1,412	67,452	62,101	5,351
1996	191,002	134,210	56,792	158,270	155,893	2,377	80,309	74,297	6,012
1997	223,155	151,767	71,388	169,959	167,234	2,725	92,957	85,938	7,019
1998	235,376	156,603	78,773	176,218	173,256	2,962	102,274	94,629	7,645
1999	253,509	166,600	86,909	201,697	198,711	2,986	118,076	109,721	8,355
2000	290,507	178,786	111,721	232,524	229,209	3,315	145,086	135,910	9,176

Source: Trade data (imports and exports) was obtained from Lloyd's Register of Shipping, World Fleet Statistics, and The Balance of Payments Year Book.

overall increase of $23.2 billion or 56%. The data also indicate that Canada's imports from Mexico during the NAFTA period increased by $2.1 billion or 83% over the pre-NAFTA period. Mexico increased imports from its NAFTA partners were $33.9 billion or 125% from the U.S. and $1.1 billion or 169% increase from Canada.

Table 2
Total Regional Imports by Individual Countries 1987-2000

(Millions of Dollars)

	USA			*Canada*			*Mexico*		
Year	*Region*	*Canada*	*Mexico*	*Region*	*USA*	*Mexico*	*Region*	*USA*	*Canada*
1987	91,356	71,085	20,271	60,333	59,318	1,015	14,936	14,582	354
1988	104,198	81,020	23,178	72,397	71,070	1,327	20,981	20,643	338
1989	115,396	88,227	27,169	79,957	78,253	1,704	25,403	24,982	421
1990	121,544	92,774	28,770	82,774	81,025	1,749	30,908	30,317	591
1991	122,194	91,064	31,130	87,884	85,150	2,734	34,057	33,277	780
1992	133,841	98,630	35,211	93,345	90,594	2,751	41,377	40,592	785
1993	151,133	111,216	39,917	104,034	100,444	3,590	42,569	41,581	988
1994	177,900	128,406	49,494	118,903	114,439	4,464	52,451	50,844	1,607
1995	206,471	144,370	62,101	132,577	127,226	5,351	56,344	54,932	1,412
1996	230,190	155,893	74,297	140,222	134,210	6,012	59,169	56,792	2,377
1997	253,172	167,234	85,938	158,786	151,767	7,019	74,113	71,388	2,725
1998	267,885	173,256	94,629	164,248	156,603	7,645	81,735	78,773	2,962
1999	308,432	198,711	109,721	174,955	166,600	8,355	89,895	86,909	2,986
2000	365,119	229,209	135,910	187,962	178,786	9,176	115,036	111,721	3,315

Source: Trade data (imports and exports) was obtained from Lloyd's Register of Shipping, World Fleet Statistics, and The Balance of Payments Year Book.

Employment Data

The employment data for Canada, Mexico, and the U.S. were obtained from the US Department of Labor - Bureau of Labor Statistics, and The International Labor Organization - Yearbook of Labor Statistics. The data for the NAFTA partners are presented in Table: 3. The employment data indicates that the number of persons employed, in the U.S., Canada, and Mexico, increased in each of the years since NAFTA implementation from 1994 through 2000. During that period Mexico enjoyed the largest increases in active labor force. However, in the U.S. the growth in number of persons employed increased in much smaller increments than experienced by its NAFTA counterparts, Canada and Mexico. The U. S. experienced the smallest growth in employment, since NAFTA's implementation, in 2000 with an increase of only 0.7%, which could be an indication that the employment growth in the U.S. may have begun to slow down. In the first two quarters of the year 2001 the number of persons employed dropped to 132,369,000, a decrease in employment of 1,997,000 or -1.4%. A clear indication that the U.S. economy is on the verge of slowing down.

It is clear, that with the exception of Mexico in 1994 that experienced a decrease in employment growth (–0.2%), all the negative employment growth occurred during the pre-NAFTA period. For the seven years since the implementation of NAFTA in 1994, all three countries experienced positive employment growth. It is also evident that Mexico experienced the largest increases in employment growth followed by Canada. The data also indicate that U.S. employment growth curve was much flatter than its neighbors, Canada and Mexico.

Table 3
Total Civilian Employment 1987-2000 of Region

(in Thousands)

	Civilian Employment			*Per Cent Change*		
Year	*USA*	*Canada*	*Mexico*	*USA*	*Canada*	*Mexico*
1987	112,440	12,321	27,170	2.6%	2.9%	1.0%
1988	114,968	12,710	28,128	2.2%	3.2%	3.5%
1989	117,342	12,986	28,726	2.1%	2.2%	2.1%
1990	118,793	13,084	29,403	1.2%	0.8%	2.4%
1991	117,718	12,851	30,534	-0.9%	-1.8%	3.8%
1992	118,492	12,760	31,789	0.7%	-0.7%	4.1%
1993	120,259	12,858	32,833	1.5%	0.8%	3.3%
1994	123,060	13,112	32,782	2.3%	2.0%	-0.2%
1995	124,900	13,357	33,881	1.5%	1.9%	3.4%
1996	126,708	13,463	35,226	1.4%	0.8%	4.0%
1997	129,558	13,774	37,360	2.2%	2.3%	6.1%
1998	131,463	14,140	38,618	1.5%	2.7%	3.4%
1999	133,488	14,531	39,069	1.5%	2.8%	1.2%
2000	134,366	15,074	40,976	0.7%	3.7%	4.9%

Source: Employment data on the NAFTA countries was obtained from the US Department of Labor - Bureau of Labor Statistics, and The International Labor Organization-Yearbook of Labor Statistics.

Gross Domestic Product Data

From the Gross Domestic Product (GDP) data (Table 4) collected from the IMF-International Financial Statistics, the OECD National Accounts and Economic Outlook, and the World Bank Country Statistics, it is evident that the NAFTA countries, with the exception of Canada in 1998, experienced productivity growth for the period 1994-2000. In 1998, Canada experienced a –4.1% decrease in GDP over the prior year. In that year also, Mexico experienced its smallest growth of 5.0% since the implementation of NAFTA. With the exception of 1998, Mexico experienced double digit growth in the other six years of NAFTA.

Table 4
Regions Gross Domestic Product (GDP) 1987-2000

(In billion of US Dollars)

	GDP			*Per Cent Change*		
Year	*USA*	*Canada*	*Mexico*	*USA*	*Canada*	*Mexico*
1987	4,743	414	140	6.5%	13.4%	94.5%
1988	5,108	490	173	7.7%	18.4%	23.0%
1989	5,489	550	205	7.5%	12.2%	18.4%
1990	5,803	400	107	5.7%	-27.3%	-47.7%
1991	5,986	359	138	3.2%	-10.3%	29.0%
1992	6,319	382	159	5.6%	6.4%	15.2%
1993	6,642	449	175	5.1%	17.5%	10.1%
1994	7,054	520	222	6.2%	15.8%	26.9%
1995	7,401	541	287	4.9%	4.0%	29.3%
1996	7,813	602	332	5.6%	11.3%	15.8%
1997	8,318	624	401	6.5%	3.6%	20.6%
1998	8,790	598	421	5.7%	-4.1%	5.0%
1999	9,299	635	483	5.8%	6.1%	14.8%
2000	9,963	688	576	7.1%	8.3%	19.1%

Source: US Department of Labor - Bureau of Labor Statistics and the International labor Organization Year Book of Labor Statistics.

From the results of the correlation (Table 5), the data from all three countries indicated a high level of association between the GDP and exports as follows: USA .725, Canada .670, and Mexico a robust .889. Although there was evidence of positive association between imports and GDP and exports, only the for Canada was the association significant. For Canada imports and GDP had a correlation of .653 and .622 between imports and exports. These results not only supports the prior findings of Tyler (1981) and Feder (1982), but also the basis methodology for the compilation of the GDP. The null hypothesis (N_1) which stated that regional integration in the North American Region had no impact on member nations economic growth through increased trading between the members is not accepted.

The data for USA and Canada both resulted in some association between employment, and GDP, exports and imports. However, there was a significant association of .706 between and GDP for the USA data. Logically, this association does have some validity as the exports of a country continues to experience growth, then increased labor will be necessary to sustain that growth. Also, additional raw materials may have to be imported to sustain the increased levels of exports. Surprisingly, for Mexico data, employment resulted in a negative association

with GDP and Exports. There the null hypothesis (N_2) which stated that regional integration had no impact on member countries as a result of increased employment activities is not accepted.

CONCLUSION

Despite claims to the contrary (Adibi & Dott, 2001; Campolo, 1998; Peach & Adkisson, 2000), the North American Region, comprising Canada, Mexico, and The United States, has benefited during the seven years since NAFTA's implementation in 1994. The trade data (exports and imports) for the NAFTA period clearly indicate that total exports to the NAFTA region increased for all three countries over the pre-NAFTA period. Although it was the consensus that due to the 1989 Free Trade Agreement between the U.S. and Canada, which eliminated tariffs between the two countries, any further impact on trade between those two countries will be negligible at best. However from the implementation of NAFTA in 1994, U.S. exports to and imports from Canada increased by 56% and 79% respectively. Also, Canada exports and imports to the U.S. increased by 79% and 56% respectively since NAFTA's implementation in 1994. Both U.S. and Canada have had increased exports to and imports from Mexico. It is clear from the data that Mexico has received the greatest benefits from NAFTA.

Table 5
Descriptive Statistics & Correlations

USA	*Mean*	*STD*	*1*	*2*	*3*	*4*
GDP	5.9714	0.70643	1			
Exports	10.8629	5.06848	.725**	1		
Imports	13.51	4.58889	0.484	0.440	1	
Employ	1.5857	53675	.706**	0.430	0.410	1
	**	Correlation is significant at the 0.01 level (2-tailed)				
Canada						
	Mean	*STD*	*1*	*2*	*3*	*4*
GDP	7.6000	4.56216	1			
Exports	11.0543	4.61488	.670**	1		
Imports	8.8843	4.12472	.653*	.622*	1	
Employ	2.3143	0.90079	0.391	0.266	0.369	1
	**	Correlation is significant at the 0.01 level (2-tailed)				
	*	Correlation is significant at the 0.05 level (2-tailed)				
Mexico						
	Mean	*STD*	*1*	*2*	*3*	*4*
GDP	18.78571	8.1099586	1			
Exports	18.88429	5.4785973	.889**	1		
Imports	15.07571	10.250819	0.271	0.214	1	
Employ	3.314286	2.0383233	-0.137	-0.168	0.190	1
	**	Correlation is significant at the 0.01 level (2-tailed)				

For the United States, the results of the regression indicated a significant correlation of 0.725 between GDP and exports, and a correlation of 0.706 among GDP and employment. It is evident that as the level of exports increases, so too will the GDP of the United States. The correlation between the GDP and employment can be explained from the position that as GDP

and exports increase, additional labor force/employment will be required in order to maintain the increase in the economic growth.

As relates to Canada, there were significant correlations between GDP and exports were significant at the 0.670 level, which indicates that as exports increase there will be a resulting increase in GDP. There was also a significant correlation between GDP and imports of 0.653 and exports and imports of 0.622. These results indicate that as the production of exports increase, when the raw materials required for the increase production of exports are not available in the country, then additional raw materials have to be imported resulting in increased level of imports.

With Mexico The level of correlation between GDP and exports was very robust and significant at the 0.889 level. This results clearly indicate that as exports from Mexico increases, the results are increased GDP or economic growth. The results showed an insignificant correlation between GDP and imports and exports and Imports. However, there was a negative correlation of -0.137 between the GDP and employment. This result that in the case of Mexico, the increase in exports resulting in increased GDP did not result in an increase of the labor force, rather the labor force or employment was reduced. Although this result might seem startling, at best, it must be remembered that labor or employment is not a factor utilized in the calculation of GDP of a country.

The data clearly shows that during the NAFTA period both Canada and U.S. experienced continued employment growth. With the exception of 1994, the year of NAFTA.s implementation, Mexico also experienced employment growth. In 1994 Mexico's experienced negative employment growth of –0.2%. From the available data, it is evident that the North American Region experienced employment growth since NAFTA's implementation. The data also indicate that during the NAFTA period, economic growth flourished in all three countries. In 1998 Canada recorded negative economic growth of –4.1%, while Mexico experienced its smallest growth of 5.0% over the seven-year period. With the exception of 1998, Mexico's experienced double-digit growth. Although the economic success of the region, especially the employment and economic growth, it is evident that the presence of NAFTA did little to hurt it.

It is evident that the North American Region benefited from NAFTA's increased trade (exports and imports) between member countries. However, it is difficult to attribute both positives and negatives, as relates to employment and economic growth, to NAFTA. On the other hand, the task will be much more difficult in supporting the argument that NAFTA has hurt the North American Region. Weighing NAFTA's precise impact is a delicate and difficult situation. However, this paper tried to compare, and analyze the available data and report the findings as obtained. Once observers weigh all the evidence, pros and cons, they will at the very least be able to conclude that NAFTA did not produce a "giant sucking sound" in the region.

References

Adibi, E., and Dott, J. (2001), The impact of NAFTA on California Exports. *International Advances in Economic Research*, 7, 1, 159-162.

Anonymous (Gail Group) (2001), NAFTA's Scoreboard: So far, so good. *Business Week*, July 9, 54.

Balassa, B. (1978), Expots and Economic Growth: Further Evidence. *Journal of Development Economics*, 5: 181-189.

Ball, D., McCulloch, W., Geringer, M., Minor, M., & McNett, J. (2008), International Instutions from an International Business Perspective. In *International Business: The Challenge of Global Competition* (pp 103-134). New York: McGraw-Hill Irwin.

Campolo, N. (1998), *NAFTA: Are we better off because of it?* Retrieved on February 10, 2008 from: *www.execpc.com.*

Compa, L. (2000), Environmental Regulations and Corporate Strategy: A NAFTA Perspective. *Administrative Science Quarterly*, 45, 4, 840-843.

Facts: Public Citizen (2000), *North American Free Trade Agreement* Retrieved on February 10, 2008 from: *www.citizen.org.*

Feder, G. (1982), On Exports and Economic Growth. *Journal of Development Economics*, 12: 59-73.

Fitzgibbon, A. (2000), Shipping in the NAFTA Zone Involves Dealing with Improving Infrastructure, Customs Compliance, and Cargo theft. *World Trade*, 3, 11, 66-69.

Greer, C. & Stephens, G. (2001), Excalation of Commitment: A Comparison of Differences between Mexican and U.S. decision-makers, *Journal of Management*, 27, 1, 51+

Grosman, G. & Helpman, E. 1990. The new growth theory: Trade, innovation, and growth, *American Economic Association Papers & Proceedings*, pp. 86-91.

Heller, P. & Porter, R. (1978), Exports and Growth: An Empirical Reinvestigation. *Journal of Developmental Economics*, pp. 191-193.

International Monetary Fund (2005*), International Statistical Yearbook*, 2004, Washington, DC.

Kengor. P. (2000), *The Effect of NAFTA on Texas*. Allegheny Institute for Public Policy for the Texas Public Policy Foundation.

Leizens, L. (2001), Canada, Mexico driving growth in exports. *HFN*, 75, 25, 17.

Linneman, H. (1966), An Econometric Study of International Trade Flows, North Holland Publishing: Amsterdam, The Netherlands.

Michaely, M. (1977), Exports and Growth: An Empirical Investigation., *Journal of Development Economics*, 4: 49-53.

Nwabuzor, A. & Nwakanma, H. (2007), Trade Flows Impact of European Union Expansion. *International Business: Research, Teaching and Practice*, 1(1), pp. 16-36.

Orton, C. (2001), Approaching a Borderless North America, *World Trade*, 14, 2, 58-59.

Peach, J., and Adkisson, R. (2000), NAFTA and Economic Activity along the U.S.-Mexico Border. *Journal of Economic Issues*, 34, 2, 481-489.

Robbins, S. & Coultier, M. (2005), *Management*. Upper Saddle River, NJ: Prentice Hall.

Tyler, W. (1981), Growth and Export Expansion in Developing Countries, *Journal of Developmental Economics*, 9: 121-130.

Weintraub, S. (2000), Interpreting NAFTA: The Science and Art of Political Analysis. *Political Science Quarterly*, 114, 4, 700-701.