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The Impact of the North American Free Trade Agreement on the Economy of Western New York

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Abstract

This paper examines the economic impact of the North American Free Trade Agreement (NAFTA) upon the Western New York region of the United States. A variety of theoretical perspectives are reviewed, notably with regard to impact assessment. Evidence from a survey of local business establishments suggests that NAFTA has not played an especially important role in the various upswings and downswings that have affected the Western New York area over the last few years. In contrast to a number of inquiries that have appeared in the recent literature, there is little evidence to support the view that Western New York has been negatively impacted by NAFTA. Instead, the evidence suggests that NAFTA has had a positive impact in terms of new export development, job-creation, input sourcing, and sales growth. At the same time, however, the evidence suggests that national and/or regional economic conditions have played a stronger role in company performance than international agreements on trade. The paper concludes with a brief discussion of the empirical and theoretical difficulties that confront researchers who wish to explore the effects of trade agreements upon regional economies.

1. Introduction

As the North American Free Trade Agreement (NAFTA) enters its seventh year, academic and policy debate continues regarding the long-run economic and social implications of the accord (Gould, 1998; Hanson, 1998; McKinney, 1999). In the US, for example, some critics have argued that NAFTA has established ideal conditions for large-scale capital outmigration to Mexico, not least because of that nation's low unit costs and lax environmental standards (for a recent overview, see Husted and Logsdon, 1997). Similar concerns have been raised by Canadian critics (Drache, 1993; Merritt, 1996), such that, by now, academic opposition to NAFTA is conspicuously stronger in Canada and the US than it is in Mexico.

Part of this dissent flows from a lack of faith in the geographic and/or economic logic that underpins traditional trade theory (see Pasquero, 1999). For example, few markets operate on the basis of perfect competition; factors of production have become increasingly mobile at the international level; and (from a neoclassical perspective) free trade with factor mobility ultimately implies international cost convergence (leaving some countries richer or poorer than before). Recent opposition to NAFTA has also been feeding from empirical work on subnational effects, including plant closures, company relocations, and other negative impacts (e.g. environmental degradation, trade diversion, etc). This paper seeks to contribute to the current NAFTA debate by offering a regional case-example that considers the import, export, and investment impacts of the 1994 accord. The case-example is Western New York (WNY), a stagnant but trade-sensitive region that lies on the eastern edge of the US 'Rustbelt'. Although WNY may not be representative of other US regions (stagnant, declining or otherwise), some of the empirical results may be of interest to policy practitioners and/or academics that reside in similar types of places.

Set against this backdrop, the paper is organized as follows. Section 2 provides a research context that summarizes the main theoretical positions that have been taken by scholars of the NAFTA 'debate'. Here, particular attention is given to the benefits predicted by both classical and new trade theory. This section also reviews the results of several econometric studies that have attempted to quantify the impact of NAFTA on the United States. Section 3 provides a regional context for the inquiry. Why is Western New York worth looking at? Section 4 describes the results of a recent survey of WNY business establishments that participated in a pilot project on the regional economic impact of NAFTA. The implications of the survey findings are discussed in Section 5. The paper concludes with a synopsis of the main results, along with an agenda for future empirical work on the regional impact of NAFTA.

2. Research Context

Conventional wisdom holds that aggregate production and consumption can be maximized by allowing tradeable outputs to move freely across international borders. The long-established Heckscher-Ohlin (H-O) theorem frames this proposition in terms of relative costs and factor proportions, yielding a textbook model of trade in which nations compete on the basis of comparative advantage (Ohlin, 1933). While this model is far from perfect (see Atkinson, 1998), variants of the H-O theorem have sometimes been mobilized to recruit political support for regional integration initiatives (Gould, 1998). Borrowing from Viner's (1950) work on customs unions, trade bloc enthusiasts have also pointed to the dynamic benefits of market integration, including economies of scale, intensified competition (which can further reduce prices), and technological innovation (driven primarily by heightened competition). This said, the fact that trade blocs confer preferential status to members contravenes the spirit of free trade initially envisioned by Ohlin (1993), the GATT (1945-1995), and the WTO. Yet, as Krugman (1993) and several others have observed, trade blocs represent 'local' attempts at liberalized commerce at a time when global efforts in the same direction have not been faring too well.

With regard to NAFTA, which was ratified on January 1, 1994, the H-O school of trade policy emerged as a major victor in the push for a three-way agreement. Specifically, Mexico was cast as a labor abundant economy with low wages; Canada was characterized as a resource-oriented economy; and the US was seen as the capital abundant nation (well-endowed with advanced technology and skilled workers). On the face of it, a better geographic juxtaposition of factor-based complementarities would be hard to find anywhere else in the world. Notwithstanding the fact that Canada had gained a global reputation for world-class manufactured exports well before 1994 (e.g. aerospace), or that Mexico itself was a bigger supplier of capital-intensive exports in 1994 (e.g. oil) than labor-intensive exports (e.g. textiles), the factor proportions argument was widely broadcast within the US during the immediate pre-NAFTA period (McConnell and MacPherson, 1994).

Prior to the conclusion of the accord, however, several scholars predicted that NAFTA would amount to little more than a legally codified framework to guide patterns of commerce that had already gained substantial momentum long before 1994. For instance, Krugman (1993) argued that NAFTA was a US foreign policy imperative rather than an economic necessity, in that helping a friendly neighbor to the south would make more sense than risking a return to the 'bad days of US-Mexican relations'. In a similar vein, McConnell and MacPherson (1994) argued that NAFTA was designed to remove 'irritants' within a system of trade and investment that had already been shaped in the 1980s. Given that the average US tariff on imports from Mexico was only around 4 percent in 1993, neither Krugman (1993) nor McConnell and MacPherson (1994) believed that a phased elimination of tariffs over a 15-year period would have a significant long-run impact on US industrial employment. Now that NAFTA is almost seven years old, however, it is perhaps time to re-assess the employment debate in terms of outcomes.

As far as the US literature is concerned, employment outcomes have typically been estimated on the basis of two interlinked approaches. The first approach involves a multiplier methodology that relates US export levels to job creation (e.g. Century Foundation, 1996; NAID, 1996; Gould, 1998; Hufbauer and Schott, 1994). For example, the US Department of Commerce has long used a multiplier that estimates 20,000 jobs gained for every $1 billion rise in US exports. Over the period 1994-1998, WNY's combined exports to Canada and Mexico increased from $0.68 billion to $1.59 billion (an increase of 133%), suggesting a trade-related employment increase of 18,000 new jobs (using the Commerce Department's multiplier). Over the same period, the Commerce Department notes that around 2,500 jobs in WNY were lost as a direct result of import competition from Mexico and/or Canada, giving a net gain of approximately 15,500 jobs (i.e. 18,000 new jobs minus 2,500 'lost' jobs). Estimates regarding job-losses come from TAA (trade adjustment assistance) claims that are filed by employers and/or individual workers with the US Department of Labor. While this illustration considers jobs created and/or lost as a result of trade with Mexico and Canada, it does not say very much about the role of NAFTA itself. Even if one were to fully accept the accuracy of the Commerce Department's multiplier, estimates of trade-related job-creation would need to be deflated with regard to trade that would have taken place anyway.

Not surprisingly, then, impact estimates that come from the simple approach outlined above (or variants of that approach) have been criticized by trade economists on a number of grounds. The most obvious problem is that a substantial proportion of WNY's increased trade with Mexico or Canada would have taken place regardless of NAFTA (in which case, the task would be to isolate the specific contribution of NAFTA to the observed increase). Even if this could be done (a tall order), there are a number of other problems with the multiplier approach. For example, the multiplier that links employment with exports is rather old (it was last calibrated in 1993); the multiplier represents an aggregate (national) parameter that may not apply to specific regions as a result of structural differences in the composition of exports at the metropolitan and/or county levels; and, more fundamentally, the multiplier does not account for the possibility that export growth within any given region can sometimes take place in the absence of any employment growth at all (see MacPherson, 1996). If a manufacturing plant has a good deal of spare capacity, for example, job-growth under an export expansion trend might well remain zero or insignificant unless new demand were truly substantial (in which case, the firm would need to invest in new capacity).

On the import side, the TAA approach is also problematic. For instance, TAA certifications are issued on the basis of self-reported employment effects by firms and/or workers. Verification standards are far from rigorous, in that the Department of Labor does not have a methodology for assessing the legitimacy of trade-induced losses (NAID, 1996). A related problem is that jobs lost to import competition might well have disappeared anyway (regardless of whether NAFTA were in place or not). It should be noted that TAA certifications have not increased dramatically in the post-NAFTA period, and that there is no correlation between the growth rates for imports from Mexico or Canada and TAA certifications with regard to either of these two nations.

A more sophisticated approach toward impact estimation comes from the NAID-Armington methodology (NAID, 1996), which differentiates the employment effects of export and import change by industry sectors that were liberalized under NAFTA compared to sectors that were not. This approach attempts to measure the degree of substitutability (and complementarity) between imports and domestic production (Armington elasticities). The most recent results from this approach reveal that the sectors with the largest employment gains (electronic equipment, industrial machinery, apparel, and transportation equipment [in rank order]) are also the sectors that are most vulnerable to import competition. On the basis of Armington elasticities, NAID (1996) ranked Erie county (the single largest part of WNY) 65th in the nation in terms of NAFTA-sensitivity (i.e. the potential for job loss). Interestingly, an important disclaimer in the NAID (1996) study is that reliable impact assessments at the county level are unlikely to emerge until multi-period, multi-regional, dynamic general equilibrium models of trade, capital and labor flows linking all three nations are constructed (see Kouparitsas, 1997). Operational models that integrate these types of factors remain to be developed.

From the sketch outlined above, it would seem that any assessment of the impact of NAFTA ought (somehow) to address the contingency issues inherent to the current debate. Specifically, what would have happened if NAFTA had not been approved in the first place? In an effort to answer this question, Gould (1998) employed a multi-period gravity model of trade that included incomes, prices and exchange rates. Once the fundamental determinants of trade flows were quantified for both the pre-and post- NAFTA periods, extraordinary US-Mexico flows were attributed to the free trade agreement. Although Gould's (1998) results suggest a net gain for the US as a whole, his model was not framed to capture regional effects (nor did it consider specific sectors). To the best of our knowledge, regional applications of Gould's (1998) approach have yet to appear in the academic literature. This is unfortunate, if only because Gould's (1998) methodology could be combined with a multiplier approach to estimate jobs created (or lost) as a direct result of trade legislation.

Although several other approaches toward impact estimation have been proposed in recent years, this paper offers a microeconomic perspective based on the experiences of individual firms within a specific region. While the contingency issue remains the same, the task of assessing the impact of NAFTA is transferred to the owners and/or managers that make production and employment decisions at the plant level. Given that Erie county was ranked within the nation's top 100 counties in terms of potentially negative impact (NAID, 1996), I expected to find some evidence of this at the establishment level. After all, it is reasonable to assume that owners or managers ought to know something about the extent to which NAFTA has had a positive, negative, or zero impact on the businesses that they preside over. Before looking at the survey results, however, it is appropriate to provide a contextual backdrop regarding the nature of the study region. Why might WNY be considered 'trade sensitive'? And, what can we learn from an examination of this region's responses to NAFTA?

3. Regional Context

Western New York is a declining industrial region located on the eastern perimeter of the US 'Rustbelt'. Nationally recognized for 'Buffalo wings' and 'Lake-effect snow', this region has a long history of capital outmigration, population decline, and slow income growth (McConnell et al., 1989; Institute for Local Governance, 1999). With the passage of the Canada-United States Free Trade Agreement (FTA) in 1989, however, public agencies throughout the WNY area seemed optimistic that economic revitalization would soon take place as a result of expanded bilateral trade (including new inward investment from Canada). Although two-way trade across the Niagara River has certainly increased over the post-FTA period, growth rates for imports and exports remain similar to those that prevailed prior to 1989. Ten years after the FTA, in fact, the economy of WNY can be described as slow-growing at best -- despite substantially increased trade (Bagchi-Sen, 1999). Although increased trade has contributed significantly to gross regional product (GRP), the same cannot be said for employment (Institute for Local Governance, 1999).

None of this should be taken to imply that the FTA (or NAFTA) has done nothing to help the region. In a series of surveys sponsored by the Canada-United States Trade Center (CUSTAC) at the University at Buffalo, it was found that significant numbers of small WNY firms had become export-active as a result of the trade opportunities implied by the FTA (Chandra, 1992; MacPherson, 1997; McConnell and MacPherson, 1990). Although little of this had much to do with tariff cuts or other elements of the FTA, it would appear that the accord provided a symbolic wake-up call to many local firms. On balance, however, these types of micro-level effects have not amounted to very much in aggregate terms, and the same can be said for post-FTA Canadian investment in the WNY area (MacPherson, 1997). Nevertheless, it should be emphasized that the various CUSTAC surveys were conducted in the early-to- mid 1990s, leaving room for the possibility that FTA/NAFTA impact might not have had enough time to manifest itself (recall that tariff reductions for many commodities were given as much as a 15-year phase-in period under NAFTA).

For regions like WNY, however, the importance of exports is hard to overstate. Over the period 1988-1998, for example, CUSTAC's cross-sectional export-base model yielded an r-square of 0.67 (the export parameter was 0.562 at $p = < 0.05$). According to this model, a 1% increase in local exports delivers a 0.56% increase in GRP (gross regional product). Parameters of this magnitude and significance have rarely been found at the national level for any time period, and the same can be said for most states. Clearly, then, exports are strategically important to the WNY economy. Given that over 70 percent of the region's exports are sold to Canada, the liberalized trade provisions of the FTA and NAFTA would seem to serve WNY's economic interests quite well.

Keeping this context in mind, the survey (described below) was structured to capture basic information across a number of impact categories, including trade, investment, total sales, and employment. With regard to trade, possible NAFTA effects might include cheaper imports of raw materials or intermediate inputs, increased import competition, new export development, or a mix of all three. It was initially expected that the relative importance of any specific trade effect would show up in terms of broader aspects of company performance (e.g. sales or employment). Finally, we included an investment variable was included to assess the extent of NAFTA-related capital outmigration (i.e. outflows of foreign direct investment [FDI] to either Canada or Mexico). This variable was included in light of NAFTA's relaxed rules regarding crossborder investment within the trade bloc. The question thus remains: does NAFTA deserve the attention it regularly attracts in local academic, media and policy circles?

4. Survey Methods and Empirical Results

As a first step toward answering this question, a postal survey of 200 WNY industrial establishments was conducted by CUSTAC in August of 1999. The survey was stratified in two ways. First, the region's 100 largest manufacturing establishments were surveyed (complete coverage). Second, a random sample of 100 small-to-medium sized enterprises (SMEs) was surveyed (these SMEs were defined as single-plant manufacturing firms with fewer than 100 employees).

The survey instrument was designed to yield categorical data across the various impact dimensions noted earlier. A categorical approach was adopted for several reasons. First, preliminary attempts to obtain ratio and/or ordinal data proved fruitless, in that pre-tests revealed that few firms could separate the impact of NAFTA from other factors (e.g. national economic conditions). For instance, telephone interviews with the CEOs (Chief Executive Officers) of 5 of WNY's largest manufacturing companies revealed that exports to Mexico had increased appreciably since 1994, but that pre-NAFTA growth rates had also been strong. All 5 of these CEOs suggested that we re-phrase our questions to capture general impressions rather than exact impact figures. Second, pre-tests revealed that questions based upon ordinal scales were also hard to answer, in that many respondents stated that they simply could not rank the impact of NAFTA. For example, several SMEs noted that they export and/or import from Canada on a sporadic basis, and that the task of assigning an impact rating was difficult in light of factors such as the relatively weak value of the Canadian dollar in the post-NAFTA period (among other things). On the basis of these pre-tests, then, the final survey instrument was reduced to a crude device that listed only four response classes across each impact dimension (i.e. positive, negative, no impact, and 'impossible to tell').

Of the 200 questionnaires that were mailed, a total of 70 valid returns were received (giving a response rate of 35 percent). The response rate for the random sample of SMEs was 28 percent, compared to 42 percent for the larger establishments. One possible reason for the relatively low response rate for the survey as a whole is that most industrial firms in the WNY area have not been affected by NAFTA in any discernible way. Follow-up telephone calls to nonrespondents revealed a consistent set of reasons for non-participation in the survey (e.g. 'we neither import nor export', 'we have no import competition', 'NAFTA is not relevant to our business', etc). Put another way, it would appear that the survey had little saliency to a substantial number of firms. This said, roughly half of the nonrespondents refused to comment on their reasons for non-participation. Thus, it should be conceded from the outset that the survey results are suggestive rather than conclusive. After all, there are no published data that can be mustered to compare respondents versus nonrespondents in terms of trade and/or NAFTA-related variables. All that can be said is that respondents and nonrespondents differed little in terms of size (employment), industry focus (durable versus non-durable goods), and age (number of years in business).

On this note, Table 1 presents a descriptive summary of the overall impact results. At first blush, the numbers suggest that NAFTA has not been particularly important to local firms, in that few have been positively affected (fewer still have been negatively affected). Since no significant differences between the two size groups of respondents were found across any of the variables shown in our Tables (chi-square tests), all subsequent discussion is focused upon the total sample. In terms of employment, Table 1 shows that only 8 respondents (11% of the sample) felt that NAFTA had contributed positively to job-creation, compared to 5 firms on the negative side (7% of the sample). Fully 68% (n = 48) of the survey firms belong to the 'zero impact' category, while 9 firms (13 percent) indicated that NAFTA's employment impact was 'impossible to tell'.

Table 1. Impact of NAFTA on WNY jobs, total sales, and exports.

Impact class	Employment		Total Sales		Exports	
	#	%	#	%	#	%
Positive	8	11.4	16	22.9	17	24.3
Negative	5	7.1	6	8.6	3	4.3
Zero	48	68.6	37	52.9	25	35.7
Unknown	9	12.9	11	15.7	25	35.7

Note: percentage columns may not add up to 100% due to rounding.

A more upbeat picture emerged in terms of sales and export effects, in that 16 firms indicated a positive impact on sales (22% of the sample), whereas 17 firms indicated a positive impact on exports (24% of the sample). Across all of the impact classes, however, it should be noted that negative effects were confined to less than 10% of the sample. For instance, 5 firms indicated a negative impact on jobs (7% of the sample), 6 indicated a negative impact on sales (9% of the sample), and only 3 reported a negative impact on exports (4% of the sample). In terms of frequency counts, then, respondents indicating a positive impact outnumber their negative counterparts by a considerable margin.

Table 2. Export and employment change under NAFTA.

Export Effects Frequency counts:	Positive	Negative	Other *	Total
Employment Effects				
Positive	8	0	0	8
Negative	1	2	2	5
Other*	8	1	48	57
Total	17	3	50	70

** irrelevant, neutral, or impossible to tell Note: 6 of the 9 cells have expected frequencies < 5, thus the chi-square value (45.06 at p = < 0.05) is questionable. The 2 x 2 portion of the matrix (positive and negative export and job effects) is statistically significant at p = 0.054 (Fisher's exact test).*

On the employment front, Table 2 shows that all of the firms that reported new job-creation under NAFTA also indicated a positive export effect (n = 8). Yet, of the 17 firms that reported a positive export impact overall, one stated that jobs had actually been lost (an import competition effect in this case), while 8 noted that jobs had either remained constant or that the impact of NAFTA on employment was impossible to tell and/or irrelevant. In short, it would appear that expanded export activity has created new jobs among only half of the firms that indicated positive export effects. Although it is not possible to estimate the export elasticity of employment with these data, there is reason to suspect that it must be low.

With regard to import competition, only 18 firms (26% of the sample) implicated NAFTA with a negative impact (Table 3). Canada was cited as the source of heightened competition in 12 cases, compared to 10 cases for Mexico. Curiously, however, only 2 of these 'import-competing' firms also implicated NAFTA with a negative employment and/or sales effect. Various crosstabulations (not shown here) suggest that import competition under NAFTA has created negative consequences other than those considered in this paper.

Table 3. Incidence of NAFTA-related import competition.

		Import competition from Mexico		
		Yes	**No**	**Total**
Import competition from Canada	Yes	4	8	12
(n.a. = 20 = 28%)	No	6	32	38
Total		10	40	50

** n.a. = not applicable = irrelevant or 'impossible to tell'.*

Of the 70 firms in the database, only 11 (16% of the sample) noted that NAFTA had created opportunities for cheaper input-sourcing (Table 4). These opportunities were closely divided between Canada (7 cases) and Mexico (8 cases). Interestingly, 2 of the firms that indicated a positive effect on this variable also indicated a negative effect on the employment variable. This relationship was traced to outsourcing (i.e. subcontracting work that was formerly conducted in-house). Thus, a positive effect at one level (cheaper input sourcing) can in some cases translate into a negative effect at another level (jobs).

Table 4. Incidence of cheaper input-sourcing (imports).

		Cheaper imports from Mexico		
		Yes	**No**	**Total**
Cheaper imports from Canada	Yes	4	3	7
(n.a. = 39 = 56%)	No	4	20	24
Total		8	23	31

** n.a. = not applicable = irrelevant or 'impossible to tell'.*

The impact of NAFTA on export expansion is shown in Table 5, which shows that 17 firms identified a positive export effect. Again, the export effect was closely divided between Canada (15 cases) and Mexico (12 cases). Significantly, the 8 firms that cited NAFTA as being a positive factor in recent employment expansion (Table 1) are located within the first cell of Table 5 (i.e. exports have increased both to Canada and Mexico).

Table 5. Incidence of NAFTA-related export growth.

		Yes	No	Total
Increased exports to Canada	Yes	10	5	15
(n.a. = 34 = 49%)	No	2	19	21
Total		12	24	36

* *n.a. = not applicable = irrelevant or 'impossible to tell'.*

Lest the description become too simplistic, however, an obvious problem with Tables 1-5 is that we are dealing with categorical data rather than absolute numbers. Thus, the 5 firms indicating a negative employment impact (Table 1) may have lost more jobs than the 8 firms indicating a positive impact (or vice versa). Precisely the same criticism can be applied with regard to all of the other variables. In an effort to attach a sense of scale to the data, telephone interviews were conducted with two groups of firms. The first group was defined as 'positively affected' (Group 1). This group consists of the 8 firms that indicated a positive employment impact. The second group was defined as 'negatively affected' (Group 2). This group consists of the 5 firms that indicated a negative employment impact.

The 8 companies contacted in Group 1 revealed that a total of 145 jobs had been created as a direct consequence of NAFTA (this figure is a rough estimate that comes from a series of 'rough estimates' supplied by the firms themselves). All of these firms reported that their exports had increased as a result of NAFTA's tariff reductions. On average, export sales for this group increased by 13% over the 1994-1998 period (the range was from 1% to 50%). Interestingly, one of these companies reported an increase of 40 jobs, along with a 20% increase for both exports and total sales. This firm also declared that a 'substantial' direct investment in Mexico had taken place since 1994, but that production levels in WNY had also grown since that time. The 5 companies contacted in Group 2 reported losing a total of 43 jobs as a result of NAFTA (import competition). From this sample, then, the net employment effect is positive (+142 jobs).

In themselves, of course, these figures are not terribly illuminating, in that the sample may not be representative of the broader population of WNY establishments. It is interesting to note, however, that the TAA/export multiplier methodology (when applied to WNY) suggests that the employment gains from increased trade with NAFTA members ought to be around 7 times higher than the employment losses (keep in mind that we have not deflated these gains to account specifically for NAFTA). Evidence from the survey suggest that the gains are 3 times higher than the losses. Still, this estimate may be on the low side, in that not one of the 5 companies in Group 2 actually applied for TAA relief over the 1994-1999 period. According to the nearest TAA-Center (Binghamton, NY), TAA claims from the WNY area more typically come from firms experiencing import competition from Asian and/or European nations -- not Canada or Mexico. The question thus arises: how important is NAFTA to regions like WNY?

5. Discussion

Prior to the ratification of NAFTA in 1994, Krugman (1993) predicted that the trade agreement would have a negligible impact upon US employment, a limited impact on trade, a positive but minor impact upon GNP, and a slightly downward impact on the real wages of unskilled US workers. Evidence from WNY suggests (but does not prove) that Krugman (1993) was right. Other recent surveys by CUSTAC in the WNY area point to a constellation of economic difficulties that seem unrelated to trade, including the high cost and/or limited availability of capital, high state and local tax rates (the 5th highest in the nation), shortages of skilled labor, high electricity prices (the most expensive in the entire nation), import competition from outside NAFTA (whither trade diversion?), and competition from within the US itself (Bagchi-Sen and MacPherson, 1999; Bagchi-Sen, 1999; MacPherson, 1997). Can we conclude, then, that NAFTA and/or other trade agreements do not matter?

Evidence from the survey suggests that NAFTA is not especially significant, while evidence from the Niagara region of Canada (which is next door to WNY's norther border) suggests much the same (Bagchi-Sen, 1999). Firms across both regions seem more concerned with the cost of capital than with competition from Mexico (or anywhere else), suggesting a relatively minor role for trade policy in regional economic performance. If the cost of capital has anything to do with central bankers and their decisions regarding interest rates, then Krugman (1993) may again be correct in his assertion that trade regulations matter less than domestic policies that seek to balance inflation and employment. If regions are truly at the mercy of national monetary policy (along with dozens of other non-trade-related variables), is there really any point in developing trade strategies for particular places?

This is not an easy question to answer. The task of assessing the regional economic impact of NAFTA is far from straightforward. Evidence from the WNY survey suggests that many firms simply do not know whether NAFTA has had an impact or not. In terms of employment effects, for instance, fully 68 percent of the survey firms belong to this 'unknown' category. Among those firms that did indicate an impact, moreover, rather few were able to describe the positive or negative effects with any real precision. As a result, we are left with a series of general impressions rather than robust estimates. In short, there is insufficient evidence to warrant enthusiasm or disdain for NAFTA as far as local economic impact is concerned.

Nevertheless, the fact that exports continue to play an important role in WNY's economic performance (growth of GRP) suggests that any regulatory initiative that safeguards the region's access to foreign markets ought to be applauded. In this sense, NAFTA provides a legal framework that serves the interests of WNY quite well. Moreover, the relatively sparse number of adjustment assistance claims over the last few years implies that the downside effects of NAFTA may not be terribly dramatic. Of the 5 firms in our survey that implicated NAFTA with job losses, recall that none applied for adjustment assistance (despite the relative ease associated with obtaining TAA compensation).

Interestingly, it should be noted that only half of the 16 survey firms that indicated positive effects on total sales also indicated positive employment effects. Fully 50% of these firms experienced output growth in the absence of any employment growth. Personal interviews revealed that this pattern typically occurs among firms with relatively low capacity utilization rates (which is not unusual in the WNY area). Specifically, output can increase substantially without any need for additional hiring. In many cases, in fact, increased export demand can usually be handled by adding an extra 1-2 hours of overtime within the plant (thus, total wage earnings grow, but employment does not). This type of scenario casts doubt on the generalizability of the Commerce Department's export/employment multiplier, in that regions with low capacity utilization rates can sometimes increase their export sales without creating new jobs.

On the import side, it is curious that none of the firms that implicated NAFTA with increased competition applied for TAA relief over the 1994-1999 period (19 of these firms actually employed more workers in 1999 than in 1994). These data suggest some peculiar elasticity conditions at the level of individual firms. In one case, for example, total employment expanded considerably over the post-NAFTA period -- despite rising import competition and reduced exports. Here, the puzzle can be resolved by looking at other factors (in this case, rapid expansion of the domestic market provided enough room for continued growth). Clearly, it would be difficult to make sense of these types of cases in the absence of follow-up interviews.

Finally, it should be mentioned that a whole host of seemingly 'contradictory' results can sometimes flow from surveys of the type described in this paper. For example, it was initially thought that cheaper input-sourcing should be classified as a positive impact. In two case, however, NAFTA was directly responsible for a switch from in-house production to imports (resulting in local job-losses); in another case, FDI in Mexico was viewed as an overall corporate benefit from the perspective of management (presumably labor had a much different view). Recall also that only 2 of the 18 import-competing firms (Table 3) cited NAFTA as a negative factor in recent employment trends. How can this be? The short answer is that I did not have a comprehensive list of impact categories (the project was a pilot study). Follow-up inquiries confirmed that import competition can occur without job losses or falling sales: firms in this situation can respond by cutting prices (profits shrink), reducing employee benefits or hours (job levels remain constant, but compensation declines), or by spending more money on marketing (among other things). In short, many of the seemingly contradictory findings that emerged were finally traced to a lack of attention to other variables (e.g. capacity utilization rates, profit levels, outsourcing, worker benefits, and so on).

6. Conclusion

NAFTA has been a hotly debated topic in the Western New York area for several years. The local media has attempted to present a balanced picture, albeit with weak and/or fragmentary data. The CUSTAC survey results suggest (but do not verify) that NAFTA is not an especially important factor in the economic health or morbidity of this particular region. Broadly comparable findings have been reported for southern Ontario (a region with a remarkably similar industrial structure).

Despite the categorical and/or qualitative nature of the data, several general conclusions can be drawn from the survey results. First, the task of assessing the impact of trade legislation is problematic from an econometric perspective. Equally intractable difficulties face those that opt for alternative approaches based on survey research and/or case studies. Specifically, it is hard (if not impossible) to estimate accurately what would have happened in the absence of NAFTA. A second conclusion is that the overall impact of NAFTA on Western New York would appear to be positive. Although the survey results point to smaller effects than those implied by the Commerce Department's export/employment multiplier, a positive impact is surely better news than a negative one. Third, it would appear that the competitive problems facing firms in places like WNY are shaped more by national and/or regional economic conditions than by international agreements on trade. This conclusion comes from follow-up interviews, as well as from other studies that have been conducted in the WNY area (including southern Ontario).

These conclusions ought to serve as cautionary notes to decision-makers that see expanded trade as a central priority in regional economic planning. The importance of trade is not in dispute. However, the fact that regions like WNY can experience strong export growth in the absence of strong employment growth raises serious questions regarding the generalizability of nationally calibrated export/employment multipliers. If local capacity utilization rates are low, then export expansion can take place without any significant job-creation. On the flip side of the coin, rising import competition may not necessarily kill very many jobs either. Over the long-run, in fact, it is possible that import competition might spur the types of innovations that are required to sustain and/or expand jobs in import-threatened sectors. The task remains to develop an impact assessment methodology (survey-based and/or econometric) that can link a region's specific industry and trade structure to locally estimated elasticity conditions across several variables. While this is a tall order in terms of data assembly and model calibration, the prescription is not impossible to fill.

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