

The Importance of Trade and Exporting for the Nation, the Region and Kansas



FEDERAL RESERVE BANK *of* KANSAS CITY

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Troy Davig

Senior Vice President and Director of Research
Federal Reserve Bank of Kansas City

Plan for the talk

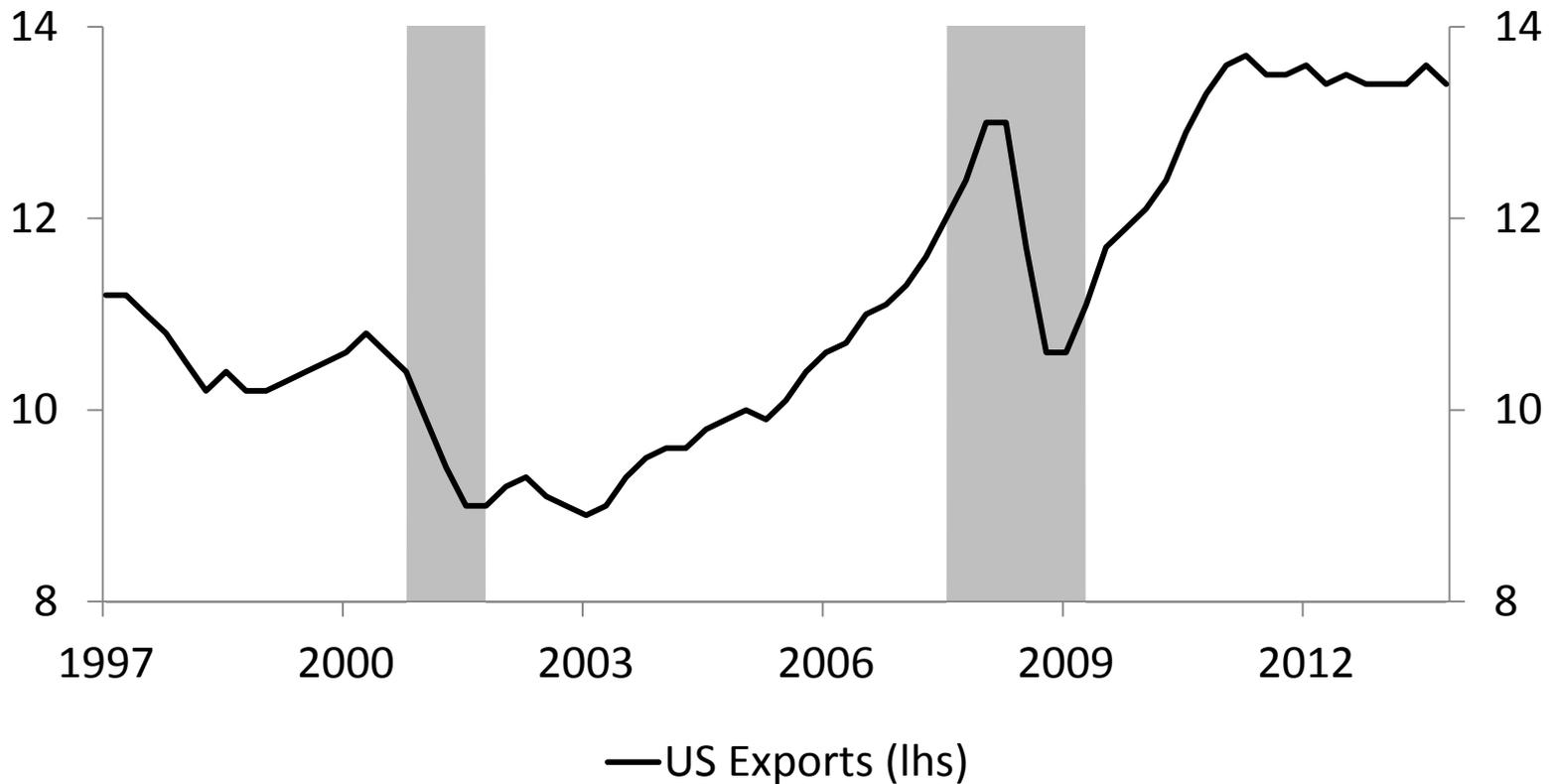
- General overview of factors driving exports at the national level
- A refresher on the economics of international trade
- State level exporting
- A case study comparing exports of Kansas, Nebraska and Idaho
- Final thoughts and takeaways

Exports at the national level

Export activity has increased in importance over the past decade, but has moderated the past few years

share of GDP, %

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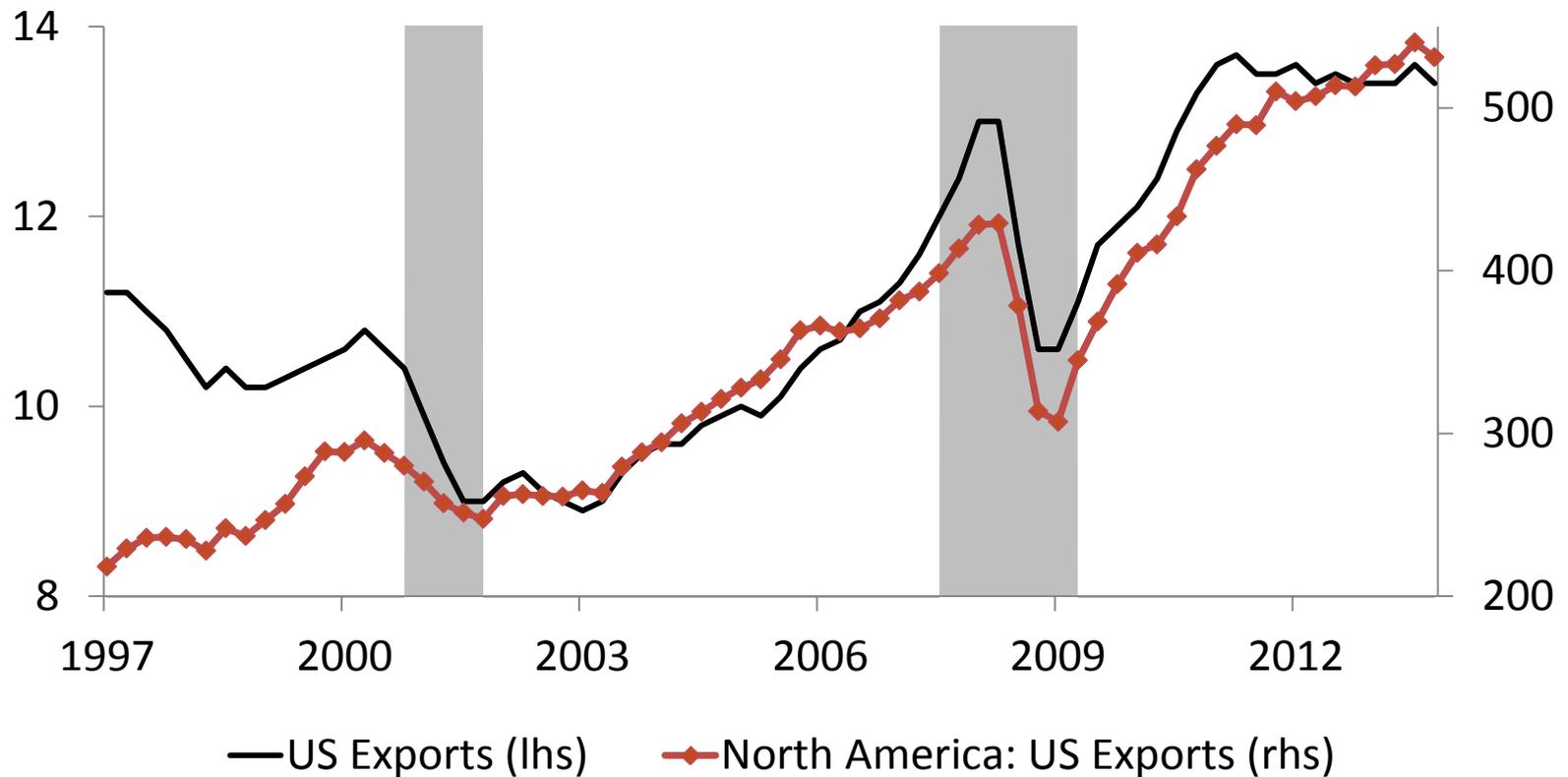


Source: Bureau of Economic Analysis, Haver Analytics

Over the past decade, export activity has increased to all major regions of the world

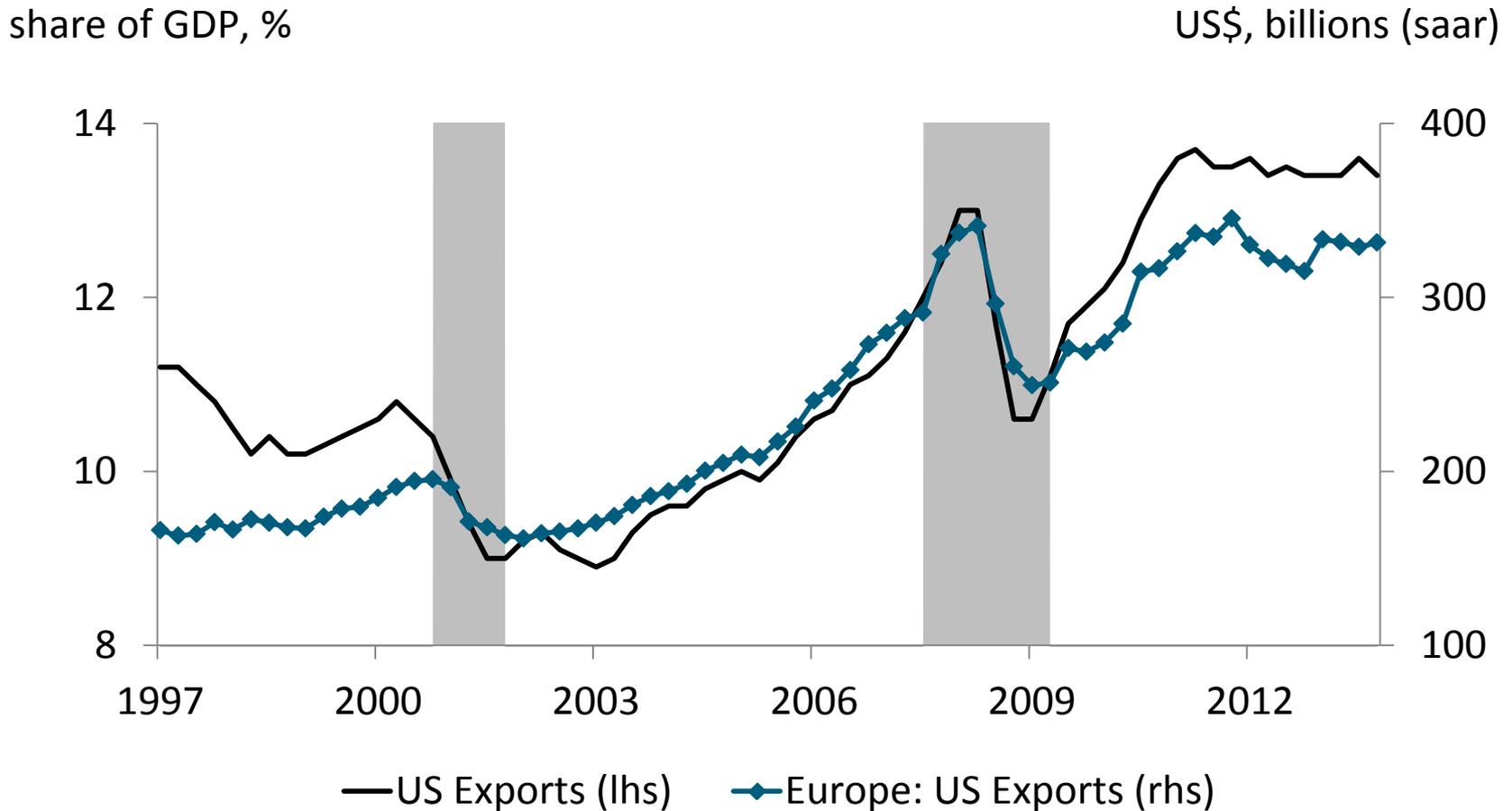
share of GDP, %

US\$, billions (saar)



Source: Bureau of Economic Analysis, Haver Analytics

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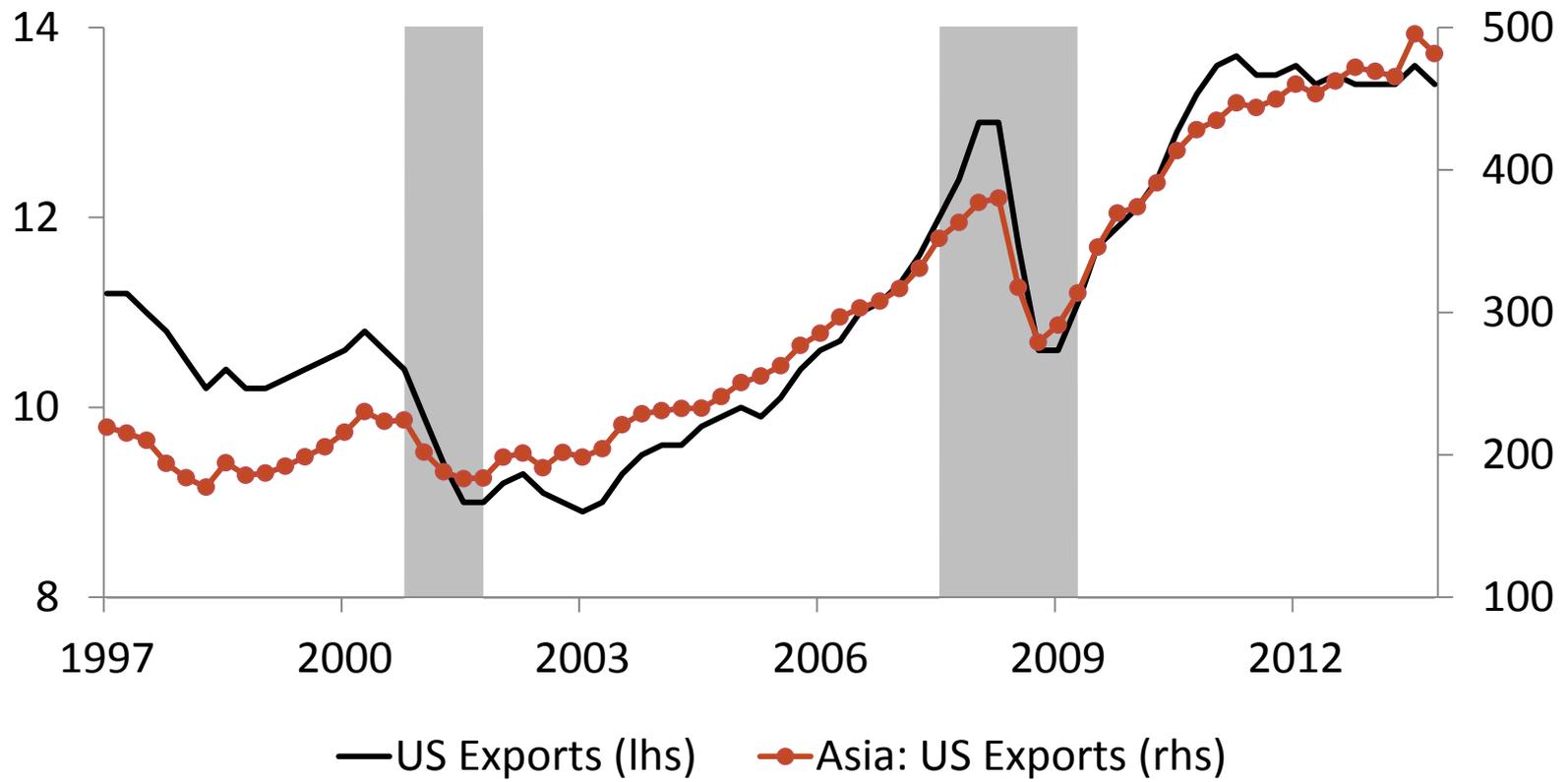


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Over the past decade, export activity has increased to all major regions of the world

share of GDP, %

US\$, billions (saar)



Source: Bureau of Economic Analysis, Haver Analytics

European growth has the largest impact on US export growth, followed by Canada and Asia



Source: Census Bureau, Haver Analytics, FRB Kansas City

**Of the 136 million jobs in 2013,
about 11.3 million were supported by exporting activity**

**Millions of Jobs Supported by Exports
(Johnson and Rasmussen (2014))**

	Total	Goods	Services
2009	9.7	6	3.6
2010	10.2	6.5	3.7
2011	10.9	6.9	4
2012	11.1	7	4
2013	11.3	7.4	4.2

- About 8.3% of US employment was supported by export activity in 2013, up from 7.3% in 2009

Every \$1 billion in US exports supports about 5,500 jobs

Jobs Supported per Billion Dollars of Exports (Johnson and Rasmussen (2014))

	Total (US\$)
2009	6,763
2010	6,177
2011	5,818
2012	5,690
2013	5,590

- Due to productivity gains, every \$1 billion of exports supports fewer jobs

A refresher on the economics of international trade

Some stylized facts regarding exporting

- World-wide, the value added of services exports is larger than of manufactured goods (Johnson (2014))
- Historically, exporting manufacturing plants pay higher wages compared to non-exporting establishments (Bernard and Jensen (1999))
- Less than 1% of firms export and of those, most sell goods and services to only one country

An update on the economics of international trade

- One traditional view of trade focuses on differences in natural resources – for example, wheat for oil
- Another view focuses on comparative advantage and inter-industry trade
 - A country/state should specialize in whatever it produces best, then trade with other regions that are likewise specializing in their strengths

An update on the economics of international trade

- However, two striking facts now dominate the international trade landscape (Melitz and Trefler (2012)):
- **Fact #1**: Intra-industry trade has increased substantially over the past several decades
 - In other words, a country both imports and exports goods that are quite similar
 - About 70% of US trade is classified as “intra-industry”

The love of variety

- Countries are willing to import goods even if they can produce them locally
 - Why? Consumers love variety. As consumption demand grows, so will demand for a variety of goods.
 - Think of beer...89 domestic brewers existed in 1979, today there are over 2,500 (Brewers Association)
 - Yet, many still drink imports...

An update on the economics of international trade

- **Fact #2:** Extremely large, innovative and highly productive firms dominate the international trade landscape
 - Foxconn employs 450,000 in one factory
 - Intel accounts for 20% of exports from Costa Rica

Industrial reallocation

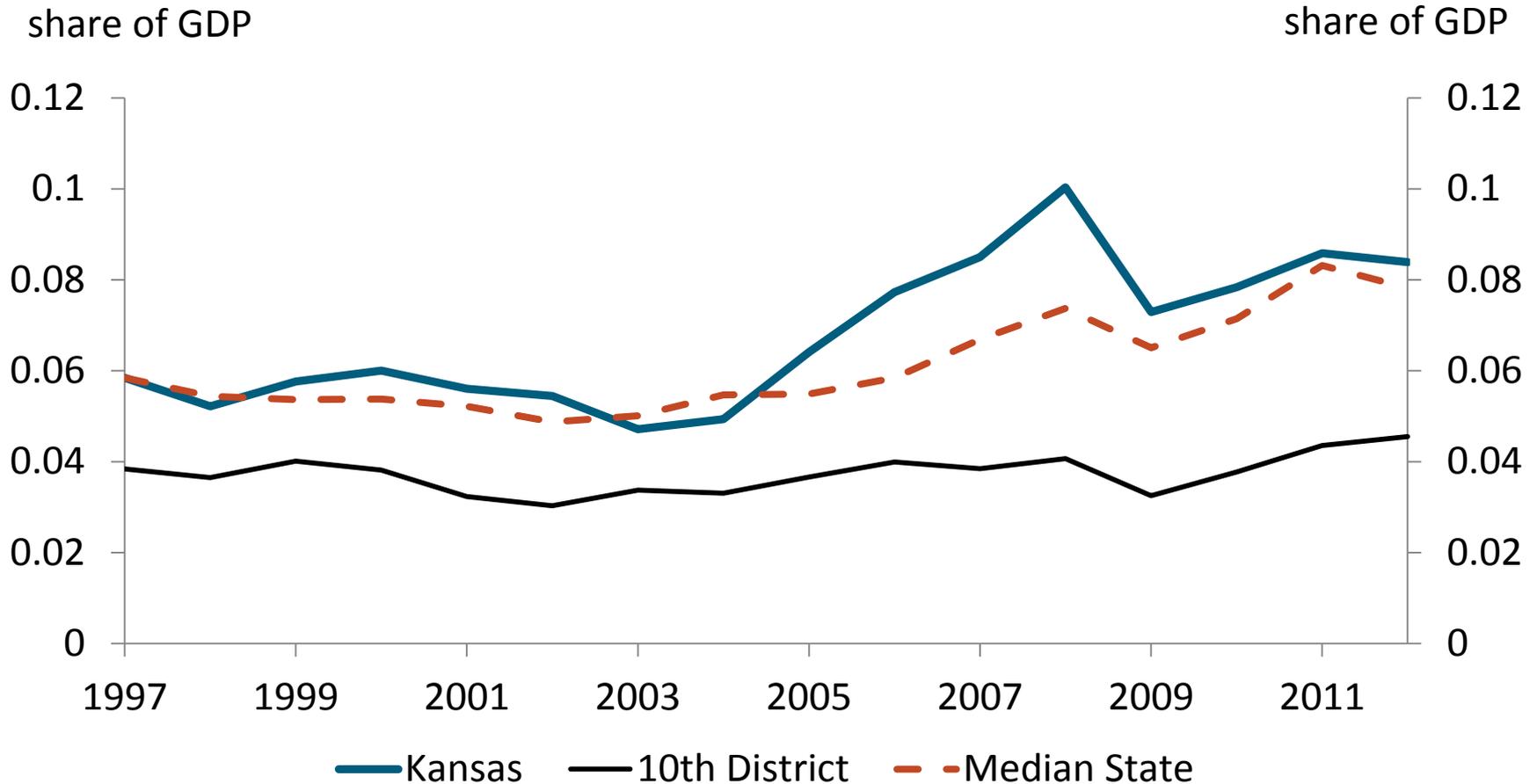
- Productivity varies substantially across firms, even within an industry
- The rise of intra-industry trade has placed more pressure on less productive firms, while more productive firms have been able to thrive and expand into foreign markets
- Consolidation within industries is viewed as raising productivity within an industry

Innovation

- Market-expanding efforts often push firms to invest in new technologies and innovate
 - Foxconn holds 40% of the patents filed by Chinese companies in the US (Eberhardt, Helmers and Yu (2011))
- Market-expanding effects of trade may cause firms to innovate (Aw, Roberts, and Xu (2011))
- Efforts to innovate raise productivity within a single firm

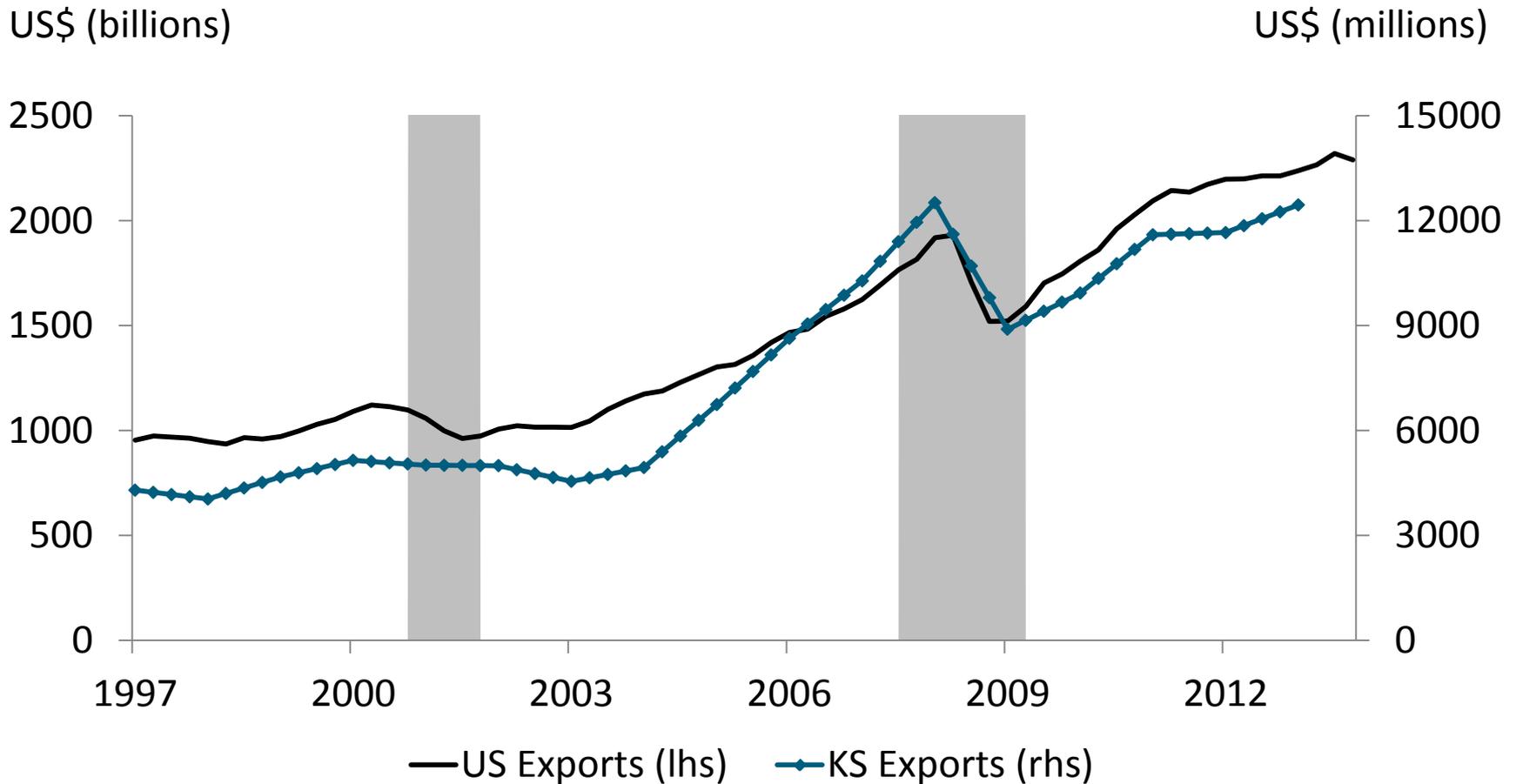
Exports at the state level

Kansas's export share of GDP is near the "median" state, and above neighboring states



Source: Bureau of Economic Analysis, Census Bureau, Haver Analytics

Exports from Kansas have rebounded a bit more slowly compared to overall US exports



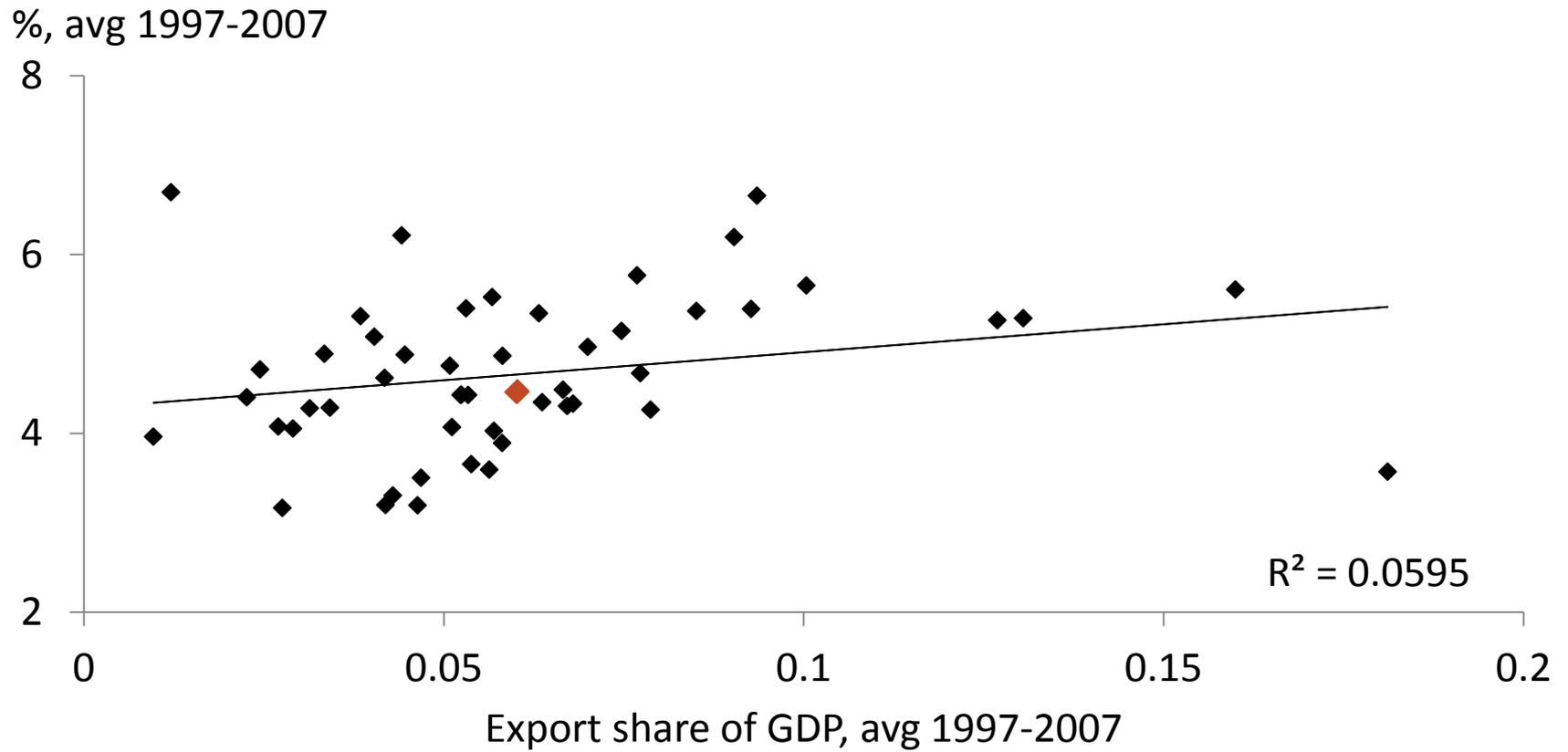
Source: WISER, Haver Analytics

Some results from export research at the state level

- State size is not a crucial factor determining export ability
- Export growth is dependent on growth in partner countries
- The mix of industries at the state level is an important factor in determining export growth
- Heavy reliance on export growth entails risks – for example, rural areas more dependent on export industries have been shown to grow more slowly

A state's level of exports is not strongly related to the average level of unemployment

State Unemployment and Export Share, 1997-2007

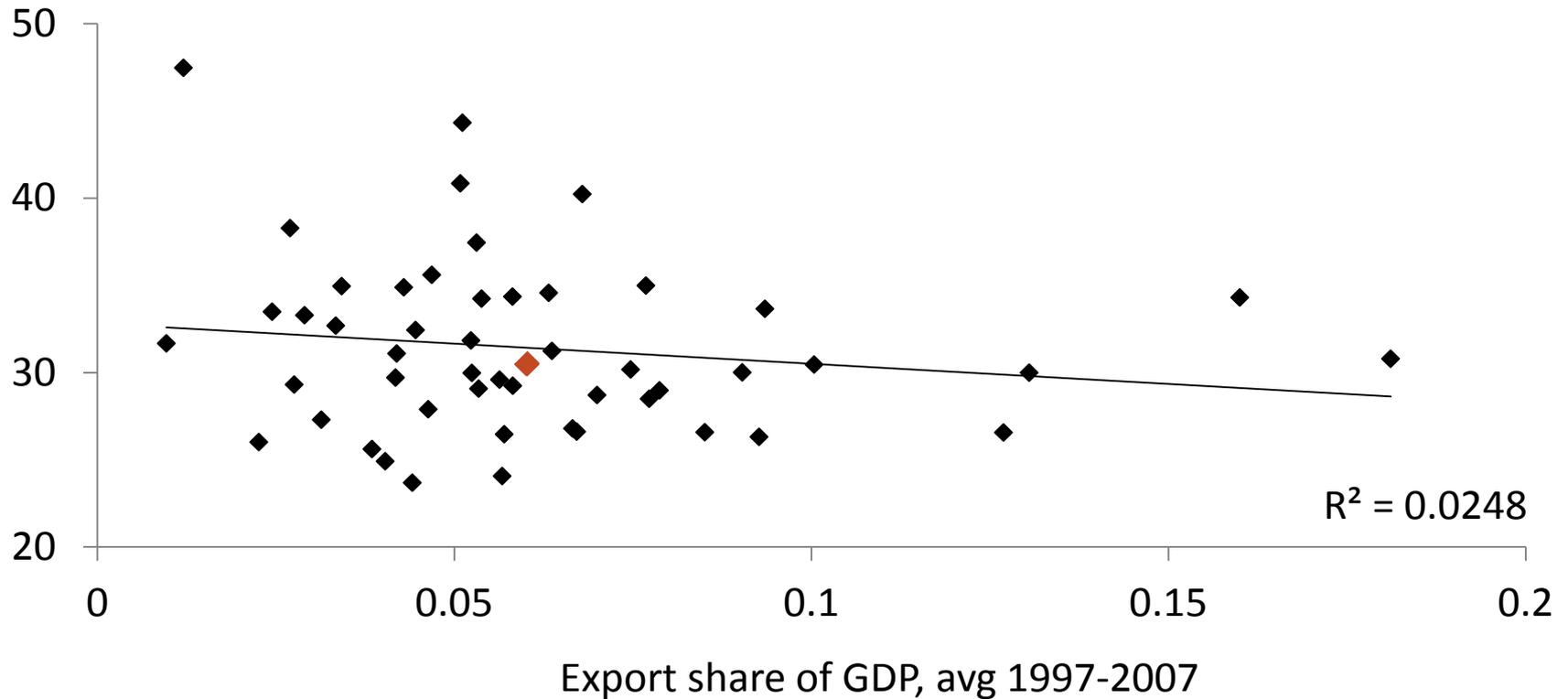


Source: Bureau of Economic Analysis, Census Bureau, Bureau of Labor Statistics, Haver Analytics

A state's level of exports is not strongly related to per-capita income

State Per-Capita Income and Export Share, 1997-2007

Thousands US\$, avg 1997-2007



Source: Bureau of Economic Analysis, Census Bureau, Haver Analytics

A state's export share is largely unrelated to its credit rating

Export Share and Debt Ratings in 2011			
Credit Rating	Average Share	Min.	Max.
A-	0.0835	0.0835	0.0835
A+	0.0963	0.0963	0.0963
AA-	0.0993	0.0684	0.1319
AA	0.0781	0.0130	0.2322
AA+	0.1044	0.0263	0.1891
AAA	0.0762	0.0320	0.1521
Grand Total	0.0871	0.0130	0.2322

* Kansas had a AA+ rating, w/ a export share of 0.0858

A case study comparing exports at the state level

Case Study Across Three States: Kansas, Idaho, Nebraska

- A state's exports should grow at the same rate as the U.S. if the following conditions apply:
 1. The state has the same mix of industries as the nation
 2. Exports in the same proportion to foreign economies as the nation
- All states are different, but Nebraska and Idaho have similar industry mix and export to destination similar to Kansas

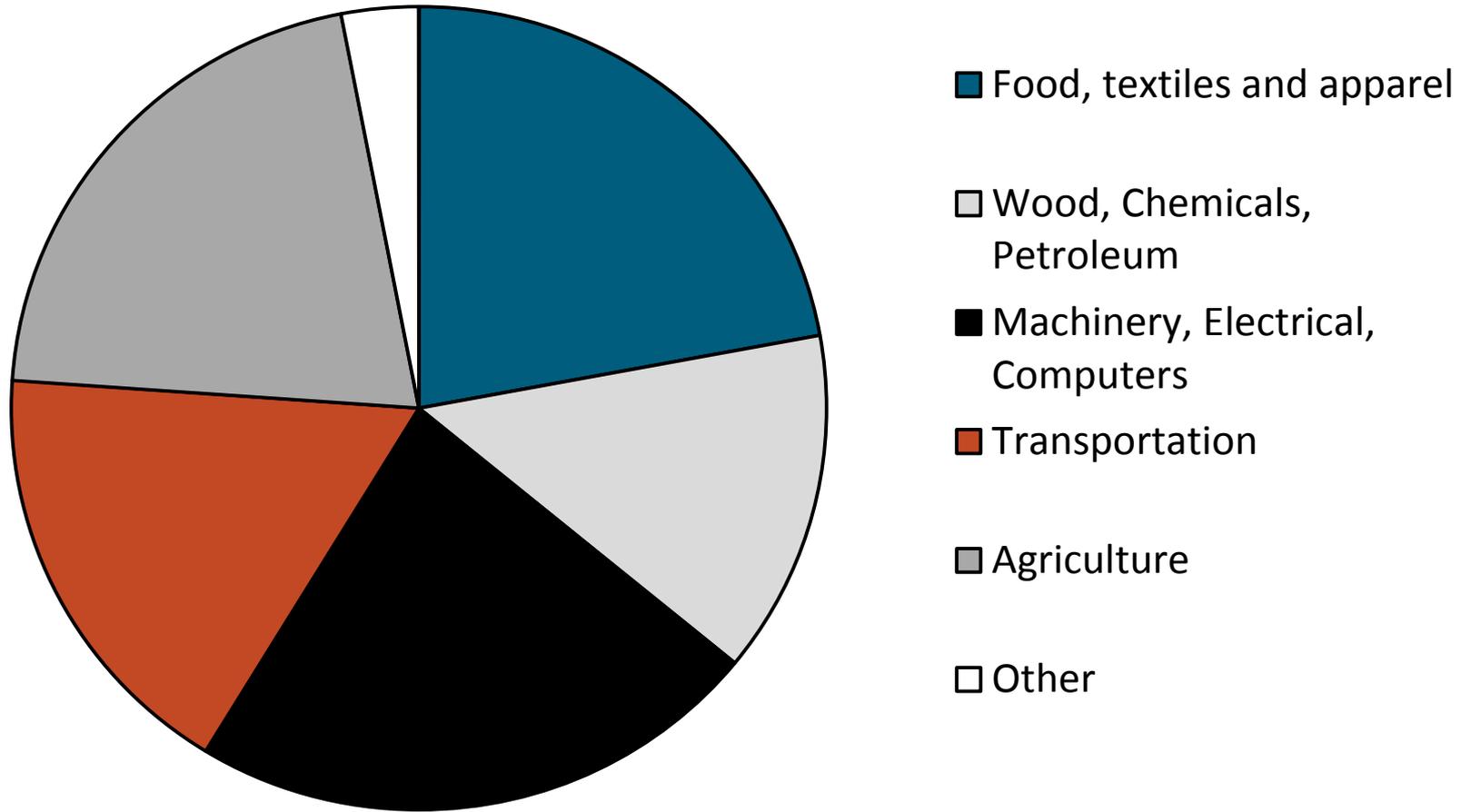
Case Study Across Three States: Kansas, Idaho, Nebraska

- In 2013, US exports were 22% higher than in 2010
- If a state looks “exactly like” the US, we would expect exports to also grow at the state level by 22%
- But, exports at the state level grow at different rates

% increase in US exports between 2010-2013 (US\$)

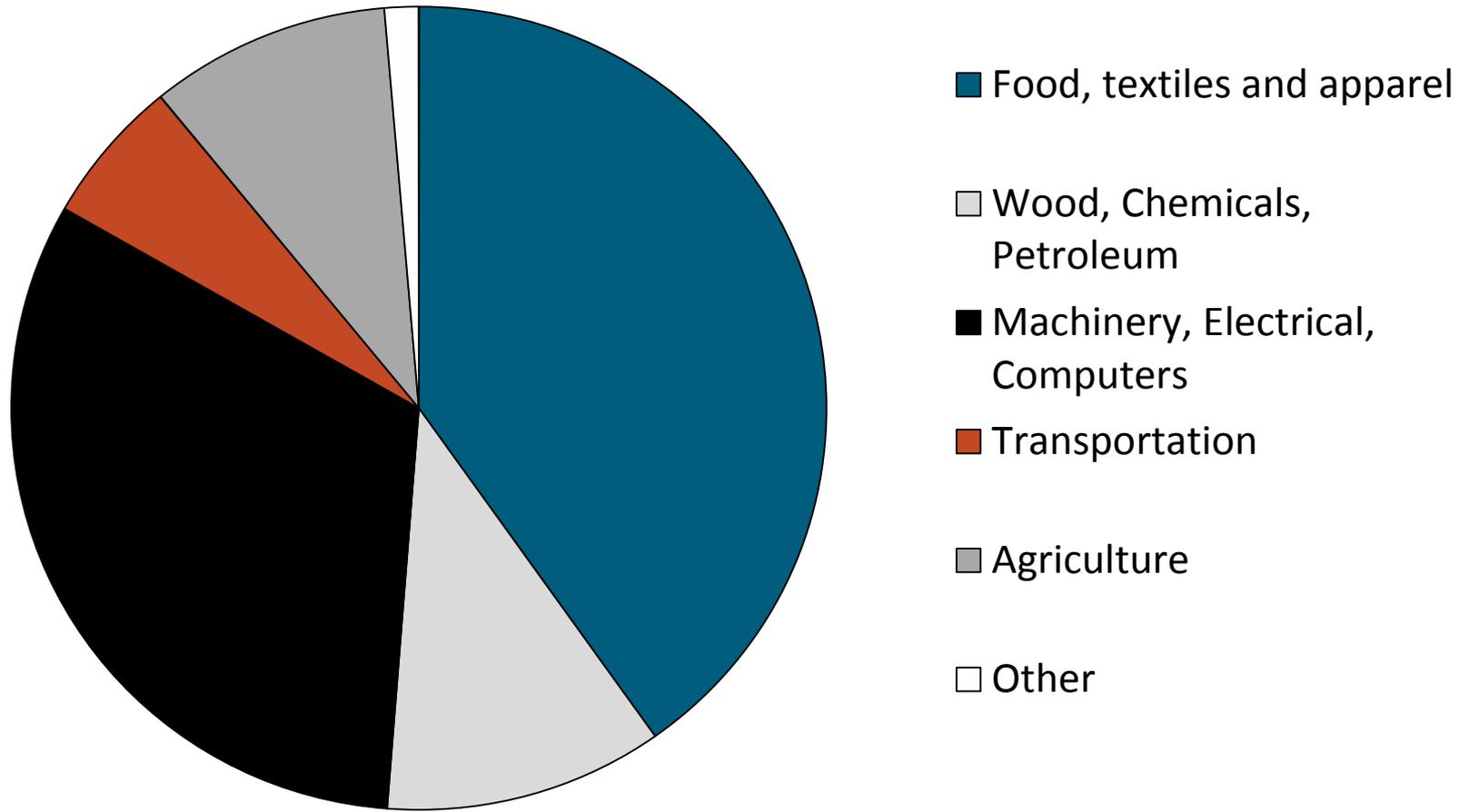
Kansas	25
Idaho	12
Nebraska	26

Kansas has a diverse export base



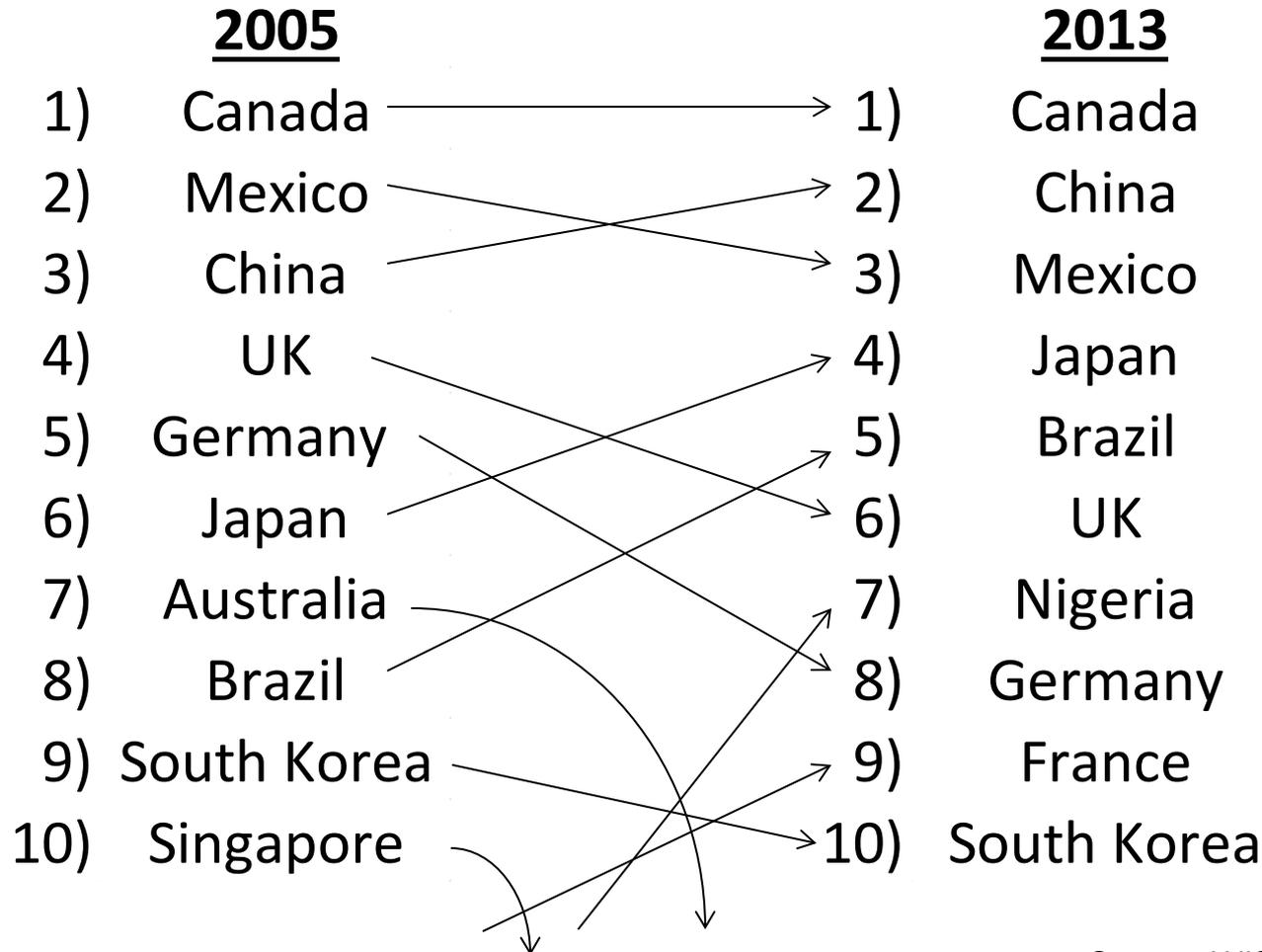
Source: WISER, Haver Analytics

Nebraska's exports are more concentrated in non-durable and machinery manufacturing



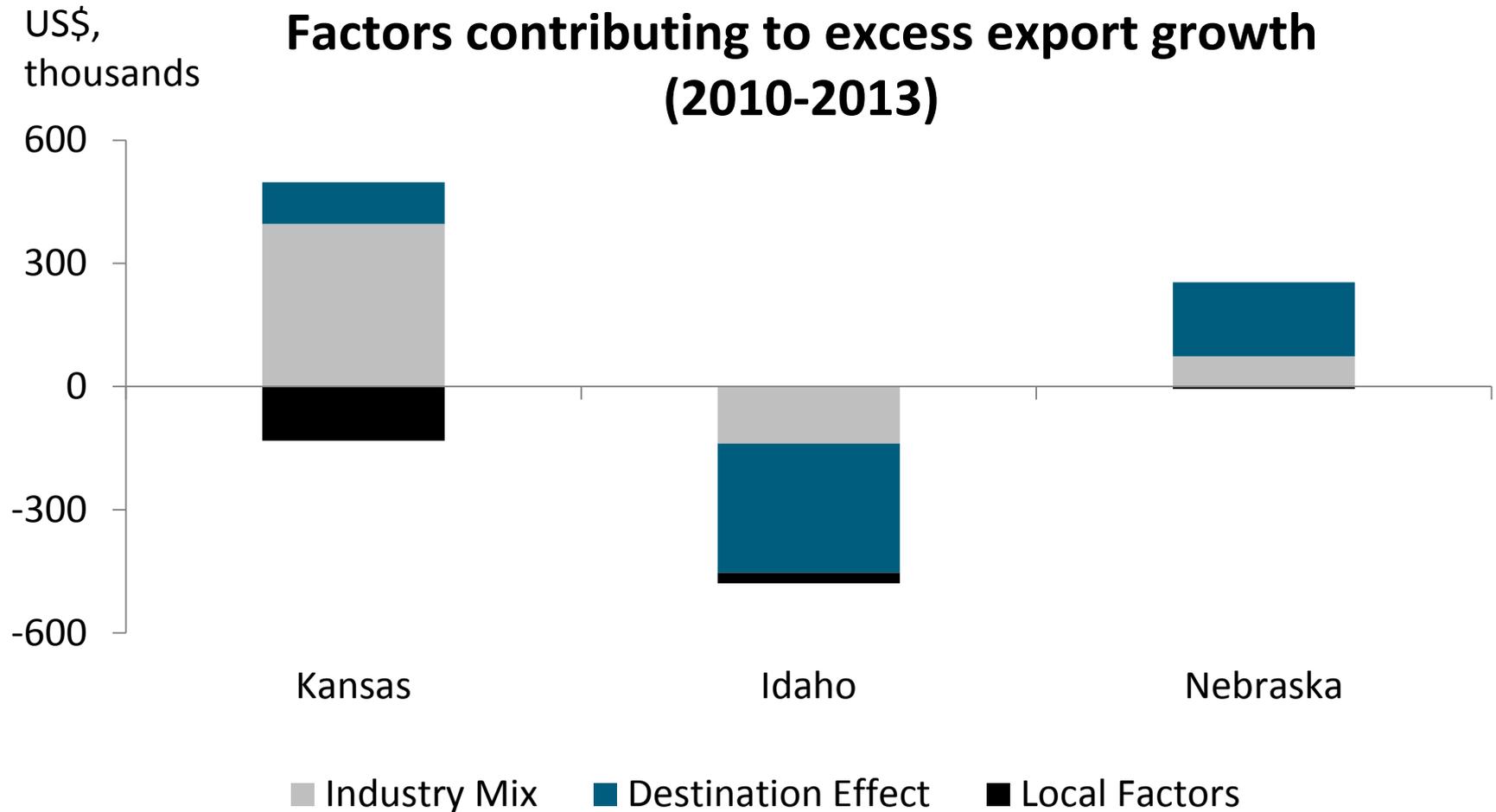
Source: WISER, Haver Analytics

Top export markets for Kansas change over time



Source: WISER, Haver Analytics

Exports from Kansas have recently grown faster than the nation due to a favorable mix of industries



Source: WISER, Author's calculations, Haver Analytics

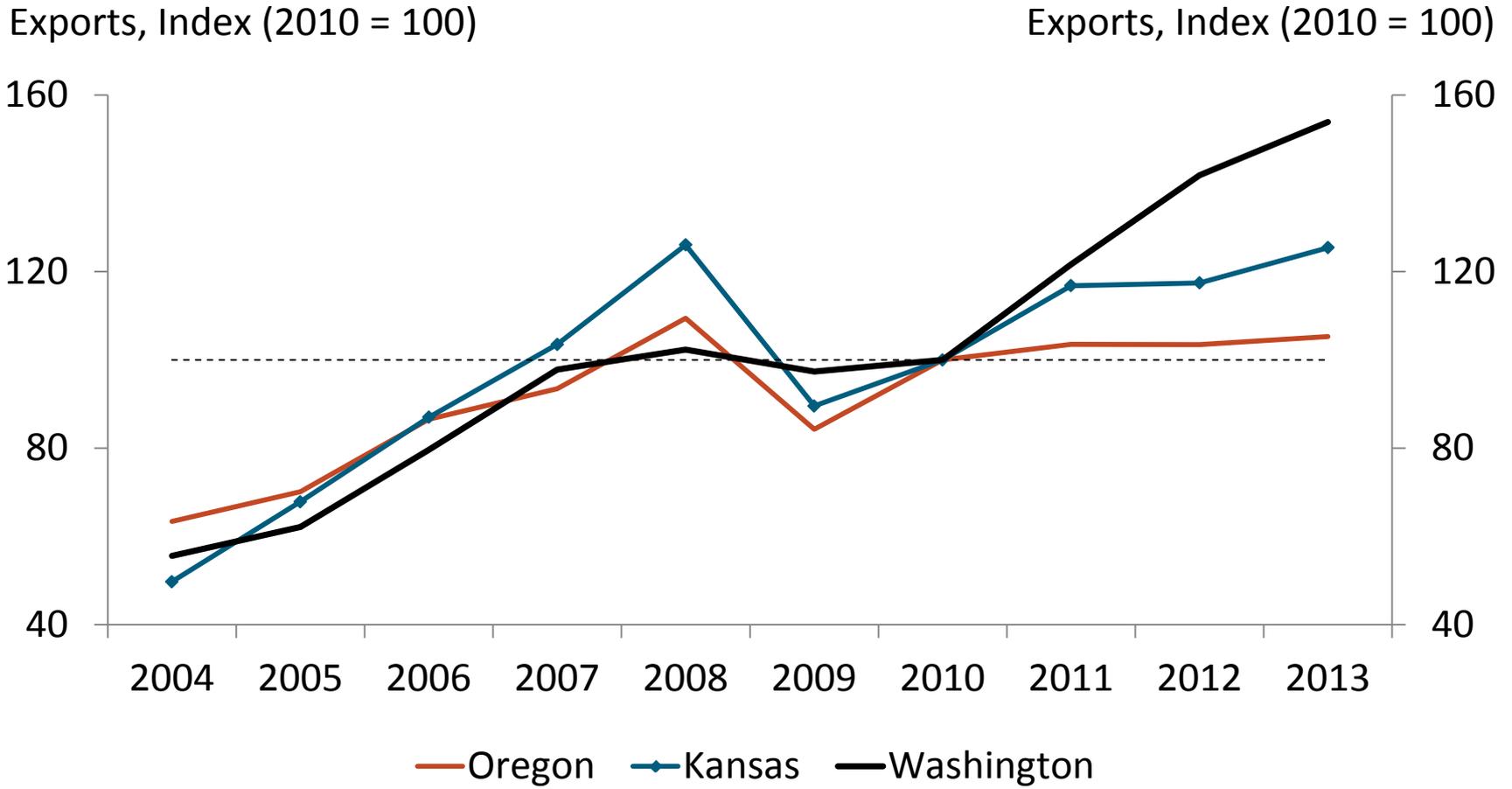
Case Study Across Three States: Kansas, Idaho, Nebraska

- Export growth in excess of national growth has been driven by a favorable mix of industries in KS
- NE has benefitted from fast growing export markets
- ID has fallen short of national growth due to both unfavorable export destinations and less favorable mix of industries
- KS has the largest drag of the three, however, from miscellaneous local factors

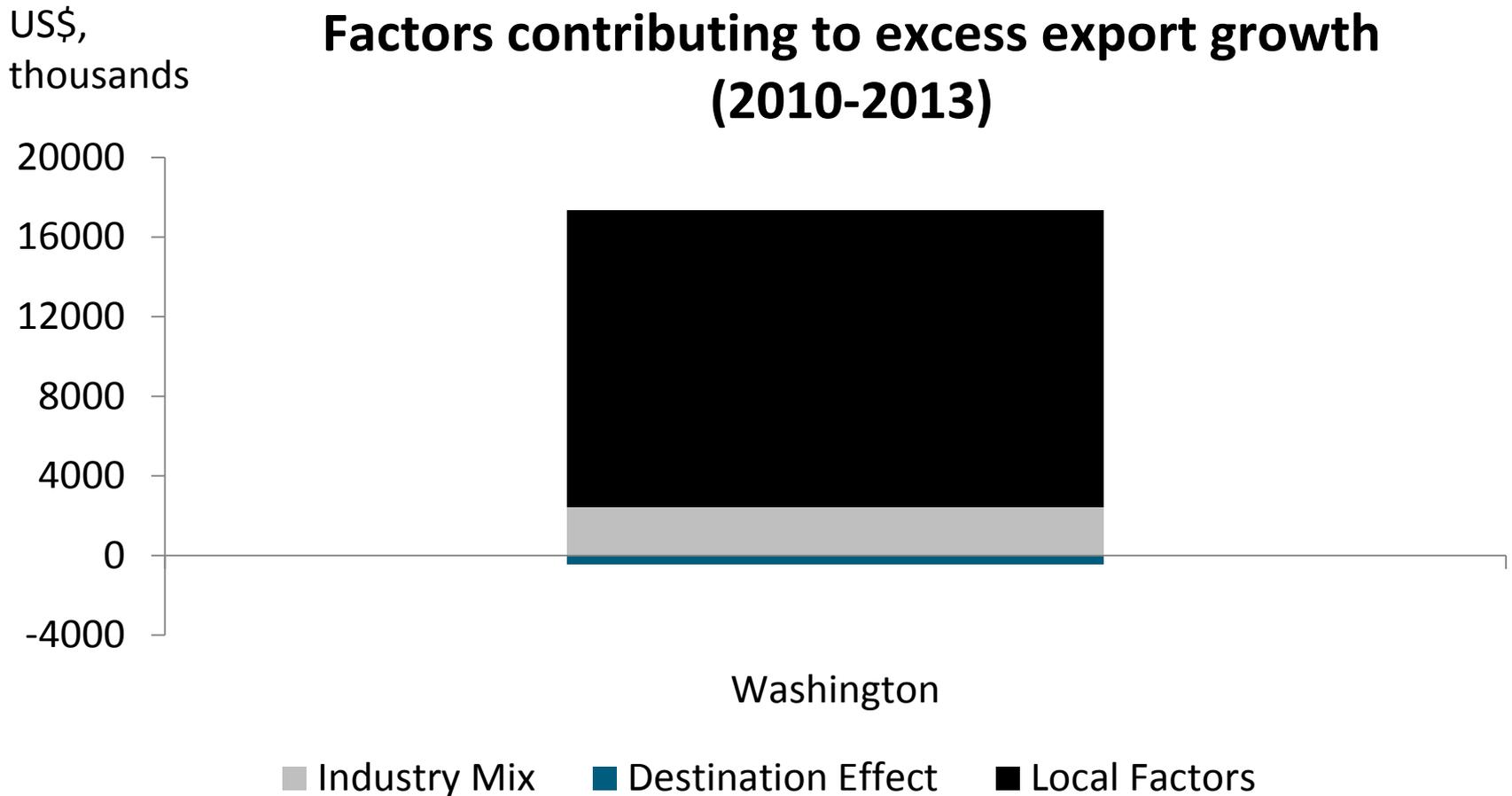
Final thoughts

- Not many firms export because it is risky and understanding foreign markets is challenging
- State programs often focus on boosting manufacturing and ag exports, yet services have a higher value added
- States should measure performance of their export promotion activities (e.g. Pennsylvania's system)
- State level export strategies can be effective (e.g. Washington)

Exports in Washington state have increased notably since 2010



Washington state exported nearly \$15 billion more than would have been anticipated based on industry mix and destination



Source: WISER, Author's calculations, Haver Analytics



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