

# **Portland/Vancouver International and Domestic Trade Capacity Analysis**

## **Executive Summary**

### Introduction

The rapidly growing Asian economies will have significant impact on the demand for trade access into and out of the United States. The Portland/Vancouver region is one of four primary international trade gateways on the US West Coast (Southern California, Bay Area, Columbia River, and Puget Sound). Many of the trade facilities (marine terminals and air cargo facilities) are already operating near or at capacity. At the same time, the ability of the highway and rail system to handle the additional freight volume and the supply of industrial land to accommodate support services is strained. It is likely that there will be implications for the Portland/Vancouver region.

The region is currently beginning a large-scale planning process called the “New Look”, assessing growth patterns through 2035. They are creating a regional freight plan as a part of the overall regional transportation plan, also under development this year. To better inform Port business planning and provide input into the regional planning processes, a consortium of agencies has commissioned the study of trade patterns affecting the Portland/ Vancouver region. The information from the analyses will provide input into the planning efforts.

### Purpose

Determine the impact of increased international and domestic trade on the region’s supply of and demand for trade support infrastructure (i.e., surface transportation and industrial land). Provide regional decision makers with technical information to support decisions regarding the management of the region’s land supply and the identification transportation priorities, particularly as it relates to international and domestic trade.

### Scope

Task 1. Quantify overall growth rate for the region’s freight volumes to 2035.

Task 2. Assess global market dynamics that may affect trade volumes through Portland/Vancouver gateways.

Task 3. Identify challenges and opportunities trade volume growth presents to Portland/Vancouver region.

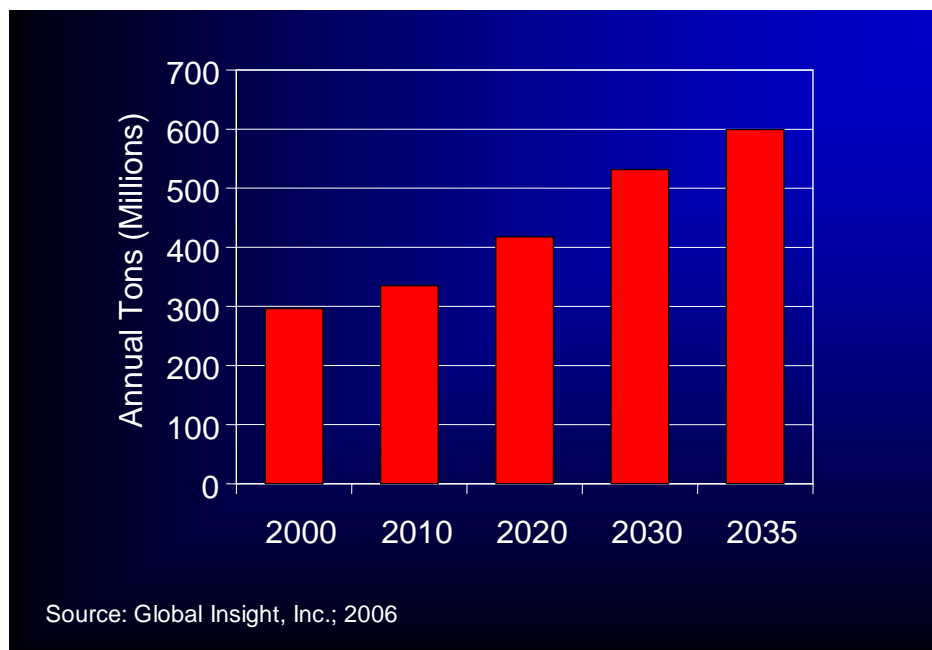
Task 4. Assess of adequacy of land supply and transportation infrastructure to meet forecasted trade volume.

Task 5. Validate results by review of national expert on trade, transportation, and related land use issues.

### Key Findings

#### *Trade Growth*

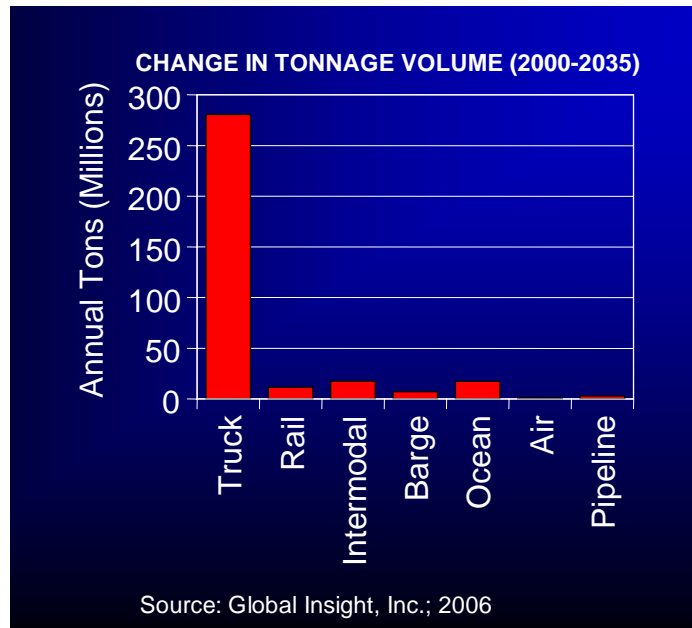
The study forecasts a doubling of trade volume by 2035 in the Portland region, consistent with the last forecast in 1997. The project growth in trade, at approximately 2% per year, is also consistent with the region's projected population growth over the same time period.



Growth is likely to alternate between periods of slow to moderate growth and rapid growth, because our relatively small market size is more impacted by external forces in the national and international economies than in larger domestic markets.

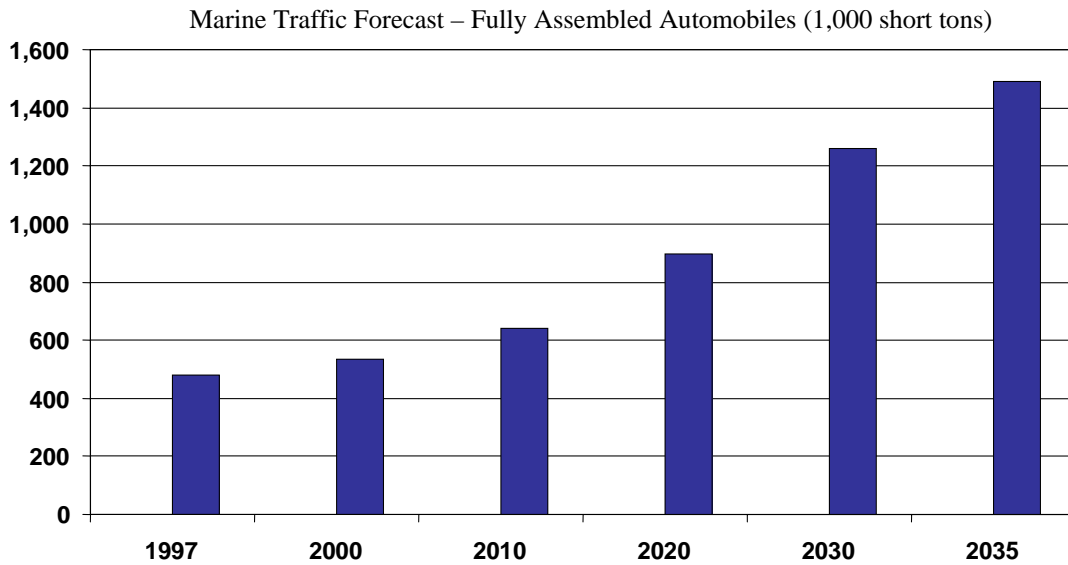
Trade growth is also influenced by a market area that extends well beyond the metropolitan region. Because Portland is at the nexus of an excellent transportation network, it serves as a gateway to domestic and international markets for businesses located throughout Oregon, Southwest Washington, Idaho and even further east. As business and population grow in the market area, trade volumes will increase, which in turn will stimulate more growth.

By mode, trucking will continue to be the dominant mode of freight transport, as shown in the table below. The dominance of trucking is related to its flexibility and integration with all other modes of freight movement. In addition, the study suggests there will be an increasing shift in the commodity mix to high value goods requiring high frequency, smaller shipments that will promote greater truck use.



### *Maritime Trade*

The current forecast projects an increase of 67% more tons of marine cargo by 2035 with substantial increases projected for autos, bulks and containerized freight. As the graph below shows, auto volumes are forecast to triple by 2035 and bulk minerals are forecast to double by 2035. Containerized freight is the wildcard in this scenario.



These opportunities are dependent, however, on the availability of adequate infrastructure, including the Columbia River navigation channel, the Columbia-Snake River barge system, the rail and road networks and the availability of marine industrial land.

The navigation channel of the Columbia River, currently being deepened to 43 feet, is predicted to be adequate to handle a substantial portion of today’s larger cargo ship fleet.

The Columbia-Snake River barge system, unique to marine trade on the US west coast, currently provides the lowest cost and most energy efficient mode to transport agricultural and other commodities from as far up-river as Lewiston, Idaho. The study warns that if barging is eliminated, the railroads may not carry displaced barge volumes, given their shift from short haul to long haul operations and increasing demands on mainline capacity.

The road system provides key access to markets for certain types of marine cargo such as containers and regional market autos. The rail system provides a key linkage to bring all types of marine cargo to and from market including containers, autos, bulks and break-bulks. Both of these systems need to be enhanced in order to meet the volumes forecast.

Marine Industrial land is a scarce commodity in the region, due to very specific location and size requirements and competition from other general industrial and non-industrial land uses. Land currently designated for marine industrial use has a long lead time to bring it into productive use due to permitting processes, making it difficult to respond to market demands in a timely fashion.

### *The Rail System*

Portland benefits from good rail service relative to other West Coast ports from two of the major Class I railroads (Union Pacific and BNSF Railways) and several short line railroads.

However, Class I railroads are facing local, regional and national capacity and congestion issues. As a result, Class I railroads are changing their business model to focus on long haul unit trains (intermodal containers and bulk commodities) to maximize revenues & minimize costs. Consequently, they have placed less focus on serving individual local boxcar (carload) shippers.

As the Class I railroads focus less on local carload business, short line railroads may be able to assume more of this important role for local shippers. However, providing national market access for carload shippers will still require system capacity and the cooperation of the Class I railroads. In addition, the short lines are likely to need additional land for new facilities in order to perform this transloading function.

### *Air Cargo*

Local and regional businesses depend on air cargo to provide national and international market access for high value and time sensitive products, such as computer components, specialized equipment and instruments, apparel and footwear and perishable foodstuffs.

While air transport may account for a relatively small share of these companies' total traffic weight, air cargo access is a critical competitive factor in driving their location and expansion decisions.

However, good air cargo service is only as good as the local road access to the airport. Efficient ground access also expands the areas where industries can locate and be close to a cargo airport and where airports can compete in the regional hinterland. Investment in the road network will be critical in maintaining access in the future.

### *Land for Logistics*

Moving from a just in-time to just-in case logistics business model suggests expansion to regional distribution hubs serving both the Portland and Seattle markets, created by a push for redundancy and flexibility to withstand shocks to the supply chain.

Logistics companies interested in regional warehouse/distribution sites primarily require access to the I-5 corridor in order to provide the flexibility described above.

In addition, each of the modes has their own specialized land need with very specific requirements related to shape, size and access to transportation facilities. Preserving land for this purpose is challenging given competition from general industrial and non-industrial (such as residential) land uses.

## *Jobs in Logistics*

Logistics provides living wage jobs and a career path for workers without a college education. Traditionally, manufacturing provided the career path for workers fitting this profile. As that sector has declined and is projected to decline relative to other sectors of the economy, the logistics sector is increasingly able to provide career opportunities for blue collar workers.

<b>Sectors with Few Training Barriers to Beginning Employment</b>	
	Mean Annual Income
Mining	\$90,491
Manufacturing	\$48,397
Logistics	\$47,411
Construction	\$42,714
Gaming	\$29,785
Retail Trade	\$28,108
Hotel/Motel	\$24,108
Agriculture	\$23,474

Blue Collar

SOURCE: Economics and Politics, 2006

