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# Staff Papers Series

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Trade Dependency and the Upper Midwest Economy

by

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## Trade Dependency and the Upper Midwest Economy

C. Ford Runge\*

Despite its location in the center of the North American landmass, the Upper Midwest economy is heavily dependent on foreign trade. Its agricultural, high technology and service sectors, as well as manufacturing and resource extraction, all depend heavily on international markets. This dependency reflects more than the general trade orientation of the U.S. economy; the region is proportionately more dependent on foreign trade than the U.S. as a whole. This has competitiveness implications for trade expansion in changing world markets.

This paper analyses our place in the global economy in relation to state and national trade policy. The first section reviews the evidence of our trade dependency. The second considers the types of companies likely to do well, and those likely to do less well, in changing global markets. The third considers the importance of imports to growth, a point often lost in the push for exports. The fourth section reviews current issues at the national and international level that will affect opportunities for the region's traders. The fifth and last section discusses the role of state-level institutions in securing greater opportunities and rewards for regional business.

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## 1. Evidence of Trade Dependency

The decline in the value of the U.S. dollar since its peak in February, 1985 has made U.S. products about 50 percent cheaper in foreign markets. After adjusting for inflation, foreign sales rose 18 percent in 1988, reducing the trade deficit about \$35 billion from the \$171 billion of 1987. This trade growth accounted for about half of the 3 percent increase in gross domestic product.

Which sectors have benefited most from these recent exports gains? They are familiar to the Upper Midwest: agricultural goods, especially grains; automatic data processing equipment; aerospace equipment; industrial materials, medical instruments and primary metals. In addition to those industries, 75 percent of jobs and output growth in 1989 are expected to be in services nationally, especially data processing, computer professional services and electronic data bases. Computer software sales alone are expected to grow by 25 percent.<sup>1</sup>

These are all well developed business sectors in Minnesota and the region. As a state, Minnesota is significantly more likely to gain from increases in trade flows than the country as a whole. The 1988 Economic Report to the Governor (pp. 20-27) cites studies which show that foreign merchandise trade generated 7.5 percent of total employment in Minnesota in 1984 compared with 6.5 percent nationally, 15 percent more than the national average. These data suggest that Minnesota industry is relatively more dependent on foreign exports than the nation as a whole, and less subject to import competition. Expressed in Keynesian terms, one might say that Minnesota's "marginal propensity to export" exceeds its "marginal

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<sup>1</sup>Minneapolis Star-Tribune, pp. 1D; 3D, December 30, 1988.

propensity to import."

The same report (p. 29, Table 1-6, shown here as Table 1) shows that our most export dependent industries include office and computing machinery (29.9 percent export dependent), ordnance (17.1 percent), metering and controlling devices (21.7 percent), construction machinery (20.8 percent), fats and oils (7.5 percent), medical equipment and supplies (11.4 percent) and products of purchased glass (50.2 percent).<sup>2</sup>

The magnified role of trade to the region's economy is also important in more subtle ways. In recent research, we have looked at the specific connection in agriculture between rising and falling export demand for wheat, corn, soybeans, oats and barley in terms of the agricultural balance sheet of the Upper Midwest's farmers. Not surprisingly, we have found a close link from export demand to farm income over the entire period 1949-85. Perhaps more surprising is the apparent connection between export demand for these crops and the value of farmland. This relationship is pictured in Figures 1-4 for Iowa, Minnesota, North and South Dakota. What we find is that export demand is at least as important as government price supports and domestic demand in explaining land value changes over time.<sup>3</sup> In sum, this evidence supports the reasoning that led to the creation of state trade offices and the Minnesota World Trade Center. We are, and will remain, heavily trade dependent as a region, with the effects of trade penetrating deep into our lives, pocketbooks, and even the value of our land.

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<sup>2</sup>Economic Report to the Governor: State of Minnesota, St. Paul, Minnesota, 1988.

<sup>3</sup>C. F. Runge and D. W. Halbach, "Export Demand and the Market for U.S. Farm Land: 1949-1985," Center for International Food and Agricultural Policy, Department of Agricultural and Applied Economics, University of Minnesota, November 1988.

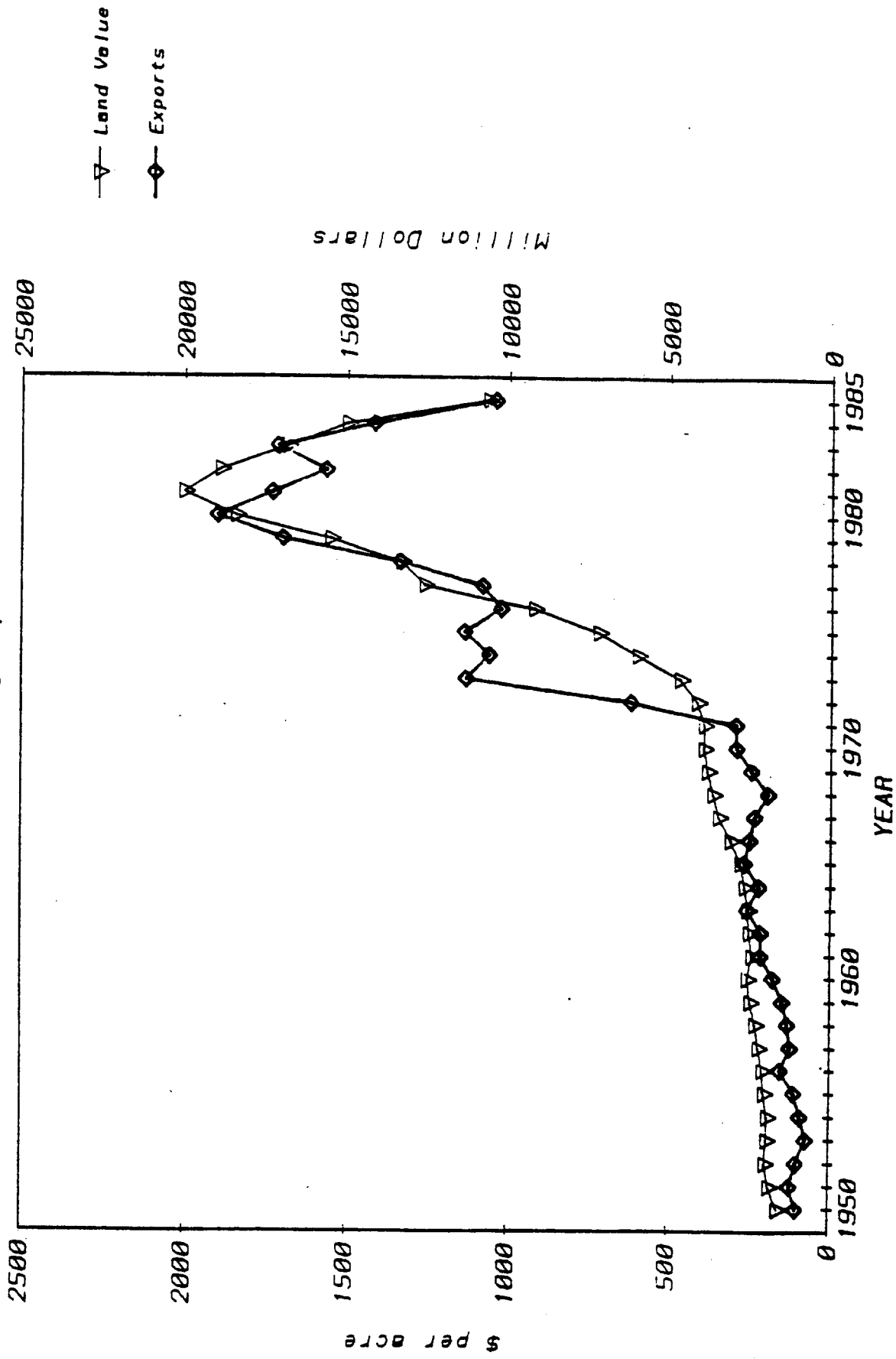
Table 1.

Table 1-6		Minnesota's 25 Leading Manufactured Exports, 1984			
SIC	Industry Name	Value of Shipments	Direct Exports	Export Dependence	Share of Total Exports
357	Office & Computing Machinery	\$5,538.2	\$1,653.3	29.9%	52.6%
348	Ordnance	1,046.9	179.0	17.1	5.7
382	Measuring & Controlling Devices	812.1	176.5	21.7	5.6
353	Construction Machinery	533.5	110.9	20.8	3.5
367	Electronic Components	1,090.3	84.9	7.8	2.7
356	General Industrial Machinery	671.7	78.8	11.7	2.5
207	Fats & Oils	981.6	74.1	7.5	2.4
201	Meat Products	2,478.1	53.0	2.1	1.7
362	Electrical Industrial Apparatus	515.8	50.5	9.8	1.6
323	Products of Purchased Glass	89.6	45.0	50.2	1.4
204	Grain Mill Products	977.7	38.3	3.9	1.2
384	Medical Instruments & Supplies	319.1	36.5	11.4	1.2
307	Misc. Plastics	1,163.3	35.9	3.1	1.1
358	Refrigeration & Service Machinery	716.2	34.4	4.8	1.1
366	Communication Equipment	608.1	30.6	5.0	1.0
363	Household Appliances	220.1	25.3	11.5	0.8
342	Cutlery, Handtools & Hardware	225.8	22.7	10.1	0.7
202	Dairy Products	2,708.5	21.7	0.8	0.7
349	Misc. Fabricated Metals	296.0	21.2	7.2	0.7
206	Sugar, Confectionary	545.5	18.6	3.4	0.6
289	Miscellaneous Chemicals	335.8	16.9	5.0	0.5
394	Toys & Sporting Goods	147.1	12.2	8.3	0.4
241	Logging Camps & Contractors	91.4	10.6	11.6	0.3
208	Beverages	758.8	10.2	1.3	0.3
354	Metal Working Machinery	304.5	8.4	2.8	0.3

Source:

Bureau of the Census, *Annual Survey of Manufacturers*, Unpublished Data, 1987

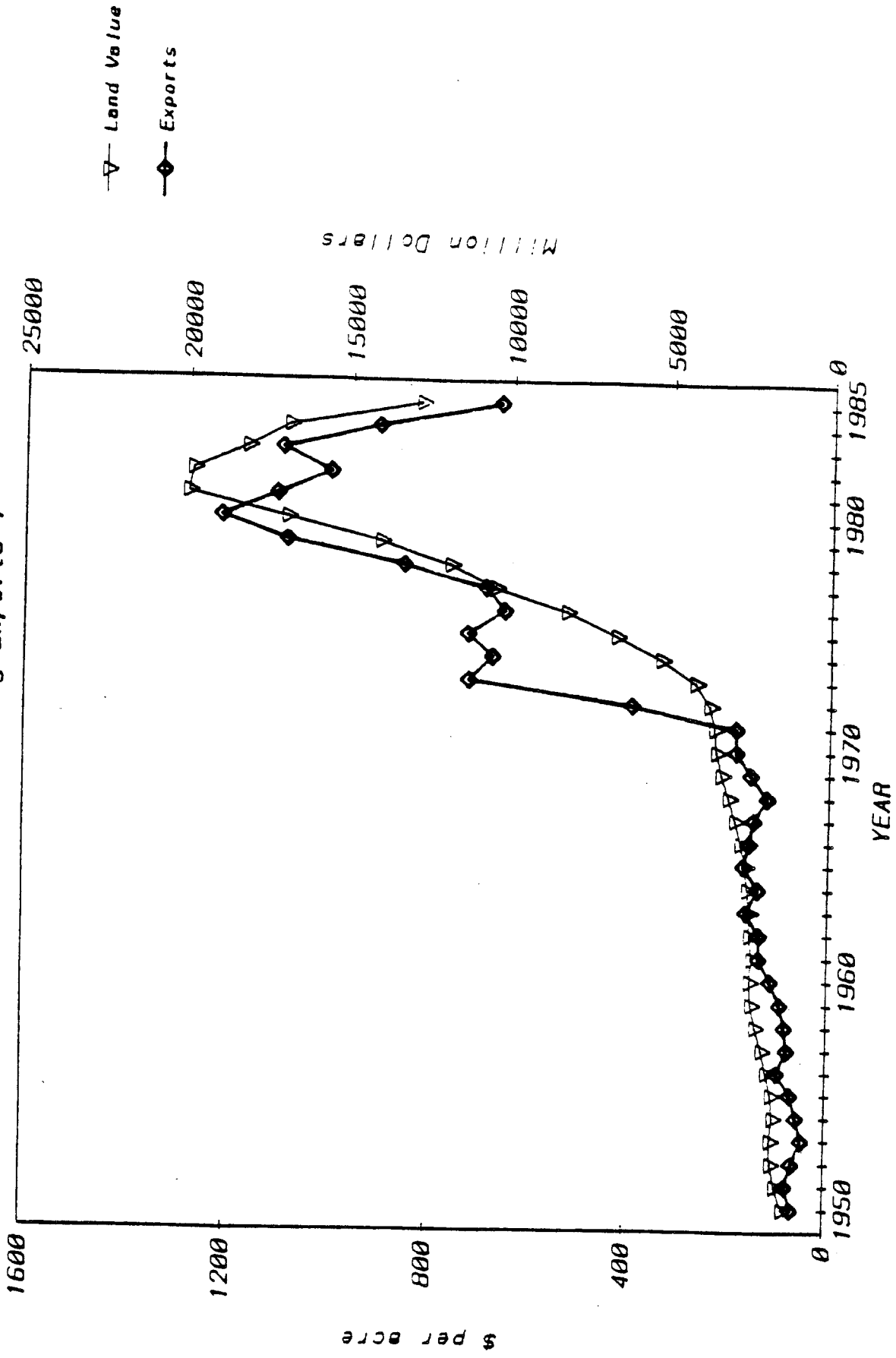
Figure 1  
 IA Value of Land and Buildings Per Acre  
 U.S. Value of Selected Ag Exports \*



\* Commodity: Corn, Soybeans, Wheat, Oats, and Barley  
 Export Value = Export Quantity x Season Average Price  
 Sources: Farm Real Estate Historical Series Data, 1950-86. USDA-ERS SB #738  
 USDA Agricultural Statistics, FAIUS

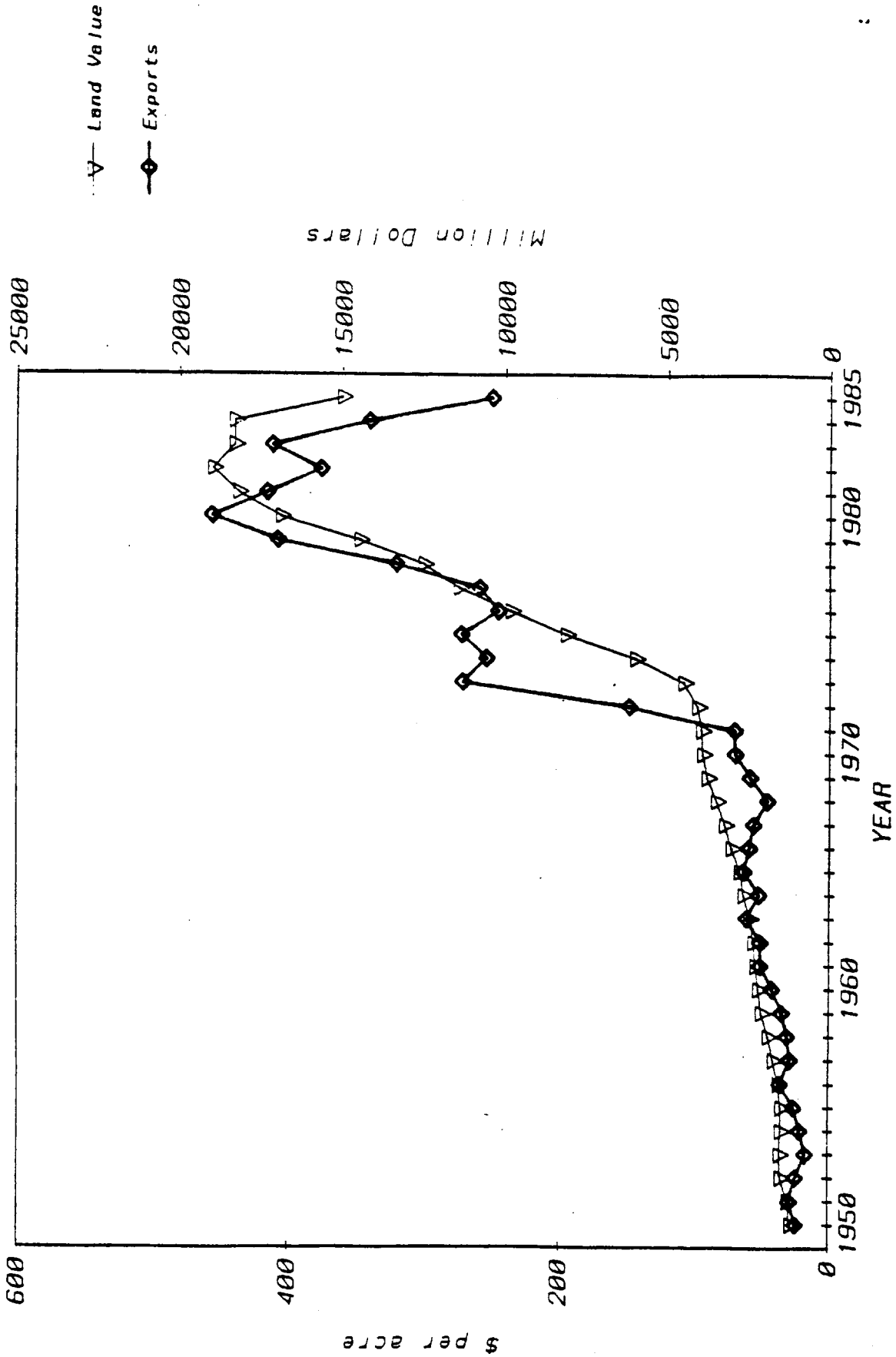


Figure 2  
 MN Value of Land and Buildings Per Acre  
 U.S. Value of Selected Ag Exports \*



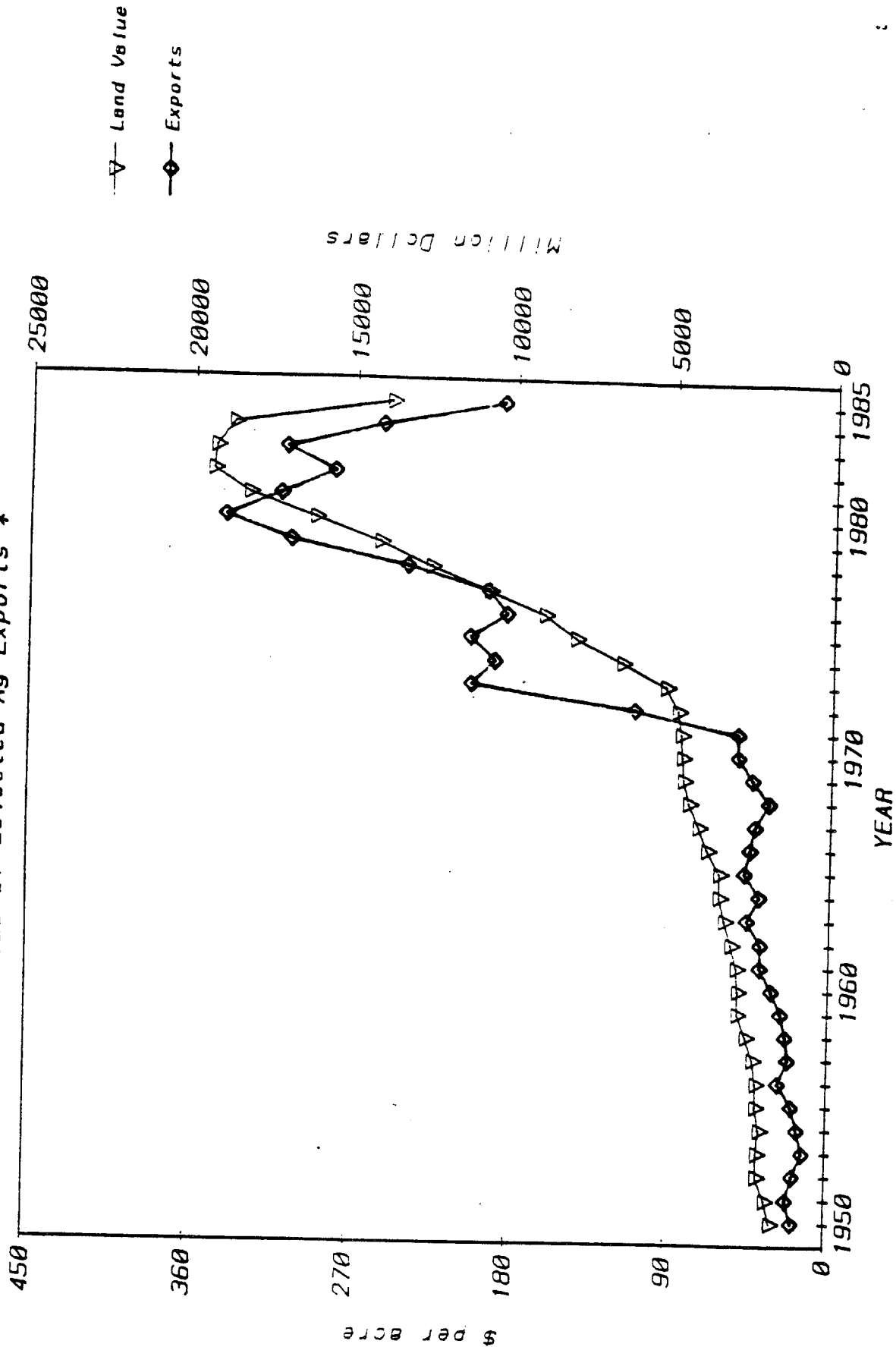
\* Commodity: Corn, Soybeans, Wheat, Dots, and Berley  
 Export Value = Export Quantity, \* Season Average Price  
 Sources: Farm Real Estate Historical Series Data 1950-85. USDA-ERS 5B #730  
 USDA Agricultural Statistics, FAIUS

Figure 3  
 ND Value of Land and Buildings Per Acre  
 U.S. Value of Selected Ag Exports \*



\* Commodities: Corn, Soybeans, Wheat, Oats, and Barley  
 Export Value = Export Quantity \* Season Average Price  
 Sources: Farm Real Estate Historical Series Data, 1950-85. USDA-ERS SB #738  
 USDA Agricultural Statistics, FATIUS

Figure 4  
 SD Value of Land and Buildings Per Acre  
 U.S. Value of Selected Ag Exports \*



\* Commodity: Corn, Soybeans, Wheat, Oats, and Barley  
 Export Value = Export Quantity x Season Average Price  
 Sources: Farm Real Estate Historical Series Data, 1950-85. USDA-ERS SB #738  
 USDA Agricultural Statistics, FATUS

## 2. Prospects for Trade Expansion

What companies are likely to do well in this increasingly global environment, and which ones will lag behind? General trends are easier to identify here than specific companies. First, companies will do well that by global standards are cost-competitive in moving products into international marketing channels. Many farmers lament that their costs can never be lower than those of farmers in Brazil or Argentina. Keep in mind, however, that the region's soils, water resources and farm technology -- combined with the skills of our farmers -- make it one of the premier feed grain and oilseed producing regions of the world. Moreover, despite the distance to international markets, U.S. transportation and grain handling infrastructure is globally unrivaled so that U.S. farmers can reach and enter international marketing channels at very low overall costs per unit of production moved. This system, taken as a whole, is what makes Upper Midwest agriculture a globally competitive export sector.

A second factor of crucial importance to global competitiveness is the technological lead of many of our regional companies, especially in data processing, medical instrumentation, and measurement devices. These technologies flourish here for several reasons. A pre-existing commitment to medical care, for example, with major research facilities in Rochester and Minneapolis-St. Paul, has created innovation opportunities and spin-offs. A similar commitment to engineering activities and education has helped to develop a high-speed computing capability. These technological leads are ultimately human achievements; social commitments to education and medical care create the environment in which individuals establish and hold such technological leadership.

It is interesting that large federal expenditures, often touted as technological pump-primers, play a relatively smaller role in spurring Minnesota trade compared with other parts of the country. My colleague, Wilbur Maki, has recently calculated that Minnesota has not shared the recent federal spending on military-related industry and installations proportionately with other states, despite the role of federal contracts in the ordnance and high technology sectors.<sup>4</sup> If federal spending in these areas declines, Minnesota will face fewer job losses than other states as a result.

It is predicted that a third feature of globally competitive firms in Minnesota and the Upper Midwest is that they will be smaller. U.S. Department of Commerce data suggest that multinational corporations will account for a substantially smaller proportion of U.S. trade over the next 15 years. Between 1977 and 1985, the share of multinational corporations' U.S. exports dropped from 84 to 77 percent. On the import side, the figures were from 58 to 46 percent over the same period. According to an earlier Commerce Department study, manufacturers with less than 1,000 employees have the potential to raise their share of U.S. foreign trade from 16 percent in 1982 to as much as 42 percent by the year 2000.<sup>5</sup>

I conclude from this brief survey that companies will flourish in a global marketplace that reflect three main tendencies. They will be globally cost-competitive, have established and maintained technological leads, and will include many more smaller companies over time. In my

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<sup>4</sup>Wilbur Maki, "Minnesota's Place in the Global Economy," Department of Agricultural and Applied Economics, Staff Paper P88-18, June, 1988, p. 11.

<sup>5</sup>Economic Report to the Governor: State of Minnesota, 1988, pp. 29-30.

judgment, promoting this competitiveness will require relative wage and cost containment, a highly skilled work force, and nimble, globally oriented companies. Companies that are high cost, with low worker skills and a parochial market vision, will not fare well. I do not suggest that lower wages are the answer, since they attract untrained workers. Rather, a larger pool of trained workers should be created, attracted to technologically sophisticated and internationally oriented companies, where wages are linked to growth in the companies themselves. How to generate this pool of workers and investment opportunities will be considered below.

### 3. The Role of Imports

As long as trade has existed, an asymmetric view of the relationship between exports and imports has prevailed. In brief, this view is that exports are good and imports are not so good. We sell to others and that's good. We buy from others; that's not so good. Better that we always sell but not buy very often. It fell to economists to point out that while acceptable as a partial view, the bigger picture requires both sides of the transaction. Imports, as a matter of fact, can be very good for an economy, especially if they are cheaper than what can be produced at home, freeing up valuable resources to produce things with a comparative advantage. If one is trade oriented, the idea is not to spurn imports, but to utilize them if they lower domestic costs. All of this works fine in theory, until the cheaper imports turn out to compete directly with an existing industry, or create such unrestrained enthusiasm for consumption that they begin to swamp exports altogether. Since imports flow into our states, they are typically credited on the negative side of the ledger. But imports create jobs too.

#### 4. Issues Affecting Trade: National and International

It is a truism to those who forecast state and regional economic trends that the bulk of state trade growth simply reflects the fortunes of the nation as a whole, with some magnification due to a higher than average propensity to export and lower than average propensity to import. National trade interests are advanced by federal institutions, and are affected by international agreements and bilateral relations between countries, such as the U.S. and Japan. The success of the Bush administration's negotiators at the office of the U.S. Trade Representative, and in the Departments of Commerce, State, Treasury and Agriculture, will largely determine our national trading opportunities in the next four years. The degree of this national success will determine the region's opportunities in turn.

What specific issues and negotiations will be key to this opportunity creation? In my view, four stand out. The first two are bilateral; the second two are multilateral.

First is the important bilateral relationship between the U.S. and European Community (EC). While current attention is focused on our bilateral disputes over hormones, even more important will be the plans for European market integration by 1992. The 1992 initiative in Europe presents both opportunities and risks for U.S. trade; opportunities which must be seized upon and risks which must be anticipated and avoided. The primary motivation behind 1992 is making Europe more competitive, as a block, with the rest of the world. Looking across the Atlantic, she sees a new North American trading union which may cause her to close access to her own markets in the process of opening internal borders.

The 1992 program is contained in a Brussels White Paper, which lists

about 300 measures or areas requiring action.<sup>6</sup> The barriers targeted for elimination fall into the following categories: border controls; restrictions on the recognition of professional qualifications; differences in value added and excise taxes; legal regimes; restrictions on the movement of capital; restrictions on services; regulations and technical standards; and public procurement markets. The formal adoption in 1985 of a comprehensive program, which included a timetable for action on specific measures, faces an overall deadline of December 31, 1992. It is noteworthy that the only sector in which this process is already largely complete is in agriculture, under the Common Agricultural Policy (CAP). If the CAP is a harbinger of 1992, protectionism will increase, not decrease, as member countries in the EC tradeoff barriers between them for barriers vis-a-vis the rest of the world.

What are the prospects? They are mixed.

- While some reduction in border controls will continue, problems relating to different taxes, plant and animal health requirements, and control of drug trafficking, terrorists and immigration will prevent complete elimination of the controls.

- Agreement was recently reached for mutual recognition among the member states of professional qualifications; but there is likely to be continued resistance.

- Differences in indirect taxes will be particularly difficult to achieve because they directly involve member government's revenue, and surrender of control over taxation to Brussels.

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<sup>6</sup>Michael Calingaert, "The 1992 Challenge from Europe: Development of the European Community's Internal Market," National Planning Association #237, 1988.



- Action is likely to be completed on a Community trademark, is somewhat less likely on the Community patent, and a start will be made on copyrights.

- Although the EC has agreed to phase out all remaining restrictions on capital movements by 1992, in view of the threats presented by complete liberalization to the weaker currencies (e.g., the lira), it is likely that there will be some backsliding.

- Major changes are expected in financial services, although progress is expected to be slower in deregulating transportation and the advanced communication technologies.

- Although a major attack is being mounted on restrictions to public procurement, opposition will remain strong and limit effective implementation.

Despite this somewhat mixed review, the potential for change in the EC resulting from completion of the internal market is considerable. The creation of a single EC market presents U.S. business with potential for increased demand, lower costs, and economies of scale. However, these opportunities will also be available to EC and third country firms. It is essential that the U.S. government closely monitor developments in the EC to avoid actions that would adversely affect U.S. interests. Problems are bound to arise.

The second major bilateral issue concerns relations with Japan. Since this is a primary focus of tomorrow's program, I will not dwell on it here, except to note that greater access to Japanese markets is crucial for expanded export opportunities for Minnesota companies. Unfortunately, the past record indicates that these markets must be pried open -- they do not come easily.

The third major issue affecting trading opportunities will be the success of the Bush Administration in finally coming to grips with Third World debt. Like farm debt, which it resembles in many important ways, Third World debt will have to be dealt with through intervention in markets, which will be made much healthier as a result. I would argue that interest-write downs are appropriate at the international level, and that negotiated write-offs will simply have to be made. The sooner this debt is written off or refinanced, the sooner Third World demand for U.S. exports -- our major customers in the years ahead -- will begin to grow.

Fourth, and last, is the multilateral effort to reform the world trading system underway in the Uruguay Round of the General Agreement on Tariffs and Trade (GATT). While agricultural issues have received the bulk of attention, there are fourteen other negotiating areas under consideration in GATT besides agriculture. On-going negotiations in services, in intellectual property, and in trade related investment measures, to name three other key areas, will be of equal or greater importance to business in creating market opportunities. For this reason, we cannot allow the current stalemate in agriculture to continue, since it will simply block general progress.<sup>7</sup>

With failure to agree on agriculture at the Montreal GATT meeting in December, the April meeting in Geneva looms as the first signpost to watch. The Bush administration's new trade representative, Carla Hills, steps into a complex and demanding situation that will immediately test both her toughness and knowledge of trade issues. Despite the help she will get

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<sup>7</sup>C. F. Runge, "The Assault on Agricultural Protectionism," Foreign Affairs, Fall 1988, Vol. 67, No. 1, pp. 133-150.

from Clayton Yeutter at Agriculture, she will face experienced, resolute European negotiators who have been at the game of trade talks for decades. If she compromises too readily, she will be accused of selling U.S. interests short, and support for GATT reform among domestic groups will evaporate. If she hangs too tough, the world will be plunged into renewed cycles of retaliation, threatening gains made by GATT in many areas outside of agriculture.

Conditioning the April discussion is the hormones dispute. This apparently isolated example of health regulations acting as trade barriers is part of an emerging pattern of environmental and health issues with major consequences for the world economy. These consequences are especially important to trade between developed and developing nations.<sup>8</sup>

The impact of the hormones dispute on the Uruguay Round April meeting in Geneva is difficult to gauge. It certainly will not improve the mood of the negotiators, but it may increase the urgency with which some accommodation is sought. A great deal will depend on behind the scenes work done by U.S. negotiators between now and April. To the extent that the hormones dispute is resolved before then, the April meeting's chances of success increase, and with it the chances for the Uruguay Round in GATT as a whole.

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<sup>8</sup>Hon. Richard Nolan and C. F. Runge, "Trade in Disservices: Environmental and Health Damages in International Trade." A speech prepared for the Conference on a Magna Carta for International Economic Development: Rights and Responsibilities of Investors and Developers of Industrialized and Industrializing States, Port-of-Spain, Republic of Trinidad and Tobago, January 19-22, 1989.

## 5. The Role of State Policy

Given these global and national political forces, what can states like Minnesota do to remain highly competitive in global markets? Trade offices and trade centers are important, and represent the front lines of the battle for continued competitiveness. But behind the lines are a host of other state-level policies that support and supply the front. As any tactician knows, this support is key to waging a successful trade campaign.

Let me identify three key elements in state policy that I believe are key. They can be expressed in three terms: education, investment incentives, and a liberal trade policy.

Education is often touted as a political objective of governors as well as presidents. By all accounts, it is a crucial factor in creating a pool of skilled, globally competitive workers. Politics is, of course, a matter of choices in the face of budget constraints. The problem is that quality education takes money, quite a bit of it. Money for primary, secondary and university training is more difficult to find than to promise, because the constituency for education is generally too young to vote. If the states of the Upper Midwest do not expand their current commitment to education, they will not compete globally.

Second are investment incentives. If we want globally competitive entrepreneurs to come and stay in the Upper Midwest, it must be an attractive place to invest. By many accounts, it already is, despite its high tax rates. Taxes, after all, pay for the services that make it a great place to live and work. But incentives for new investments in advanced technologies could be enhanced without substantial tax losses if a creative approach is taken at the state level. I hope that special

attention is focused here on small business. Big tax breaks for big companies are less cost-effective, in my judgment, than a pattern of investment incentives for smaller, innovative firms that allow them to build and grow. As I noted above, a large share of the future of trade will belong to these companies.

Finally, let me comment on the need for a liberal state trade policy. Liberal trade means more open trade, not "free trade." We have never had free trade, do not have it now, and will never achieve it in total. It is a theoretical ideal. The case for more open trade -- open to both exports and imports -- is not to be found in textbooks, but in the record of post-World War II growth. Those countries that have pursued more open trade policies have grown far faster, producing millions more jobs, than those that have sealed their borders and attempted to follow import-substitution strategies. When the interstate commerce clause of the U.S. Constitution was drafted, it was to assure continued openness in trade between the several states. The resulting dynamism shows the wisdom of the liberal trade policy which the founding fathers supported.

The same logic is applicable to trade among nations. From the state level, the support of more liberal national trade policies is a winning strategy because Minnesota and the Upper Midwest will win from national trade growth, in more than equal proportion. Policies promoting export subsidies, or denied import access, will not be in Upper Midwest's long term interest. I hope that I have shown that we have a great deal to gain from liberalization of trade with Europe, with Japan, with the Third World, and in GATT.