Corporate Income Tax Burdens at Home and Abroad

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U.S. Presidential debate, September 26, 2008

McCAIN:

"Right now, **American business pays the second-highest business taxes in the world, 35 percent. Ireland pays 11 percent.**

"Now, if you're a business person, and you can locate any place in the world, then, obviously, if you go to the country where it's 11 percent tax versus 35 percent, you're going to be able to create jobs, increase your business, make more investment, et cetera.

"I want to cut that business tax. I want to cut it so that businesses will remain in the United States of America and create jobs."

U.S. Presidential debate, September 26, 2008

OBAMA:

"Now, John mentioned the fact that business taxes on paper are high in this country, and he's absolutely right. Here's the problem: There are so many loopholes that have been written into the tax code, oftentimes with support of Senator McCain, that we actually see **our businesses pay effectively one of the lowest tax rates in the world**."

What We Do and What We Find

- Estimate average effective tax rates (AETRs) using financial statement information
- Compare AETRs for domestics and multinationals
  - Multinationals and domestic firms face similar AETRs.
- Compare AETRs across countries
  - Country AETR order remains consistent over time.
  - Japan has the highest AETRs
  - U.S. and European countries have above-average AETRs.
  - Middle East, Tax Havens and Asian (ignoring Japan) countries have below-average AETRs.

What We Do and What We Find

- Compare AETRs across years
  - Average AETR decline from 1988-2007 was 6 percentage points (18%), much of which occurred from 1992-1994.

- Measure the impact of foreign subsidiaries on AETRs
  - Sub countries have consistent effects on parent tax burdens across parent countries.

Empirical methods

Three specifications:

$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^{j} + \sum \beta_{1_j} (COUNTRY_{it}^{j} * MN_{it})$$
$$+ \sum \beta_{2_k} INDUSTRY_{it}^{k} + \sum \beta_{3_m} YEAR_{it}^{m} + \sum \beta_{4_n} SIZE_{it}^{n} + \varepsilon_{it} \qquad (1)$$

$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^{j} + \sum \beta_{1_k} SUB_{it}^{k}$$
$$+ \sum \beta_{2_m} INDUSTRY_{it}^{m} + \sum \beta_{3_n} YEAR_{it}^{n} + \sum \beta_{4_p} SIZE_{it}^{p} + \varepsilon_{it} \qquad (2)$$

$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^{j} + \sum \beta_{1_k} SUB_{it}^{k} + \sum \beta_{2_l} COUNTRY_{it}^{j} * SUB_{it}^{k}$$
$$+ \sum \beta_{3_m} INDUSTRY_{it}^{m} + \sum \beta_{4_n} YEAR_{it}^{n} + \sum \beta_{5_p} SIZE_{it}^{p} + \varepsilon_{it}$$

Variables

$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^{j} + \sum \beta_{1_j} (COUNTRY_{it}^{j} * MN_{it}) + \sum \beta_{2_k} INDUSTRY_{it}^{k} + \sum \beta_{3_m} YEAR_{it}^{m} + \sum \beta_{4_n} SIZE_{it}^{n} + \varepsilon_{it} \qquad (1)$$

AETR = book ETR (from the financial statements)

- Numerator is total tax expense (≥0)
  - Same conclusions using current income tax expense
- Denominator is NIBT (>0)
  - robust to other income measures

Coefficients of Interest

- β_0 = domestic AETR ($\beta_0 + \beta_1$) = multinational AETR

Controls

- Industry (two-digit NAICS)
- Year
- Size – percentile rank of sales, assets, equity

Data – Osiris (Bureau van Dijk)

Through WRDS	Through Internet
• Parent financial data • Time series • 1980 – 2007 • Last update 2/13/08	• # reported subs • # reported foreign subs • List of subs (incl country) • As of 12/8/08

Indicator variables
• MN = 1 if # reported foreign subs > 0 • SUB^k = 1 if firm has 1 or more subs in country k

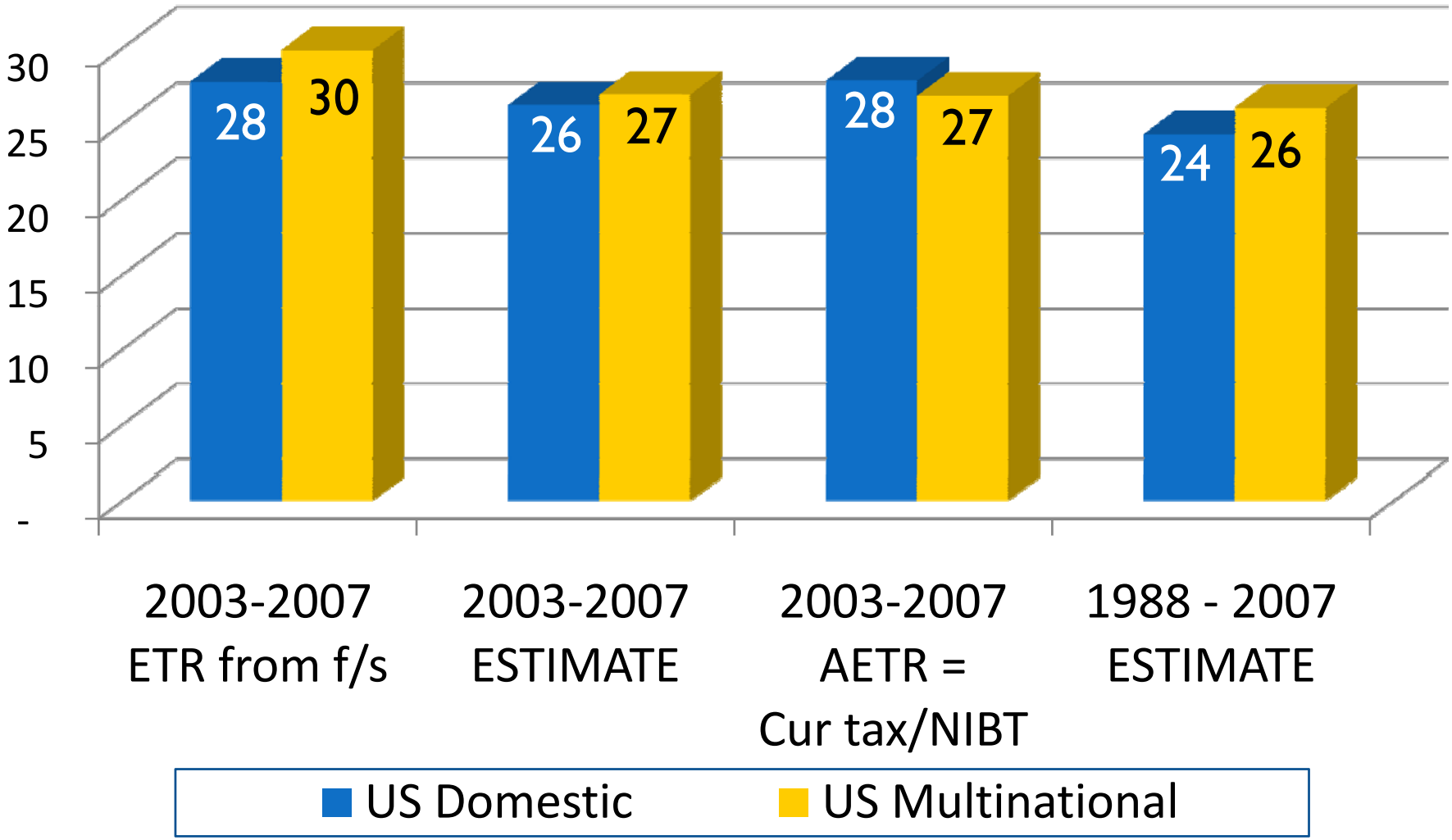
Data

Sample: parent firm-years in 85 countries
sub firm-years in 195 countries

Grouped:

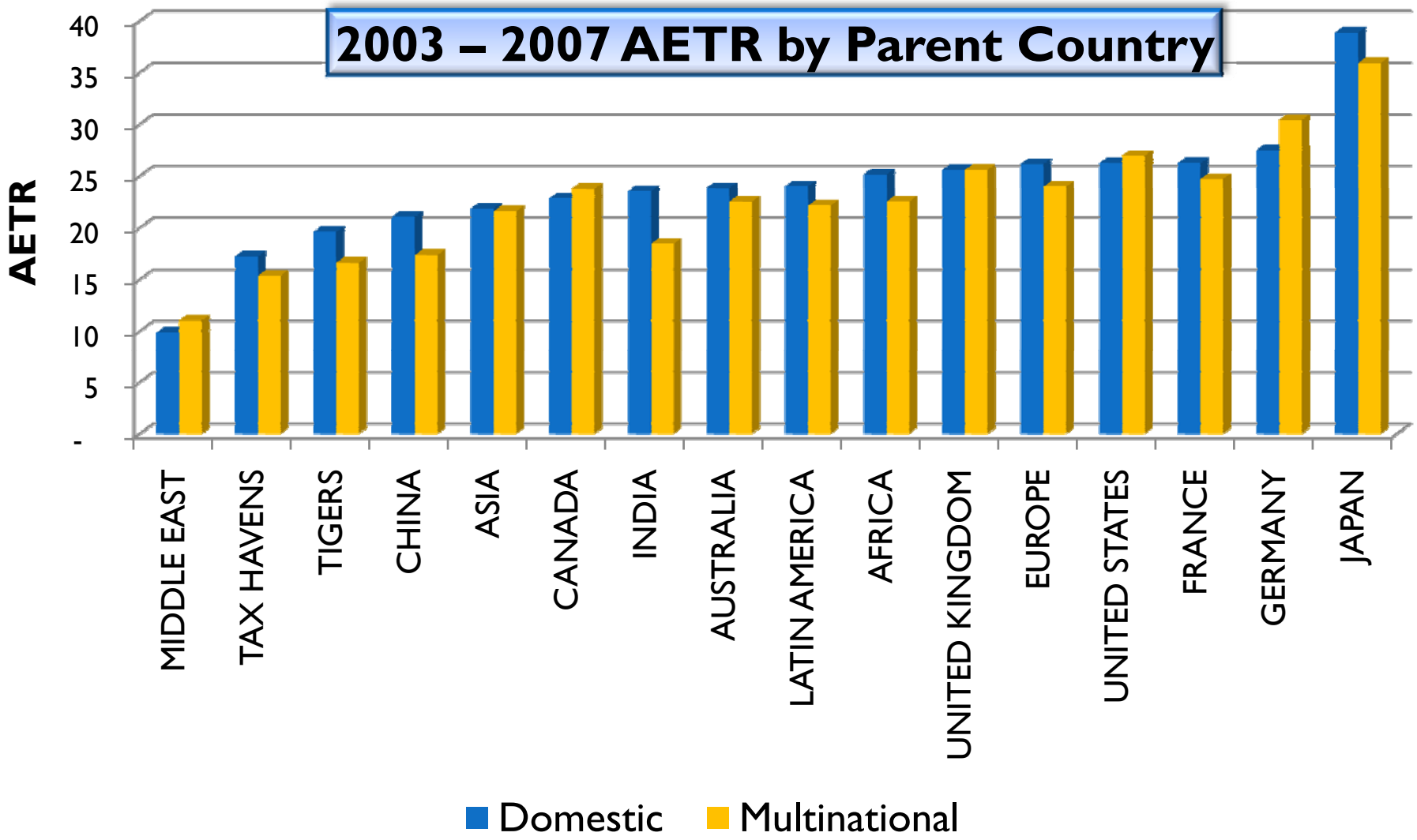
Countries	Groups
• Australia • Canada • China • France • Germany • India • UK • US	• Asian Tigers • Tax Havens • Africa • Asia • Europe • Latin America • Middle East

U.S. Tax Rates



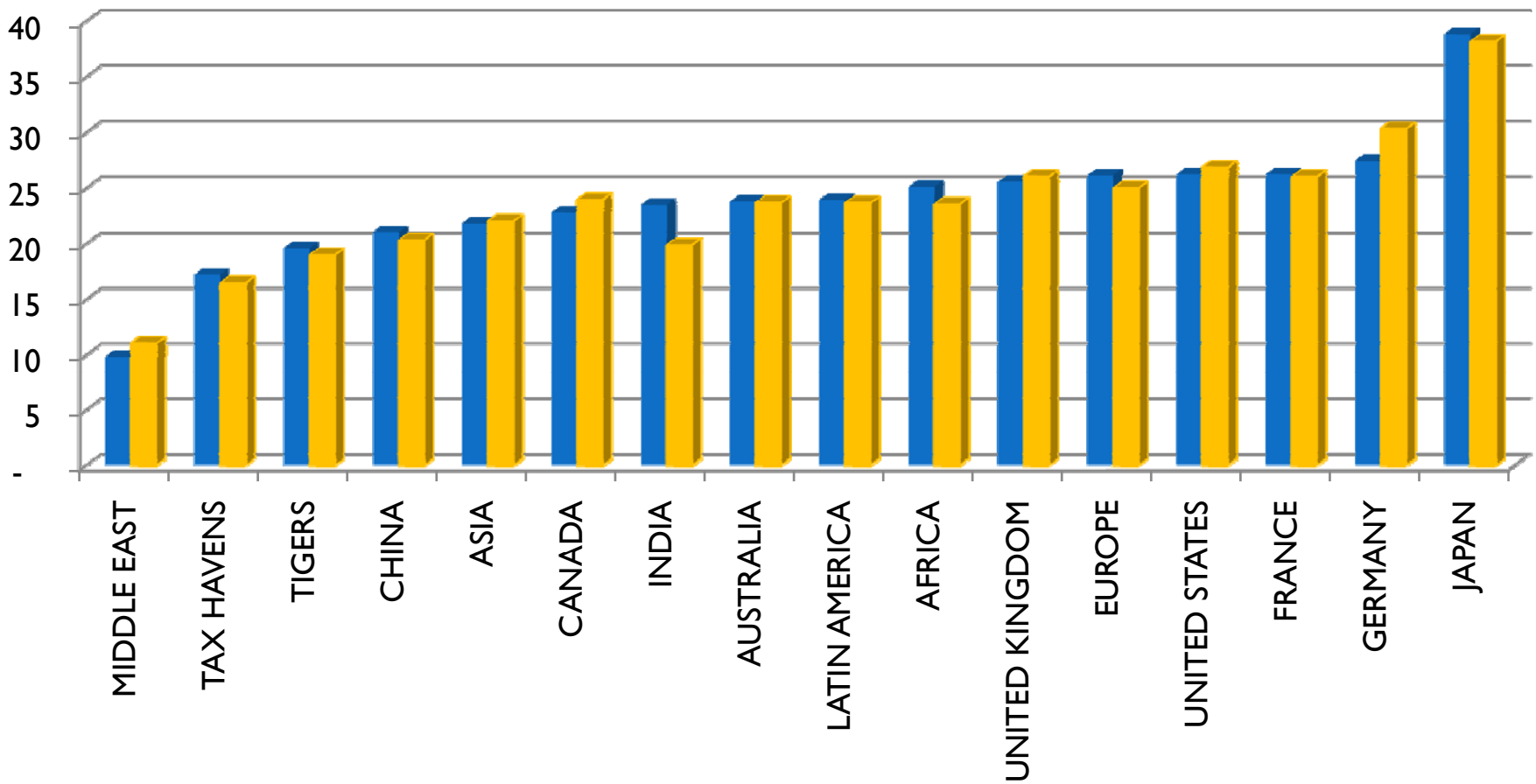
$$AETR_{it} = \sum \beta_{0j} COUNTRY_{it}^{j} + \sum \beta_{1j} (COUNTRY_{it}^{j} * MN_{it})$$

Within-country domestic vs. multinational



$$AETR_{it} = \sum \beta_{0j} COUNTRY_{it}^{j} + \sum \beta_{1j} (COUNTRY_{it}^{j} * MN_{it})$$

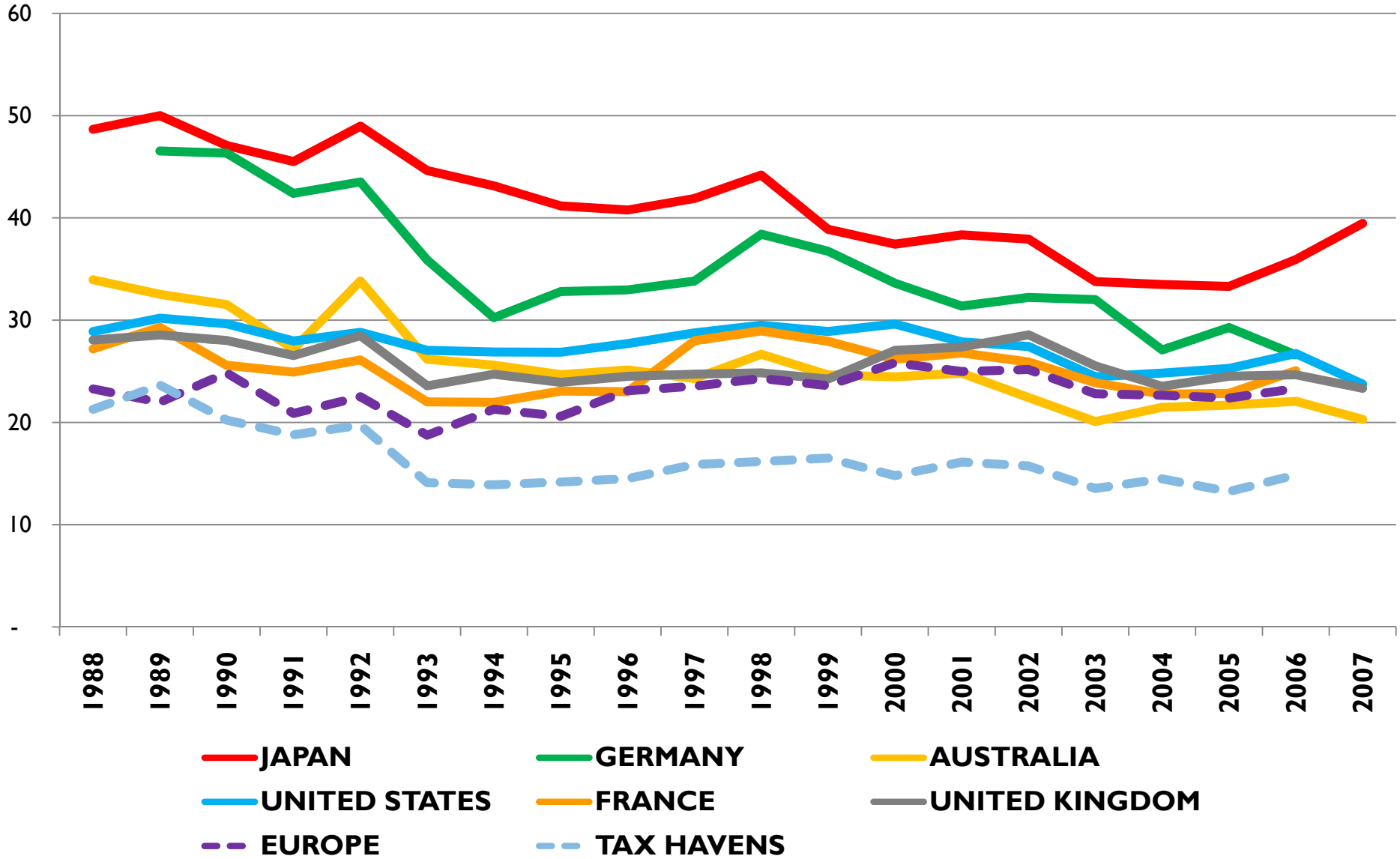
AETR conditional on location of subs



$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^{j} + \sum \beta_{1_j} (COUNTRY_{it}^{j} * MN_{it})$$

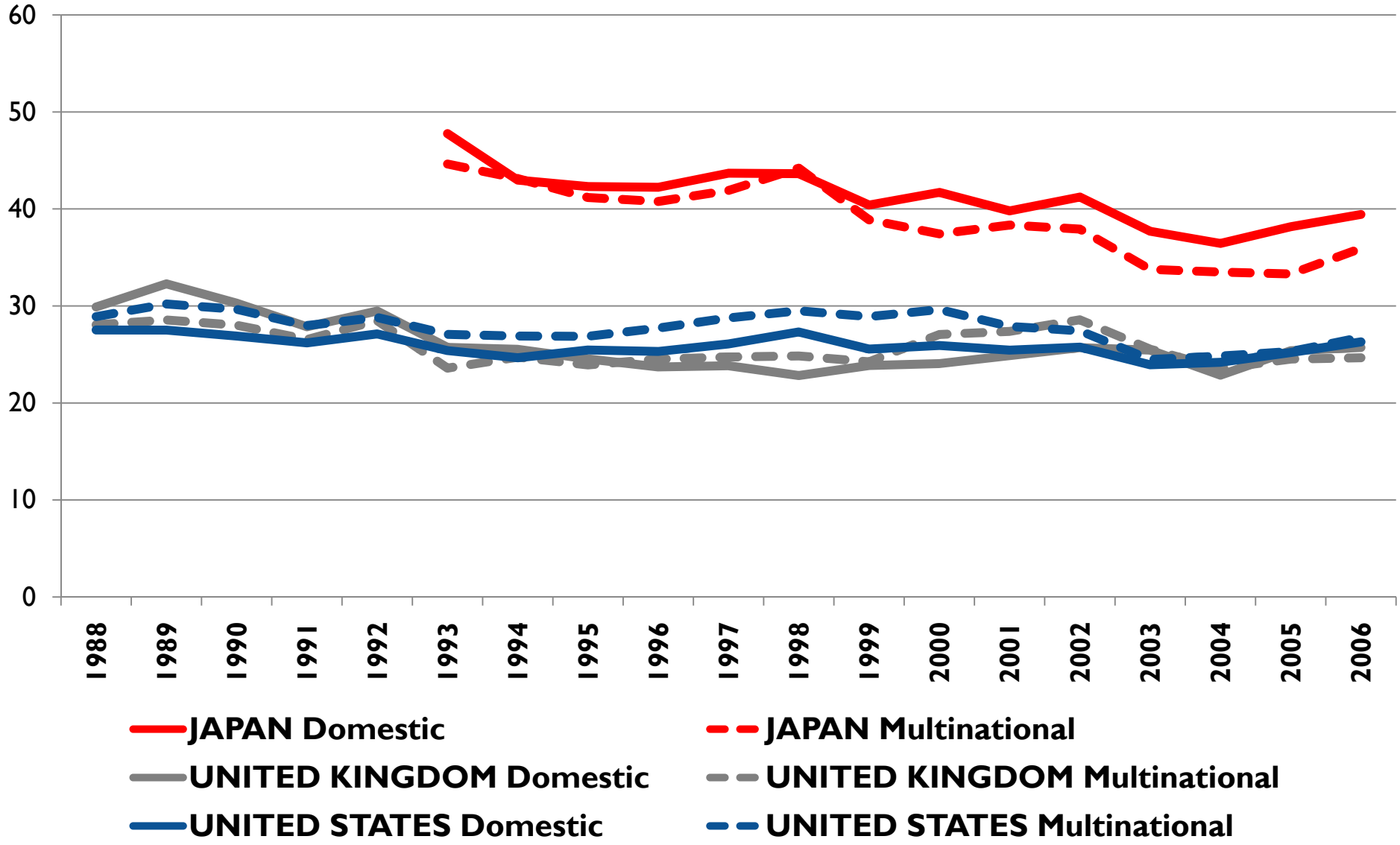
$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^{j} + \sum \beta_{1_k} SUB_{it}^{k}$$

Multinational Tax rates over time



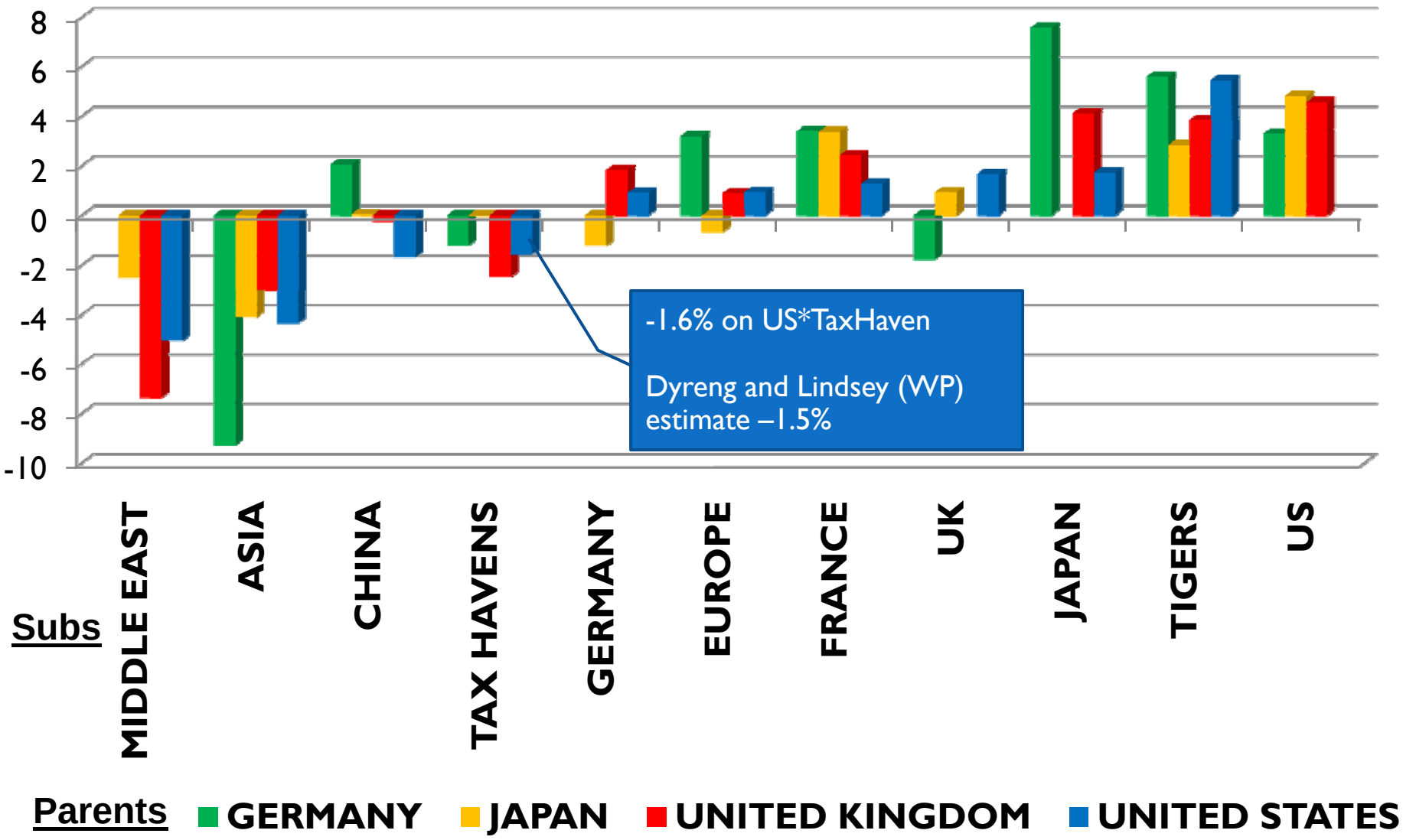
$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^{j} + \sum \beta_{1_j} (COUNTRY_{it}^{j} * MN_{it})$$

Multinational Gap over time



$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^j + \sum \beta_{1_j} (COUNTRY_{it}^j * MN_{it})$$

Impact of sub location by parent country



$$AETR_{it} = \sum \beta_{0_j} COUNTRY_{it}^{j} + \sum \beta_{1_k} SUB_{it}^{k} + \sum \beta_{2_{ij}} COUNTRY_{it}^{j} * SUB_{it}^{k}$$

Future Work--Clusters

- Companies appear to cluster among countries
  - e.g., If anywhere in Europe, then in Ireland, the Netherlands, and Switzerland?

- Future work:

  How does this clustering affect our understanding of the taxes on multinationals?

What We Find

- Multinationals and domestic firms face similar AETRs.
- Average AETR decline from 1988-2007 was 6 percentage points (18%), much of which occurred from 1992-1994.
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