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**A PRELIMINARY ANALYSIS OF THE IMPACTS
OF A HARBOR IN CHINA AND MICHIGAN ON
THE MICHIGAN FRUIT AND VEGETABLE
INDUSTRIES**

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Introduction

Michigan fruits and vegetables are an important part of the economy in the state. However, the fruit and vegetable industries are facing serious problems. Michigan is been a major provider of processed fruits and vegetables. However, consumer tastes and preferences are moving away from processed products and towards fresh products. Another problem facing the Michigan fruit and vegetable industry is foreign competition. A major competitor in this market is China; this is particularly true in the field of apples, the largest fruit crop in Michigan.

Currently, plans are underway to build a major harbor in China and Michigan. The three Michigan locations being considered are Escanaba, Muskegon and Port Huron. There is also interest in an Agricultural Renaissance Zone in Oakland County. The effects of these policies are difficult to determine with any certainty. However some general comments can be made. While the new harbor in China is not likely to have dramatic effects on Michigan fruit and vegetable exports, it could have a positive effect on Michigan's domestic market share if California increases its exports and as a result U.S. retailers and consumers substitute Michigan products for California products. There is no guarantee this will happen. Instead, it is more likely that the harbor in China would further promote Chinese exports to the U.S. putting downward pressure on fruit and perhaps vegetable prices in the U.S. This seems more likely to happen as the harbor would reinforce current trade patterns.

A port in Michigan is not likely to have a great impact on Michigan exports. There might be some increase in Michigan fruit and vegetable shipments to the Eastern U.S., Eastern Canada and Europe. These are the natural market outlets to Michigan agricultural products.

Oakland County has the potential to be location for an Agricultural Renaissance Zone. However, the renaissance zones that have been created have been in the western half of the state. Renaissance centers have been located close to the source of the raw commodity and have been primarily expansions of existing businesses. Oakland County could be successful if it selected products where access to consumers is the critical driving factor.

This paper has a brief outline and overview of Michigan's fruits and vegetable industries. Impacts of both the Chinese and Michigan harbor will be considered next. This paper also analyzes some of the potential impacts of an Agricultural Renaissance Zone in Oakland County. Finally, this paper considers the employment effects of both the harbor in Michigan and an Agricultural Renaissance Zone in Oakland County. Again, it should be noted that this analysis is very preliminary and general. Further research is necessary to fully determine the effects of the harbors and the renaissance zone on the fruit and vegetable industry.

Michigan's Fruits and Vegetables

Fruits and vegetables are an important part of Michigan's agricultural economy. In 2001, horticultural crops (including floriculture and nursery products) accounted for 1.07 billion dollars in farm sales. This represents 54.0 percent of all crop sales and 30.8 percent of all farm cash receipts (Michigan Agricultural Statistics Service). The

following table gives more detail on the role of fruits, vegetables and floriculture on Michigan's agricultural economy. The table does not include dry beans which are an important crop in Michigan.

Rank in U.S. Agriculture by Selected Commodity, 2001			
Michigan's Rank	Commodity	Percent of U.S. Production	Leading State
1	Blueberries	28.4	Michigan
1	Tart Cherries	80.4	Michigan
1	Cucumbers (processing)	26.4	Michigan
1	Flowering Hanging Baskets	9.1	Michigan
1	Geraniums	19.3	Michigan
1	Hosta	14.9	Michigan
1	Impatiens	15.8	Michigan
2	Celery	4.5	California
2	Marigolds	12.5	California
2	Other Potted Perennials	12.4	California
2	Petunias	12.5	California
3	Apples	9.1	Washington
3	Asparagus	13.8	California
3	Carrots (fresh market)	4.4	California
3	Squash	14.2	California
4	Plums	1.7	California
4	Tomatoes (processing)	0.9	California
6	Carrots (processing)	7.4	Washington
6	Pumpkins	6.9	Illinois
9	Grapes	0.4	California
9	Potatoes	3.1	Idaho

Source: Michigan Agricultural Statistics Service

This table brings up several points. First, Michigan plays an important role in a number of products. Secondly, while it does play an important role in a number of products, it only dominates in one: tart cherries. The table also points out the important role floriculture plays in Michigan's agriculture industry, a fact that is often overlooked.

Finally, the table shows the importance of California and other Western states in the fruit and vegetable market. This has important considerations for international trade, especially in respect to China and other Asian countries.

Impact of the Harbor in China

A new port complex in China can be expected do two things. It will make exports out of China less expensive and imports into China less expensive. A new port is an example of a cost reducing investment that reduces transportation costs. Goods that China currently exports to the U.S. will become less expensive and goods the Chinese import will also become less expensive. Goods imported to China may or may not be from the U.S. The cost reduction would be similar no matter where the country of origin is. The U.S. fruit and vegetable industry may see little, if any benefit, from the harbor. While it is difficult to determine the net effect of the port in China, it would appear that the port would increase competitive pressures on the Michigan fruit and vegetable industries.

The U.S. is a net importer of fruits and vegetables, including processed fruits and vegetables. The major exporters of processed vegetables to the U.S. are Spain, Mexico, Canada, China and Greece. Major exporters of processed fruits to the U.S. are Thailand, China, Philippines, Mexico and Canada. Given the climate and other factors, Michigan competes most directly with Canada and China. Chinese exports of processed fruit increased by 134.3 percent between 1998 and 2002 (Mintel). China, the world's largest producer of apples has been cited by many in the Michigan agricultural community as a source for the decline in the economic welfare of the Michigan apple industry in a number of recent years.

As previously noted, a new port in China would reduce the cost of shipping products to China. China is now a net importer of fresh fruit. However, most of the fruit imported by the Chinese are tropical fruits and citrus (bananas, oranges, etc.) that are not grown in Michigan. With China's entrance into the World Trade Organization (WTO) import duties charged by the Chinese are likely to decline. As a result, there is some potential for an increase in certain types of fresh fruits and vegetables into this large and growing market. Furthermore, the Chinese have a strong preference for fresh fruits and vegetables (Huang). Given Michigan's geographic location, it is unlikely that it would obtain much direct access to the Chinese market.

Instead, most of this increase will be met by fruits and vegetables grown in California and other western states and from countries such as Australia and New Zealand. It is likely that Michigan will receive little, if any, in the way of increased exports as a result of the new port in China. However, insofar as exports from California and Washington increase there may be a minor increase in domestic demand for Michigan fruits and vegetables. As products are exported from western states to China, consumers will look for alternatives. Michigan could be in a position to meet the domestic market.

While the net effect of the new port in China on the Michigan fruit and vegetable industries cannot be stated with any certainty, it appears that on net the competitive position of some fruits and vegetables, particularly apples and cherries would decline. This would be consistent with recent trade patterns. In fact the port in China would likely reinforce current trade patterns.

Impact on the Harbor in Michigan

As is the case with the port in China a port in Michigan might make U.S. exports and imports less expensive. Again, an investment in this type of facility would reduce the cost of transporting goods. Michigan's natural export market for fruits and vegetables is not Asia (California will always be 2,000 miles closer to China than is Michigan), but the eastern U.S., eastern Canada, Europe and Eastern Latin America. Canada is the largest importer of processed U.S. fruits and vegetables, Asian countries are major processed vegetable importers and European countries and major importers of fruit (Mintel). Unfortunately, much of Europe and increasingly Asia could be best described as mature markets. They are not likely to grow as fast as other countries. They have stable populations and economic growth rates. While exports will increase as a result of the port, it is not likely to have a large impact on the Michigan fruit and vegetable industries.

A Michigan port is also not likely to have a major impact on fruit and vegetable imports either. Ports on the east and west coast are still likely to handle the majority of agricultural imports and exports, with trucks and to a far lesser degree rail, transporting the products from the coasts to the interior of the U.S.

An Agricultural Renaissance Zone in Oakland County

Agricultural Renaissance Zones have been popular in Michigan. They have spurred investment and allowed Michigan farmers, cooperatives and firms to improve their competitive position. They have also been located close to where fruits and vegetables have been produced: in the western half of the state. There are several reasons for this. Most renaissance zone activities have been undertaken by established

firms that already have a presence in the western half of the state. Access to seasonal and migrant labor also appears to be better on the western half of the state. Finally, it appears that transportation costs are somewhat lower when the product is handled on the western half of the state and shipped from there.

An Agricultural Renaissance Zone in Oakland County does have some positive attributes. Oakland County is the 30th most populous county in the U.S. and it is adjacent to Wayne County, the 11th most populous county in the U.S. Furthermore, Michigan is within of one day's drive of such population centers as Nashville, Memphis, Boston, New York, Washington D.C., Pittsburgh, Philadelphia, Chicago, Milwaukee, Indianapolis, Cleveland, Cincinnati, Columbus, Montreal and Toronto. Processing and manufacturing facilities tend to be located near either the source of the raw material or near the consumer. An Agricultural Renaissance Zone in Oakland County would be close to population centers.

An additional Agricultural Renaissance Zone would also allow the Michigan agri-food sector to take advantage of a growing consumer trend, the interest in fresh and minimally processed food (Mintel). In many cases farmers receive a price premium for fresh fruits and vegetables. Consumption of fresh fruits and vegetables continues to increase, while the sales of processed fruits and vegetables remain stagnant. Minimally processed fruit and vegetable products will continue to find favor with consumers. These products combine the positive attributes of fresh produce with the added benefit of convenience.

Effects on Employment

Net effects on employment are difficult to determine. Clearly a port complex in Michigan will increase employment in port activities. Impacts on the agricultural sector are more difficult to determine. In 2001, there were 23,900 hired workers on Michigan farms (Michigan Agriculture Statistics Service). Many of these workers were seasonal and/or migrant workers. The average hourly wage rate for these types of workers was \$8.15 per hour. If the market for Michigan fruits and vegetables improved, the demand for these types of workers would increase. However, if processing declined because of greater import competition that is accentuated by a new Chinese port, the number of workers in processing plants would also decline. Many of the workers in processing plants are also seasonal workers.

Offsetting this decline would be the increased employment in the Agricultural Renaissance Zone. However, much of this work would also be seasonal. It may be difficult to obtain workers in Oakland County who would be interested in seasonal employment. Finding housing for migrant workers in Oakland County could be problematic. The net effect of the port and Renaissance Zone on employment in the agri-food sector is impossible to determine at this point in time.

Conclusion

The above analysis is very preliminary. Further research is needed to obtain more accurate and complete information on the effects of a port in China, a port in Michigan, and an Agricultural Renaissance Zone in Oakland County. However, some preliminary results can be stated.

- The construction of a new port reduces transportation costs. This makes it less expensive to export and import. China is a major competitor to Michigan in several fruit products. The construction of new a new port in China will likely adversely affect certain key fruit markets in Michigan. A new port in Michigan will not likely have a great impact on Michigan exports of fruits and vegetables.
- An Agricultural Renaissance Zone in Oakland County has some desirable characteristics. It would be located somewhat close to both production centers, and very close to several large population centers. It would allow the state to take advantage of both the fresh market and the minimally processed market. The key aspect of a Renaissance Zone in Oakland County would be to deal with products where close access to population centers is critical.
- Effects on employment are difficult to measure. A new port would increase employment for port workers. The effects on agricultural employment are much more difficult to determine.

Sources

1. Huang, Sophia: China: An Emerging Market for Fresh Fruit Exporters. *Fruit and Tree Nuts Outlook/FTS-297/March 21, 2002*. Economic Research Service, United States Department of Agriculture, Washington, D.C., 2002.
2. Michigan Agricultural Statistics Service: Michigan Agricultural Statistics: 2002.
3. Mintel: Canned Fruits and Vegetables. Mintel International Group Ltd. Chicago: August 2003.