

# Commerce Quarterly Trade Bulletin

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## Exports and Jobs

With all the talk of a second “re...on” (we refrain from using that frightful word just yet), one positive trend has been exports from Washington. Despite the economic woes in Washington, exports continue to pick up. The 12-month moving sum for exports has increased now for seven straight months (Figure 1); using this measure, non-aerospace exports have grown now for twenty straight months. Unfortunately, much of this growth has not yet translated into jobs overall for the state economy, as Washington’s unemployment rate continues to remain at an uncomfortably elevated level (9.3% in August 2011). But while exports may not have translated into much new job growth just yet, this may be in part due to the drag domestic sales have had on new hiring.

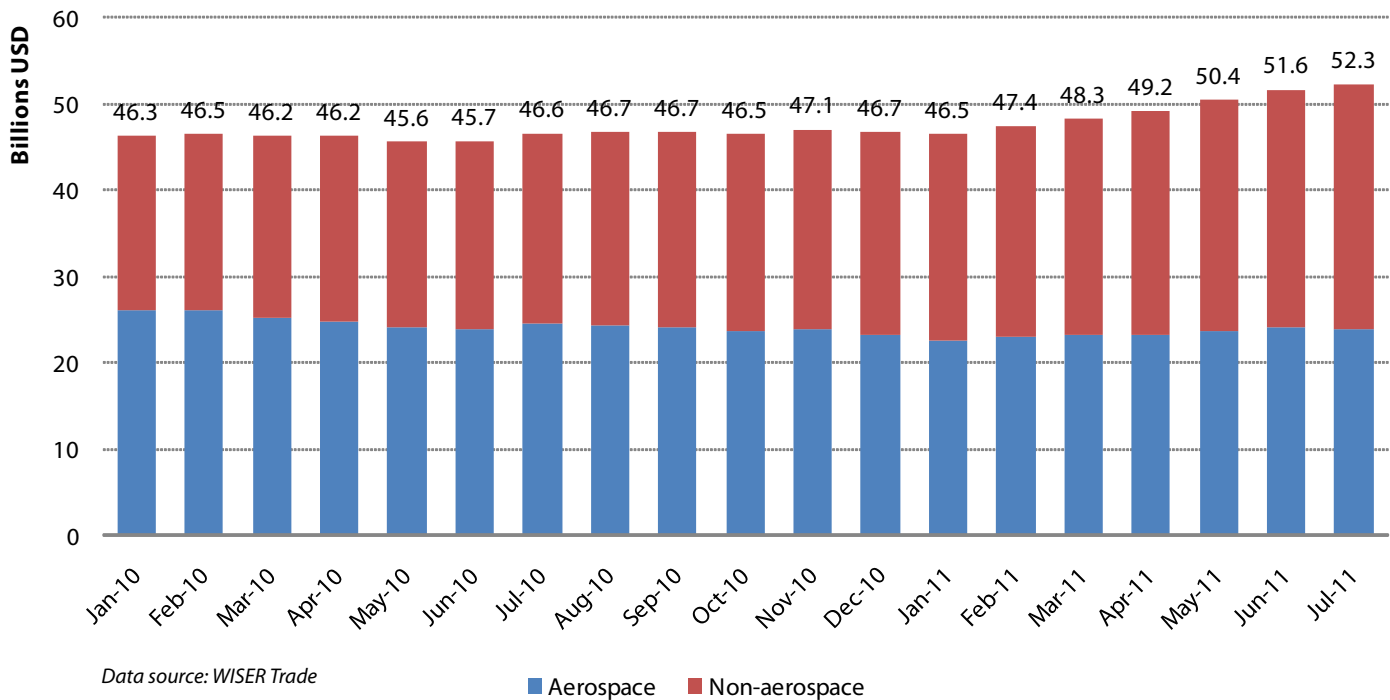
So what’s the link between exports and jobs? Based on U.S. Department of Commerce estimates, in 2010 there were 192,570 jobs directly supported by exports in Washington.<sup>1</sup> However, this amount is exclusive to goods exports (i.e. merchandise and commodities); we assume this number would be much higher if one were able to track and include jobs in services-based activities such as software, telecom, architecture, and tourism, to name a few. And it is in some of these sectors where significant job growth has occurred.

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So with all the gloom and doom over the past few years, is job growth occurring in specific sectors, and could exports play an important role? There’s no clear empirical answer. One—albeit imperfect—way to get at this question is to use the 2002 input-output model, published by the Washington State Office of Financial Management. The model estimates the dense web of inter- and intra-industry transactions that make up the state economy, including foreign exports by major industry sectors. Based on model estimates, we take sectors with at least 20% of their total output in the form of foreign exports in 2002, leaving us with ten sectors, and then calculate the compound annual growth rate (CAGR) of these sectors between 2002 and 2010. Perhaps not surprisingly, software publishing led the way. The model estimates roughly 27.6% of software publishing output in 2002 was in the form of foreign exports, and between 2002 and 2010 employment in the sector grew at a compound annual rate of 4.5% per year. Nearly 52% of crop

Figure 1. 12-month Moving Exports Total



<sup>1</sup> U.S. Department of Commerce, International Trade Administration.

<sup>2</sup> To learn more about the Washington Input-Output Model, visit: [www.ofm.wa.gov/economy/io/](http://www.ofm.wa.gov/economy/io/).

production output was in the form of foreign exports in 2002, with covered employment growing 2.3%. Between 2008 and 2010, employment among Internet service providers grew on average 4.4% per year. However, some of these heavily export-oriented sectors saw significant employment declines—see for instance forestry, which contracted 6.7% per annum, from 6,594 workers in 2002 to just 3,791 in 2010. Combing all ten sectors, aggregate job growth was 1.1% per year (CAGR) between '02 and '10, while the rest of the economy grew 0.7% per year. Between 2008 and 2010, employment in this “export-oriented” grouping contracted 1.8%, compared with a 2.5% per annum decline among all the rest.

Another (again highly imperfect) approach employs a statistical technique called a “location quotient.” The technique measures how labor-concentrated Washington industries are relative to the U.S. average. For instance, a location quotient of roughly 9.0 for software publishing in Washington indicates that the share of Washington’s employment in software publishing (e.g. Microsoft) is nine times the average share for total U.S. employment. Conversely, industries with location quotients below 1.0 are less concentrated than the U.S. average. We then make a “strong” assumption—that industries with high location quotients must “export” some amount of surplus economic output to other regions. We don’t know how much of this presumed “exporting” goes abroad versus to other states, but among these more concentrated sectors (those with a location quotient of 1.25 or above), employment has actually grown over the past two years, adding more than 43,000 jobs, compared with a net loss of more than 186,000 jobs from the remainder of the economy. On average, where Washington has a significant, relative concentration of economic activity, employment has been on the uptick. Importantly, some of these industries are of the knowledge-based variety, leveraging advanced skill

sets and education levels. For instance, the information and communication technology (ICT) sector displayed a location quotient of 1.6 in 2010, and a compound annual growth rate of 1.7% between 2002 and 2010. Employment in biotechnology R&D grew 14.3% between 2007 and 2010, while electro-medical and electrotherapeutic apparatus manufacturers (a category that includes many medical device exports) added jobs at a rate of 2.8% per between 2002 and 2010.

### Net Jobs Impact

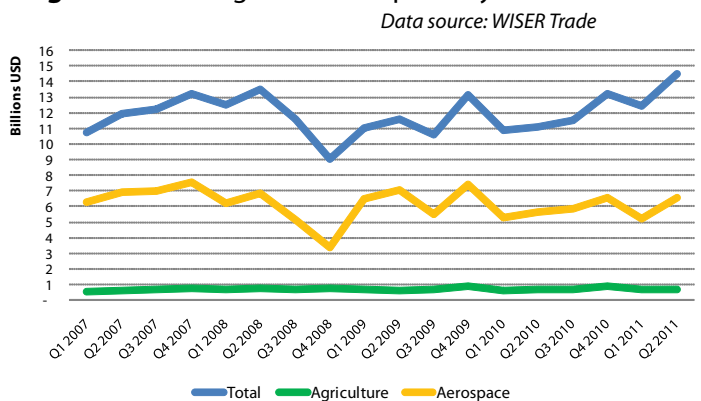
Another approach requires more steps, but provides some estimates as to the net jobs impact of exports on the state economy. Again based on the 2002 input-output model, Washington exported \$16.9 billion in services. Unfortunately, there is no updated estimate for Washington, so we make two rough calculations of services exports for 2010. In the first, we use a baseline of U.S. services growth between 2002 and 2010, and apply that growth rate to Washington’s 2002 number for 2010. In this case, the overall increase was 93.6%. Using this rate, we get an estimate for Washington of \$32.6 billion (no adjustment for inflation and exchange rates). We call this a benchmark estimate because we think Washington’s services exports probably grew faster than the U.S. over this period. Next, we apply the same breakdown of exports by service sector to this value, and use the state input-output model to estimate the net impact. Our finding is that services exports in 2010, based on this growth rate, had a net impact of nearly 402,000 jobs.<sup>3</sup> Adding in the exports from goods sectors, and the total net impact was 796,896 jobs. If we assume Washington’s services exports grew at the same rate as Washington’s goods exports (excluding aerospace) over the 2002 to 2010 period, the estimated net job impact would be 851,338 jobs. The next input-output model, for year 2007, will be released in 2012 .

## Trends through Q2 2011 and July Year-to-Date

Overall, exports increased 22.3% in the first half (H1) of 2011 over the same period in 2010. Among the state’s ten largest exports by dollar value in H1, the biggest jumps were in wheat and meslin (190.9% growth year-over-year), followed by mineral fuels and oil (84.4%) and wood and articles of wood (57.8%). Non-agriculture, non-aerospace exports (NANA) similarly surged 31.7% year-over-year in H1, with the largest contributions to growth coming from minerals fuel and oil (28.3% of all gross year-over-year increases in exports), wood products (11.6%), and industrial machinery, including computers (10.3%). The largest drags on growth came from international sales of pharmaceuticals (59.3% of all gross export declines) and toys, games, and sport equipment (a 20.3% drag on growth). As an

additional boost, Q2 2011 proved to be the highest (nominal) level of NANA sales on record, reaching nearly \$5.7 billion between April and June; this is a 75.8% increase in NANA exports over the recent nadir from Q1 2009, when sales fell to \$3.2 billion (**Figure 2**).

**Figure 2.** Washington State Exports by Quarter



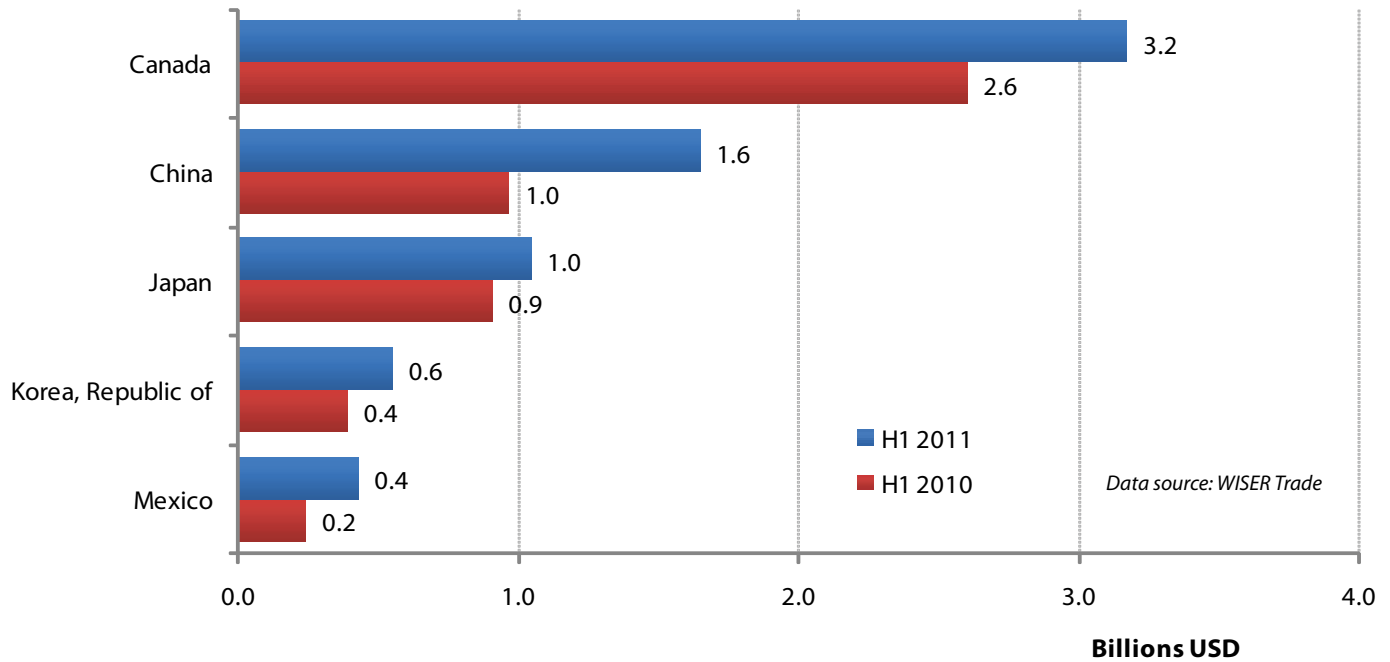
<sup>3</sup> Net impact in I/O model analysis refers to direct jobs (new jobs created through an increase in demand for goods or services in a sector), indirect jobs (those created through the purchases of goods and services from suppliers and resulting in new hires), and induced (additional jobs created by the increase in spending by new hires on other goods and services in the economy).

Through July 2011 year-to-date (YTD), China has been Washington's largest market, with nearly \$5.7 billion in export sales. This was followed by Canada (\$4.9 billion), Japan (\$3.7 billion), and South Korea (\$2.1 billion). By product-market, the largest non-aerospace exports through the first seven months of 2011 were of non-crude oil to Canada (\$1.1 billion), followed by wheat exports to Japan (\$500.0 million), sales of wood in the rough to China, radioactive chemicals and isotopes to Japan (\$239.3 million), and ferrous waste and scrap metal to China (\$214.0 million). In terms of NANA exports, Canada was by far

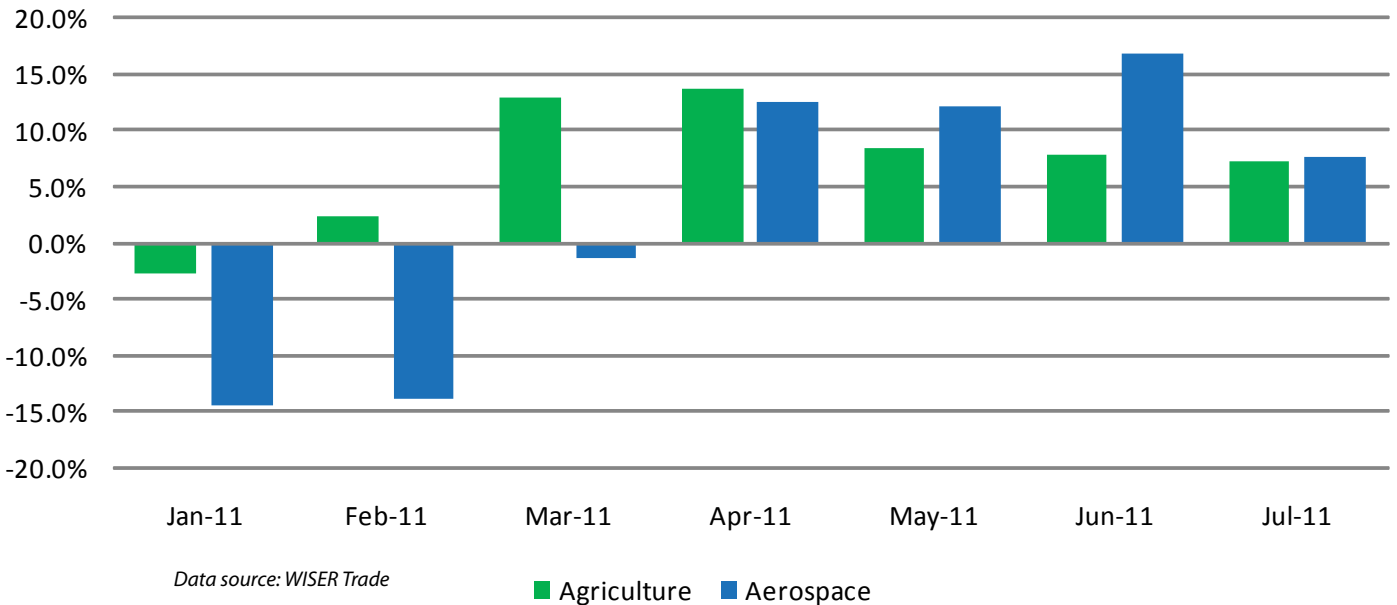
the state's largest market through the first half of 2011, with \$3.2 billion in sales (a 21.9% increase over H1 2010), followed by China at \$1.7 billion (Figure 3).

Agriculture exports have sustained monthly year-over-year increases since February 2011 (Figure 4), and July YTD exports were 50.1% above July 2010 YTD. Top markets through July 2011 were: 1) Japan (\$1.2 billion; year-to-date increase of 47.3%); 2) Canada (\$790.4 million; 23.6%); 3) Philippines (\$280.0 million; 86.7%); 4) Indonesia (\$273.8 million; 148.8%); and Taiwan (\$231.6 million; 33.7%).

**Figure 3.** Washington's Top Non-aerospace, Non-agriculture Exports, through the First Half of 2011



**Figure 4.** Year-over-year Change in Three-month Exports Total, by Month



# China's Currency and U.S. Congressional Action: Summarizing the Issue

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As the U.S. economy continues its lethargic pace of recovery, frustration at China's international trade infringements is reaching a very real and palatable boiling point. The immediate issue at hand is currency intervention, though threatened actions by Congress reflect much larger frustrations at a whole array of trade agreement infractions—these include nearly 200 subsidy programs that China failed to notify as required under WTO rules, and broader policies like efforts to enact “Indigenous Innovation” that force foreign companies in key sectors to share, and effectively transfer, important technology and IP to Chinese counterparts in order to do business there.

On October 11, 2011, the Senate approved a bill designed to impose duties on goods from countries that manipulate their currency for trade advantage. The bill is aimed squarely at China's currency practices. While in the past the bill was seen as more of threat, today reputable economists representing a broad ideological spectrum are calling for the bill's passage. Even U.S. Federal Chairman Bernanke criticized China this week, stating that “right now, our concern is that the Chinese currency policy is blocking what might be a more normal recovery process in the global economy.”

There's little doubt that China has been heavily intervening in foreign exchange markets to artificially depress the value of the RMB—its vast and growing accumulations of U.S. dollars and dollar-denominated assets clearly evidence this behavior (if China was not intervening, strong demand for Chinese RMB to purchase Chinese goods should push the value of the RMB upward, and thus a decline in the rate of dollar accumulation). By intervening to suppress RMB appreciation, China is effectively importing demand (and the obverse, exporting capital), just at the time when the U.S. and Europe need desperately to be importing this demand to support their own fragile economic recoveries.

Economists say that although China has slowly allowed the value of its currency rise in recent years, the RMB is still undervalued by anywhere from 15 percent to 38.5 percent and that this trade advantage has led to the loss of a large number of American jobs. These job losses are a result not just from increased Chinese imports into the United States but also fewer U.S. exports as China is able to undercut U.S. prices in other countries. Moreover, China's actions have prompted other trade partners to intervene in their currencies in response, further cutting into U.S. exports.

## ***Adjustment in China's interests, too ...***

The status quo is not in the long-term interests of Chinese policymakers, who face the difficult challenge of maintaining super-charged economic growth to prevent a politically and socially destabilizing rise in unemployment. China's economy is

currently dominated by exports and investment, and its exports depend heavily on a favorable exchange rate, particularly with inflation eroding China's other comparative advantages. At some point, China will need to undergo an “adjustment” in the structure of its economy to depend more on household consumption, which 2010 figures now show dipped to a historic low of 33.8% of GDP. A pegged exchange rate significantly limits domestic monetary policy and creates upward pressure on inflation, the latter a major concern for Chinese policymakers. But for China to shift more toward a consumption-driven economy, many things need to occur. In addition to the exchange rate, wages need to increase faster than GDP, which is beginning to occur as surplus rural labor is being exhausted. Significant financial reform needs to occur, with a loosening of controls on alternative assets households can invest in (i.e. end of financial repression). Right now, households are given limited options for storing wealth—either park their savings in negative real interest rate deposits, purchase stock in non-transparent and highly volatile domestic stock markets, or...buy real estate. The financial sector is largely at the service of the state enterprise sector, channeling household savings to enterprise borrowers at artificially low lending rates (and many of these loans are simply to roll over existing debt).

From China's short-term perspective, making this adjustment will mean job losses—the depressed exchange rate functions as a subsidy for Chinese manufacturers, in many cases the difference between the red and black (though Timothy Geithner and others have argued this would be cushioned by lower import costs and cooling inflation, both of which can alleviate wage pressure). Likewise, the broader issue of growing domestic consumption will mean liberalizing interest rates (currently set administratively by the central bank). For many—often wealth-destroying—domestic firms, this effective interest rate subsidy keeps these firms afloat, and forces households to foot the bill. In addition, the lack of a social safety net and population aging have negative effects on consumption, especially as the number of income-generating citizens declines.

The question of “adjustment” is therefore not when, but how. Will China voluntarily initiate this move, as it did on currency—tepidly—from 2005 to the onset of the financial crisis in 2008, and then again briefly in 2011? Or will punitive measures by the U.S. and other trading partners bring about this change? The latter scenario will be more abrupt, and likely instigate retaliatory measures by the Chinese government. But concerns about a “trade war” are perhaps misguided—we may be already there.

To help illustrate how difficult this adjustment will be, consider an average Chinese GDP growth rate of 8% per year between now and 2025. In order for consumption to reach

50% of GDP (still remarkably low), it will need to grow 10.9% per year, nearly 3 percentage points faster than GDP (and since 2001, consumption has grown slower than GDP every year). Consumption can grow at a slower clip, but that'll mean much slower GDP growth—it can reach 50% of GDP with growth of 6.8% per year if GDP grows 4.0% per year for 15 years, something currently unthinkable among Chinese policymakers. The adjustment is even more severe if we compress this to ten years. The basic message is ... adjusting won't be easy.

### **Congressional Action**

The senate bill would sanction China (and other countries) for manipulating the value of their currency. Ultimately, the implementation of the bill could lead to the unilateral imposition of retaliatory tariffs on goods from countries found to be artificially suppressing the value of its currency in order to gain an unfair trade advantage. Although the House version of the bill has over 225 co-sponsors, more than enough to pass the bill, it is still uncertain whether it will be approved by that body as the Republican leadership has indicated their opposition to the bill. In addition, the Obama Administration has voiced concerns and many major business groups have also come out against the bill arguing that it is a blunt instrument to counter China's policies, warning that Beijing is certain to retaliate against U.S. commercial interests.

Despite some obstacles to approval of the legislation there is growing political pressure to take action against China over the failure of negotiations to deliver a significant appreciation of the RMB. In addition, the bill reflects not just the concern about the valuation of the RMB, but also growing frustration with China's rampant violation of WTO rules, including massive theft of intellectual property, protectionist product standards, measures to pressure foreign companies to transfer more of their intellectual to China, and massive subsidies to domestic industries.

Through July 2011, the U.S. trade deficit stood at \$428 billion, an increase from \$367 billion over the same period last year. China accounts for about 37 percent of the 2011 total.

So what does this mean for Washington? While China is one of the state's top export markets, it's unclear of yet how such actions, if put into law, might affect sales. While an appreciation of the RMB should positively affect exports, there's no telling how events might unfold—retaliatory actions by China could hurt many exporters from Washington, big and small. In addition, inputs sourced from China would raise costs for Washington businesses and consumers. On the plus side, an appreciation of the RMB could alleviate pressure on other major trading partners to intervene in currency markets, so there are potential ripple effects.

## **Market Focus: Malaysia**

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In 2010, Malaysia was the nineteenth largest goods export market for the United States, outranking Indonesia, Thailand and Vietnam. In 2010, U.S. States exported \$14.1 billion in goods to Malaysia, up 35.3% from 2009. The top U.S. products sent to Malaysia in 2010 were electrical machinery (\$7.1 billion), industrial machinery (\$1.7 billion), aircraft (\$903 million), and optic and medical instruments (\$676 million). In the services sector, U.S. exports of private commercial services (excluding military and government) were \$1.7 billion in 2009.<sup>4</sup> Although 1.5% less than in 2008, this still represents a 95% increase over 1994 levels. The Malaysian market for U.S. agricultural goods was over \$672 million in 2010, with dairy (\$92.5 million), fruit & nuts (\$87.5 million), and seafood (\$3.5 million) being important categories. The United States is the largest foreign investor in Malaysia on a cumulative basis, and was the largest source of new foreign direct investment in Malaysia in 2010. According to Malaysian data, U.S. direct investment in the manufacturing sector in Malaysia as of year-end 2009 was \$15.1 billion, with billions of dollars in additional investment in the oil and gas and financial services sectors of the economy.



### **International Trade Agreements**

Malaysia is party to the Trans-Pacific Partnership Agreement, an Asia-Pacific regional trade agreement, currently being negotiation among the United States, Malaysia, and seven other Pacific-rim partners (Australia, Brunei, Chile, New Zealand, Peru, Singapore, and Vietnam). Countries in the Asia-Pacific region contain 40% of the global population, and these economies are growing faster than average. This region is the largest world market for U.S. exports, receiving two-thirds of U.S. agricultural exports. Of Washington State's total goods exports in 2009, \$33.0 billion, or 64 %, went to markets in the Asia-Pacific region.<sup>5</sup>

### **Washington Trade with Malaysia**

Washington exports more goods to Malaysia than all but three other U.S. States: Oregon, California, and Texas. In 2010, Washington companies exported \$935.2 million goods to Malaysia, a 169.3% increase over 2009. While much of this was in the form of aircraft, notable exports also included iron and steel (\$93.8 million, a 972.1% increase), glass and glassware (\$62.4 million, 31.9%), electrical machinery, sound equipment, and TV

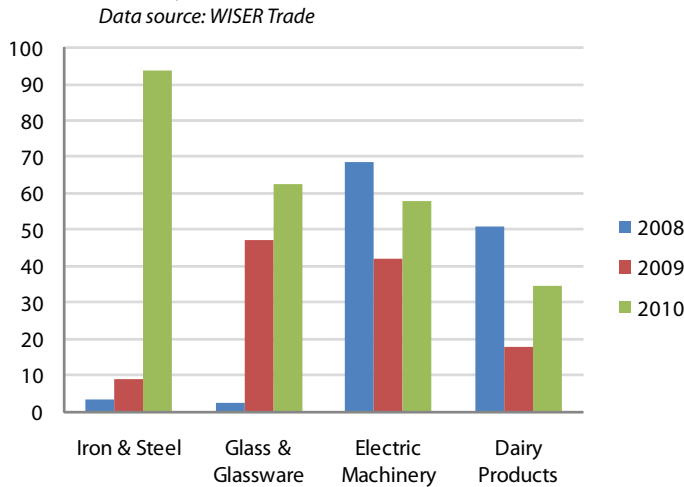
<sup>4</sup> U.S. Trade Representative, "Malaysia,"

<http://www.ustr.gov/countries-regions/southeast-asia-pacific/malaysia>.

<sup>5</sup> U.S. Department of Commerce, "Benefits from the Trans-Pacific Partnership Free Trade Agreement: Washington," May 2010, <http://www.ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/state-benefits-tpp>.

equipment and parts (\$58.0 million, 38.1%), and dairy products (\$34.6 million, 95.6%). See **Figure 5**.

**Figure 5. Washington's Top Non-Aerospace Exports to Malaysia, millions USD**



Although behind more familiar markets such as Japan, Mexico, and the United Kingdom, Malaysia is still Washington's sixteenth largest export market and shows growing opportunities for trade. U.S. exports to the country are up 9.05%, and Washington exports are up slightly so far in 2011. Indeed, following a low-point in 2008, Washington exports to Malaysia are now at their highest level since 1998. Non-aerospace, non-agricultural products (NANA) are up over 12.41% so far in 2011,<sup>6</sup>

an encouraging trend considering that NANA exports from Washington to Malaysia in 2010 were greater than at any time over the past 15 years (**Figure 6**).

Washington agricultural exports to Malaysia suffered a 41.7% decline in 2009, but rebounded 56.2% in 2010 (or 14.5% over 2009 levels). Through July of 2011, Washington agricultural exports are up 78.5% over July 2010. Strong agricultural figures in 2011 have been led by an over 369% increase in wheat and meslin exports to Malaysia.

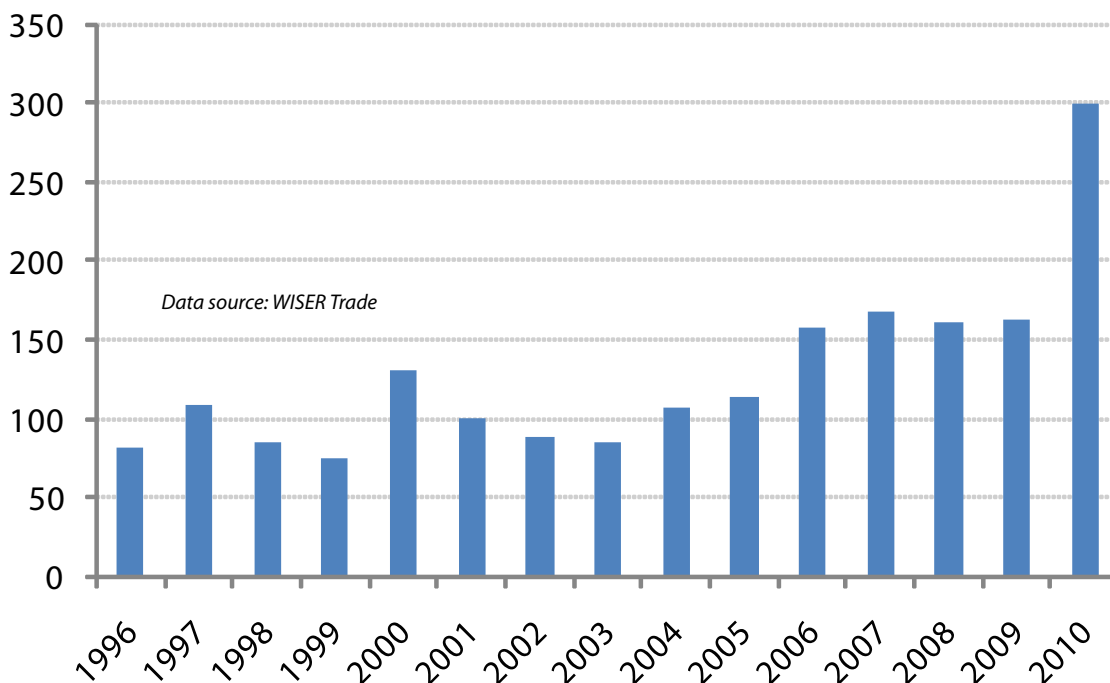
### Malaysian Trade & Economy

The Economist Intelligence Unit (EIU) is relatively optimistic on Malaysia's growth through 2016, projecting real GDP growth to average 5.5% per year. Inflation is expected to average about 3.5% per year, up from an average of 2.6% between 2007 and 2011. Following an annual year-over-year contraction of 1.6% in 2009, real GDP bounced back to 7.2% in 2010. The International Monetary Fund (IMF) forecasts 2011 real GDP growth of 5.2% and between 5.0% and 5.1% between 2012 and 2016. Investment constituted 21.4% of GDP in 2010, and is expected to hold at that level for the foreseeable future, with savings ranging between 31% and 33% of GDP between 2011 and 2016.<sup>7</sup>

### Rankings

In comparison to other countries in the region, the World Bank ranks Malaysia fourth in ease of doing business out of 24 countries in the East Asia & Pacific region, after Singapore, Hong Kong, and Thailand; and ahead of Vietnam and China.<sup>8</sup> Malaysia

**Figure 6. Washington Exports to Malaysia, by Year, Millions USD**



<sup>6</sup>Washington exports to Malaysia (corrected for pass-throughs) were up 1.32% between July 2010 YTD and July 2011 YTD.

<sup>7</sup>International Monetary Fund (IMF), World Economic Outlook Database, September 2011.

<sup>8</sup>World Bank, "Doing Business 2011: Measuring Business Regulations," <http://www.doingbusiness.org/rankings>.

ranks 56 out of the 178 countries participating in Transparency International's Corruption Perception Index (CPI), with a score of 4.4 (roughly in the middle of the scale). Malaysia ranks favorably compared with neighboring Indonesia (2.8), and again out ranks both Vietnam (2.7) and China (3.5).<sup>9</sup>

### **Ethnicities**

Malaysia's ethnic makeup is: Malay 50.4%, Chinese 23.7%, Indigenous 11.0%, and Indian 7.1%, with the majority religion

being Islam (60.4%).<sup>10</sup> Since 1971, official preferences have been given to Bumiputras (ethnic Malays and indigenous peoples) by requiring 30% Bumiputra ownership in new businesses. However, Prime Minister Najib's New Economic Model reform program includes proposals to relax ethnic preferences policies and extend tax incentives to attract foreign investment.

## How Washington State Can Help You Export

The Washington State Department of Commerce provides free export assistance for Washington State companies, including client searches, export leads, and consultation on a variety of export-related issues. For export-related inquiries, please contact Mark Calhoon, Senior Managing Director for International Trade, [mark.calhoon@commerce.wa.gov](mailto:mark.calhoon@commerce.wa.gov).

**Note: This is Spencer Cohen's last trade bulletin—he will be joining the Washington Economic Development Commission as their senior policy advisor. Beginning October 17, Spencer can be reached at [spencer.cohen@wedc.wa.gov](mailto:spencer.cohen@wedc.wa.gov).**

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**Department of Commerce**  
Innovation is in our nature.

<sup>9</sup>Transparency International, "Corruption Perception Index 2010 Results," [http://transparency.org/policy\\_research/surveys\\_indices/cpi/2010/results](http://transparency.org/policy_research/surveys_indices/cpi/2010/results).

<sup>10</sup>CIA World Factbook, "East & Southeast Asia: Malaysia," updated September 27, 2011.