

Taxation in an E-Commerce Generation

International Tax and Public Finance

David Agrawal, University of Kentucky

William Fox, University of Tennessee



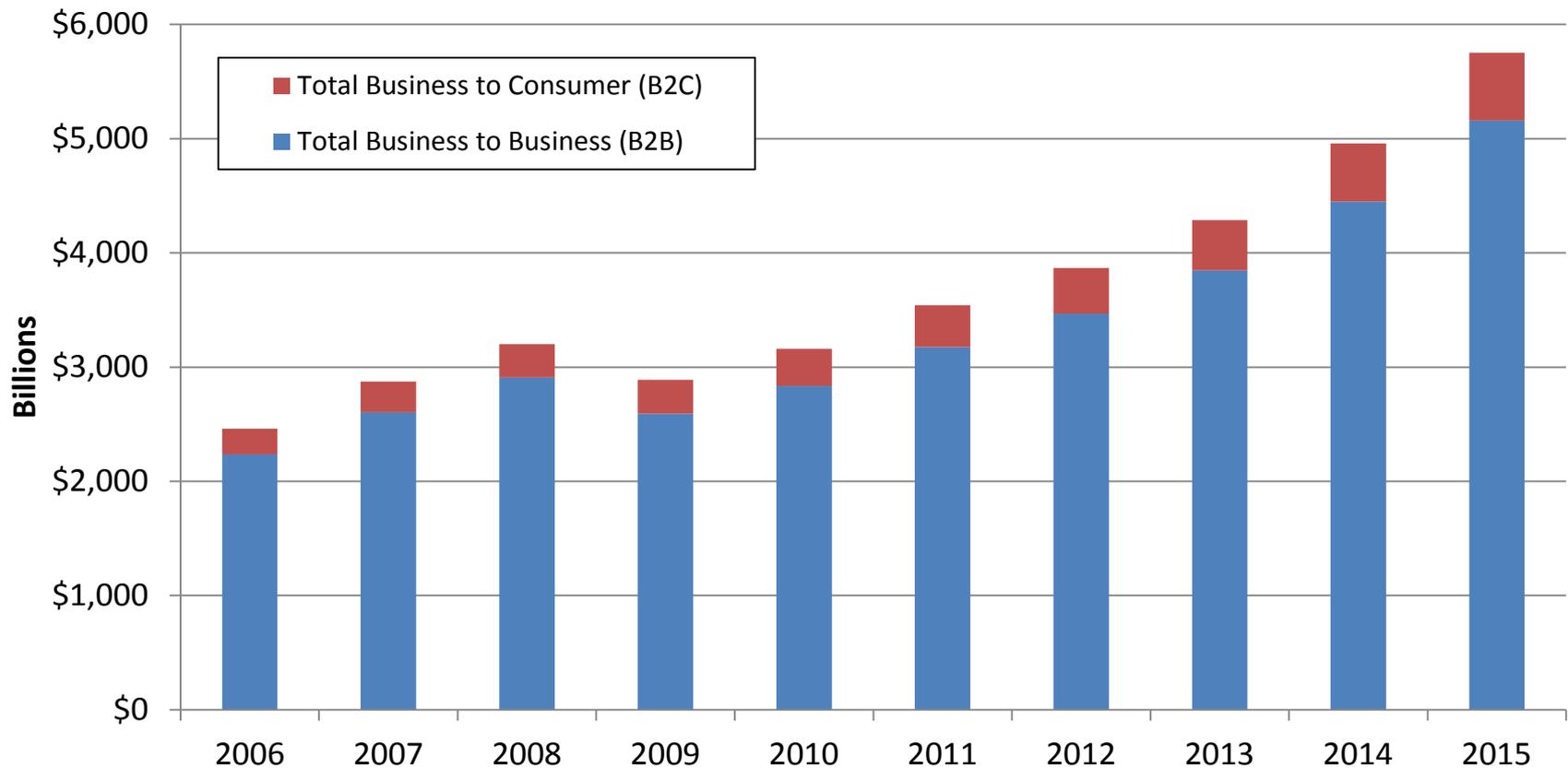
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E-Commerce elevates issues for sub-national transactions taxes

- State and local sales taxes in the US
- Selective sales taxes
- Some types of sales tax in Barcelona, Sao Paulo, Beijing
- VAT subnational in Brazil, Canada, India
- Open economy of the EU raises concerns similar to subnational
- Cross border e-commerce sales are a key issue for national VATs

ESTIMATED TOTAL U.S. E-COMMERCE SALES



*Sales-taxing states only.



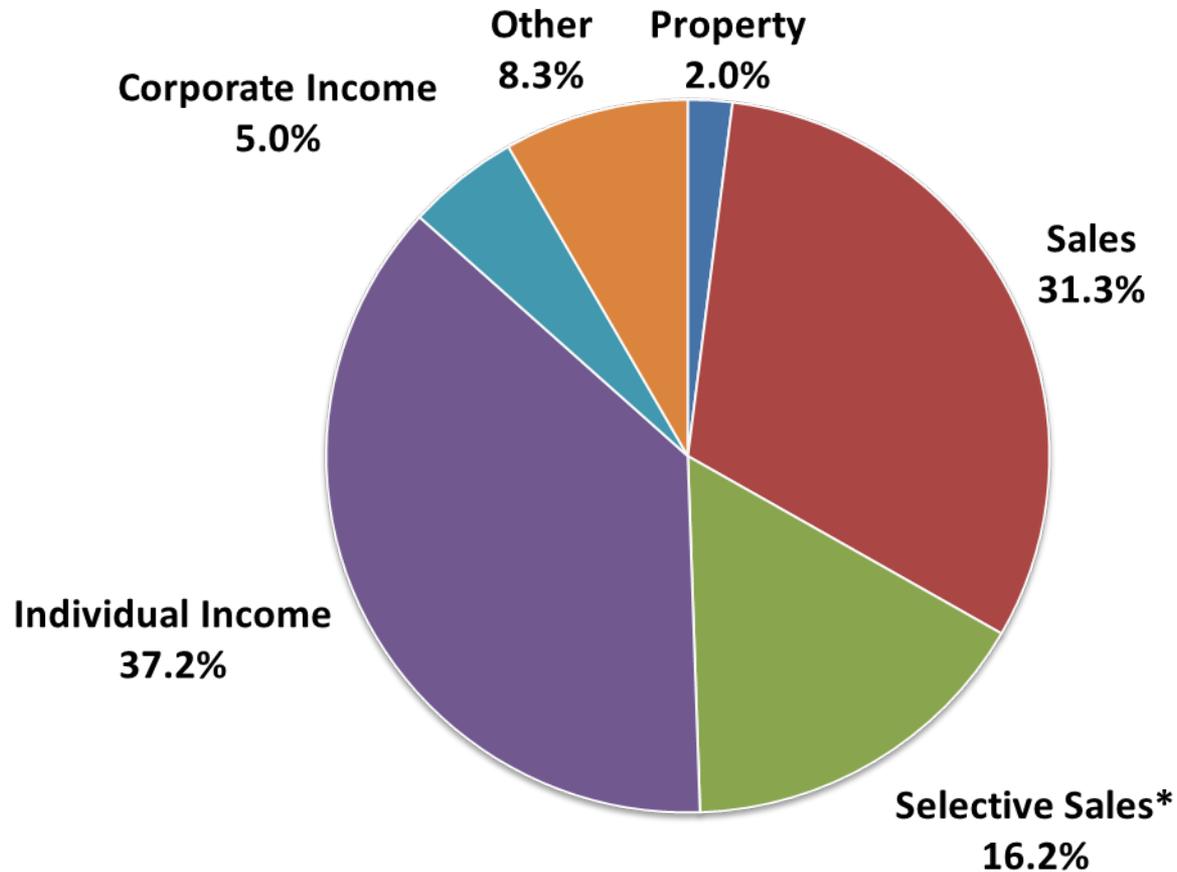
Europe 500: The Top 10

Retailer	2014 web sales (millions of euros)	2013 web sales (millions of euros)	Growth	Country
Amazon.com Inc.	21,091.2 ^e	17,576.0 ^e	20.0%	U.S.
Otto Group	6,500.0 ^e	6,000.0	8.3%	Germany
Tesco Stores	4,000.0 ^e	3,600.0 ^e	11.1%	U.K.
Staples Inc.	3,370.0 ^e	3,445.2 ^e	-2.2%	U.S.
Apple Inc.	2,790.0 ^e	2,585.0 ^e	7.9%	U.S.
Home Retail Group	2,600.3 ^e	2,469.6	5.3%	U.K.
Cnova NV/Groupe Casino	2,333.2	1,900.0	22.8%	France
Zalando SE	2,214.0 ^e	1,762.0	25.7%	Germany
Asda	1,990.0 ^e	1,621.7	22.7%	U.K.
Shop Direct	1,982.3 ^e	1,819.2	9.0%	U.K.
Total	48,871.0	42,778.6	14.2%	
Total Euro 500 sales	126,219.5	109,156.6	15.6%	

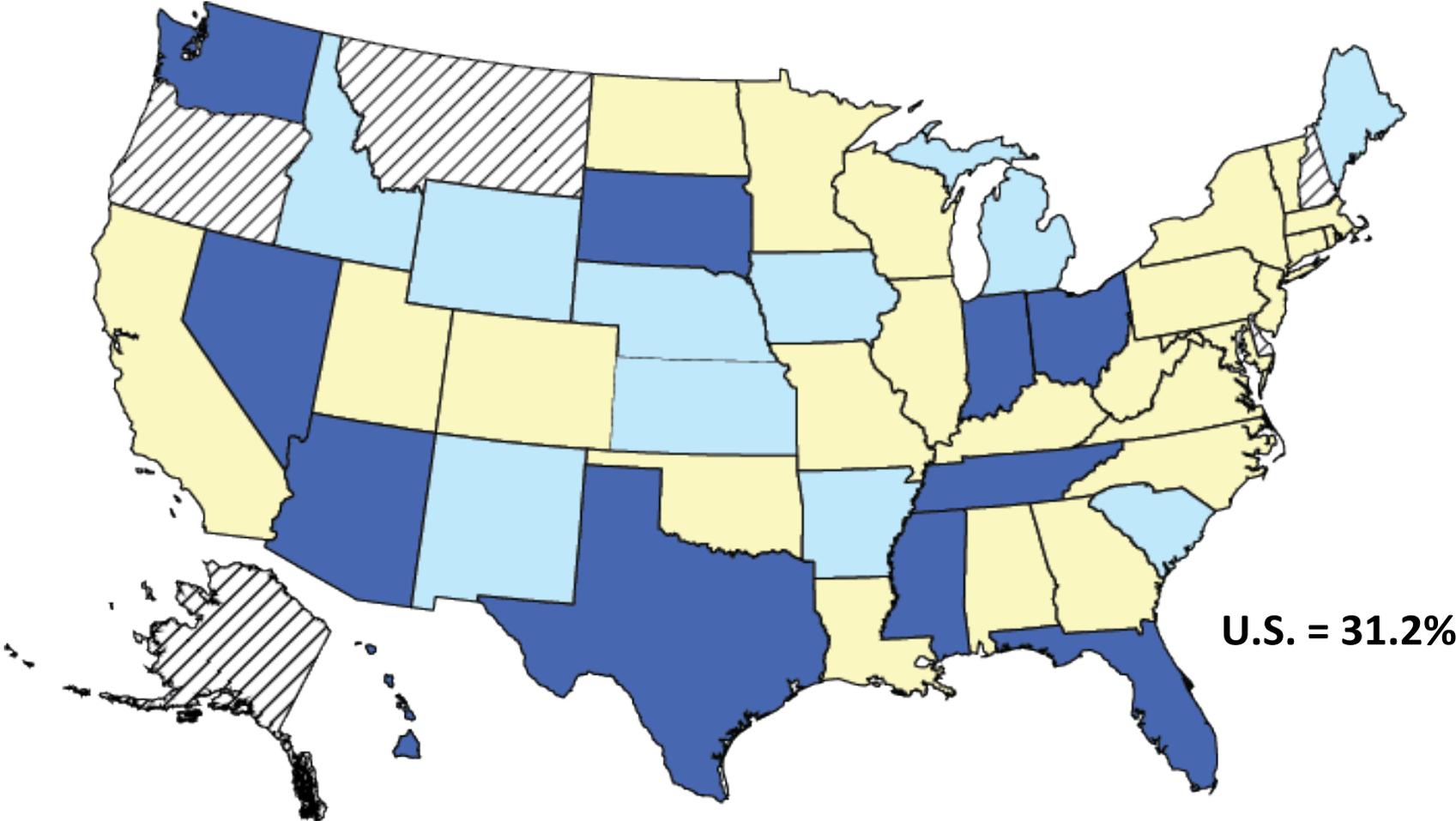
^e Internet Retailer estimate

Source: Internet Retailer 2015 Europe 500.

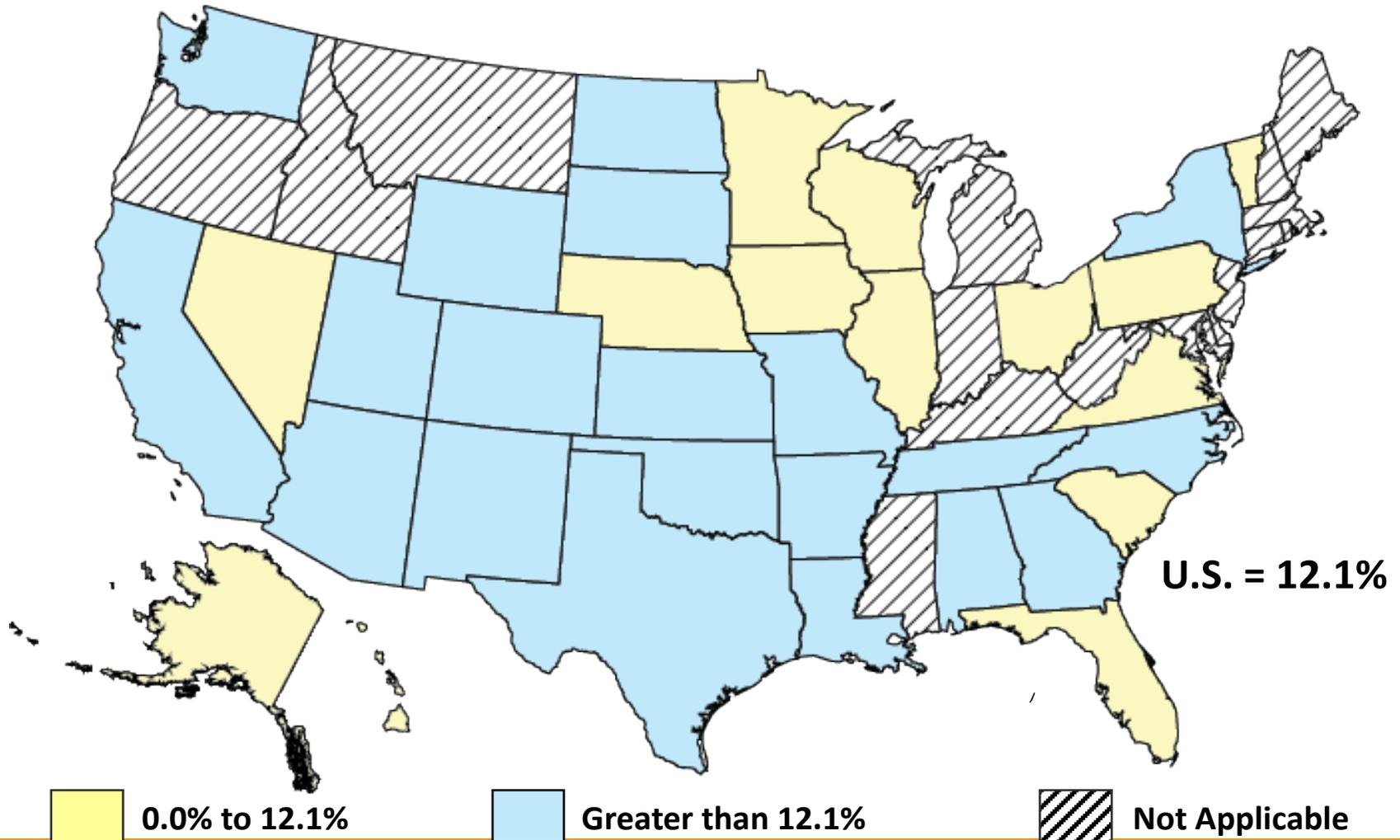
Percentage Distribution of State Tax Collections, 2016



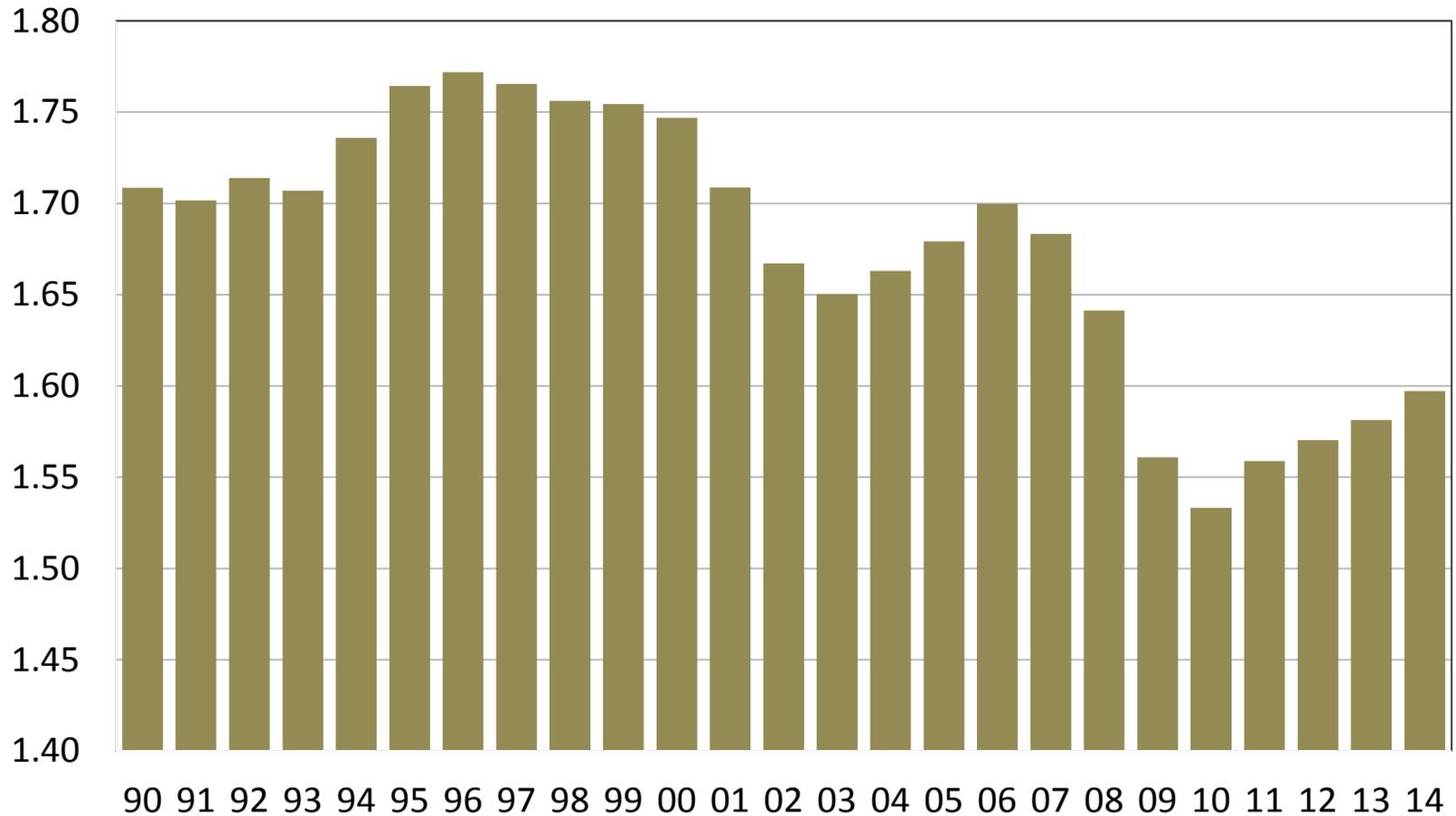
State General Sales Taxes as a Percentage of Total State Taxes, 2015



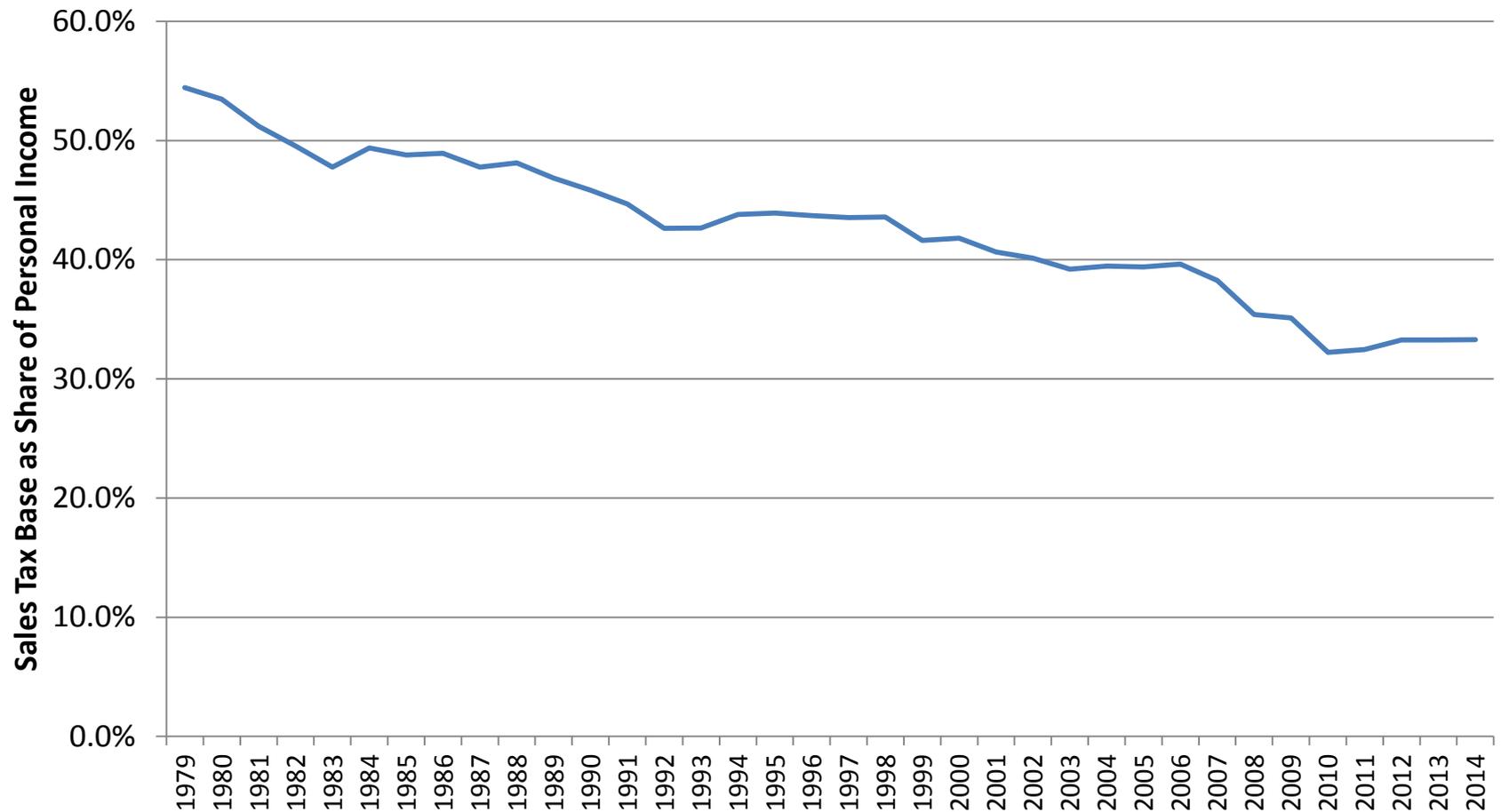
Local General Sales Taxes as a Percentage of Total Local Taxes, 2014



STATE GENERAL SALES TAX COLLECTIONS AS A PERCENT OF GDP



Sales Tax Base as Percentage of Personal Income, 1979-2014



Causes of base erosion

- Remote commerce
- Growth in service sector – health care
- Policy changes
 - Food, clothing, tax holidays

Elements of a good tax system

- Fairness
 - Horizontal equity
 - Vertical equity
 - E-commerce and the sharing economy may be used more by younger, higher income, and urban residents
- Revenues – losses probably modest (\$27 billion in US) at this point. Also puts downward pressure on sales tax rates
- Neutrality
- Administration and Compliance – more taxpayers, many of which could be small, will raise costs somewhat, but almost all firms are collecting for some jurisdiction. Can purchase the compliance service

Key issues

- Should transactions taxes be imposed at origin or destination?
- Are preferential rates for remote sales preferred (Bruce, Fox, Murray (2003); Zodrow (2006))?
- Are there means to enhance enforcement of destination taxation?

Destination or Origin Tax?

- Issues arise for cross-border sales, not so much when origin and destination are in the same jurisdiction
- Generally believed that origin easier for administration and compliance
- Both create distortions
 - Origin distorts cross-state input prices – production tax
 - Destination distorts cross-state output prices

Wide literature on Efficiency of Destination versus Origin Taxation

- Diamond and Mirrlees (1971) suggest that the DP is preferred
- Kanbur and Keen (1993) indicate OP taxes result in inefficiently low tax rates and similar externalities do not result from DP
- Lockwood (1993) shows that when taxes are set competitively, neither is superior
- Haufler et al (2005) show that OP is preferred if trade barriers are low and DP if they are high
- Behrens, et al (2007, 2009) conclude that how state economies are affected by origin versus destination taxation is an empirical question –
 - Never equivalent except with full harmonization
 - Origin principle raises tax competition, reduces tax revenues and results in more equal economic activity
 - No strong presumption of origin or destination being preferred

Destination versus Origin Tax

- Fox and Yang (2016) investigate impacts of the choice based on movements of the state corporate income tax towards destination. Conclude that greater destination taxation enhances state economic activity
- Equity concerns across large and small cities
- Economists frequently prefer destination and policy in both the EU and US is focused on destination

How do we situs destination?

- Can be hard to know where consumption takes place for e-commerce, particularly for digitized transactions
- Can use rules based systems, such as customer address, bank or credit card details, IP address, though can plan around some of this

Poor enforcement of Tax on E-commerce

- Not directly observable – look for behavior consistent with evasion, such as in Dutt and Traca (2010)
- One possible implication is that incidence depends on relative ability/willingness to evade taxes (Kopczuk et al, 2016)
- Also, companies that are better able or more willing to evade will crowd out companies that comply with taxes – creates rents for the evading firm

Impact on Trade

- Inability to enforce tax on cross border sales will shift purchases outside the government
- Uneven ability to enforce based on distance from a state will increase trade and likely the distance between buyer and seller – Fox, Luna and Schaur (2014)
- Information sharing across jurisdictions can help enforce destination, but info sharing between neighbors may encourage even more trading from further distances

Should e-commerce be tax favored?

- Effective tax rates on e-commerce often lower because of enforcement problems or because the tax structure did not anticipate them (such as with digitized transactions)
- Arguments for lower tax on e-com
 - Build the internet network and users
 - Perhaps efficiency enhancing

Optimal Tax and E-commerce

- OT can be drawn on if goods delivered via different channels are different? Is a book ordered through e-commerce channel the same as in B&M store? What if the book is digitized when ordered online? Gorman/Lancaster characteristics based approach
- Optimal tax rules don't generally indicate identical tax rates, so when should rates for online be lower
 - Ramsey rule – more elastic
 - Tax at lower rates if less complementary with leisure
 - Zodrow notes if increase supply of labor

E-commerce and remote elasticities

- E-Commerce Elasticity
 - Einav et al (2014) – tax price elasticity driven both by elasticity of demand and salience of the tax – higher elasticity on higher priced items
 - Ellison and Ellison (2009)
 - Suggestive of tax evasion, transfer across channels, and movement to a vendor with lower effective tax rates
- ▶ Excise taxes
 - ▶ Goldin and Homonoff (2013) – regressiveness depends on portion of tax levied at register – only low income respond to taxes at the cash register
 - ▶ Goolsbee, Lovenheim, and Slemrod (2010) tax price elasticity has risen significantly because of Internet access
- ▶ Cross border shopping – studies on sales taxes along borders (Mikesell (1970, 1971) and Fox (1986)) show high elasticities

Optimal Tax and E-commerce

- Intermediate goods – differential, non-zero factor taxes if
 - Imperfect markets
 - Limitation on commodity taxes – political problem in taxing many services

Optimal taxation and e-commerce

- ▶ Very hard to make case that e-commerce should be tax preferred – strongest case is for uniform taxation
- ▶ Seems really unlikely that differential effective rates (even within e-commerce) arising from inability to enforce on some remote e-commerce would achieve optimal taxation
- ▶ Case for lower tax on e-commerce is even less likely if bring in equity and administration/compliance costs

U.S. sales/use tax structure

- Tax due on a destination basis on most consumer goods purchases, some service purchases, and a wide range of intermediate input purchases
- Birkland and Ring (2014) estimate that 53 percent of base is domestic consumption purchases
- Compliance operates through two channels
 - Sellers are responsible for collecting and remitting the tax in cases where they have physical presence in the state, and can voluntarily comply in other states
 - Compliance by the buyer when seller does not collect
 - very poor compliance
- Complicated by local taxes because of vertical and horizontal relationships- Agrawal

US enforcement of tax

- Quill v. North Dakota, 504 U.S. 298 (1992) (following National Bellas Hess v. Department of Revenue) only allows states to assert nexus over firms with physical presence. Decided on commerce clause grounds and not Due Process grounds. Does not define physical presence.
- U.S. reforms have been bottom up

States are using several approaches to improve enforcement at destination

- The status quo is one option
- Nexus rules

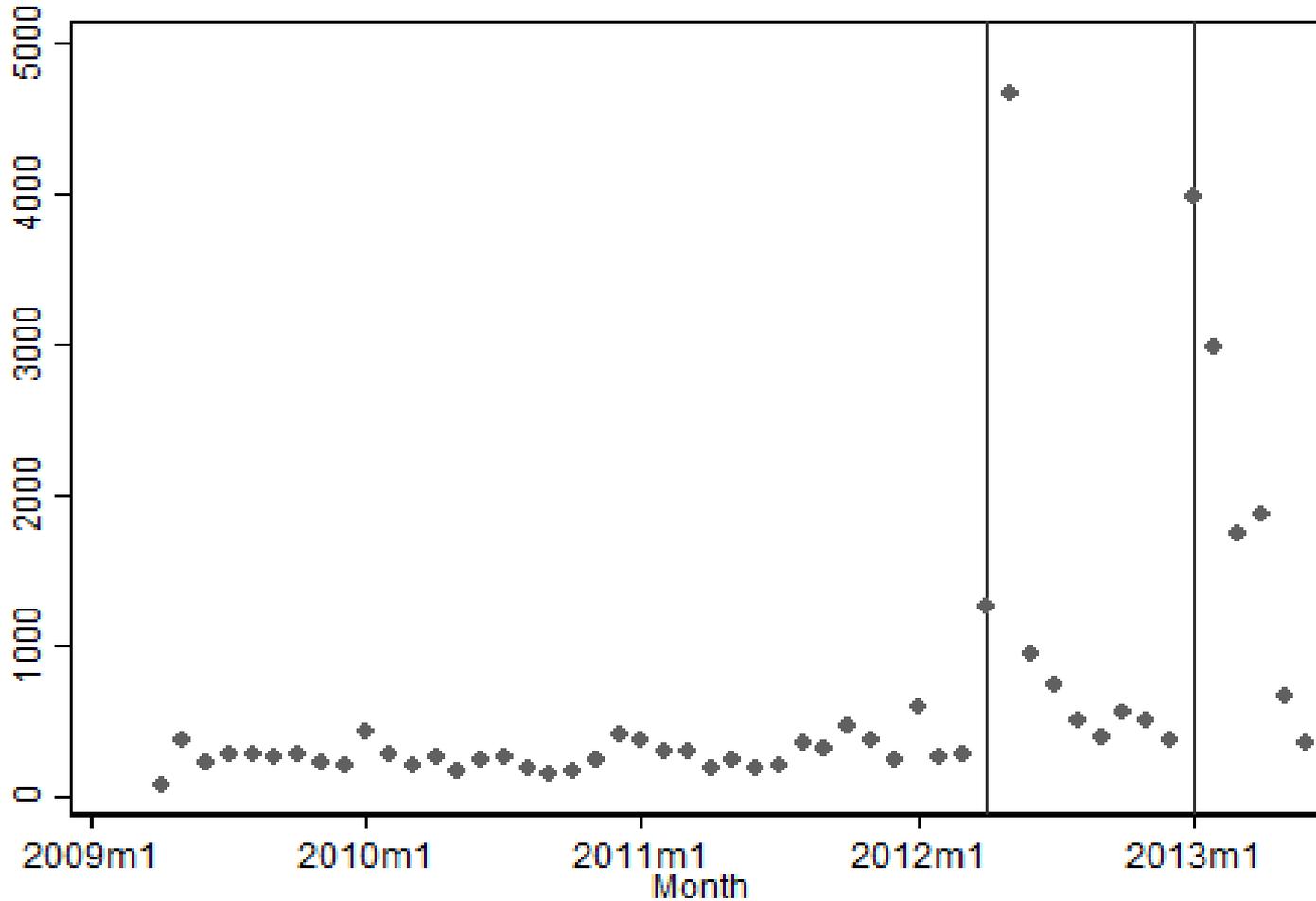
Physical presence

- Stores and inventories
- Sending salesmen or repairmen in the state
- Delivering goods with company vehicles
- Leasing storage space
- Bank account
- Listing in a phone directory
- Agency nexus - Click-through-nexus –Amazon sales fall by 9.5% (Baugh et al)
 - Affiliate nexus based on relationships between related companies

States are using several approaches to improve enforcement at destination

- The status quo is one option
- Nexus rules
- Require third party reporting – Colorado, Tennessee, Nebraska
 - Notion is that third party reporting enhances compliance and administration (Slemrod, 2007)
- Income tax filing – 25 states allow individuals to report use tax liability on income tax returns – is the use tax a surcharge on the income tax?

USE TAX RETURNS BY MONTH



Broader approaches in the U.S.

- Cooperation – Streamlined Sales Tax Governing Board (24 states)
- Federal legislation
 - Marketplace Fairness Act of 2017
 - Remote Transactions Parity Act of 2017
 - No Regulation without Representation Act of 2017 codifies physical presence
- Reconsideration of the Quill case – Several states have legislation to enforce collection on remote sales – Alabama, South Dakota, Tennessee. DMA v. Brohl
 - Likely general rather than precise rules

EU efforts to enforce destination taxes without border controls – top down

- Moved from a self assessment system
- Broader base than most states, so bigger problem for services and digitization
- Digital products are taxed on destination basis for EU firms using the Mini One-Stop Shop. Submit a quarterly return in country where supplier is located and revenue redistributed on a destination basis.
- Due on a destination basis if sold from outside the EU. Can this be enforced?

EU Efforts to enforce destination taxes without border controls

- Within the EU, destination for goods if sales exceed threshold, origination if below threshold. Approach balances destination and compliance costs.
- Use a reverse charging system in some cases – place remittance on buyer



Enforcement around the world

- Over 35 countries have introduced new rules for digitized products though many have not adopted
- Brazil – collects at origin and share with destination, but only on e-commerce. How does this get enforced?
- China – new requirement of collection at border by customs

BOYD CENTER FOR BUSINESS AND ECONOMIC RESEARCH

**Haslam College of Business
The University of Tennessee, Knoxville
716 Stokely Management Center
916 Volunteer Boulevard
Knoxville, Tennessee 37996-0570**

**phone: 865.974.5441
fax: 865.974.3100**

<http://cber.haslam.utk.edu>

