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The Effects of NAFTA Expansion on

When Mexico began liberalizing its domestic market and foreign trade a decade ago, the US government hoped US exporters would gain easier access to the nation's third most important foreign market, after Japan and Canada. Having just completed a free trade accord with Canada, US trade officials sought to solidify changes in Mexico and encourage further economic reform by negotiating the North American Free Trade Agreement (NAFTA). Similar economic and political motivations are behind current US government interest in adding other countries to NAFTA or establishing an Americas-wide free trade area. Latin American leaders have themselves expressed a desire to create a regional free trade area by 2005.

If new countries join NAFTA or if hemispheric free trade is accomplished in another way, among the new signatories might be relatively large producers and consumers of forest products—a prospect that should draw the attention of US forest products manufacturers and consumers. Some (Zobel and Kellison 1984; Anonymous 1996) have suggested that growth in the forest sectors of Latin American countries might raise competitive pressures on North American forest products producers. Others have simply indicated the region's potential for substantially increased forest products output (e.g., Nahuz 1988; Jélvez et al. 1989a).

No research, however, has been published on how NAFTA expansion to include other major forest products producers would affect competition. Given the current structure of trade in the Americas and the existing constraints to trade in forest products between the United States and the other countries, how would expansion of NAFTA change the situation?

Existing Trade

The United States, Canada, and Mexico have long had much closer economic ties with each other than with any other nation in Latin America and the Caribbean, for the simple reason that the three North American countries share borders and have relatively large economies. The Canada-US accord and NAFTA further cemented these economic links. Although trade between NAFTA countries and the other Latin American-Caribbean countries has expanded at a rate similar to world trade expansion, significant trade barriers still exist.

The Latin American-Caribbean countries are neither primary markets for US exports nor major sources of imports. For example, not counting Mexico, the region as a whole accounted for less merchandise trade than Mexico alone in 1994: Mexico's share was 10 percent of merchandise exports and 7 percent of merchandise imports, and the remaining countries' shares were 8 percent and 6 percent, respectively (IMF 1995). The US economy is so much larger than those of the other countries, however, that trade dependence is correspondingly large. Practically every country south of our border counts the United States as a primary destination for exports of merchandise and the most important source of imports.

Trade in forest products between the United States and the Latin American-Caribbean countries follows closely the pattern of overall merchandise trade, but imports of forest products are declining relative to exports of forest products. South America has been a net forest products exporter since 1979 (*fig. 1*). In 1964 South American nations exported \$229 million in forest products and imported

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US Forest Products Exports

\$560 million (1980 constant dollars), for net imports worth \$331 million (FAO 1965). In 1993 South American exports were \$2,084 million and imports were \$987 million (1980 constant dollars), making net exports \$1,097 million. This \$1.43 billion turnaround from net importer to net exporter correlated with rapid growth in wood-processing capacity and with expansion of indigenous and plantation forests, especially in Brazil and Chile (FAO 1995; Cubbage et al. 1996). But Caribbean countries continue to import wood products, and despite South America's rising net exports, the real value of forest products imports in South America has grown by two thirds since 1965.

The pattern of forest products trade between the United States and the Latin American–Caribbean countries reflects the composite of geographical and economic differences among them. Table 1 shows that only the Caribbean purchases substantial amounts of wood products, most in the form of southern pine lumber and plywood. Excluding Mexico, the region actually sold more wood products

to the United States in 1994 than it purchased. But trade is still limited compared with trade among the United States, Canada, and Mexico. Transportation costs help limit North American trade with South America, since wood products have a low price-to-transport cost ratio (Jélvez Caa-maño 1988), and thus the region as a whole accounts for less than 2 percent of all wood products exports.

Market pulp and wastepaper exports from the United States to the region end up mostly in South America. These countries have substantial papermaking capacity but have specific wood fiber needs that are met through imports from North America (table 2, p. 28). But exports to the region are still less than 5 percent of total exports of US market pulp and wastepaper.

Compared with wood and fiber, paper and paperboard exports to the region are more important to US producers. Major trade ties in paper and paperboard (table 3, p. 28) primarily reflect size of economies. The countries most important to US paper exporters in the region are in Central America, followed by Andean countries, South-

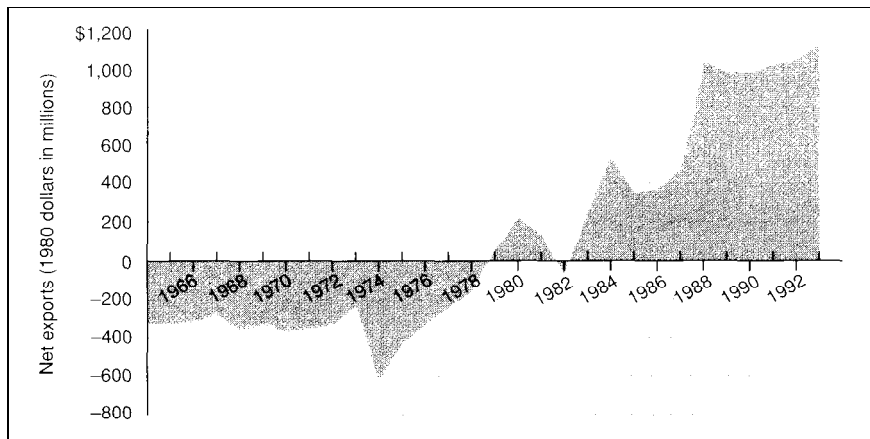


Figure 1. Net exports of forest products (millions of constant dollars) from South America, 1964-1993. SOURCE: FAO (1965, 1976, 1986, 1995).

Table 1. Value of US trade in wood products, 1994, in thousands of dollars.

Country	Imports	Exports
Southern Cone		
Argentina \$	303	\$ 566
Brazil	136,110	335
Chile	121,187	971
Paraguay	1,938	576
Uruguay	525	69
Total	260,063	2,517
Andes		
Bolivia	31,315	215
Colombia	275	1,944
Ecuador	4,876	131
Peru	8,239	3,269
Venezuela	331	1,770
Total	45,036	7,329
Central America		
Belize	666	110
Costa Rica	600	1,608
El Salvador	0	531
Guatemala	2,793	907
Honduras	8,251	103
Panama	322	1,541
Total	11,966	4,690
Caribbean		
Antigua	0	3,212
Barbados	0	8,279
Dominica	0	1,057
Dominican Republic	0	47,363
Jamaica	149	24,786
Saint Lucia	0	3,225
Trinidad and Tobago	61	7,010
Total	210	94,932
Latin American-Caribbean region		
	317,275	109,468
NAFTA		
Canada	6,283,872	804,244
Mexico	180,785	226,227
Total	6,464,657	1,030,471
All other countries		
	288,080	4,413,752
World total		
	\$ 7,070,012	\$ 5,553,691

SOURCE: United Nations (1996).

Table 2. Value of US trade in pulp and wastepaper, 1994, in thousands of dollars.

Country	Imports	Exports
Southern Cone		
Argentina \$	0	26,962
Brazil	256,498	26,200
Chile	16,883	2,820
Paraguay	0	0
Uruguay	0	1,488
Total	273,381	57,470
Andes		
Bolivia	0	650
Colombia	0	12,426
Ecuador	0	2,688
Peru	0	1,063
Venezuela	0	65,831
Total	0	82,658
Central America		
Belize	0	0
Costa Rica	0	3,541
El Salvador	0	2,558
Guatemala	0	2,342
Honduras	0	794
Panama	0	3,249
Total	0	12,484
Caribbean		
Antigua	0	0
Barbados	0	609
Dominica	0	0
Dominican Republic	0	288
Jamaica	0	246
Saint Lucia	0	0
Trinidad and Tobago	0	2,068
Total	0	3,211
Latin American-Caribbean region		
	273,381	155,823
NAFTA		
Canada	2,102,242	357,299
Mexico	2,509	386,944
Total	2,104,751	744,243
All other countries		
	75,045	2,892,896
World total \$ 2,453,177 \$ 3,792,962		

SOURCE: United Nations (1996).

ern Cone countries, and the Caribbean. The Latin American-Caribbean countries import more US paper and paperboard than Mexico and nearly 15 percent of our export production.

Canadian exports to the region are nearly as great as those from the United States. Canada is a more important supplier of exports to Brazil (US\$117 million in 1994) and Venezuela (US\$34 million) and is nearly as important for several other

Table 3. Value of US trade in paper and paperboard, 1994, in thousands of dollars.

Country	Imports	Exports
Southern Cone		
Argentina \$	2,114	\$ 32,508
Brazil	91,738	86,875
Chile	4,064	42,658
Paraguay	0	165
Uruguay	1,106	1,419
Total	99,022	163,625
Andes		
Bolivia	0	491
Colombia	3,439	69,811
Ecuador	0	80,474
Peru	0	23,232
Venezuela	16,541	28,729
Total	19,980	202,737
Central America		
Belize	0	990
Costa Rica	0	93,893
El Salvador	0	32,494
Guatemala	0	51,198
Honduras	0	36,392
Panama	119	48,660
Total	119	262,637
Caribbean		
Antigua	0	330
Barbados	0	3,213
Dominica	0	935
Dominican Republic	0	43,246
Jamaica	0	22,227
Saint Lucia	0	3,110
Trinidad and Tobago	0	10,640
Total	0	83,701
Latin American-Caribbean region		
	119,121	712,700
NAFTA		
Canada	6,216,660	1,277,323
Mexico	67,701	587,119
Total	6,284,361	1,864,442
All other countries		
	2,062,847	2,830,133
Work-1 total \$ 8,466,329 \$5'407,275		

SOURCE: United Nations (1996).

countries, particularly in the Caribbean (UN 1996). Expanding NAFTA to include these and other countries would effect changes in Canadian exports.

Tariffs Today and Tomorrow

The current import tariffs charged by potential NAFTA members on US forest products (table 4) reflect broad regional and recent trade liberalization and contrast with the protectionist

policies of the 1960s and 1970s. Across the region, Chile was among the first to reduce tariffs, beginning in the mid-1970s. Most other countries have reduced barriers to imports from both within and outside the region in the last 10 years. By 1993 most countries had average tariff levels below 20 percent on their US forest products imports (US ITC 1992). Joining NAFTA would require reducing the remaining tariffs to zero over some specified period. In fact, some countries, notably Jamaica, have recently eliminated import tariffs on major US forest products, including lumber and plywood. Tariff reductions would increase US exports to the region in proportion to the size of the tariff currently collected by the importing country. The United States, in contrast, usually applies small or no charges on forest products imports (US ITC 1996), so changes in US imports from these countries would probably be small.

One issue for US forest products producers is potential competition with Chile. Although Chilean production costs are low (Jélvez et al. 1989b; Cabbage et al. 1996), Chile and the United States now barely compete in North and South American forest products markets. The primary markets of contention between them are Asia and western Europe (FAO 1995). The more important sources of imports to the United States are Canada and Mexico. In 1993 Canada accounted for 80 percent of the total value of US forest products imports, whereas Chile accounted for less than 1 percent (FAO 1995). Currently, Chile applies 11 percent tariffs on all forest products imports. Thus, while the Chilean forest products industry is in a state of rapid industrial growth (Jélvez et al. 1989a), tariff reductions on imports might moderate Chilean export growth.

Although many countries in the region import only small amounts of most categories of forest products from the United States, further tariff reductions from NAFTA expansion might be viewed as a way to preserve or limit reductions in market shares rather than

Table 4.1993 imports of US forest products, by selected Latin American-Caribbean countries, current tariffs, other charges, and effects of tariff elimination on these imports.

Country	Import quantity ¹	Import value ¹ (thousands of dollars)	Tariff ²	Other import charges ²	Low elasticity ³ change	Medium elasticity ³ change	High elasticity ³ change
Southern pine lumber (cubic meters)							
Antigua	6,894	\$ 1,804	15%	5.5%	5%	10%	19%
Barbados	20,658	6,078	20	0	6	13	26
Dominican Republic	165,737	35,405	15	9.5	5	9	19
Jamaica	68,781	16,668	0	15	0	0	0
Saint Lucia	7,220	1,897	15	2	5	10	20
Trinidad and Tobago	15,950	3,427	0	15	0	0	0
Southern pine plywood (cubic meters)							
Antigua	2,683	1,006	15	5.5	4	8	17
Dominican Republic	15,114	4,349	20	9.5	5	11	21
Jamaica	7,556	2,602	0	15	0	0	0
Saint Lucia	6,807	2,057	15	2	4	9	17
Trinidad and Tobago	4,749	2,912	0	15	0	0	0
Waste and scrap paper (metric tons)							
Brazil	22,267	1,244	4	0	1	3	5
Colombia	17,443	2,614	15	10	4	8	16
Costa Rica	10,164	1,994	9	1	3	5	11
Guatemala	12,640	1,762	10	11	3	5	11
Honduras	2,331	1,338	5	8.5	1	3	6
Venezuela	177,539	21,114	5	12.5	1	3	6
Coniferous sulfate pulp (metric tons)							
Argentina	32,969	17,694	15	0	5	10	19
Brazil	14,835	6,559	4	0	1	3	6
Colombia	11,827	6,308	5	10	2	3	6
Costa Rica	5,051	2,422	9	1	3	6	12
Ecuador	1,848	1,020	5	10	2	3	6
Trinidad and Tobago	2,489	1,421	0	15	0	0	0
Venezuela	38,460	17,480	20	12.5	6	11	22
Hardwood sulfate pulp (metric tons)							
Brazil	4,666	1,388	4	0	1	2	4
Venezuela	29,953	9,740	0	12.5	0	0	0
Dissolving pulps (metric tons)							
Brazil	6,634	5,650	4	0	1	2	4
Newsprint (metric tons)							
Argentina	17,814	6,493	15	0	4	9	38
Brazil	3,618	2,048	6	0	2	4	16
Chile	3,087	2,625	11	0	3	7	29
Colombia	9,444	4,651	5	10	1	3	13
Costa Rica	2,735	1,266	5	1	1	3	14
Ecuador	7,426	3,614	0	1	0	0	0
El Salvador	11,468	5,332	1	13	0	1	3
Guatemala	7,495	3,281	5	11	1	3	13
Panama	10,250	5,483	10	10	3	6	24
Peru	9,261	4,550	15	18	3	8	33
Venezuela	9,021	3,925	15	12.5	4	8	34

¹United States Department of Commerce (1994).

²Individual country tariff schedules. Sources are available from the author.

³Import demand elasticities were obtained from Buongiorno (1978), Hassan and Wisdom (1983), Prestemon and Buongiorno (1993, 1996), and as chosen by the author.

Analytical Method

The econometric model used in table 4 exploits estimates of import demand elasticities, as published in the literature and as chosen by the author. The model begins with the definition of the import demand function, the difference between domestic demand and domestic supply.

$$M = D(p, Y, w) - S(p, t) \quad (1)$$

$$M = M[p(-), Y(+), w(+), t(-)]$$

where M is the quantity of imports, D is the quantity of domestic demand, S is the quantity of domestic supply, p is domestic price, Y is the quantity of domestic output of the forest products-consuming industry, $w = (w_1, w_2, \dots, w_m)$ are prices of m inputs to that industry, and $t = (t_1, t_2, \dots, t_n)$ are prices of n inputs to the domestic producing industry. But the product price sometimes contains a tariff, t , applied to imports, as well as other ad valorem import charges, f . Call the pretariff import price P .

$$p = P \cdot (1 + t + f) \quad (2)$$

Next, express a change in imports with respect to import price as an elasticity.

$$\epsilon_M^p = \frac{\partial M}{\partial p} \cdot \frac{p}{M} \quad (3)$$

Combine (2) and (3):

$$\partial M = \epsilon_M^p \cdot M \cdot \frac{\partial p}{p} = \epsilon_M^p \cdot M \cdot \frac{\partial P(1+t+f)}{P(1+t+f)} \quad (4)$$

$$\partial M = \epsilon_M^p \cdot M \cdot \frac{\partial(1+t+f)}{(1+t+f)}$$

In discrete changes, (4) becomes

$$\Delta M = \epsilon_M^p \cdot M \cdot \frac{\Delta(1+t+f)}{(1+t+f)} \quad (5)$$

Thus, to evaluate the effects of a tariff change, valid estimates must be obtained for the elasticity of imports with respect to price, ϵ_M^p , and data must be gathered regarding the initial level of imports, M , the initial level of the tariff, t , and the other import charges, f .

The largest challenge is to identify a valid estimate for the elasticity of imports with respect to price. For this analysis, these elasticities were obtained from the literature and comprised a range from inelastic (between -1 and 0) to elastic (larger than -1). These elasticities derived from Buongiorno (1978), Hassan and Wisdom (1983), and Prestemon and Buongiorno (1993, 1996).

increase them (Baldwin 1993). This may be particularly important as Latin American-Caribbean nations continue to lower trade barriers among themselves through their own free trade accords. The Uruguay round of tariff reductions under the General Agreement on Tariffs and Trade will also reduce trade barriers more within the region

than between it and the United States (Barbier 1995), which might place further downward pressure on the United States' market shares in those countries.

Estimating the Effects

To estimate how expansion of NAFTA could influence trade in specific North American forest prod-

ucts, in addition to the estimates on certain sectors (e.g., Valdés 1995), an economic model of forest products markets (Olechowski 1987) was used to calculate the effects on US exports caused by perceived changes in prices of products from the United States. Although US export prices would not be expected to change significantly under increased demand because these countries consume such small shares, the prices that consumers of these imports would pay would go down because of the tariff reductions (fig. 2).

By definition, this technique does not account for the possibility that import demand might also shift or explain how other changes in US or Latin American-Caribbean economies might cause further movements of both supply and demand. It does, however, provide a first approximation of the net effects of NAFTA tariff reductions on most of the forest products currently exported. The estimation procedure required data on the existing quantities of the most important forest products exported to each country, existing tariffs and other charges applied by each country on each category of forest product analyzed, and a range of estimates regarding the responsiveness of forest products import demands to changes in import prices (table 4).

The economic model estimates the net effects of reducing ad valorem tariff; on six of the most important categories of forest products imported into these countries from the United States in 1993. To be analyzed, exports to each country in each category had to have exceeded \$1 million that year. In 1993 these products included southern pine lumber, southern pine plywood, coniferous and hardwood bleached sulfite pulp, dissolving grades of wood pulp, scrap and wastepaper and paperboard, and newsprint. Other forest products imported from the United States were, country by country and product by product, not as economically significant, although in aggregate they may have summed to significant levels.

Results and Discussion

Table 4 describes the effects of eliminating the tariffs. The predictions of trade changes were based on a range of elasticities of import demand to price changes for these products. Assuming medium-level sensitivities to price changes through tariff elimination, the countries would increase their imports of these selected products from the United States by less than 6 percent, totaling approximately \$13 million.

The increases in US forest products exports would be relatively small because of the limited importance of these countries as importers, but the increases would vary by country and product and depend on price sensitivity of import demand and on the current tariff applied to imports from the United States. Potential effects of NAFTA not explicitly modeled in this analysis included (1) changes in output of forest products consumers, (2) economywide effects of NAFTA accession, (3) substitution within expansion countries between domestic and imported US forest products, including competition between softwood and hardwood pulps, and (4) effects of NAFTA enlargement on trade among the expansion countries.

NAFTA-induced output changes could be influential in driving import demands. For example, if the subject countries' imports of bleached coniferous sulfate pulp were as strongly sensitive to domestic paper output as Prestemon and Buongiorno (1996) estimated for Mexico, then import quantities could increase by 5 percent for each 1 percent of NAFTA-induced paper output increase. Applying this response level to the coniferous sulfate pulp imports of the primary importers, if output in those countries were to expand by 5 percent as a result of joining NAFTA, demand for the US product would increase by an additional 25 percent, or about \$13 million.

NAFTA membership could also force currency realignments. Exchange rates depend on, among other things, the level of production, investment, and consumption in each economy. Increased demand for imports caused

by lower tariffs would put downward pressure on the domestic currency, thereby dampening the effects of tariff reductions. Similarly, increased foreign investment would probably be partially channeled to some exporting industries, increasing domestic production and leading to long-run decline in the exchange rate. On the other hand, higher foreign investment would strengthen the domestic currency, thereby driving up import demand still further. Clearly, many forces would interact to determine the new exchange rate equilibrium, so the final post-NAFTA currency equilibrium is impossible to predict.

Finally, the resulting rises in demand for forest products by major importers (especially in South America) after tariff reductions could be partially met by other NAFTA members, especially Canada. Although countries do not produce identical two-by-fours or the same grade of bleached sulfate pulp, many producing countries make products that are somewhat substitutable for US products. Initial predicted increases, indicated in table 4, might therefore be too high, particularly for newsprint and pulp, where US competition with Canada is substantial. But the degree of substitutability among suppliers is an empirical question that remains unanswered by this research.

Although the broader effects of trade integration (output changes, currency realignments, substitution) are unknown, this research provides insights into the order of magnitude of effects that tariff reductions would have on purchases of US forest products that are already exported to Latin American-Caribbean countries. Results show that US exporters would gain only a few million dollars in extra exports from an expanded NAFTA, even one that included every Latin American and Caribbean country. And US export increases would be small compared with existing trade with Canada and Mexico.

Viewed from the perspective of the Latin American-Caribbean countries (and individual supplying firms from

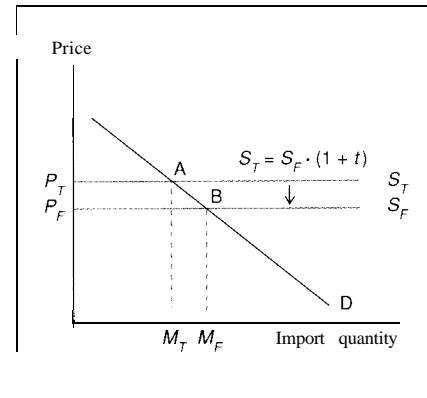


Figure 2. The equilibrium import demand, with and without an import tariff (t) applied to the imported forest product under perfectly elastic foreign supply (S_F). Here, P_T is the price per unit paid by importers when a tariff is charged, and P_F is the price paid when no tariff is charged. The response by importers from an elimination of the tariff is to import more product, moving from M_T to M_F . The elimination of the tariff is modeled as a movement along the import demand curve, from point A to point B.

the United States), however, accession would be more important because the agreement would increase domestic competition between imported US products and regional substitutes. This increased competition would have losers and gainers. The principal losers from NAFTA membership would be producers of lumber and plywood in the Dominican Republic; makers of sulfate pulp in Venezuela, Argentina, Colombia, and Brazil; and producers of newsprint in much of the region. The gainers from free trade would be consumers of these products, including the construction industries of the Caribbean and the printing and publishing industries of Central and South America. **UOF**

Literature Cited

- ANONYMOUS. 1996. A challenge for forestry. *The Economist* 340(7981):53.
- BALDWIN, R. 1993. *A domino theory of regionalism*. Working Paper No. 4465. Washington, DC: National Bureau of Economic Research.
- BARBIER, E.B. 1995. Trade in timber-based forest products and the implications of the Uruguay

- round. *Unasylva* 183(46):3-10.
- BUONGIORNO, J. 1978. Income and price elasticities in the world demand for paper and paperboard. *Forest Science* 24(2):231-46.
- CUBBAGE, F.W., W.S. DVORAK, R.C. ABT, and G. PACHECO. 1996. *World timber supply and prospects: Models, projections, plantations, and implications (draft)*. CAMCORE Annual Meeting. Bali, Indonesia: Central America and Mexico Coniferous Resource Cooperative.
- FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO). 1965. *FAO yearbook, forest products, 1964*. Rome.
- . 1976. *FAO yearbook, forest products, 1974*. Rome.
- . 1986. *FAO yearbook, forest products, 1984*. Rome.
- . 1995. *FAO yearbook, forest products, 1993*. Rome.
- HASSAN, A., and H. WISDOM. 1983. *International trade models for selected paper and paperboard products*. Blacksburg, VA: Department of Forestry, Virginia Polytechnic and State University.
- INTERNATIONAL MONETARY FUND (IMF). 1995. *Direction of trade statistics yearbook*. Washington, DC.
- JÉLVEZ, A., K.A. BLATNER, and R.L. GOVETT. 1989a. Chile's evolving forest products industry, part 2, investments in an expanding industry. *Forest Products Journal* 39(11/12):76-78.
- JÉLVEZ, A., K.A. BLATNER, R.L. GOVETT, and P.H. STEINHAGEN. 1989b. Chile's evolving forest products industry, part 1, its role in international markets. *Forest Products Journal* 39(10):63-67.
- JILVIZ CAAMAÑO, A. 1988. An ocean freight cost analysis for Chilean forest products exports. In *Forest products trade: Market trends and technical developments*, 44-52. Seattle: University of Washington Press.
- NAHUIZ, M. 1988. The Latin American Southern Cone's role as a new wood supplying region. In *Forest products trade: Market trends and technical developments*, 23-37. Seattle: University of Washington Press.
- OLICHOWSKI, A. 1987. Barriers to trade in wood and wood products. In *The global forest sector: An analytical perspective*, 371-90. Chichester, U.K.: John Wiley and Sons.
- PRESTEMON, J.P., and J. BUONGIORNO. 1993. Elasticities of demand for forest products based on time-series and cross-section data. Paper presented at the Conference on Rural Forestry Enterprises, Nancy, France.
- . 1996. Effects of the North American Free Trade Agreement on Mexico's imports of forest products from the United States and Canada. *Canadian Journal of Forest Research* 26:794-809.
- UNITED NATIONS (UN). 1996. *World trade annual, 1994, vol. III*. New York: Walker and Co. and the United Nations.
- UNITED STATES DEPARTMENT OF COMMERCE. 1994. *United States exports, calendar year 1993, schedule B commodity by country*. Microfiche. Washington, DC.
- UNITED STATES INTERNATIONAL TRADE COMMISSION (US ITC). 1392. *U.S. market access in Latin America: Recent liberalization measures and remaining barriers (with a special case study on Chile)*. Report to the Committee on Finance of the United States Senate on Investigation No. 332-3 18 Under Section 332 of the Tariff Act of 1930. Publication 2521. Washington, DC.
- . 1996. *Harmonized tariff schedule of the United States, 1996*. Washington, DC: United States Department of Commerce.
- VAIDES, A. 1995. Joining an existing regional trade agreement from the perspective of a small open economy: Chile's accession to NAFTA and MERCOSUR. *American Journal of Agricultural Economics* 77: 1,292-297.
- ZOBEL, B., and R.C. KELLISON. 1984. Wood—where will it come from, where will it go? (A comparison of the southern United States with South America). In *Proceedings—Symposium on utilization of the changing wood resource in the Southern United States*, 1-13. Raleigh: North Carolina State University.

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