

# **Export Promotion/Import Replacement Strategies**

**Final Report**

**For**

**Chicago Metropolitan Agency for Planning  
(CMAP)**

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## 1. Introduction and Acknowledgements

This report is one in a series of reports sponsored by CMAP as part of the Go To 2040 project. This report examines the possibilities for export promotion and import substitution for the metropolitan economy. Major export industries are identified, and suggestions for export promotion are provided. Targets of opportunity for the replacement of imports used by local export firms in their production processes are also identified. However, a word of caution is appropriate. Both export promotion and import replacement are based on the idea that firms in the Chicago area can sell more of the goods and services that they offer. Customers for additional exports are located outside the metropolitan area, and import replacement involves selling more to customers located within the area. There may be very good reasons why these sales are not being made at this time; goods and services offered may not fit customer needs, and so on. Successful pursuit of this general strategy may require changes in the nature of the goods and services that are offered as well as changes in marketing plans and techniques. RCF recommends that, should a program of export promotion and/or import replacement be undertaken, it should be as part of a comprehensive economic development strategy, and not as an isolated policy.

Hewings, et al. found evidence of a “hollowing out” of the Chicago economy<sup>1</sup>. The idea is that, because the costs of transportation and communication have declined, it is increasingly possible to have production stages in a value chain located in different places – when once they were vertically integrated in one metropolitan area or region. Establishments within a metropolitan area or state are trading more with establishments

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<sup>1</sup> G. Hewings, M. Sonis, M. Guo, P. Israilevich, and G. Schindler, “The Hollowing Out Process in the Chicago Economy, 1975-2015,” *Geographical Analysis* 30 (1998), pp. 217-233.

in other locations and less with local establishments. This trend causes local multiplier effects to be smaller and feedback effects from other locations to be larger. For example, Hewings shows that interstate flows of commodities have grown faster than have domestic product during the 1993-2002 period<sup>2</sup>. A continuation of this trend would suggest that there will be increasing opportunities to export intermediate goods and services from metropolitan Chicago, but that it may become increasingly difficult to substitute imports of intermediate inputs. An empirical finding related to this last point is that inter-zonal trade flows of goods and services within the Chicago metropolitan area are relatively small<sup>3</sup>. Inter-zonal flows of consumer expenditures and incomes earned by commuters are far larger.

An export promotion - import substitution strategy is followed by some major metropolitan areas. This strategy usually involves selection of a “target” sector of the economy for a comprehensive economic development program. One instructive example is biotechnology in Singapore, as described by Yusuf and Nabeshima in their book *Postindustrial East Asian Cities: Innovation for Growth* (Stanford University Press, 2006). Yusuf and Nabeshima suggest that target industries should be selected on the basis of seven criteria:

- Input requirements should conform to available supplies,
- The industry should produce exportable goods or services, with substantial potential for demand growth (i.e., exports to be promoted),
- The industry should be knowledge or technology intensive,

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<sup>2</sup> G. Hewings, “On Some Conundra in Regional Science,” *Annals of Regional Science* 42 (2008), pp. 251-265. See also G. Hewings and J. Parr, “The Changing Structure of Trade and Interdependence in a Mature Economy: The U.S. Midwest,” in P. McCann, ed., *Technological Change and Mature Industrial Regions: Firms, Knowledge, and Policy* (Cheltenham, U.K.: Edward Elgar), 2008; G. Hewings and J. Parr, “Spatial

- Because of its technology intensity, the industry relies heavily on the skills of workers,
- The industry has substantial backward and forward linkages in the local economy,
- The industry has large employment potential, and
- The industry has proven business models to guide new firms and experienced firms that can serve as guides.

The biotechnology industry in Singapore meets these criteria. The local officials (the Singapore Economic Development Board) are developing an entire sector of the local economy, including biotechnology, pharmaceuticals, medical devices, health care services, and bioinformatics. Land was set aside for the sector near the National University of Singapore and its medical facilities. The idea is to promote this export sector, and to develop a cluster of related industries (i.e., import substitution, in the sense that the related industries provide intermediate inputs for other industries in the cluster). The overall plan includes efforts to attract star scientists and major pharmaceutical and biotechnology firms to Singapore, and also to market its existing health care facilities to its larger region in Asia. The strategy also includes planning for the needed workforce and supplementing private venture capital with public funds. The report “What Makes Regions Grow” provides additional discussion of alternative comprehensive economic development strategies.

This report could not have been completed without the cooperation of Professor Geoffrey Hewings and the staff of the Regional Economics Applications Laboratory

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Interdependence in a Metropolitan Setting,” *Spatial Economic Analysis* 2 (2007), pp. 7-22.

<sup>3</sup> G. Hewings and J. Parr, *op. cit.*

(REAL) at the University of Illinois at Urbana-Champaign. Professor Hewings and Dr. Donald Jones also provided valuable comments on an earlier draft of this report.

## 2. Executive Summary

The purpose of this report is to explore the possibilities for export promotion and import replacement as economic development strategies for metropolitan Chicago. The economic success of a metropolitan area depends upon the demands for its exports to purchasers outside the metropolitan area, and upon its ability to supply goods and services to its customers and to itself.

This report identifies the 13 the most important export industries in metropolitan Chicago, and then reports on simulation studies that indicate which of these industries have exports that have the greatest impact on the local Gross Regional Product at the margin. Appendix B provides details on these 13 sectors, including lists of some of the metropolitan area's leading firms in each. Six industries are identified as having the greatest local "multiplier" effect, and they are:

Chemicals and Allied Products (including Pharmaceuticals)

Industrial Machinery and Equipment

Computer and Other Electric Equipment

Wholesale Trade

Air Transportation

Finance and Insurance

It perhaps comes as no surprise that this list of industries reads like a "who's who" in the local economy. The report suggests that efforts to promote the exports of these industries might be considered.

The report then turns to the replacement of imports that are intermediate inputs into local production. The research concentrates on the 13 major export sectors, and

investigates whether local firms are failing to purchase major intermediate inputs from other local firms. The chief finding is that four of the major export industries purchase very little of the needed Professional and Management Services from local sources, and that a sizable increase in those purchases would have a large impact on the local Gross Regional Product. Other import substitution possibilities are identified as well. But a word of caution is in order. This report identified possible opportunities for import substitution, but there may be very good reasons for why those goods and services are imported; it may be very costly for them to be produced locally. Import substitution efforts have a very mixed record in less developed countries. One sensible rule is that the supplier industry must already exist and be thriving in the urban area. This report uses this rule to make suggestions for possible import substitution opportunities.

The report notes that the promotion of key export sectors will depend upon basic and advanced education and training facilities, creation of innovations, and transportation and other infrastructure. The report also suggests expansion of the Illinois Department of Commerce and Economic Opportunity International Trade Centers to include exports to domestic (inside the U.S.) customers, or the creation of a Chicago Export Bureau that might be modeled on the Chicago Convention and Tourism Bureau. Such a new Bureau might also be responsible for promoting the use of locally-supplied Professional and Management Services by local firms.