Trade Protection: Its Effect on the Southwest

Americans are increasingly concerned about the size and persistence of the U.S. trade deficit. The United States, which was the world's largest creditor nine years ago, is now the world's largest debtor. As a result, protectionist sentiment is on the rise. Proponents of trade protection claim that Americans are exporting manufacturing jobs and argue that trade restraints bolster overall employment, particularly in the protected industry.

The intent of trade restraints is to increase the competitiveness of the protected domestic industries. By raising the price or limiting the supply of imported goods, domestic producers gain a greater market share. Benefits also flow to industries that supply the protected sector. Consequently, all these industries experience increased employment. Trade protection, however, imposes costs on the economy as well. Consumers face higher prices because trade restraints increase the domestic price of the protected good and its import substitutes. Higher prices also affect other firms that purchase the protected good as an input. Again, consumers pay higher prices. Higher prices reduce sales and, therefore, employment. The key question is: Does trade protection increase or decrease overall employment?

Because the industrial composition of the various U.S. regions differs, the regions may face unequal employment effects. While one region may gain employment, another may lose. The question this article addresses is: What are the employment effects in the Southwest of protective trade policies?

I examine three cases of trade protection, textiles and apparel, steel, and automobiles. These are among the largest industries in the United States and are well-known examples of protectionist policies.

Textiles and Apparel

The history of protection in the textiles and apparel industry is long and complicated. Chart 1 lists the trade agreements negotiated over the past 32 years and illustrates how the level of protection has risen.¹

In a 1957 agreement, Japan voluntarily...
Table 1
Net Changes in Southwest Employment Resulting from Trade Protection

<table>
<thead>
<tr>
<th>Protected Industry:</th>
<th>Textiles and Apparel (Number of Jobs)</th>
<th>Steel</th>
<th>Automobiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affected Industry:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food and Kindred Products</td>
<td>-54</td>
<td>-103</td>
<td>-6</td>
</tr>
<tr>
<td>Textiles and Apparel Products</td>
<td>8,759</td>
<td>-85</td>
<td>-3</td>
</tr>
<tr>
<td>Other Nondurables</td>
<td>11</td>
<td>-565</td>
<td>4</td>
</tr>
<tr>
<td>Lumber and Wood Products</td>
<td>54</td>
<td>-88</td>
<td>-6</td>
</tr>
<tr>
<td>Other Durables</td>
<td>-20</td>
<td>-9,345</td>
<td>-511</td>
</tr>
<tr>
<td>Transportation</td>
<td>135</td>
<td>-1,127</td>
<td>-164</td>
</tr>
<tr>
<td>Communication and Utilities</td>
<td>103</td>
<td>-858</td>
<td>-28</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>29</td>
<td>-1,071</td>
<td>-52</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>-461</td>
<td>-3,258</td>
<td>-259</td>
</tr>
<tr>
<td>Finance, Insurance and Real Estate</td>
<td>261</td>
<td>-798</td>
<td>-50</td>
</tr>
<tr>
<td>Services</td>
<td>-39</td>
<td>-3,060</td>
<td>-381</td>
</tr>
<tr>
<td>Total</td>
<td>8,778</td>
<td>-20,358</td>
<td>-1,455</td>
</tr>
</tbody>
</table>

Chart 2
Net Change in Employment Resulting from Protection in Textiles and Apparel

Table 1 lists the net changes in employment in different sectors resulting from trade protection. The first column lists the effects of the Multifiber Arrangement III. Some sectors gained in employment while other sectors lost jobs as a result of trade protection. The textile and apparel industry alone had a net employment gain of 8,800 jobs. The retail trade industry suffered the greatest loss in employment.

Chart 2 shows the net gains in employment for each of the five states. While Texas gained the most in absolute employment, the number of jobs created in Oklahoma was a larger percentage of its total employment. Oklahoma's employment increased by 0.16 percent, while the other four states' employment increased by around 0.1 percent.

Steels

In 1969, in an effort to forestall a bill limiting U.S. imports of steel, Japan and
members of the European Economic Community voluntarily agreed to restrict their exports to the United States. This agreement expired in 1974 and was not renewed (Chart 3). In 1978, the United States imposed the Trigger Price Mechanism, which established import reference prices based on estimates of Japanese costs of production, profit margins and transportation costs. Countries exporting steel below the reference price were subjected to expedited antidumping investigations. Countries found dumping steel on the international marketplace—selling steel abroad at a price below their estimated costs of production—faced increased trade barriers.

By January 1982, American steel companies had filed 110 antidumping petitions against 11 countries. In an effort to settle these petitions, the United States negotiated a voluntary restraint agreement with Japan and imposed a quota against the European Economic Community. In 1984 and 1985, other steel exporters also negotiated voluntary restraint agreements with the United States, which were scheduled to expire September 1989. President Bush recently announced that the agreements will be extended into 1992.

Like clothing and textiles, the level of protection for the U.S. steel industry increased with every new agreement reached. In 1974, the tariff or equivalent rate was about 13 percent. It reached 30 percent by 1984. These tariff or equivalent rates caused the price of domestic steel to rise by 5 percent in 1974 and 12 percent in 1984. To American consumers, the estimated annual cost of higher steel prices increased from $2 billion in 1974 to $6.8 billion in 1984. Gains to domestic steel producers increased from $1.3 billion to $3.8 billion over the same period.

The gains in employment caused by steel protection are more limited than those caused by trade restraints in textiles and apparel. The trade restraints in 1984 allowed steel producers to expand their domestic production and, as a result, to increase their employment nationally by 9,000 jobs above the free-trade level. Because the Southwest produces very little steel relative to the rest of the country, import restrictions increased employment by only 400 jobs in the region. My input-output analysis indicates that protection created 1,300 jobs in steel and steel-supplying firms. On the negative side, the Southwest is a large steel user. As a result of the 12-percent increase in domestic steel prices, 21,600 jobs were lost because steel-using firms suddenly faced higher input costs. Consequently, net employment in the Southwest decreased by 20,300 jobs.3

The second column of Table 1 shows the employment effects of protection in steel. Because steel is an input in the production of so many goods, employment decreased in all of the industries listed. The largest loser was the general durable goods category, which includes heavy steel-using industries such as transportation equipment, machinery, and other fabricated metal products. The retail trade and service industries incurred the second and third largest losses in employment.

Chart 4 shows the net losses in employment for each of the five states in the Southwest. Texas incurred the greatest losses in employment. The trade restraints in steel caused a loss of 10,500 jobs in Texas. New Mexico lost 3,500 jobs, while the other three states each lost about 2,000 jobs. New Mexico lost the greatest percentage of jobs—its employment decreased by 1.06 percent. Employment in Louisiana decreased by 0.16 percent, while each of the other three states suffered job reductions of around 0.25 percent.

Automobiles

Although steel import restraints in the mid-1980s hurt the automobile industry, car production was buoyed by its own protection. In April 1981, Americans negotiated a voluntary restraint agreement with Japan to limit Japanese exports to the United States. The restraints on Japanese car imports greatly increased the production of domestic cars, as well as prices and industry profits. From 1980 to 1985, the value of U.S. car production

<table>
<thead>
<tr>
<th>Chart 4</th>
<th>Net Change in Employment Resulting from Protection in Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Jobs</td>
<td>AZ</td>
</tr>
<tr>
<td>-1,000</td>
<td>-2,280</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chart 5</th>
<th>Automobile Production and Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Million Dollars</td>
<td>Domestic Production</td>
</tr>
<tr>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

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increased almost 200 percent (Chart 5). Over the preceding five years, it increased only 43 percent. When the voluntary restraint agreement expired in April 1985, the United States did not ask Japan to extend it. Since then, however, Japan continues to voluntarily limit car exports to the United States, although at a less restrictive level.

The voluntary restraint agreement with Japan cost American consumers much more in higher prices than domestic producers gained in increased production and profits. The agreement between Japan and the United States caused the price of imported cars to increase by 11 percent. This led to a 4.4-percent increase in the price of domestic automobiles in the United States. Consumers paid $5.8 billion, and producers gained $2.6 billion in 1984 as a result of the higher price of cars.

On a national level, the voluntary restraint agreement with Japan saved 55,000 jobs in the auto industry. This translates into 2,400 jobs in the Southwest. In 1984, the automobile and its supplying industries gained 4,700 jobs in the Southwest. Industries in the Southwest that purchased cars, however, lost about 6,100 jobs. This means that the Southwest incurred a net loss in employment of 1,400 jobs as a result of the voluntary restraint agreement with Japan.

While there was a net loss in employment in the Southwest as a whole, Oklahoma and Texas experienced a net gain in jobs as a result of the voluntary restraint agreement with Japan. As Chart 6 shows, Arizona, Louisiana and New Mexico lost employment. The third column of Table 1 lists the employment changes in different industries as a result of the voluntary restraint agreement with Japan. Most of the industries listed incurred a decline in employment, with the exception of the general non-durable goods category. The durable goods industries lost about 500 jobs. The second and third highest losers in terms of employment were the retail sales and service industries.

The single protective phase temporarily improved the automobile industry's profitability. Production increased substantially while the voluntary restraint agreement was in place, and domestic automobile producers seemed to become more efficient in the mid-1980s. In 1988, the three largest U.S. automobile companies marked their highest profits ever. This year, however, sales of Japanese cars are soaring once again, and domestic automobile sales are dropping.1

Conclusion

Trade protection produces both winners and losers. Consumers always pay for trade protection in the form of higher import and domestic prices. If the protected good is an input in the production of other goods, those related industries are hurt by the higher cost and limited supply of their input. The protected industry and its suppliers are the only clear winners in the short run.

In the three cases I examined, the net effects of trade protection are, overall, negative for the Southwest. Trade protection in the textile and apparel, steel and automobile industries led to a net loss of 13,000 jobs in the Southwest. The trade restrictions in textiles and apparel alone, however, increased employment for the Southwest. Protection in the steel industry is the most harmful to the region. Because steel is used in the production of so many products, steel import restraints negatively affect employment in the region.

The only industry in the Southwest gaining employment from trade protection is textiles and apparel. Durable goods and retail trade industries consistently lost jobs. Contrary to the arguments advanced by proponents of trade protection, trade restraints do not increase overall employment—at least not in the Southwest.

—Linda Hunter

1 The tariff or equivalent rate refers to the actual tariff rate, or if a quota was imposed, the equivalent tariff that would have led to the same level of imports as the quota.


Extreme Weather Hurts Southwest Agriculture

Unfavorable weather conditions have damaged crops across the Southwest. Since January, some areas have received nearly twice their normal rainfall. Other areas have received only about half their normal amount. In some regions, rain came hard and fast, causing more harm than good. Poor weather continues to hamper growing conditions in many areas.

Drought remains a serious concern throughout South Texas (see Map) where farmers and ranchers are experiencing their second year of less-than-normal rainfall. Non-irrigated crops have been damaged, and poor range conditions are forcing ranchers to continue their slaughter of livestock.

New Mexico and Arizona are also suffering from extremely dry conditions. Ranchland remains very dry and crops are requiring increased irrigation.

Despite spring hail and flooding, soil conditions are dry in parts of Oklahoma and the Texas Panhandle. Early in the year, Oklahoma and northern Texas suffered drought damage to wheat and cotton. When rains finally did arrive, heavy thunderstorms caused local flooding and hail damage to crops. Some cotton and soybeans were replanted, but wet soils delayed crop development. Now Northeast Oklahoma and much of the Texas Panhandle are once again in need of rain.

Louisiana experienced heavy rainfall as thunderstorms and Tropical Storm Allison moved through the state. Excessive rain caused disappointing wheat and oat harvests and cotton and soybeans are now showing signs of damage. Large tracts of prime farmland remain flooded and more rain is expected.

In the Blacklands between Dallas and Austin, however, growing conditions are now favorable. Wheat and oat crops were damaged by hail and frost earlier this year, but prospects are now good for cattle, cotton, corn and milo.

Weather damage throughout the Southwest will reduce 1989 agricultural production. Although prices remain strong, agricultural incomes will not meet last year’s levels. Less than 45 percent of all crop acreage is insured in Texas; and, while disaster assistance may still be forthcoming, it is likely to be less generous than last year.

—Fiona Sigalla

ANNOUNCEMENT

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Economic Commentary
by W. Michael Cox
Vice President and Economic Advisor
Federal Reserve Bank of Dallas

Education and the Reindustrialization of the Texas Economy

Unlike much of the rest of the nation, Texas is historically an earth-derivative economy. Our well-being has been derived largely from the ground: from oil, from agriculture, from cattle, and from the sale of the land itself. Now suppose that we took the state of Texas and dried up all the oil, removed permanently all of the cattle, destroyed most of the crops, and reduced the amount of inhabitable land by 90 percent. Then suppose we built a large fence or dug a deep moat around the state, so that no one could leave (at least not easily). The first question is, “What would we have?” The answer is... Japan.

Japan is an economy with no cattle, virtually no agriculture, relatively little usable land, and with all its oil imported; yet, it is one of the most successful economies in the world today. The second question is, “How do the Japanese do it?” The answer is... education.

The reality of just how valuable education is in today’s world economy has never been made more clear to me than it was a couple of months ago while talking with a young economist from Japan. I asked him, “What makes Japan so successful?” His reply (in English) was, “In Japan, you need education.” Our immediate response is probably to agree. But as to exactly how education has enabled Japan to be better off—to have one of the fastest growing economies and largest trade surpluses in the world today—we may be less sure. So the first point that I want to make is that education is embodied in products.

Education is contained in products... and in different amounts. Although, to my knowledge, no measure exists of the amount of education embodied in different types of products, I think we can all clearly see that different products embody education in different amounts. Consider, for example, the average amount of human knowledge, education, information, and research—or whatever you’d like to call it—that is implicitly contained in the anti-ulcer drug cimetidine as compared to mashed potatoes; in microcomputers as compared to hand-crank adding machines; in nuclear power plants as compared to coal-burning facilities; or in microwave ovens as compared to conventional ones. Education is embodied in different products in different amounts.

So when my friend told me, “In Japan, you need education,” he was really telling me that Japan is producing goods which largely embody education. Call them high-tech products, or whatever, but Japanese goods are relatively intensive in knowledge and education and relatively scarce in other factors, such as natural resources or even labor. Japan no longer has cheap labor, so this is not the resource that the Japanese are now selling. They are selling education. Indeed, now that Japan has made the transition from selling goods which embody cheap labor to those which embody education, their labor is no longer cheaper. (In other words, their wages and standard of living are higher.) And that is an important comparison because the wage difference measures the payoff to education.

Japan’s experience clearly helps us understand the importance of education in today’s world economy. Instead of swinging a hoe, we are now splicing genes to develop a new strain of corn capable of growing in near-desert climates; instead of assembling an automobile, we are now creating design software to produce a robot which will assemble the auto; and instead of building dams to harness the power of falling water or extracting oil from the ground to burn in power plants, we may be soon generating power via nuclear fusion in cold water—power which would flow through superconductive materials.

The world is in a period of unprecedented technological progress. But unlike previous periods of technological change, science and education are having a direct effect on technological change this time (as compared to their effect in the past which was largely oblique). This is clearly the message of technological advances in such areas as biochemical and biogenetic engineering, supercomputers, microprocessors, computer software, aerospace, medical technology, food technology, robotics, ceramics, semiconductors, fiber optics, composites, telecommunications, consumer electronics, and even, arguably, factory automation.

In short, today’s technological revolution is education-led. And because of this, education has become much more valuable for the average person. Clearly, education has also become more critical for the future of the Texas economy. More and more these days, centers of prosperity are centers not of natural resources or simply providence but of knowledge and education. Education is a country’s “ticket out”—permanently out—of a depressed and underdeveloped economic condition. Education is also Texas’ ticket out. In crafting the much-needed reindustrialization of our economy, primary focus should be placed on developing an economic base supported by and centrally linked to education.

The bottom line is that Texas needs to invest more in education. Do we want to be a state that stays on the leading edge of technology, thereby commanding the higher-paying jobs and maintaining the higher standard of living? If so, then education is the answer.