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NAFTA and U.S. Jobs

The U.S., Canada, and Mexico continue to negotiate the North American Free Trade Agreement (NAFTA). By lowering the countries' trade barriers and reducing foreign investment restrictions in Mexico, NAFTA is widely expected to stimulate an expansion of trade and to raise real incomes in the three economies. However, there is concern that including Mexico in NAFTA will lead to large losses in U.S. manufacturing jobs and reductions in U.S. real wages. This *Weekly Letter* discusses how the closer economic relationship between the U.S. and Mexico under NAFTA is expected to affect the U.S. labor market by surveying the results of recent studies.

Impact on U.S. jobs

Some observers are concerned that NAFTA may encourage U.S. manufacturers to relocate to Mexico in order to exploit lower wages in Mexico, which were estimated at one-seventh those in the U.S. in 1992, at the prevailing exchange rate. U.S. imports from Mexico would then increase, eliminating U.S. jobs. However, a large number of studies conclude that any job losses from increased U.S. imports will be more than offset by job gains associated with *increases* in U.S. exports to Mexico. Three reasons may be offered for this finding. First, lowering Mexican trade barriers under NAFTA is expected to have a larger impact than lowering U.S. trade barriers, because Mexican trade barriers are currently higher. (At the beginning of the 1990s Mexican tariffs averaged 10 percent and U.S. tariffs 4 percent.) Second, Mexico is expected to increase its imports of U.S.-made capital and intermediate goods as a result of U.S. foreign direct investment inflows. Third, increases in wealth are expected to increase Mexican demand for imports from the U.S. (The U.S. accounts for roughly 75 percent of Mexico's imports.) The tendency for Mexico to have trade deficits with the U.S. is already apparent as a result of recent economic liberalization measures adopted by Mexico. Mexico's trade balance with the U.S. switched to a deficit of $1.6 billion in 1991 and $4.9 billion in 1992, compared to surpluses averaging nearly $5 billion between 1985 and 1990.

Because the U.S. economy is about 25 times bigger than the Mexican economy, the net estimated gains in U.S. jobs from NAFTA are generally small. A study by Hufbauer and Schott (1992) of the Institute for International Economics (IIE), which draws on 31 previous episodes of economic liberalization to obtain estimates, suggests that Mexican economic liberalization (including NAFTA) will create 242,000 new U.S. jobs, and displace about 112,000 existing U.S. workers. This amounts to a net increase of 130,000 U.S. jobs, or slightly over 0.1 percent of 1991 U.S. employment.

Estimates of employment gains obtained from so-called computable general equilibrium (CGE) models range from a low of 0.08 percent to a high of 2.5 percent above the no-NAFTA case. CGE models simulate the impact of trade liberalization by explicitly modeling consumption and production decisions in various sectors. Although theoretically more rigorous, the results of CGE models are sensitive to the assumptions made about the structure of the economy. Brown (1992) surveys the results of CGE studies.

In contrast to the estimates of small U.S. job gains, a widely publicized study by the Manufacturing Policy Project (MPP, 1992) estimates that nearly six million U.S. manufacturing production jobs are vulnerable because employers in these industries are expected to find relocation to Mexico attractive under NAFTA. These six million represent the total production employment in firms where current labor costs account for more than 20 percent of production costs. Such jobs account for about one-third of the total U.S. manufacturing jobs.

The MPP estimates are much larger than those of other studies for at least two reasons. First, the studies address different questions. The MPP study seeks to identify the number of workers that may be exposed to low-wage international competition and concludes that this number is potentially quite large. Thus, by its design, it focuses on the potential *gross* impact of low-

wage foreign competition on U.S. jobs, whereas IIE and CGE estimates focus on the *net* effects of trade or economic liberalization in the two economies. In particular, the U.S. job gains associated with increases in exports to Mexico, which will offset job losses from relocation of U.S. firms to Mexico, are not the subject of the MPP study.

Second, the MPP study implicitly assumes that as a result of massive relocation of U.S. firms, Mexico's economy will grow large enough to displace a large number of U.S. workers. The IIE and CGE studies assume that Mexico will remain small relative to the U.S economy. This disagreement is not easily resolved because the determinants of the location of U.S. firms to Mexico are hard to quantify.

Impact on U.S. wages

According to trade theory, closer trade links between an economy like the U.S., where capital and skilled labor are relatively abundant, and an economy like Mexico, where unskilled labor is relatively abundant, would tend to have at least two effects. First, U.S. production would shift to those sectors that use relatively more capital and less labor. This would tend to reduce the demand for U.S. labor and *decrease* U.S. wages. Second, the U.S. is likely to experience gains in skill-intensive jobs and losses in relatively unskilled jobs. As skilled workers are more productive and are consequently paid more, the reallocation of jobs, and increased U.S. demand for skilled workers, may *increase* average U.S. wages both by raising the relative wages of skilled workers in the U.S. and by inducing more U.S. workers to increase their education and skill levels. Thus, it is unclear whether average U.S. wages will rise or fall in response to NAFTA. However, the wages of U.S. workers who remain unskilled will tend to fall.

A number of studies that address this question generally estimate that NAFTA will have a positive, but very small, impact on average U.S. wages. An important exception is an econometric study by Leamer (1992), who finds that the impact of NAFTA on U.S. real wages may be quite large if Mexican productivity rises to levels comparable to an industrial country like Italy. Stressing the uncertainty of these estimates, Leamer conjectures that NAFTA would raise the wages of U.S. professional workers by roughly $3000 a year, and reduce the wages of U.S. unskilled workers by nearly $1000 a year.

Two points may be made on the impact of NAFTA on U.S. wages. First, as in the case of job displacement, a key area of disagreement is whether Mexico will become sufficiently large (or productive) as a result of NAFTA to have a major impact on the U.S., and whether the process would be so sudden as to disrupt U.S. labor markets. Second, the tendency for NAFTA to reduce the real wages of U.S. unskilled workers will be offset to some degree if NAFTA improves Mexico's ability to create jobs, thus easing immigration pressures on the U.S. labor market.

Mexican job creation and migration

Over the past decade, high unemployment in Mexico's work force of 31 million people has stimulated large inflows of unskilled Mexican workers into the U.S. A recent study (Hinojosa-Ojeda and Robinson, 1992) estimates that nearly 215,000 Mexicans a year migrated to the United States in the 1980s, of which about 56 percent were undocumented. By 1990, Mexican-born workers in the U.S. totaled nearly 4.5 million, about 3.6 percent of the U.S. labor force. Expected increases in the Mexican working age population of about 1.3 million a year and the displacement of workers as a result of Mexican agricultural reform are likely to result in continued immigration pressures in the future. There is some evidence that such immigration puts downward pressure on the wages of unskilled workers in the U.S. (Borjas, et al., 1992)

Mexico has relied heavily on its exports to the U.S. to create jobs for its workers. In 1990, exports to the U.S. constituted roughly 13 percent of Mexican GDP. By further enhancing such access and hence Mexico's job creation capability, NAFTA could attenuate immigration pressures and alleviate downward pressure on U.S. wages. The IIE study projects a gain to Mexico of 609,000 jobs, about 2.5 percent of the jobs available in 1990. Estimates based on CGE models range from a low of 0.33 percent (compared to the no-NAFTA case) if it is assumed that only tariffs will be cut under NAFTA, to a high of 6.6 percent if it is assumed that both tariff and non-tariff barriers are lifted and that capital inflows to Mexico increase (Brown, 1992). These increases in Mexican job creation are not expected to result in net reductions in U.S. jobs because of the offsetting increases in the Mexican demand for U.S. goods cited earlier, and because the U.S. and Mexico are expected to specialize in different types of products.

NAFTA in perspective

In the short run, NAFTA is likely to produce relatively modest direct gains for the U.S. by increasing the demand for U.S. goods and by reducing immigration pressures. In the long run, the benefits to the U.S. of having a vigorous and prosperous Mexican neighbor are likely to be larger.

Given the modest short-term gains, the concern that NAFTA may have some adverse effects on U.S. labor markets is understandable. However, these concerns should be viewed from the perspective of the U.S. ongoing experience in meeting the challenges of international competition.

Even in the absence of NAFTA, the U.S. and other industrial countries compete in an international environment where skilled labor is relatively scarce, and unskilled labor is in excess supply. In spite of its high labor costs, the U.S. manufacturing sector has successfully maintained its international competitiveness through technical innovations that increase worker productivity, but that also require a more skilled labor force. As a result, although international competition has been associated with gains for U.S. consumers and skilled workers, it has also been associated with a steady erosion in the availability of jobs requiring unskilled workers in the U.S. manufacturing sector, and sharp declines (nearly 18 percent between 1973 and 1985 for workers without a high school degree, according to Reich, 1992) in the real wages of unskilled workers.

NAFTA is not likely to interrupt these broad trends, but neither is it likely to accelerate them significantly in the short run. One reason is that trade barriers between the U.S. and Mexico are already quite low, and opportunities for U.S. firms to invest in Mexico have existed for some time. Another reason is that Mexico is small, compared to both the U.S. economy, and more importantly, to the combination of economies that already compete in the U.S. market. Historical experience suggests that it will take time for the Mexican economy to develop to the point where it can have a large impact on the U.S. market. If U.S. economic relations with developed economies are any indication, such a process will yield significant benefits to the U.S. that are likely to exceed the costs.

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References

Borjas, G., R. Freeman, and L. Katz. 1992. "On the Labor Market Effects of Immigration and Trade." In *Immigration and the Work Force: Economic Consequences for the United States and Source Areas*, Borjas and Freeman, eds. Chicago: The University of Chicago Press.

Brown, Drusilla K. 1992. "The Impact of a North American Free Trade Area: Applied General Equilibrium Models." In *North American Free Trade: Assessing the Impact.* Nora Lustig, Barry P. Bosworth and Robert Z. Lawrence, eds. Washington, D.C.: The Brookings Institution.

Hinojosa-Ojeda, Raul and Sherman Robinson. 1992. "Labor Issues in a North American Free Trade Area." In *North American Free Trade: Assessing the Impact.* Lustig, N., B. Bosworth, and R. Lawrence, eds. Washington D.C.: The Brookings Institution.

Hufbauer, G., and J. Schott. 1992. *North American Free Trade. Issues and Recommendations.* Washington D.C.: Institute for International Economics.

Leamer, E. 1992. "Wage Effects of a U.S.-Mexican Free Trade Agreement." NBER Working Paper No. 3991.

The Manufacturing Policy Project. 1993. "Jobs At Risk: Vulnerable U.S. Industries and Jobs Under NAFTA." Washington, D.C. Processed.

Reich, R. 1992. *The Work of Nations.* New York: Vintage Books.

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Index to Recent Issues of *FRBSF Weekly Letter*

DATE	NUMBER	TITLE	AUTHOR
1/1	93-01	An Alternative Strategy for Monetary Policy	Motley/Judd
1/8	93-02	The Recession, the Recovery, and the Productivity Slowdown	Cogley
1/22	93-03	U.S. Banking Turnaround	Zimmerman
1/29	93-04	Competitive Forces and Profit Persistence in Banking	Levonian
2/5	93-05	The Sources of the Growth Slowdown	Motley
2/12	93-06	GDP Fluctuations: Permanent or Temporary?	Moreno
2/19	93-07	The Twelfth District Agricultural Outlook	Dean
2/26	93-08	Saving-Investment Linkages in the Pacific Basin	Kim
3/5	93-09	A Single Market for Europe?	Glick/Hutchison
3/12	93-10	Risks in the Swaps Market	Laderman
3/19	93-11	On the Changing Composition of Bank Portfolios	Neuberger
3/26	93-12	Interest Rate Spreads as Indicators for Monetary Policy	Huh
4/2	93-13	The Lonesome Twin	Throop
4/9	93-14	Why Has Employment Grown So Slowly?	Trehan
4/16	93-15	Interpreting the Term Structure of Interest Rates	Cogley
4/23	93-16	California Banking Problems	Zimmerman
4/30	93-17	Is Banking on the Brink? Another Look	Levonian
5/7	93-18	European Exchange Rate Credibility before the Fall	Rose
5/14	93-19	Computers and Productivity	Schmidt
5/21	93-20	Western Metal Mining	Schmidt
5/28	93-21	Federal Reserve Independence and the Accord of 1951	Walsh
6/4	93-22	China on the Fast Track	Cheng
6/18	93-23	Interdependence: U.S. and Japanese Real Interest Rates	Hutchison

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