CASCADIA INNOVATION CORRIDOR



OCTOBER 2018

WEST COAST WONDERS: B.C. & WASHINGTON CROSS BORDER SYNERGIES AND CONNECTIONS

Canada and the United States have long been close trading partners. Notwithstanding the ascent of China to become the largest supplier of imports into the US, the twoway trading relationship between Canada and the U.S. remains the largest in the world. At the subnational level, strong trade linkages between B.C. and Washington reinforce this longstanding relationship. In addition to the high level of trade, the two jurisdictions share many similarities. Both have strong connections to international markets and both are more aligned towards Asia than other provincial and state economies. Both have substantial forest products sectors and expanding agricultural sectors. Similar geography and climate mean both have abundant hydro electric resources. Both regions have large urban centres where much of the state/provincial population resides. In both cases, these cities have built up around international ports that serve as gateways connecting North America to overseas markets. Both regions also have dynamic technology sectors and substantial biotech sectors. Natural beauty and an abundance of outdoor recreation activities and options are assets that make both regions attractive tourism destinations.

B.C. AND WASHINGTON: CONNECTED

British Columbia and Washington state are connected by 13 ports of entry dotted along the B.C.-Washington border. Four of these land crossings are part of the Cascadia corridor, which is built around the Interstate-5 network directly connecting Vancouver and the surrounding lower mainland region with Whatcom County and the greater Seattle region further south. While outside of the "Cascadia corridor", three ferry routes facilitate the movement of people and goods between B.C. (in particular, Vancouver Island), and Washington. Energy features prominently in the B.C.-Washington trade mosaic, with pipelines carrying both crude oil and natural gas across the border. Electrical transmission lines also connect the two jurisdictions, permitting electricity to flow across the border. Further enhancing transportation connections, a floatplane route from downtown Vancouver to downtown Seattle was recently established to service the growing number of business travellers. The flow of goods through the corridor and across the border is facilitated by a cluster of customs brokers and other border services at and around key border crossings.

The Corridor plays a dominant role in the movement of goods and people between the two jurisdictions. The vast majority of goods shipped by truck across the border move through the Corridor. Fully 90% of all northbound truck crossings are destined for the lower mainland. Going south, nearly 60% of all trucks crossing into Washington are destined for Whatcom County or the Puget Sound region. The four border crossings in the Corridor also handle more than 80% of all vehicle crossings between B.C. and Washington. The fact that the Peace Arch border crossing is the busiest of any along the Canada-US border speaks to strong crossborder linkages and connections. Shopping is a primary reason for British Columbians to head south, but the high volume of two-way flow also reflects tourism and recreation activity as well as business trips and the movement of people in companies with operations on both sides of the border.

B.C. AND WASHINGTON: GROWTH LEADERS

As adjacent jurisdictions, B.C. and Washington are endowed with many similar attributes. So, it is perhaps not surprising both jurisdictions have enjoyed strong economic

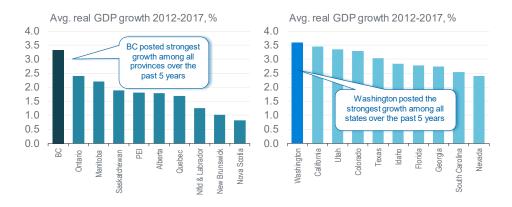
growth. Both have benefited from the upswing in global growth, the rise of China and Asia more broadly, increased trade flows, healthy levels of in-migration, and strong growth in residential housing activity. Robust growth in the respective technology sectors, transportation and logistics, film and television have helped underpin high levels of consumer spending and some of the strongest job growth numbers in North America.

In 2017, Washington's economy grew by 4.4%, which was the strongest expansion of any state in the union. It was a repeat performance, as Washington also topped the growth charts in 2016 with a 3.9% expansion in real GDP. North of the border, B.C. has also had the healthiest economy in the country. Last year, B.C.'s economy grew by a robust 3.9%. Although this was second to Alberta's 4.9% expansion, B.C. led all provinces in the two prior years. Moreover, Alberta's most recent growth performance is flattered by the fact it was emerging from a deep two-year recession following the 2015 oil price collapse.

A somewhat longer-term viewpoint underscores the remarkable economic growth performance in the Cascadia Corridor and surrounding provincial/state regions:

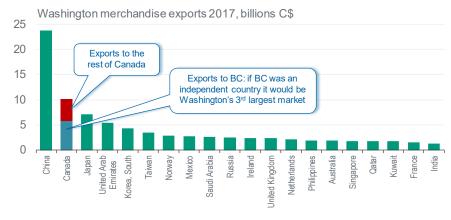
- Over the past five years, B.C. posted the strongest economic growth of any province in Canada;
- •Similarly, Washington also holds top spot in the state growth rankings over the same period;
- •Among all 60 jurisdictions (50 states and 10 provinces) the top three fastest growing economies over the past five years are Washington, California, and B.C.

FIGURE 1: B.C. & WASHINGTON TOP THE ECONOMIC GROWTH CHARTS



Sources: Statistics Canada, Table 36-10-0401-01 and BEA, Regional GDP & Personal Income.

FIGURE 2: WASHINGTON STATE'S TOP 20 INTERNATIONAL EXPORT MARKETS



Source: U.S. Trade data online.

STRONG EXPORT ORIENTATION

With respect to international exports and linkages to international markets, Washington is more like B.C. than most of its state counterparts. In contrast to most other states, a substantial amount of economic activity and prosperity in Washington flows from international exports. In 2017, the value of Washington's merchandise exports amounted to nearly 16% of GDP. The comparable

ratio of exports-to-nominal GDP averaged across all U.S. states is just 6.7%. Only Louisiana, at 19%, has a larger "international export footprint" than Washington. Much of this high export-orientation reflects the high value of exports from the state's large aerospace sector and trade with China, but it also embodies its substantial trade volumes with B.C.

In Canada, where the domestic market is one-tenth that of the U.S., international exports play a larger role in the provincial economies than they do in most states. While B.C. is somewhat less oriented to international markets than most other provinces, exports still play a foundational role in the provincial economy. As with Washington, B.C.'s international exports amount to approximately 16% of GDP.

Both B.C. and Washington are unique within their respective countries in their orientation to Asia. Washington state's largest export market is China, followed by Canada and Japan. In most other states, Canada is the largest export market. China is B.C.'s second largest export market, followed by Japan.

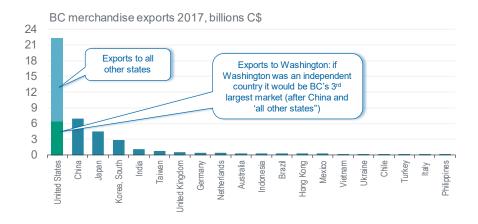
THE SIZE OF THE B.C.-WASHINGTON TRADING RELATIONSHIP

At the subnational level, the trading relationship between Washington and B.C. is fundamental to the prosperity of each jurisdiction. To provide further high-level context on the size and importance of cross-border trading relationship, the figure below shows Washington state's top 20 international export markets in 2017. Some of the notable features of Washington's exports are:

- •China is the state's largest export market, by a significant margin;
- Canada occupies second spot and Japan third;
- •Washington exports more to B.C. than it does to all other provinces combined;
- •If B.C. is treated as an independent country, it is Washington's third largest export market, after China and Japan.

The figure below presents the same

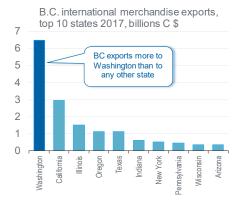
FIGURE 3: B.C.'S TOP 20 INTERNATIONAL EXPORT MARKETS

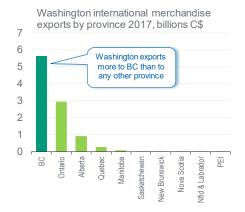


Sources: Trade data online.

FIGURE 4: B.C. & WASHINGTON:

LARGEST CROSS BORDER EXPORT MAREKTS, RESPECTIVELY





Source: Trade data online.

information for B.C.'s international merchandise exports. Perhaps the most notable characteristic is the dominance of the U.S. market. The figure, however, also shows the important and over-weight role Washington state plays in B.C.'s export profile:

•In 2017, B.C.'s merchandise exports to Washington totalled nearly \$6.5

billion, which amounts to fully 30% of all U.S. bound exports;

- •Exports to Washington were nearly equal to the value of exports to all of China;
- •If Washington is treated as a country, it represents B.C.'s third largest international export market (after China and "the rest of the U.S.).

A CLOSER EXAMINATION OF CROSS-BORDER TRADE FLOWS

The figures below provide additional detail on exports and imports among the provinces and states. They essentially confirm the importance of B.C.-Washington cross border trade noted above but provide additional context on the magnitude and economic significance of the flow of goods through the Cascadia Corridor.

In a North American context, some of the more notable features of export flows include:

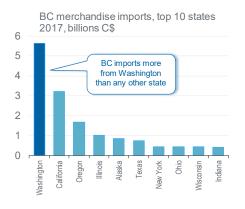
- •Washington state's exports to B.C. are nearly twice what it exports to Ontario; geography clearly plays a critical role but considering Ontario's economy is three times the size of B.C.'s, the degree to which Washington's exports are tilted towards B.C. is noteworthy.
- •Exports to Alberta (which is in much closer proximity to Washington than Ontario) are roughly one-sixth the value of exports to B.C.

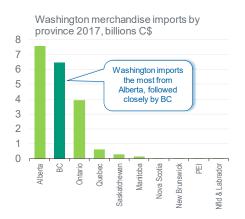
The picture is similar for goods flowing south.

•B.C.'s \$6.5 billion in exports to Washington are more than twice what the province exports to California. Again, geography is an important factor in the distribution of exports across the states, but considering California's population (almost 40 million) is more than five times larger than Washington's (7.4 million) policy makers should pay attention to the importance of trade between these contiguous crossborder jurisdictions.

Looking at the import side of the trading relationship, it is not surprising that B.C. purchases more

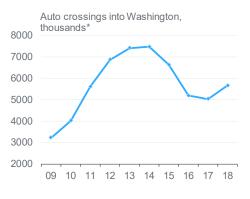
FIGURE 5: B.C. & WASHINGTON ARE ALSO A LEADING SOURCE
OF IMPORTS FOR EACH JURISDICTION

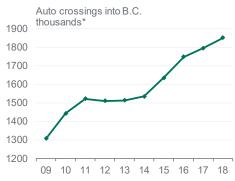




Sources: Trade data online.

FIGURE 6: BORDER CROSSINGS: CURRENCY LIFTING U.S. VISITS TO B.C.





Source: Statistics Canada.

*12-month totals ending in June

from Washington than any other state.

•Mirroring exports, the value of all imports from Washington into B.C. is almost twice what B.C. imports from California, the second largest source state.

The ranking of source jurisdictions is somewhat different for Washington.

 Alberta is the largest provincial supplier of imports into the state, reflecting the high value and volume of crude oil imports; •B.C., however, ranks as a close second as a source of Washington's imports.

TRADE IN SERVICES IMPORTANT (BUT DIFFICULT TO QUANTIFY)

Cross border trade in services also generates a substantial amount of economic activity and prosperity within the Cascadia Corridor, as well as the broader regional economies. The value of international services

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transactions, however, is not well tracked. Unlike merchandise, which can be counted as it crosses the border, services are more nebulous. They may flow across the border in electronic form. In the case of transportation, they are "bundled" with the movement of goods. Tourism and recreation activities are generally purchased by individuals, making them difficult for statistical agencies to track. At the subnational level data on service exports and imports are especially limited.

In the U.S., international trade in services amounts to approximately 30% of merchandise exports and 17% of merchandise imports. In the B.C.-Washington trade relationship, however, trade in services is likely much more substantial because of geographic proximity, substantial amounts of tourism activity, entertainment travel and shopping. The high volume of merchandise trade between B.C. and Washington also points to more cross-border trade in services than the national benchmark because of the transportation and logistics services associated with shipping goods (trucking, shipping, railways, warehousing, pipelines, customs brokers, financial services and so on).

One of the most familiar categories of services trade is tourism. Canadian residents frequently vacation in Washington. Short-term trips are also popular for shopping, recreation and entertainment. These activities involve purchasing services from businesses in Washington. Many British Columbians also make travel connections in Washington. Estimates suggest that in some years, depending in part on the exchange rate, approximately half of all

passengers at Bellingham airport are Canadians.

At the same time, Washington residents frequently vacation in B.C., with locations such as Victoria and Whistler being prominent destinations. The depreciation of the Canadian dollar has helped lift tourism activity in British Columbia. The number of automobile crossings into B.C. has increased from around 1.5 million annually to nearly 1.9 million more recently.

The flow of B.C. residents across the border is much larger. In the most recent 12-month period nearly 6 million automobiles crossed from B.C. into Washington.

FINAL THOUGHTS

The economies of B.C. and Washington State share many characteristics, are integrated, and benefit from robust trading activity. The Cascadia Corridor is the backbone of these linkages and represents a solid foundation to expand and further build mutually beneficial connections. A quick overview of merchandise trade makes it clear that both jurisdictions are significant trading partners to the other. Although data are more elusive, trade in services also helps underpin the region's prosperity. Tourism and transportation are leading examples, but professional services, legal services, business services, communications, and technology services flow in growing volumes across the Canada-US border. The relatively close proximity of Vancouver to Seattle also works to enhance and support crossjurisdictional research, inter-company exchanges, and broadens the

potential pool of human capital for businesses operating on both sides of the border.

Notes: The trade and export data in this short briefing come from U.S. and Canadian online trade databases. The GDP growth data are from Statistics Canada and the US Bureau of Economic Analysis.

Much of the material and background information in this document is drawn from: Paul Storer, David
L. Davidson and Laurie Trautman,
"Washington State's Economy in
Relation to Canada and the Border"
(2015), which provides a more comprehensive overview of B.C.Washington linkages and related cross-border activity.



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