

Port of Portland Auto Cargo Imports & Exports Estimates, 2025-2045

Presentation for PNREC 2025 Conference

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Planning and Development

Port of Portland

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Background

Tioga and Hackett Associates were tasked with providing long-term forecasts of Terminal 6 auto import, export volumes, and ro-ro vessel calls from 2025-2045.

- The forecast will support internal planning, marketing, and competitive grant applications for ro-ro facility improvements.
- 2025 PIDP grant application for berth improvements makes vessel calls relevant
- The forecast was undertaken amid high economic uncertainty, inflation, and changing import tariffs affecting the auto outlook.

Approach

Three auto trade forecast scenarios developed: Baseline, High Growth, and Low Growth:

- Baseline forecast includes population and vehicle sales demand growth, non-auto tariff impacts, and expected near-term economic downturn.
- High Growth forecast reflects favorable events such as increased in-migration lower tariffs, and previously expected export growth.
- Low Growth forecast incorporates general tariffs, economic downturn, and auto-specific tariffs.

Analysis includes Oregon and hinterland population growth, industry announcements, tenant perspectives, and vessel orderbook analysis.

Portland Ro-Ro Terminals

The Port of Portland has two ro-ro terminal complexes:

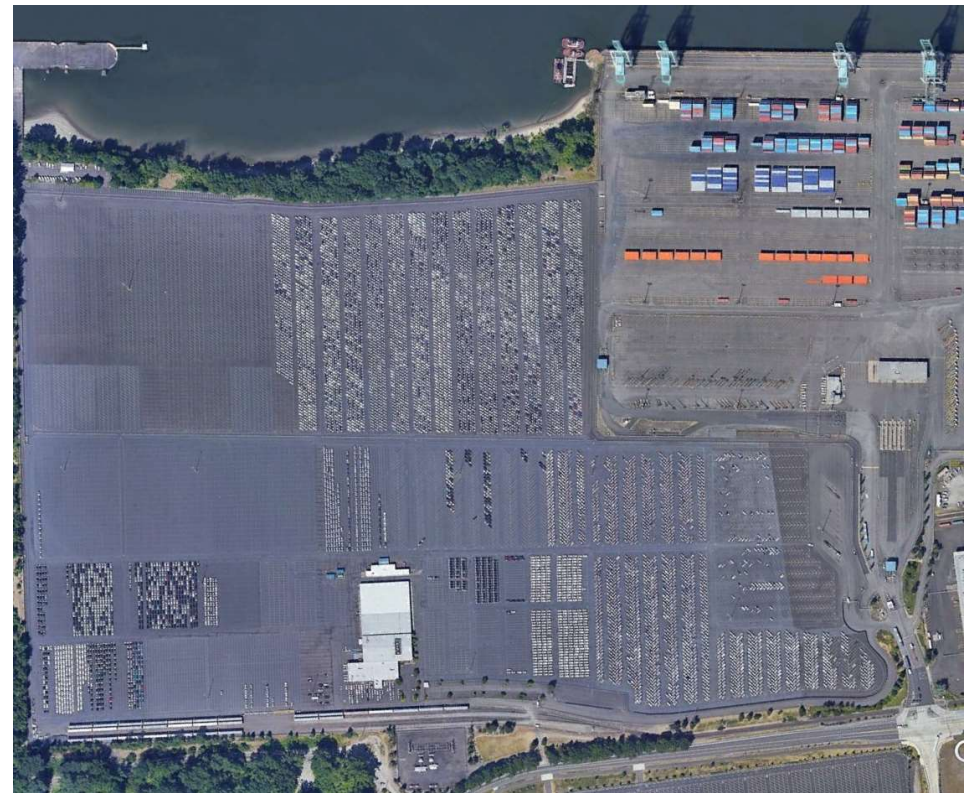
- Terminal 6 is the deep water terminal on the Columbia River, comprising Berths 601 and 607, operated by Auto Warehousing Company (AWC) and handling multiple import and export vehicle brands.
- Terminal 4 near the confluence of the Columbia River and the lower Willamette River is operated by Toyota Logistics Services and handling Toyota vehicle brands.

Focus of this analysis is Terminal 6 Berths 601 and 607.



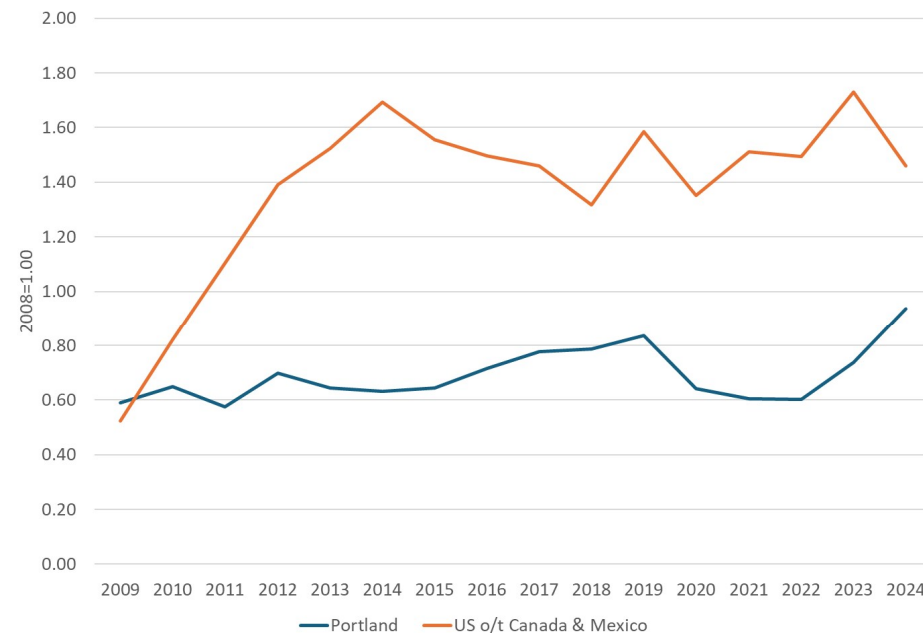
Portland Ro-Ro Terminals

- Forecast was focused on Berth 601, which encompasses 130 acres, while Berth 607 encompasses 62 acres.
- The two berths each have a 35-foot drafts and are served by BNSF Railway and UP Railway.
- The most frequently arriving vessels at Portland's berths are 200m long and 32m wide, accommodating between 5,059 and 6,697 CEU.



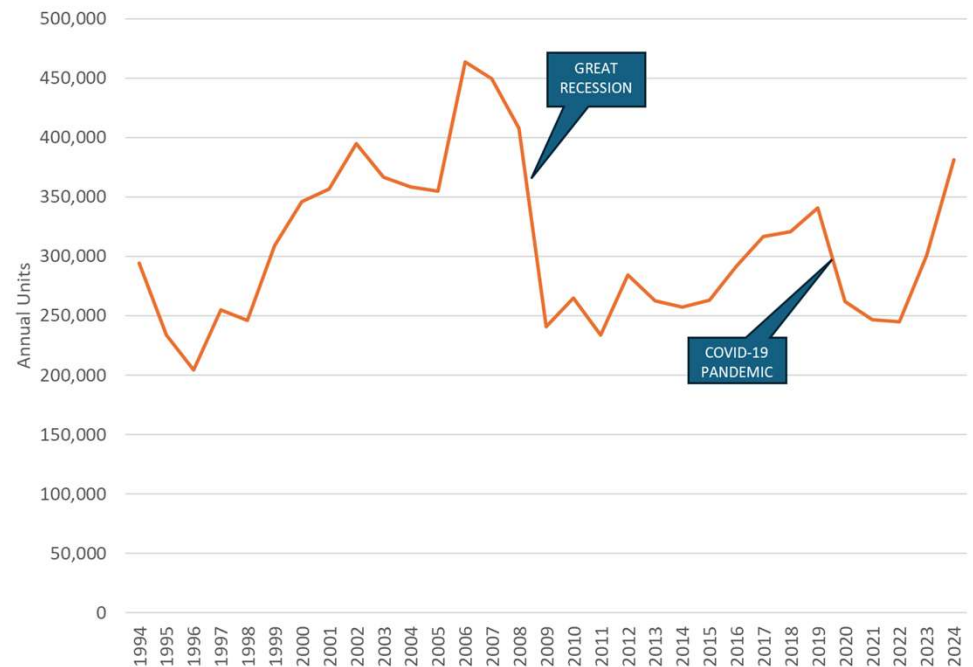
Portland vs US Auto Imports and Exports

- Pre-2014 growth at Portland was slower than the US as a whole.
- Since 2014 Portland and the US have seen relatively slow growth but high year-to-year volatility.



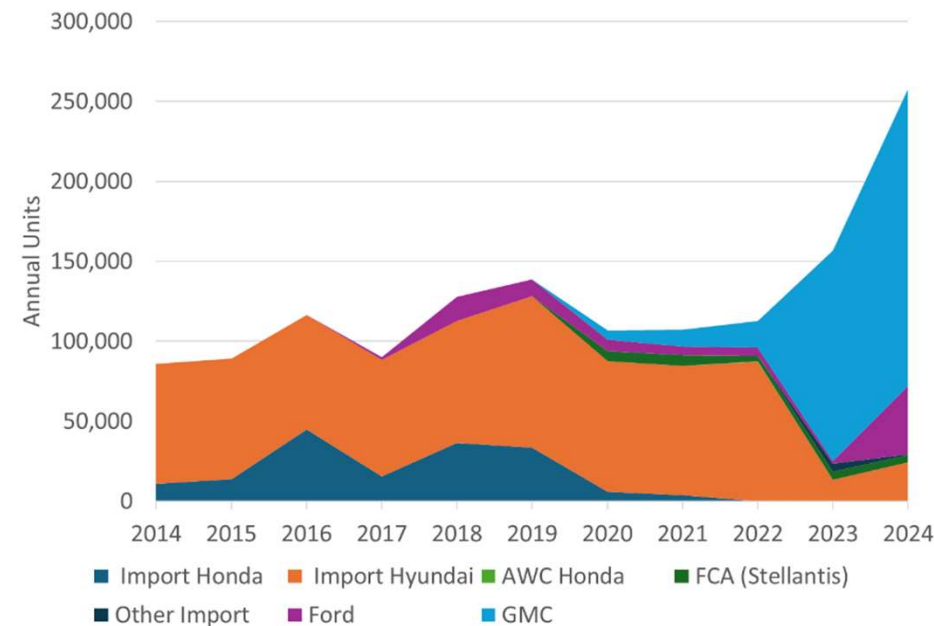
Port of Portland Total Auto Volume (T4 + T6)

- Overall Portland auto volumes have been affected by economic trends and port shifts by major importers.
- Portland's total did not rebound completely after COVID, and some importers shifted to other ports.



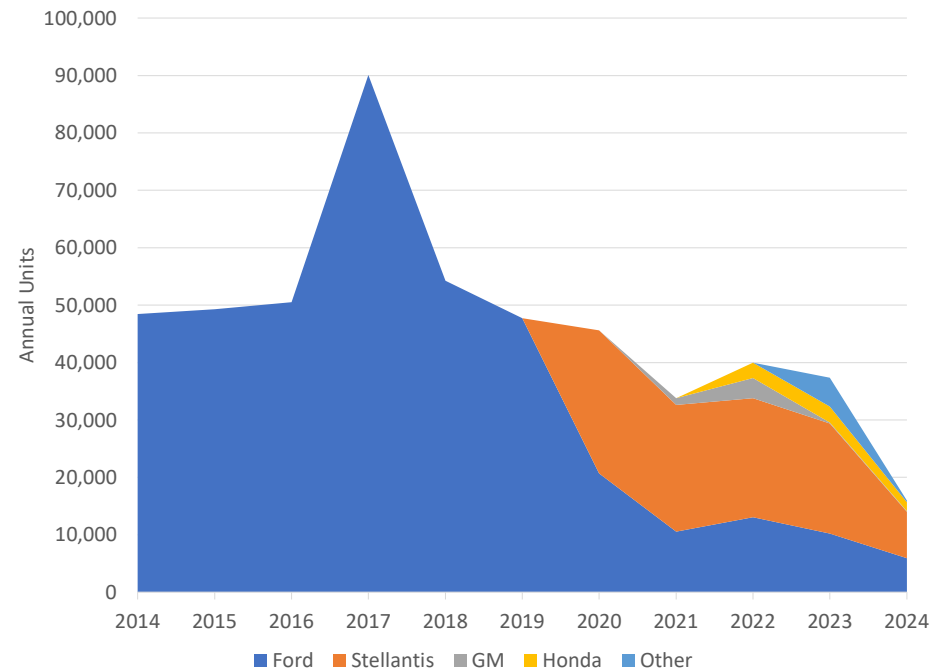
Port of Portland Berth 601-607 Imports

- The T6 vehicle brand mix has varied over time.
- Variation is normal for multi-brand terminals as importers shift strategies and have more or less success in the marketplace.
- 2024-2025 T6 mix was dominated by GM, Ford, and Hyundai.



Port of Portland Berth 601-607 Exports

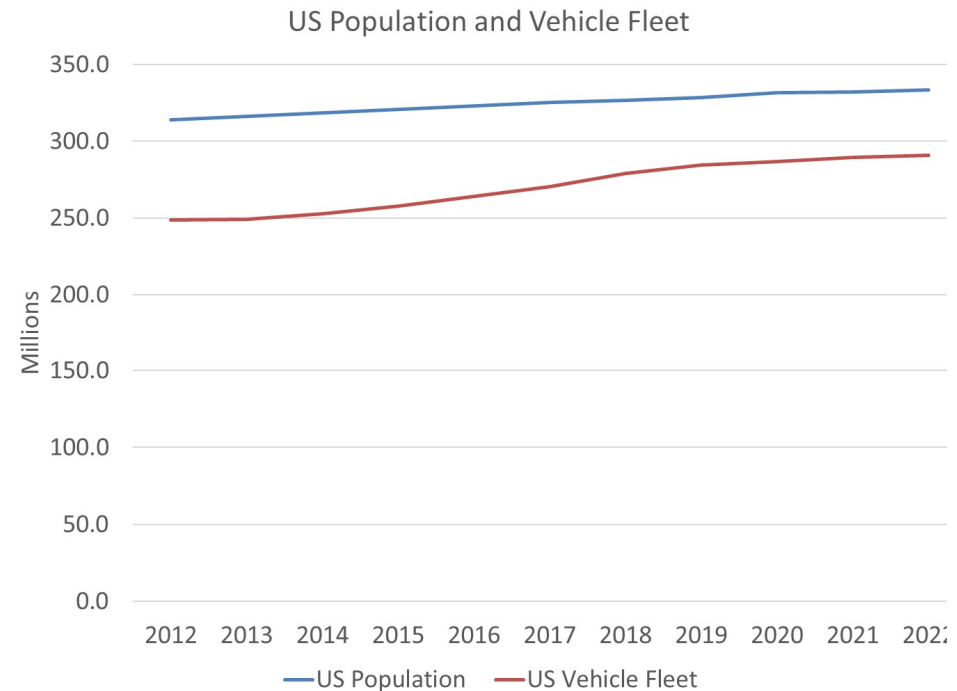
- Total export volumes have declined in recent years.
- Export brand participation has varied as well.
- Ford exports have declined while Stellantis (Fiat-Chrysler-Jeep) exports now constitute a larger share.



Population Growth

Population growth and household formation drive the demand for new vehicles, influencing market trends and consumer behavior.

- The U.S. vehicle fleet has been slightly outpacing population growth leading to higher per capita ownership.
- Household formation has increased in line with OR and US population.

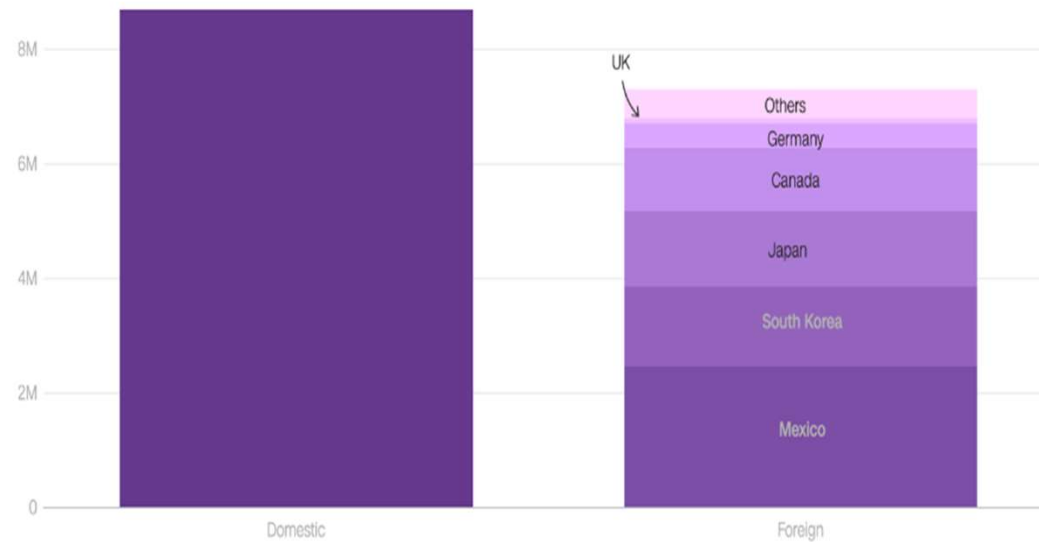


Tariff Impacts

Actual tariffs and tariff impacts are, as of now, predictable only in principle.

- Tariffs on imported vehicles will increase prices, depressing vehicle import volumes.
- Different tariffs will apply to Canadian and Mexican vehicles.
- Tariffs on auto parts and steel will increase prices of “domestic” autos assembled in the US, including those exported.
- Relative impacts on domestic vs. import vehicle prices are still a matter of conjecture, but will likely favor domestic production and depress vehicle imports.
- Retaliatory tariffs will also depress vehicle exports.

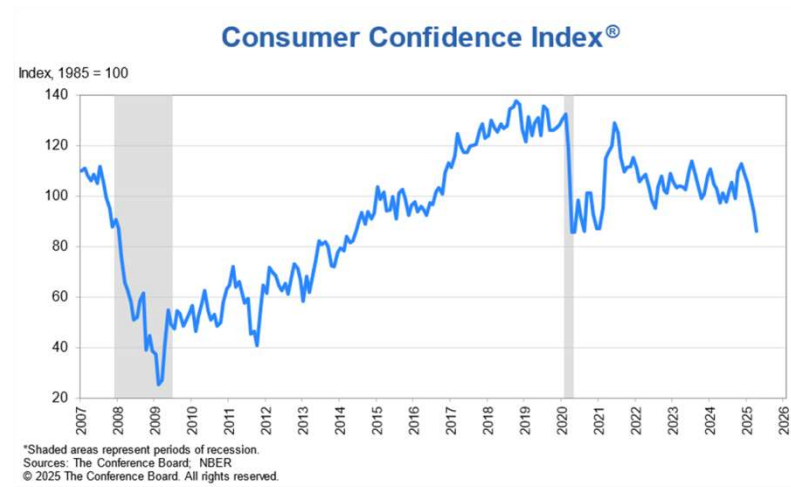
2024 US Motor Vehicle Sources



US Economy & Consumer Confidence

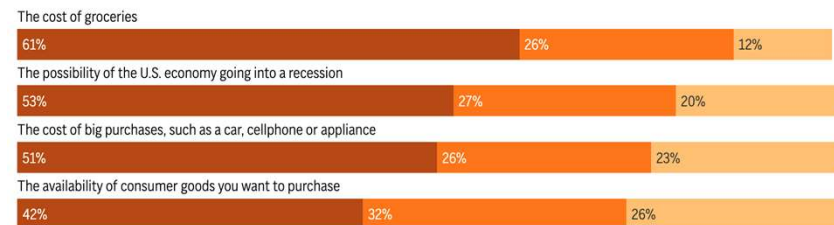
Falling consumer confidence and adverse economic conditions are expected to depress auto sales and imports.

- Concerns over tariffs and trade volatility have prompted concerns about a potential recession, both among experts and consumers
- Approximately 80% of Americans are at least somewhat concerned about the US economy going into recession in the next few months
- Morgan Stanley predicts 40% odds of a recession this year; Goldman Sachs predicts 50% and JP Morgan Chase predicts 60%



Percent of U.S. adults who are concerned about each of the following in the next few months:

■ Extremely or very concerned ■ Somewhat concerned ■ Not very or not at all concerned



Results based on interviews with 1260 U.S. adults conducted April 17-21, 2025. The margin of error is ±3.9 percentage points for the full sample.

Source: The Associated Press-NORC Center for Public Affairs Research

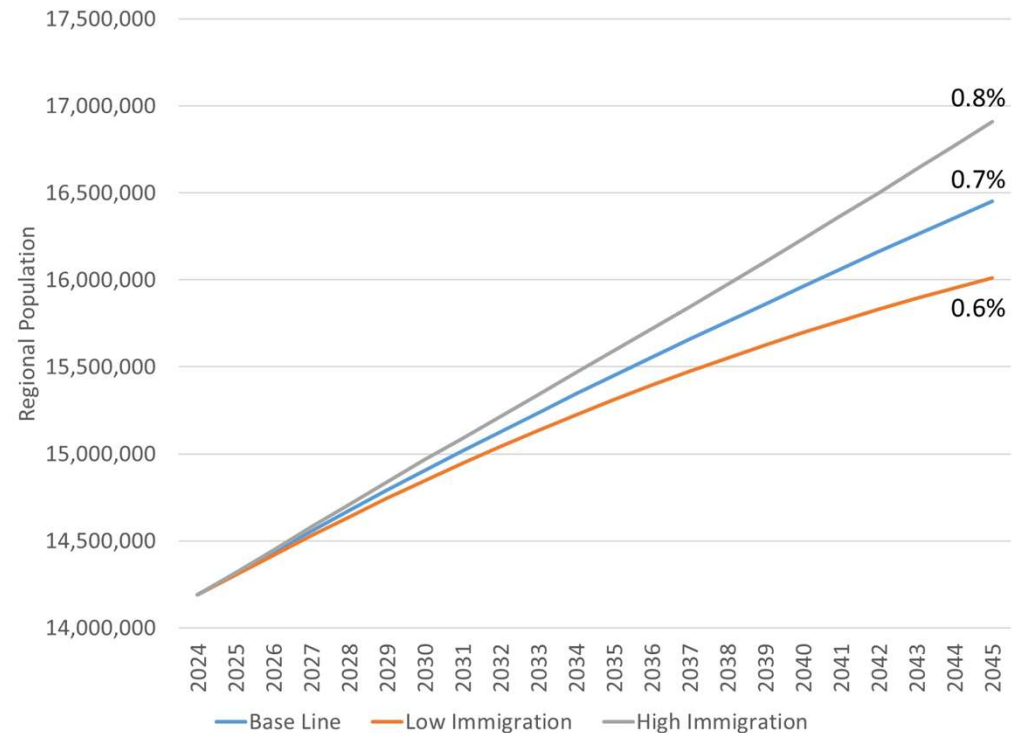
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Forecast Approach

Three forecasts for imported ro-ro volumes were prepared based on population projections, economic growth, and tariffs.

- Port information indicates 20% of T6 import vehicles are trucked to the Pacific Northwest hinterland, while 80% are transported via rail to inland markets. (Exports arrive by rail.)
- The PNW hinterland population includes Oregon (30%), Washington (57%), and Idaho (13%).
- Population forecasts from Oregon, Washington, and Idaho extend through various years, with different calculation methods for future growth. Immigration is a key factor in expected growth.
- The US population forecast is based on the 2023 National Population Projections by the US Census Bureau, incorporating results from the 2020 Census.

PNW Regional Hinterland Population Growth



Import Scenarios

Baseline Growth: expected population growth, 5 years of adverse general tariff and economic impacts, and a moderate recovery.

Low Growth: lower population growth, longer tariff and economic impacts, 5 years of auto tariffs, and a weaker recovery.

High Growth: 2 years of general tariff and economic impact, no auto tariffs, strong recovery, and near-term GM export increase (per AWC).

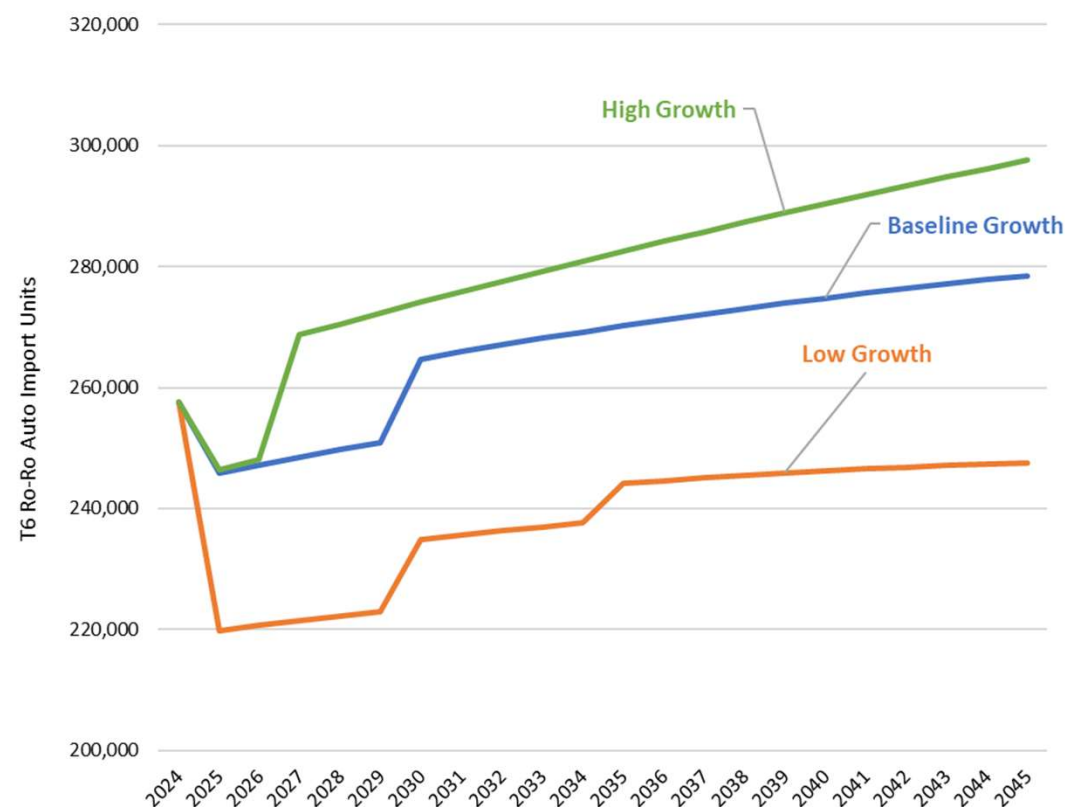
		General Tariff/ Economic Impact @ -5%	Auto-Industry Tariffs @ -10%	
	Population Growth Scenario	Years	Years	Rebound
Baseline Growth	Baseline	5	0	Medium (100% of % Impact)
Low Growth	Low	10	5	Weak (50% of % Impact)
High Growth	High	2	0	Strong (150% of % Impact)

Import Scenario Growth Rates

All scenarios allow for near-term disruption.

- Baseline recovers 2024 volume by 2030.
- Low Growth stays below 2024 volume.
- High Growth passes 2024 volume in 2027.

Scenario	1 st decade 2025-2035	2 nd decade 2035-2045	Full period 2024-2045
Baseline Growth	0.9%	0.3%	0.4%
Low Growth	1.1%	0.1%	-0.2%
High Growth	1.4%	0.5%	0.7%



Import Scenario Summaries

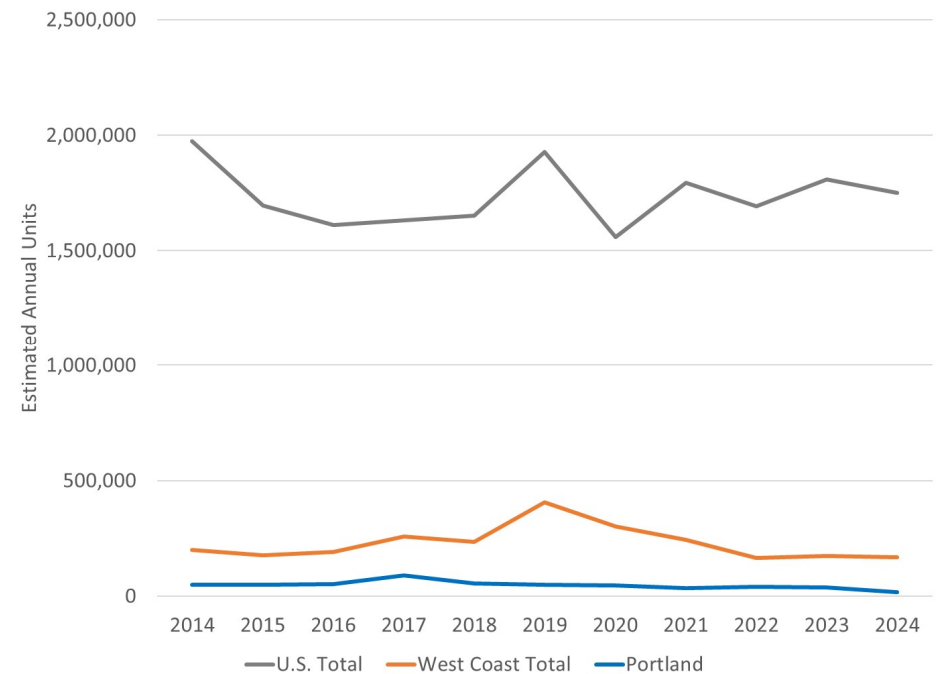
Baseline Import Growth	2024	2025	2030	2035	2040	2045	24-45 CAGR
T6 Volume	257,505	245,941	264,703	270,211	274,784	278,469	0.4%
Oregon Local	51,501	49,345	53,967	55,941	57,797	59,572	0.7%
Inland	206,004	196,596	210,736	214,270	216,987	218,897	0.3%
General Tariff/Economic Fac	0	5%	5%	0%	0%	0%	
Auto Tariff Factor	0	0%	0%	0%	0%	0%	
Growth	0	-4.5%	5.5%	0.4%	0.3%	0.2%	
Low Import Growth							
T6 Volume	257,505	219,765	234,947	244,091	246,277	247,435	-0.2%
Oregon Local	51,501	44,129	48,094	50,836	52,121	53,164	0.2%
Inland	206,004	175,635	186,853	193,254	194,156	194,271	-0.3%
General Tariff/Economic Fac	0	5%	0%	3%	0%	0%	
Auto Tariff Factor	0	10%	5%	0%	0%	0%	
Growth	0	-14.7%	5.3%	2.7%	0.1%	0.1%	
High Import Growth							
T6 Volume	257,505	246,407	274,121	282,577	290,379	297,553	0.7%
Oregon Local	51,501	49,368	55,472	57,798	60,177	62,674	0.9%
Inland	206,004	197,039	218,649	224,779	230,202	234,879	0.6%
General Tariff/Economic Fac	0	5%	0%	0%	0%	0%	
Auto Tariff Factor	0	0%	0%	0%	0%	0%	
Annual Growth	0	-4.3%	0.7%	0.6%	0.5%	0.5%	

Port of Portland Exports

Tioga's conservative forecast approach focused on the China, Japan, and South Korea markets currently being served from Portland.

- Auto exports through the Port of Portland are driven by different factors from the import flows.
- Portland has had a relatively stable share of U.S. and West Coast totals.

Market	FY 24-25 Share	2025-2032 CAGR
South Korea	55%	-0.3%
Japan	27%	-0.3%
China	18%	1.6%



Export Scenarios

Export scenarios were built around recent S&P Global Asian auto sale projections

Sales Region	2024	2025	2026	2027	2028	2029	2030	2031	2032	24-32 CAGR
Greater China	26,391,134	27,272,037	27,796,001	28,775,746	28,032,374	28,708,252	29,094,353	29,583,990	29,873,719	1.6%
Japan/Korea	5,921,452	6,165,428	6,210,813	6,095,223	5,962,979	5,956,382	5,898,114	5,854,489	5,774,197	-0.3%

Source: S&P Global Mobility, Data compiled Mar. 28 2025.

- Baseline Growth case forecast uses 2024 destination market shares and growth rates.
- High Growth scenario incorporates a strong resurgence in GM exports.
- Low Growth scenario accounts for a 5% volume reduction for 10 years due to general tariffs and economic slowdown, and an additional 10% reduction for 5 years due to auto-specific tariffs.

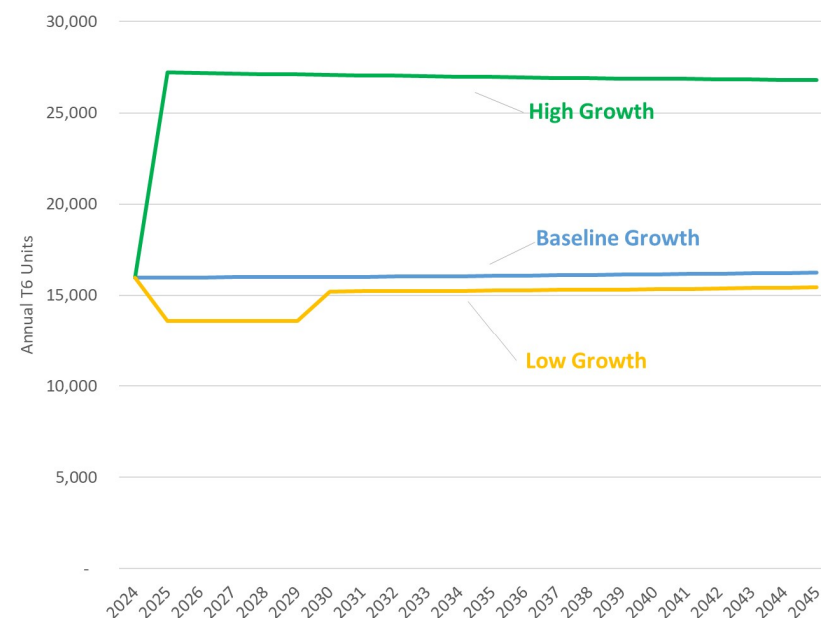
Export Scenario Summaries

Export scenarios differ in the near term, but are consistent thereafter.

	2024	2025	2030	2035	2040	2045	24-45 CAGR
Baseline Export Growth							
South Korea	8,785	8,757	8,620	8,486	8,353	8,223	-0.3%
Japan	4,301	4,287	4,221	4,155	4,090	4,026	-0.3%
China	2,890	2,935	3,172	3,427	3,703	4,002	1.6%
	15,976	15,980	16,013	16,068	16,146	16,250	0.1%

Low Export Growth							
South Korea	8,785	7,444	8,189	8,061	7,936	7,812	-0.6%
Japan	4,301	3,644	4,010	3,947	3,885	3,825	-0.6%
China	2,890	2,495	3,013	3,256	3,518	3,802	1.3%
	15,976	13,583	15,212	15,264	15,339	15,438	-0.2%

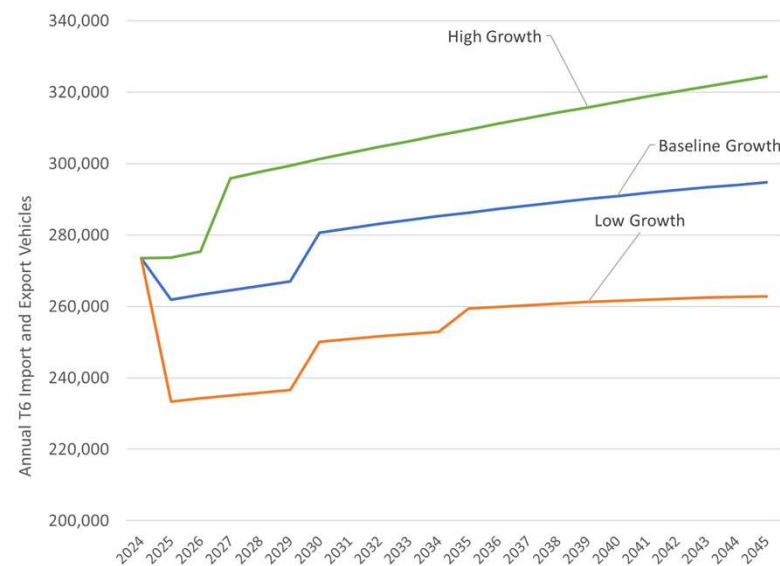
High Export Growth							
South Korea	8,785	20,000	19,688	19,380	19,078	18,780	3.7%
Japan	4,301	4,287	4,221	4,155	4,090	4,026	-0.3%
China	2,890	2,935	3,172	3,427	3,703	4,002	1.6%
	15,976	27,223	27,080	26,962	26,871	26,807	2.5%



Overall Auto Volume Forecast

- Combined import and export forecasts yield growth rates ranging from -0.2% to 0.8%, with a baseline CAGR of 0.4%.
- All scenarios envision significant near-term disruption, followed by long-term recovery.

Baseline Growth	2024	2025	2030	2035	2040	2045	24-45 CAGR
T6 Volume	273,481	261,921	280,716	286,278	290,930	294,720	0.4%
Imports	257,505	245,941	264,703	270,211	274,784	278,469	
Exports	15,976	15,980	16,013	16,068	16,146	16,250	
Low Growth							
T6 Volume	273,481	233,348	250,160	259,355	261,616	262,873	-0.2%
Imports	257,505	219,765	234,947	244,091	246,277	247,435	
Exports	15,976	13,583	15,212	15,264	15,339	15,438	
High Growth							
T6 Volume	273,481	273,630	301,201	309,540	317,250	324,360	0.8%
Imports	257,505	246,407	274,121	282,577	290,379	297,553	
Exports	15,976	27,223	27,080	26,962	26,871	26,807	



Questions and Discussion

- Thank you for Interest
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