PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS

The BAT and the VAT: Similarities and Differences

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Background & Presentation

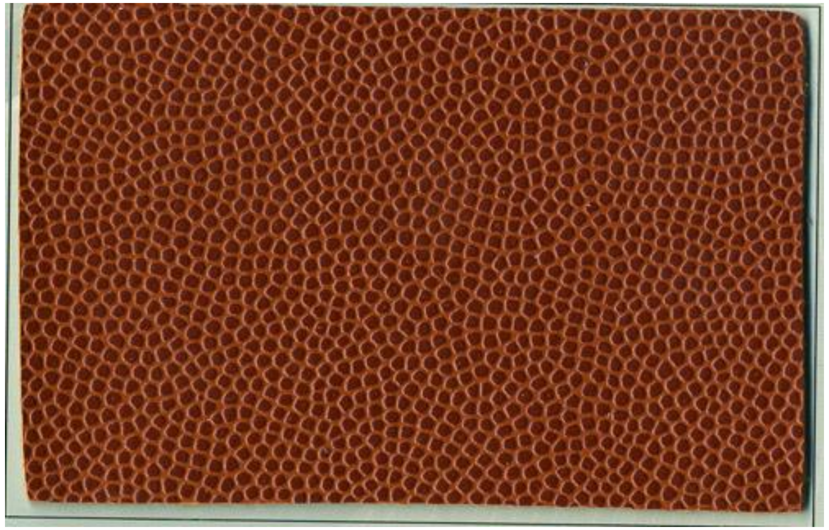
- Background: Common misperception that border adjustment on value added tariff (VAT) is protectionist
  - “Let me give you the example of Mexico. They have a VAT tax. We’re on a different system. When we sell into Mexico, there’s a tax... 16 percent, approximately. When they sell into us, there’s no tax. It’s a defective agreement.” Donald Trump, September debate

- My presentation will argue:
  - VAT offset at border is not a tariff
  - Border Adjusted Cast Flow Tax (BAT) is not a VAT
  - Real exchange rate will neutralize border adjustment
  - But, short-run dynamics of implementing BAT are complex

A VAT is a sales tax collected by the producer

Assume 20% VAT
Sells leather $5 =collects $1 VAT

Sells football $10 =collects $2 VAT
Gets refund of $1 for leather



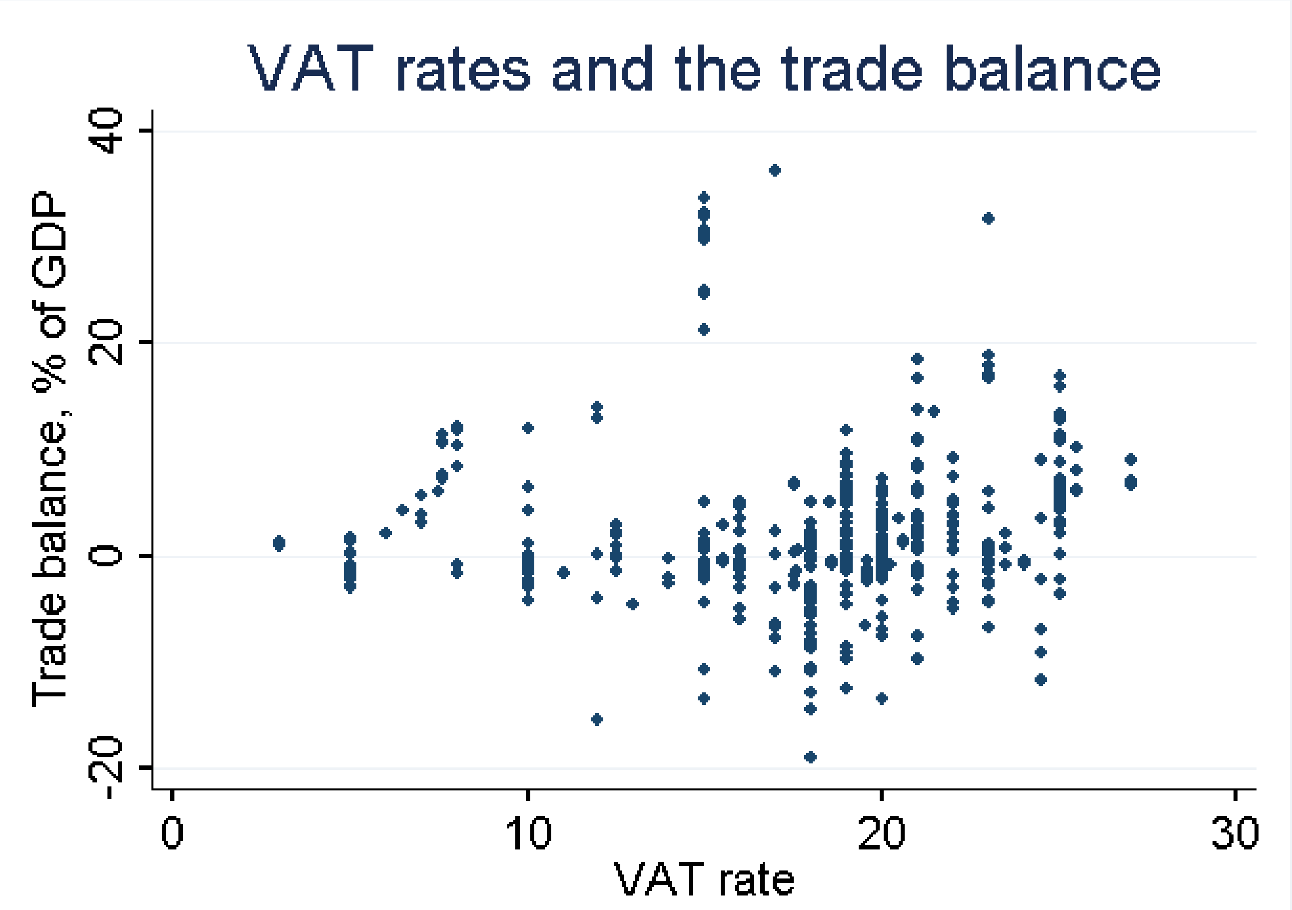
A VAT is a tax on final consumption, like a sales tax

VAT is 16%

Everything sold in Mexico gets taxed 16%

Exports are not sold in Mexico—not taxed
& receive rebate for intermediate taxes paid.

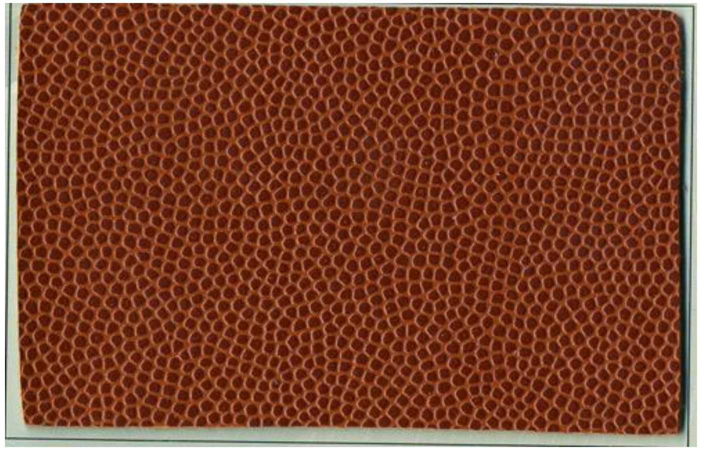
VAT rates are not correlated with Trade Surpluses



Source: OECD and World Bank

The BAT is a cash flow tax collected by the producer

Sells leather $5
- Labor costs $3
Tax base = $2
Tax=20%*$2=$.40



Sells football $10
- Leather costs $5
- Labor costs $2
Tax base = $3
Tax=20%*$3=$.60

The BAT is collected by the producer

Sells leather $5

 - Labor costs $3

Tax base = $2

Tax=20%*2=$.40

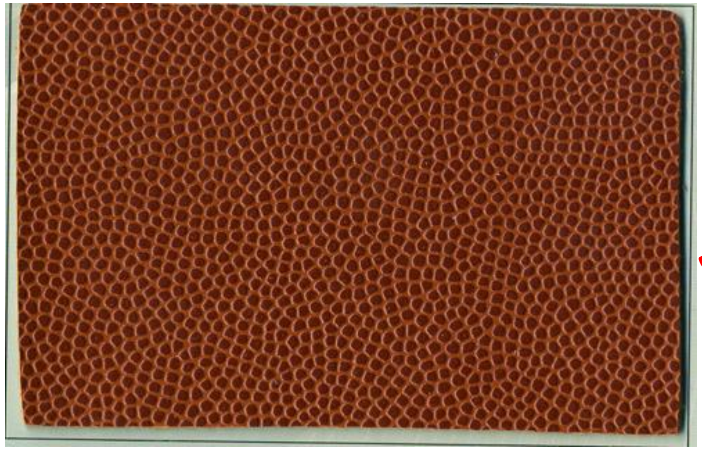
Sells football $10

 - Leather costs $5

 - Labor costs $2

Tax base= $3

Tax=20%*3=$.60



Total Tax $1

What happens if intermediates are imported?

Sells football $10

Imported leather $5

- Labor costs $2

Tax base = $8

Tax=20%*$8=$1.60

What happens if intermediates are imported?

Sells football $10

Imported leather $5

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Tax=20%*$8=$1.60

Tax rates vary across firms and industries

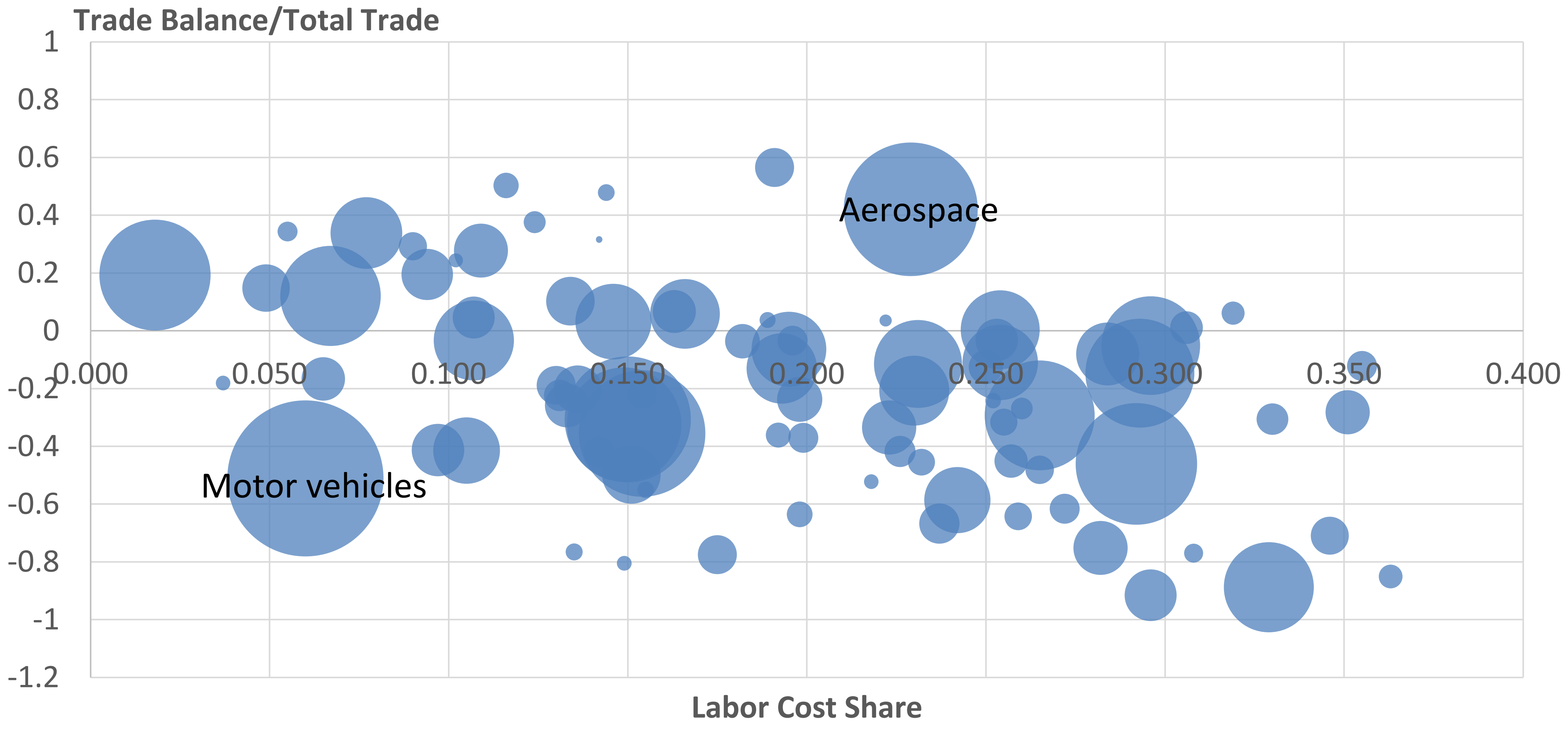
Imports face higher tax rates.

Firms using imported inputs face higher tax rates.

Industries with higher labor share face lower tax rates.

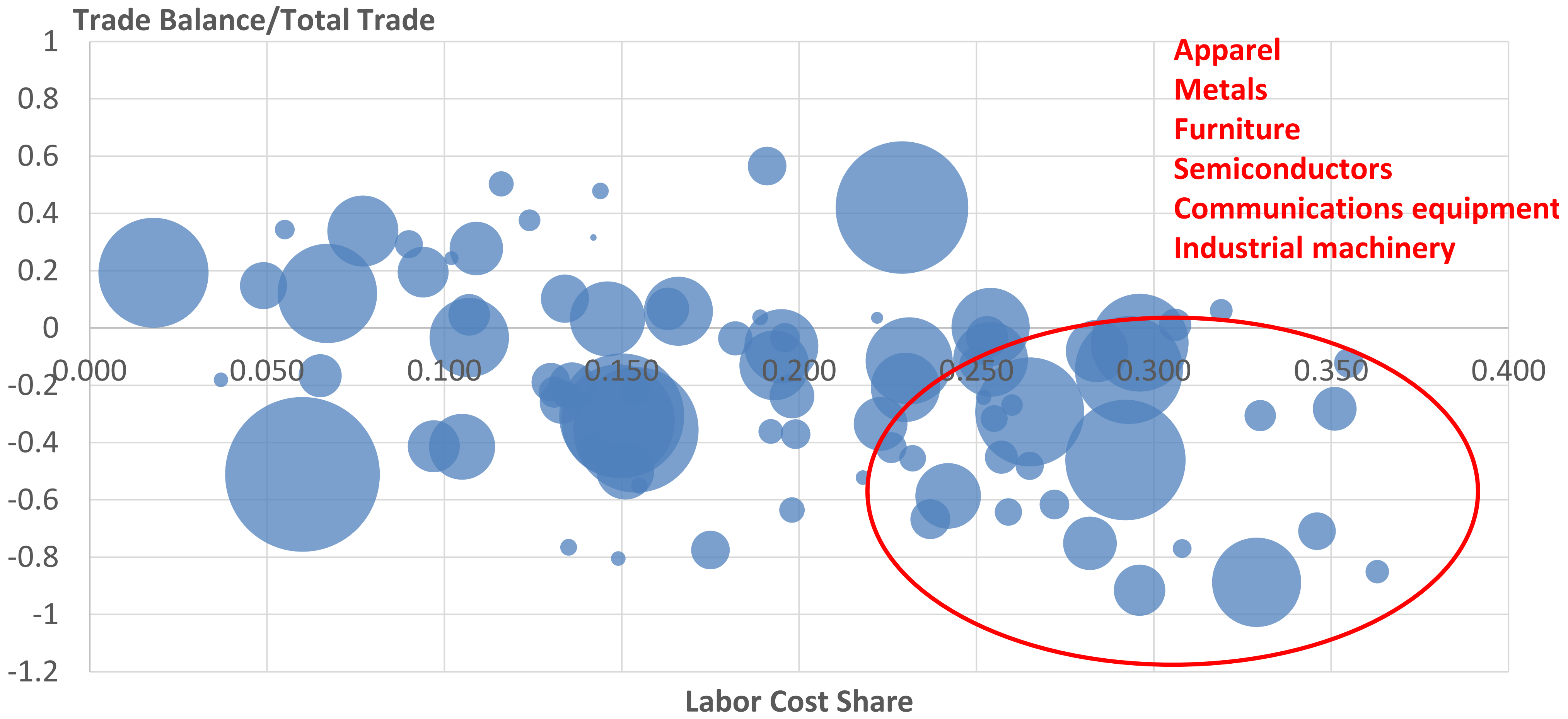
Labor share	Imported football	Integrated producer	Domestic producer
High	20%	16%	10%
Zero	20%	20%	20%

Labor Share and Net Exports



Source: BLS and US Census Bureau

Labor Share and Net Exports



Source: BLS and US Census Bureau

But, real exchange rate will adjust to offset

- Firms prefer to export because no tax
  – Export supply increases, more demand for $ to buy exports
  – Less supply in US, domestic prices rise
- Firms don’t want to import because of taxes
  – Import demand decreases, less demand for foreign currency to buy imports
  – Import prices are higher, domestic price rises
- These forces appreciate real exchange rate
- Trade flows, saving and investment were in equilibrium before border adjustment, so real exchange rate should adjust to exactly offset tax

What happens if exchange rate adjusts?

Domestic Producer

Sells football $10
- leather costs $5
- Labor costs $2

Tax base = $3
Tax=20%*3=$.60
After tax profit=$2.40

Integrated Producer

Sells football $10
No ER adjustment:
Leather costs $5
With ER adjustment
Leather cost $4
Labor costs $2
Tax base = $8
Tax=20%*$8=$1.60
After tax profit=$1.40 or
w/ ER Adjustment = $2.40

Exchange rate adjustment under a BAT could be messy

- Effect with VAT is transparent – prices go up almost one-for-one. There is even a name for it “full forward shifting”.
- VATs are uniform across firms and industries during transition, so even if there is a delay, there are no preferences
- Transition to a BAT is unchartered territory & 20% requires a large move
  - Theory suggests same forces at work, BUT
  - Price increase is not transparent and FED may not accommodate
  - Exchange rate markets move mainly by traders, especially for dollar
  - Some exchange rates are fixed or managed
  - (Wealth effects)
- Without exchange rate adjustment, border tax discriminates across industries – not the case with a VAT.