PENN WHARTON
UNIVERSITY of PENNSYLVANIA
Budget Model

Recent Trends in US Multinational Activity

Summary: We examine recent trends in the activities of US multinationals and their foreign affiliates using data from the Bureau of Economic Analysis's annual survey of US direct investment abroad. Since the passage of the Tax Cuts and Jobs Act (TCJA), multinational activity has become more domestically concentrated, continuing a trend that started before the legislation. This has coincided with a decline in the US effective corporate tax rate and relatively stable foreign effective tax rates.

Key Points

- Since the passage of TCJA, multinationals have increased the share of their economic activity in the United States relative to foreign countries, although this continues a trend that predates the legislation. Multinationals' income tax paid to the US, however, has fallen relative to foreign income taxes, likely because of the TCJA's reduction of the US corporate tax rate.

- Prior to TCJA, foreign affiliate effective tax rates declined relative to the US parents' domestic tax rate. After TCJA, multinationals face similar effective income tax rates on their US and foreign activities.

- The geographic distribution of profits has remained relatively stable since the passage of TCJA. Ireland continues to appear as an outlier in terms of the location of US foreign income.

- Industries commonly highlighted in the profit shifting debate, including tech firms and pharmaceutical manufacturers, have continued to benefit from low foreign effective tax rates since 2018.

Background

The Bureau of Economic Analysis (BEA) conducts annual surveys of US direct investment abroad, which form the basis for its annual publication of statistics on the worldwide activities of US multinational enterprises (commonly referred to as AMNE statistics). This data provides some of the most detailed information available to the public regarding the activity of US multinational enterprises (MNEs) and their foreign affiliates and covers a wide range of economic activities. This allows researchers to examine concepts such as the geographic and industrial distribution of payroll, capital investment, research and development, income, and taxes of these firms both domestically and abroad.

The BEA releases this data with a considerable lag—the current release, which provides information through 2021, was published only recently in November 2023. In the past, PWBM has leveraged BEA's AMNE data to examine the initial response of multinational activity to TCJA. Given that the BEA data now provides information for a full four years after that bill passed, this brief revisits and extends that analysis to examine how the behavior of US MNEs evolved in the years surrounding its enactment.

Aggregate trends in domestic and foreign activities of US multinationals

Figure 1 shows the evolution of several key economic indicators for US parent corporations' domestic activities compared to their foreign affiliates.[1] Over the past decade, US multinationals have demonstrated stronger growth at home than abroad across a range of indicators of real economic activity, including sales, value added, capital investment, and payroll.

In contrast to the strong growth of domestic real activity, the amount of domestic income tax paid by US multinationals declined steadily from their peak in 2014 until 2020. Although this trend began earlier, the bulk of the decline occurred after the passage of TCJA, which reduced the US corporate income tax rate from 35 percent in the top bracket to a flat rate of 21 percent.

Figure 1. Activity of US Parents and Their Foreign Affiliates

Billions of Dollars

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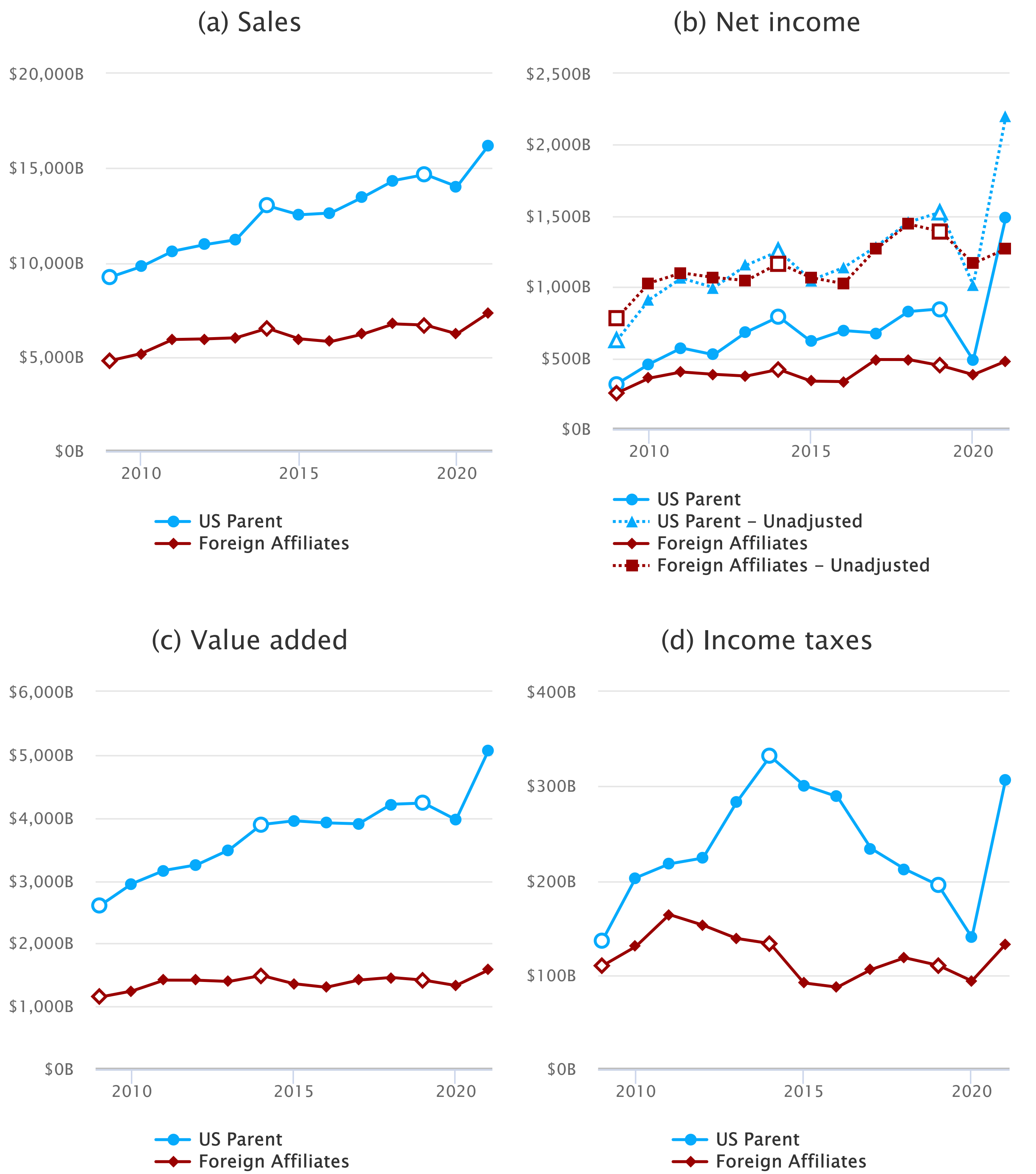

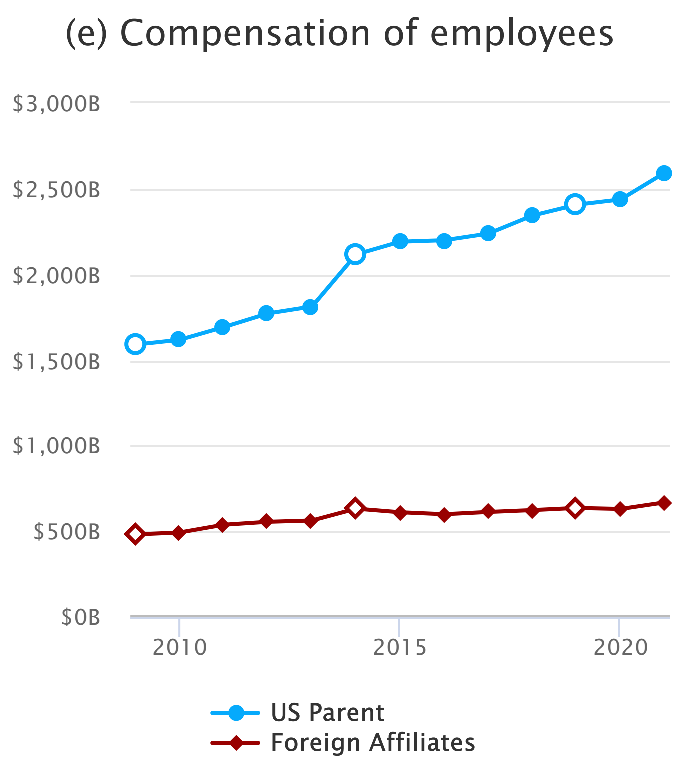

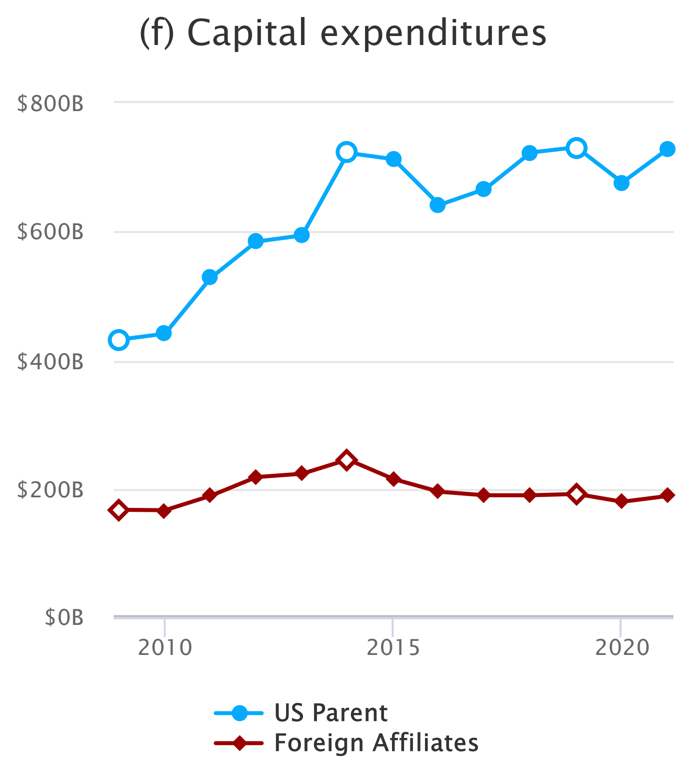

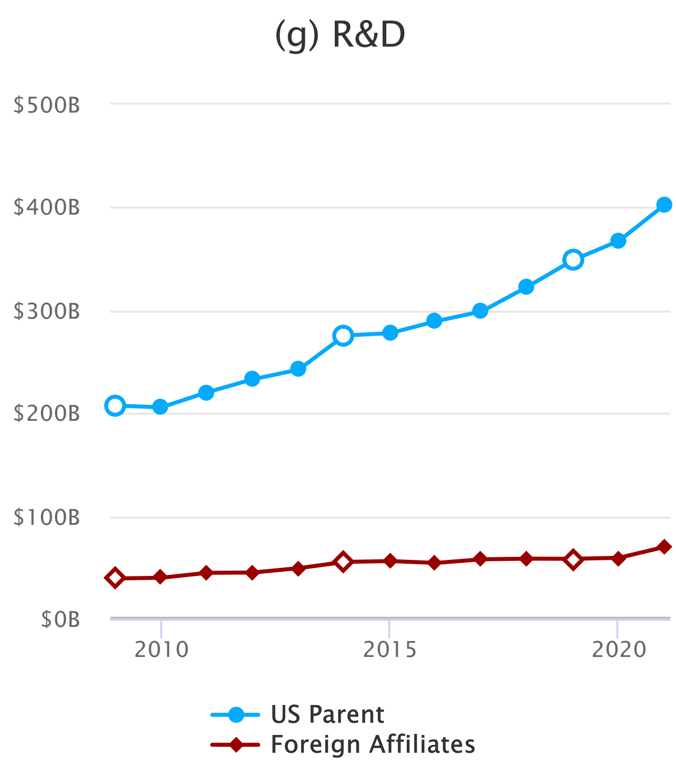

Notes: The open white points indicate benchmark survey years, in which more comprehensive data is collected. Figures for net income in panel (b) are adjusted to remove double counting in the original data. Due to data limitations, this adjustment is only possible for US parents in benchmark survey years. For non-benchmark survey years, adjusted net income is imputed using profit-type return. The unadjusted figures are shown by the dashed lines in panel (b). Affiliate data is for majority-owned foreign affiliates.
Source: Bureau of Economic Analysis, *Activities of Multinational Enterprises*.

Did US multinationals bring economic activity home after the enactment of TCJA?

To formalize the analysis of TCJA's impact, Figure 2 examines whether the US share of the major indicators shown in Figure 1 departed from pre-TCJA trends after the law's enactment. The blue line in each panel provides the pre-TCJA trendline for the US parent's share of aggregated US and foreign activity. The area in grey provides a confidence interval for this trendline.

For most indicators, the post-TCJA evolution of the US share of economic activity follows the pre-TCJA trend of MNEs increasingly concentrating activity in US parent companies. There are two exceptions to this observation.

First, after TCJA, MNEs increased their share of research and development conducted domestically. This effect may have been driven in part by anticipation of the TCJA's modification of the tax treatment of R&D spending, which reduced the tax benefits it provides but only beginning in 2022. If so, this increase in the domestic R&D share was likely temporary and may already be shifting back to the pre-TCJA trend, as suggested by the decline in 2021.

Second, the share of corporate income taxes paid by US parents of MNEs has fallen dramatically since TCJA, likely because of the lower US corporate rate that the legislation introduced.

Figure 2. US Share of Multinational Activity

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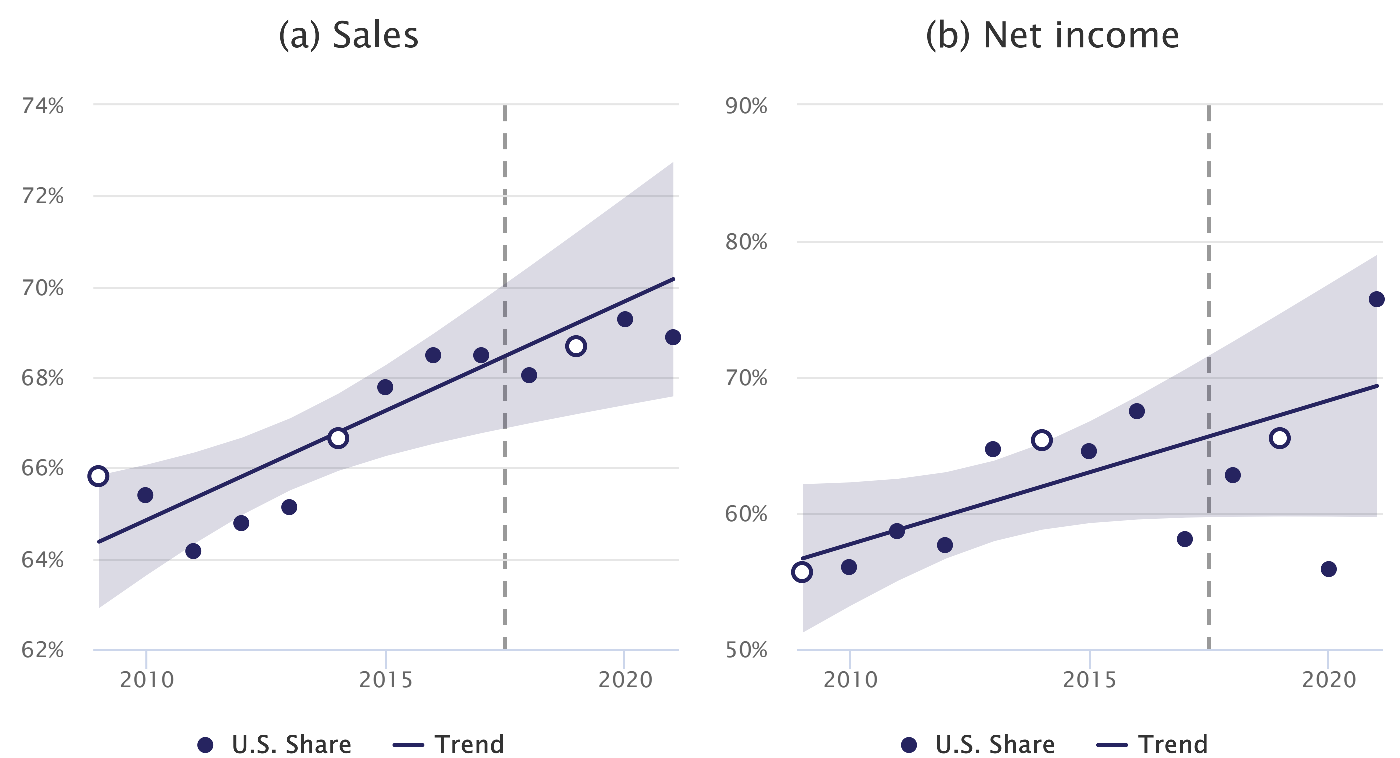
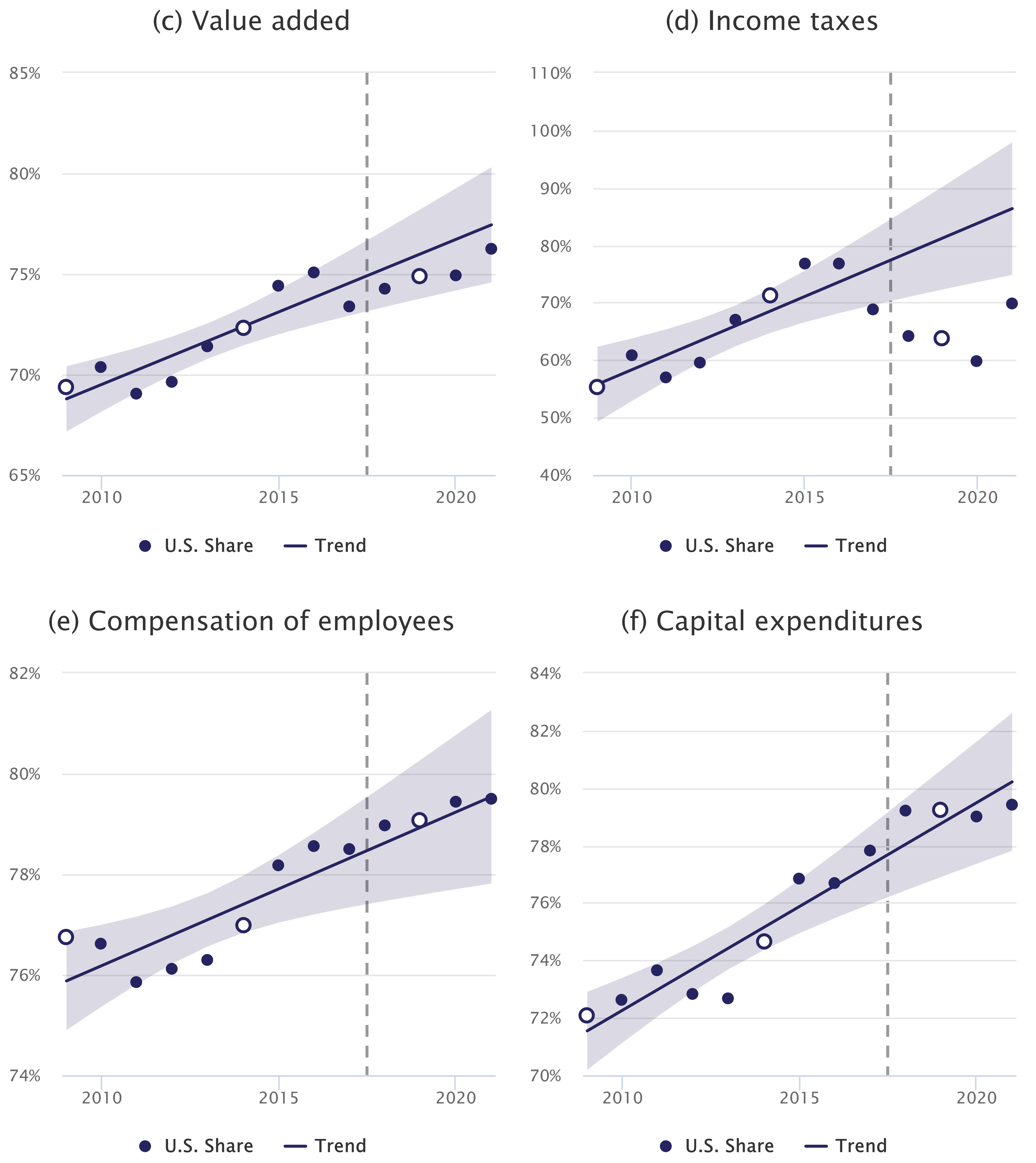
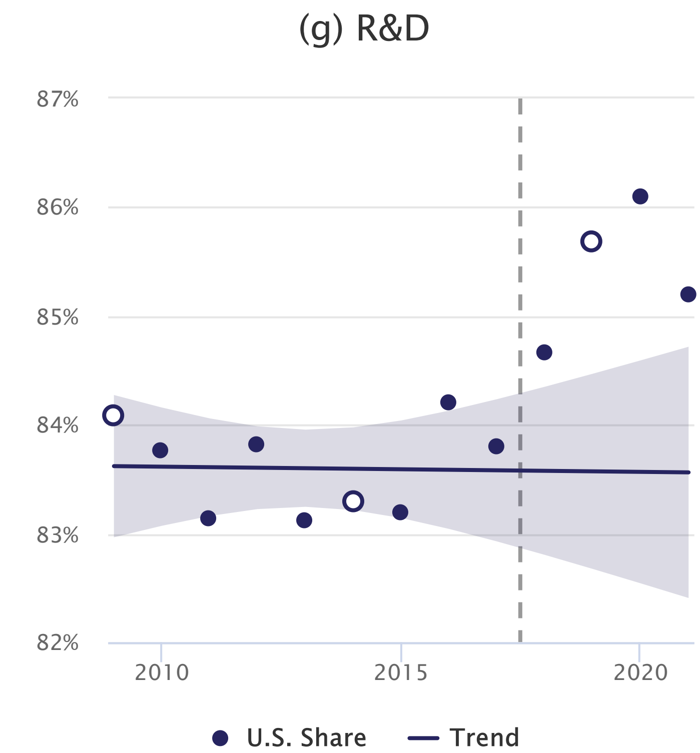



(c) Value added
85%
80%
75%
70%
65%
2010
2015
2020
U.S. Share
Trend
(d) Income taxes
110%
100%
90%
80%
70%
60%
50%
40%
2010
2015
2020
U.S. Share
Trend
(e) Compensation of employees
82%
80%
78%
76%
74%
2010
2015
2020
U.S. Share
Trend
(f) Capital expenditures
84%
82%
80%
78%
76%
74%
72%
70%
2010
2015
2020
U.S. Share
Trend



Notes: The dashed vertical line indicates the year in which the TCJA was enacted. Trend lines are fitted to pre-TCJA data and extrapolated for the post-TCJA period.
The open white points indicate benchmark survey years, in which more comprehensive data is collected.
Affiliate data is for majority-owned foreign affiliates.
Source: Penn Wharton Budget Model and Bureau of Economic Analysis, *Activities of Multinational Enterprises*.

Foreign and Domestic Effective Tax Rates

In addition to lowering the US corporate income tax rate, TCJA also introduced a new tax regime for foreign income earned by US multinationals. Figure 3 compares the evolution the effective tax rate on multinationals' US parent activities (that is, under the US corporate income tax) with the effective tax rate paid by US multinationals' foreign affiliates.[2]The aggregate effective tax rate combines income and taxes from both US parents and their foreign affiliates.

Prior to the enactment of TCJA, the global effective tax rate of MNEs was declining. This was driven by a declining foreign effective tax rate and a stable US effective tax rate. Afterward, the effective tax rate declined more sharply, driven by a sharp decrease in the US effective tax rate and a stabilization of the foreign effective tax rate. This finding complements our October 2023 analysis of US tax revenue from foreign affiliates, which showed that the TCJA's new tax regime for foreign income did not increase US tax revenue on multinationals' foreign income.

Figure 3. Aggregate Foreign and Domestic Effective Tax Rates

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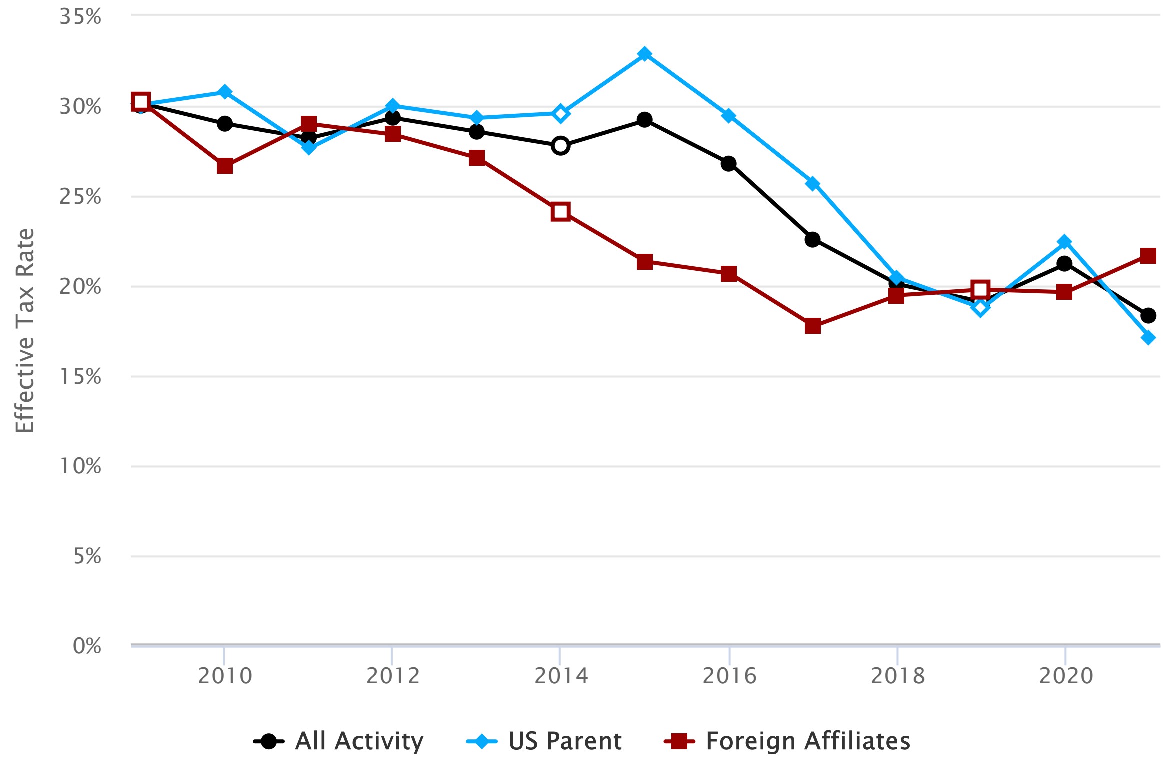

Notes: The open white points indicate benchmark survey years, in which more comprehensive data is collected. Affiliate data is for majority-owned foreign affiliates.
Source: Penn Wharton Budget Model and Bureau of Economic Analysis, *Activities of Multinational Enterprises*.

US Multinational Tax Rates and Profits by Country and Industry

One of the major strengths of BEA's AMNE data is the level of detail it provides regarding the geographic and industrial distribution of US multinational activity.

Figure 4 leverages this detail to examine the location of MNEs' foreign earnings and how it has evolved since TCJA. It plots country-level effective tax rates for the specified period against foreign earnings.[3] We divide this plot into four quadrants by plotting the average foreign effective tax rate for the whole sample (the vertical dashed line) and the median country's foreign earnings (the horizontal dashed line). The upper left quadrant contains recognizable tax havens that have become well known to international tax practitioners. Ireland is the clearest outlier, booking the largest amount of foreign earnings with an effective tax rate of about 6.1% for the 2009-2021 period. Other notable havens in the upper left quadrant include Switzerland, the UK Caribbean Islands (including the Cayman Islands), and Bermuda.

Examining how the position of countries has changed before and after TCJA reveals that the distribution of tax havens has remained relatively stable.

Figure 4: Foreign Effective Tax Rates and Profits by Country

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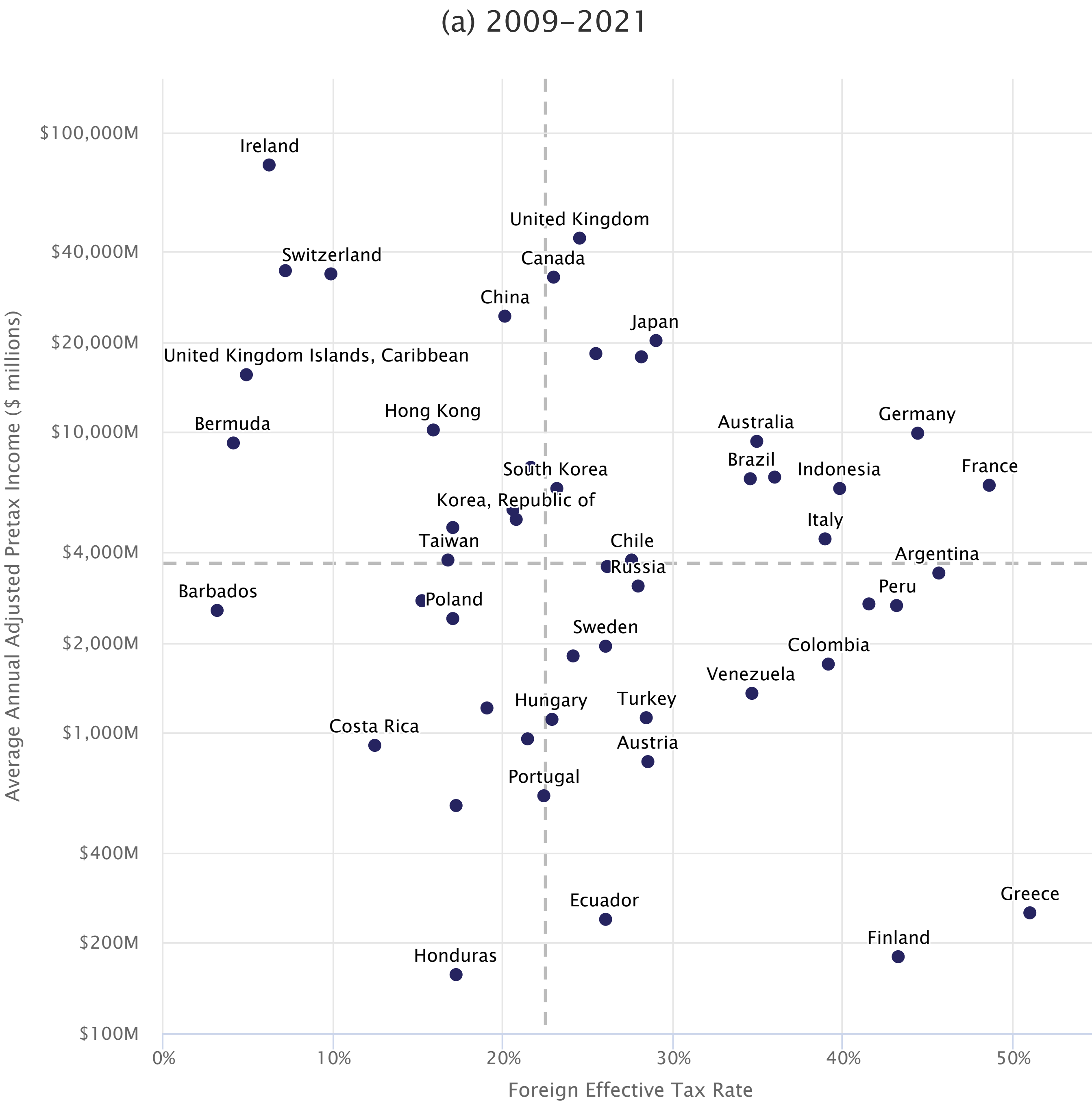

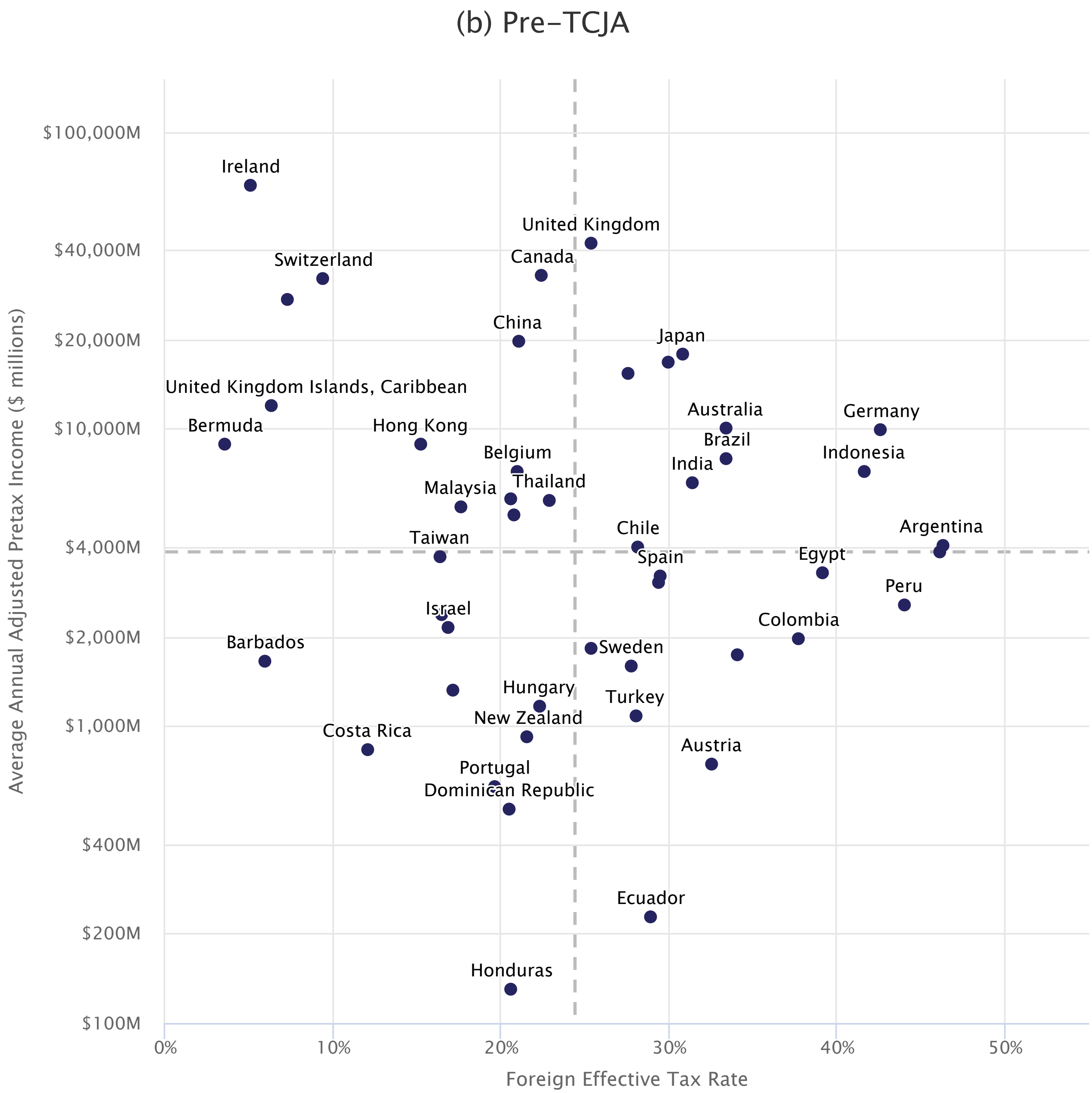
(b) Pre−TCJA
Average Annual Adjusted Pretax Income ($ millions)
$100,000M
$40,000M
$20,000M
$10,000M
$4,000M
$2,000M
$1,000M
$400M
$200M
$100M
0%
10%
20%
30%
40%
50%
Foreign Effective Tax Rate
Ireland
United Kingdom
Switzerland
Canada
China
Japan
United Kingdom Islands, Caribbean
Australia
Germany
Bermuda
Hong Kong
Brazil
Belgium
Indonesia
India
Malaysia
Thailand
Chile
Argentina
Taiwan
Spain
Egypt
Peru
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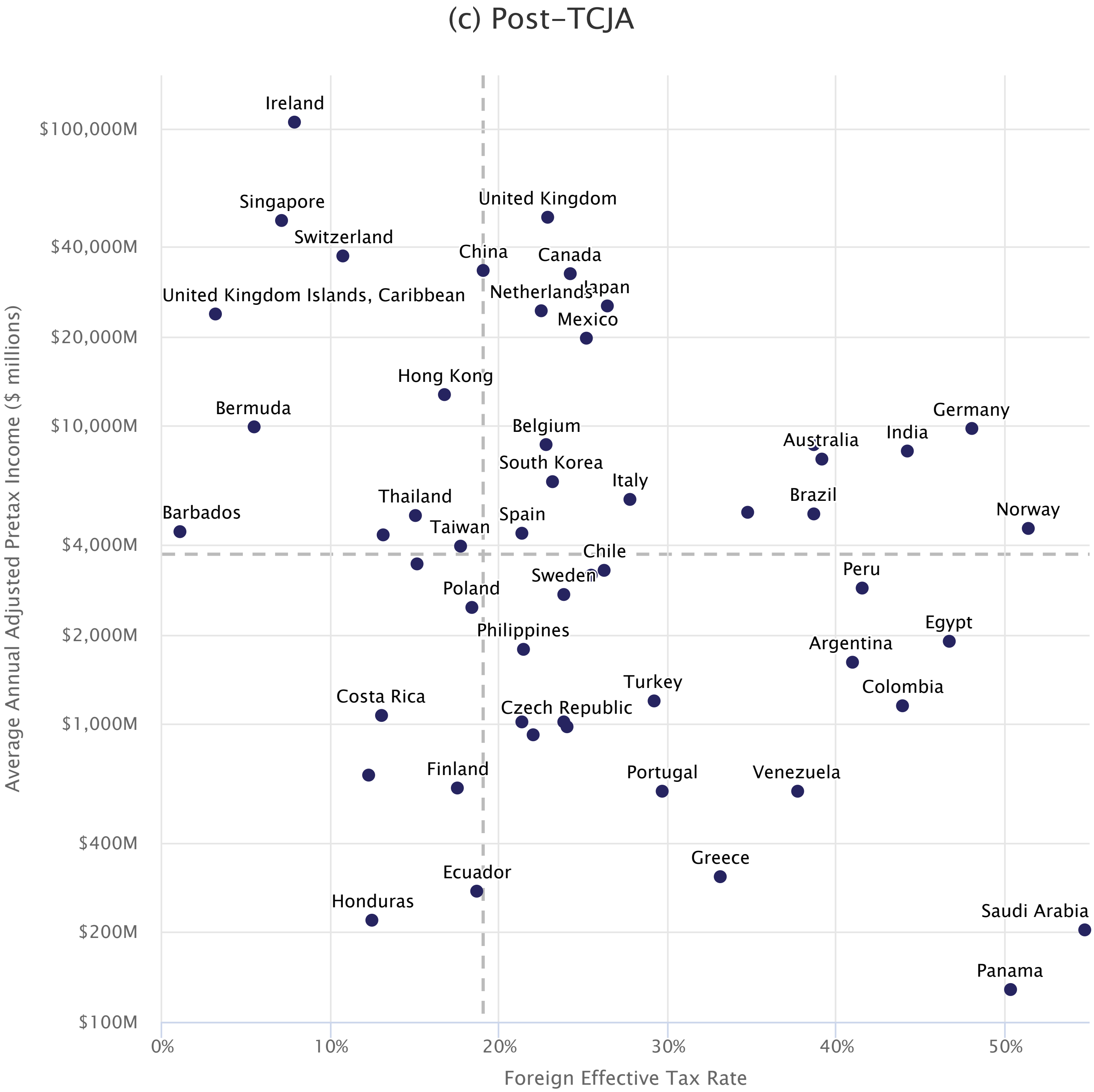
Dominican Republic
Ecuador
Honduras



Notes: Pretax income is adjusted to remove double counting in the original data.
The vertical dashed line shows average foreign effective tax rate across countries; the horizontal dashed line shows the median adjusted pretax income of affiliates across countries.
Data is for majority-owned foreign affiliates.
Source: Penn Wharton Budget Model and Bureau of Economic Analysis, *Activities of Multinational Enterprises*.

Figure 5 examines the distribution of industry-level foreign effective tax rates, based on the BEA industry classification of the US parent corporation. The plot highlights industries in sectors that are at the center of discussions of international profit shifting: industries in blue have US parents that operate in the Chemicals sector (including pharmaceutical manufacturers), industries in orange have US parents classified in a Computer Manufacturing sector, and industries in red have US parents classified in the Information sector.[4] The latter two sectors can be thought of as a rough proxy for the tech industry, which makes use of easily transferable IP that can be used to shift profits.

As in Figure 4, this plot provides a natural way of identifying important observations (in this case, industries) that face low foreign effective rates. Notably, many of the highlighted industries appear in a cluster toward the upper left quadrant. As with the country-level analysis above, the general structure of the types of US firms that benefit from low foreign effective tax rates does not appear to have significantly changed since the enactment of TCJA.

Figure 5: Foreign Effective Tax Rates and Profits by Industry of the US Parent

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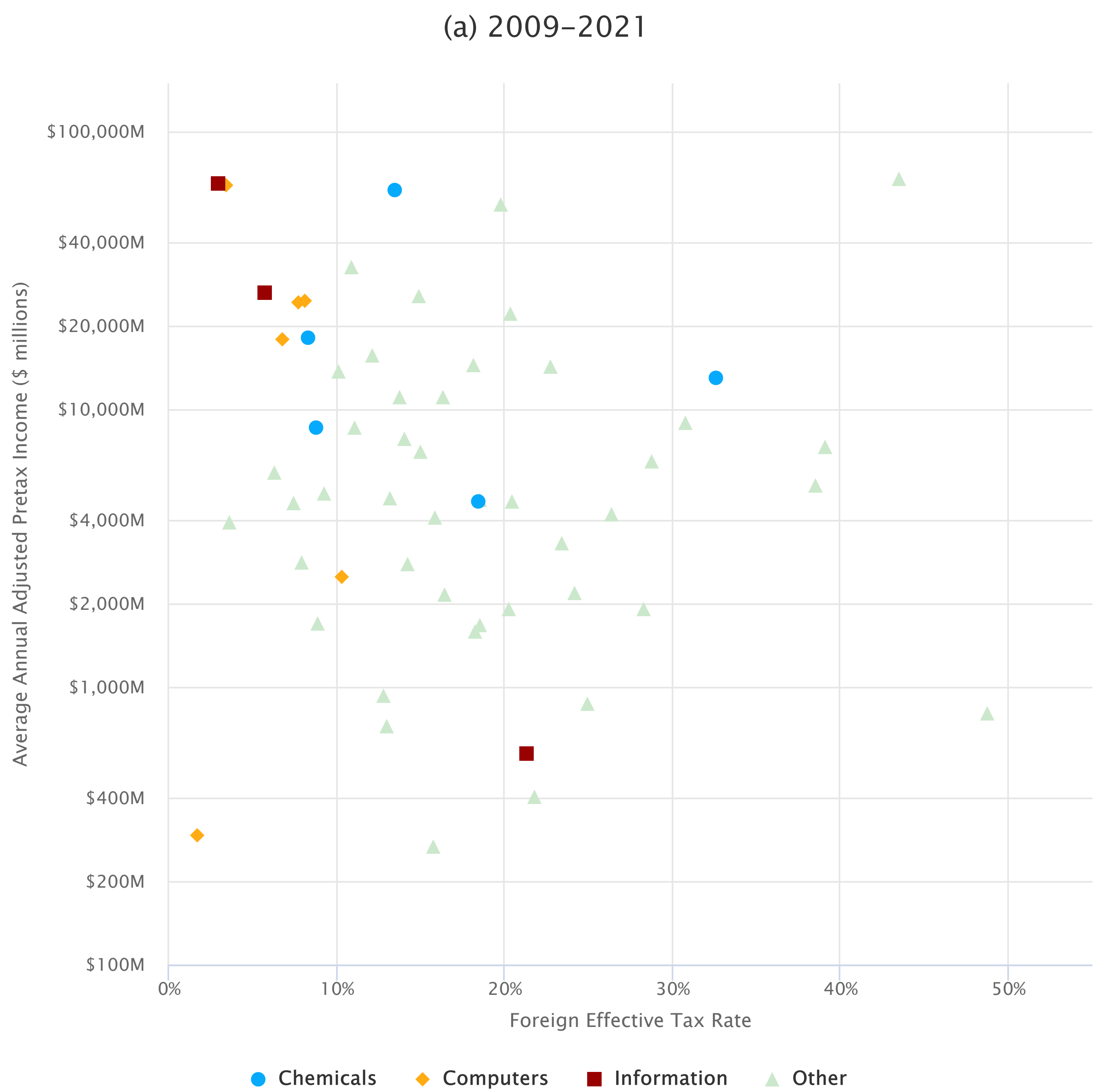
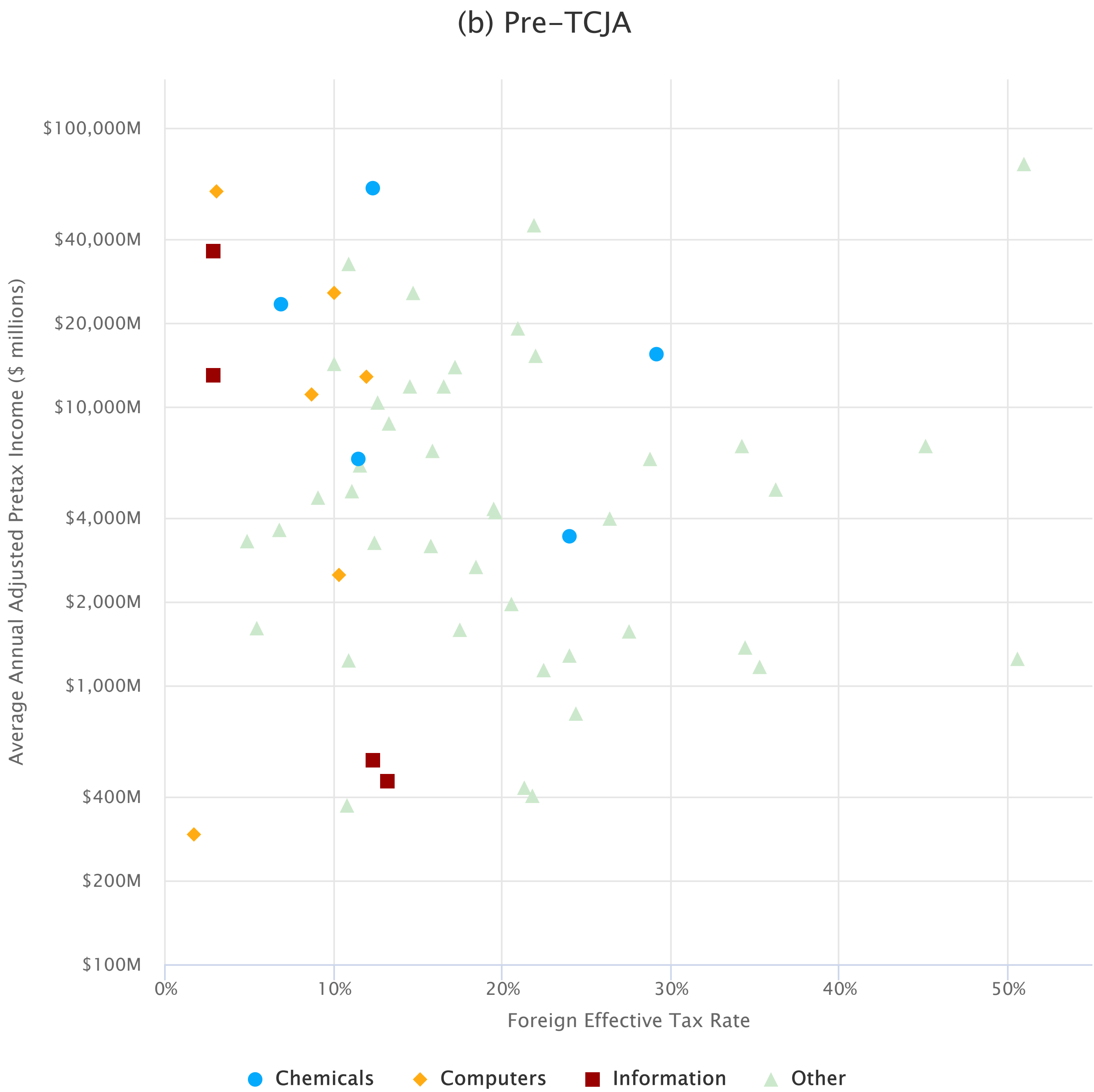
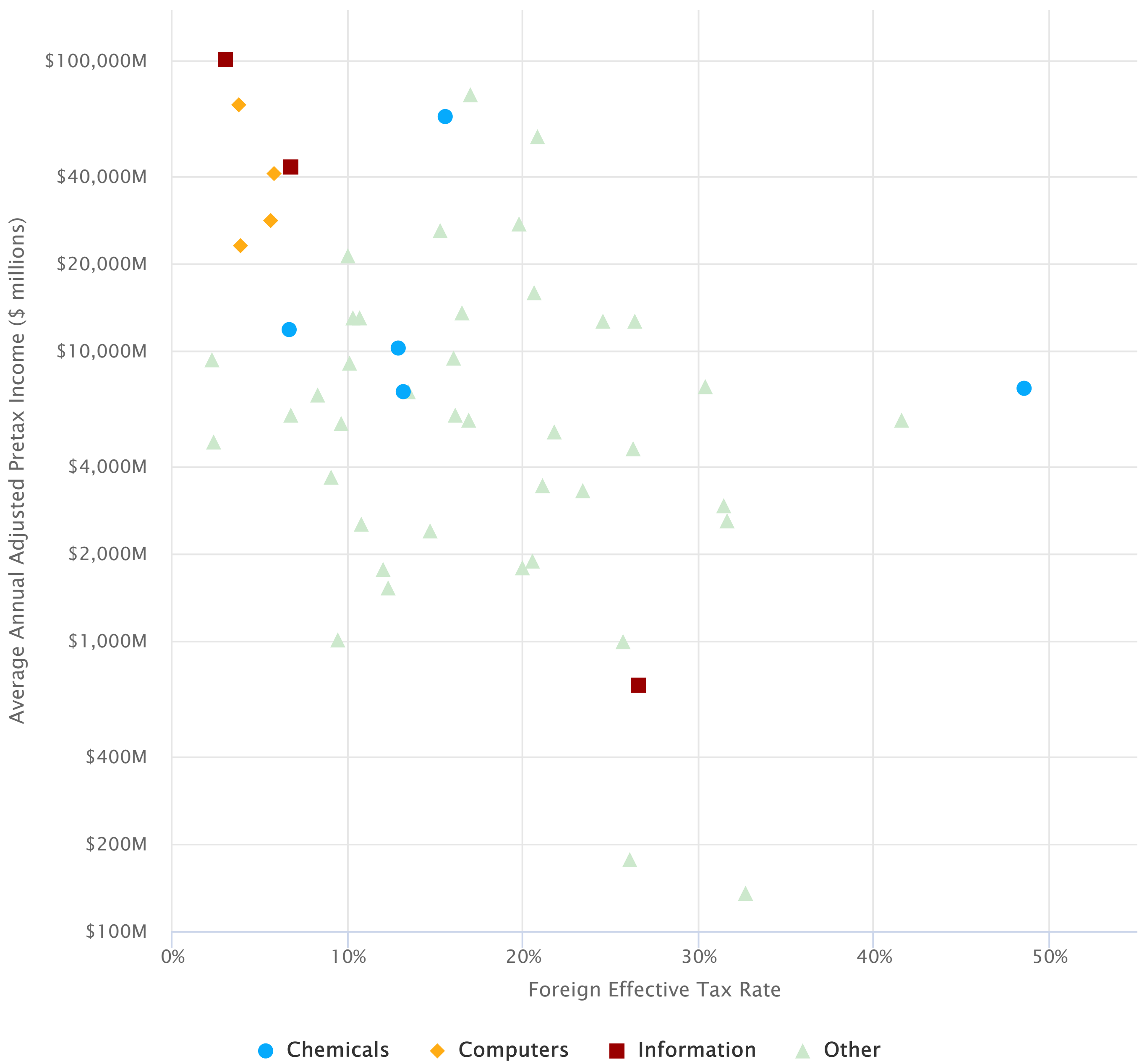



(b) Pre–TCJA
$100,000M
$40,000M
$20,000M
$10,000M
$4,000M
$2,000M
$1,000M
$400M
$200M
$100M
Average Annual Adjusted Pretax Income ($ millions)
0%
10%
20%
30%
40%
50%
Foreign Effective Tax Rate
Chemicals
Computers
Information
Other

(c) Post-TCJA



Notes: Pretax income is adjusted to remove double counting in the original data.
Data is for majority-owned foreign affiliates.
Source: Penn Wharton Budget Model and Bureau of Economic Analysis, *Activities of Multinational Enterprises*.

Note: This analysis was updated on April 24, 2024 with improved estimates of tax rates that use an imputation procedure to adjust for double-counting in net income of foreign affiliates.

This analysis was produced by Lysle Boller. Mariko Paulson prepared the brief for the website.

1. To compute net income, we make sure to remove equity income as recommended by Blouin and Robinson (2021). Net income without this adjustment is shown in the dashed lines for this figure. Without this adjustment, researchers may dramatically overestimate the extent of income earned by US multinationals. ↩

2. To construct the effective tax rate metric, we divide income taxes by adjusted pretax income as defined by Blouin and Robinson (2021). This data is collected from the foreign affiliate and US parent income statements. ↩

3. As before, we use adjusted pretax income and compute an annual average for each country. ↩

4. We also highlight in orange a services industry that is related to computing, “Computer systems design and related services,” even though it is not technically classified within the BEA’s “Computer Manufacturing” sector. ↩