Estimated impacts of proposed changes to GILTI provision on US domestic economic activity

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Executive summary

The tax on Global Intangible Low-Taxed Income (GILTI) operates as a minimum tax on the foreign earnings of US multinational corporations (MNCs). The rationale for the provision when enacted under the Tax Cuts and Jobs Act (TCJA) was to subject a portion of the foreign earnings of US MNCs operating in low-tax jurisdictions to a minimum tax to reduce the incentive for shifting corporate profits to low-taxed jurisdictions.

This analysis finds that the Biden Administration's proposed expansion of the GILTI tax may adversely impact the US economy with reductions in US jobs and investment.[1] The economic literature indicates that the proposed changes to GILTI are likely to reduce US employment of US MNCs, and the reduction could be anywhere from 200,000 to 3.1 million jobs. These effects span a very wide range. Because they are high-level estimates based on parameters from a diverse set of empirical papers, they have no real central tendency or mean. Nonetheless, professional judgement informed by this paper's analysis and its limitations combined with the results of other somewhat similar tax policy changes suggests that plausible employment effects for the US MNCs could range somewhere between 500,000 and 1,000,000 lost jobs. A similar range for the decline in investment is between $10 billion and $20 billion.

<u>Background on the GILTI provision</u>

The GILTI tax is imposed currently (without deferral) and with a 50% deduction through 2025 and a 37.5% deduction thereafter. Accordingly, the effective GILTI tax rate is generally 10.5% (=21% x (1-50%)) through 2025 and 13.125% (=21% x (1-37.5%)) thereafter.[2] That is, the effective minimum US tax rate on the foreign earnings of US MNCs is generally one-half of the statutory US corporate income tax rate and scheduled to increase to approximately 62.5% of the US corporate income tax rate after 2025. GILTI is calculated as total active income above a 10% return on foreign tangible assets implemented as the qualified business asset investment (QBAI) deduction.[3]

<u>Proposed changes to GILTI</u>

This report analyzes the effects of three potential changes to the GILTI tax:[4]

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[1] The Biden Administration's proposed GILTI tax increases are part of a wider set of corporate and individual tax increases. This set, for example, includes increasing the US corporate income tax rate from 21% to 28%. This analysis, however, looks at the impact of the proposed GILTI changes on US domestic activity in isolation, without considering the Administration's other proposed tax changes. This analysis does not examine the potential impacts of the spending for which these tax increases may serve as an offset. Certain types of spending increases are productivity enhancing or may have other potential benefits. See US Treasury Department, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021.

[2] This paper analyzes GILTI with a 50% deduction.

[3] The GILTI provision generally requires the inclusion of a portion of active income of a US parent's controlled foreign corporations (CFCs) that exceeds 10% of the CFCs' basis in their depreciable tangible property (so called Qualified Business Investment Assets (QBAI)). This report generally uses "foreign income" and "foreign operations" synonymously with "CFCs." GILTI allows a credit for 80% of foreign taxes paid, puts GILTI-related foreign taxes in a separate basket, and does not allow unused credits to be carried back or forward. The Administration's proposal does not change these rules.

[4] See White House, *Fact Sheet: The American Jobs Plan*, March 2021; US Treasury Department, *The Made In America Tax Plan*, April 2021; and US Treasury Department, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021.

1. Raise the effective GILTI tax rate to 21%[5]
2. Eliminate the deduction for a 10% rate of return on tangible assets (i.e., QBAI deduction)
3. Change the basis of the GILTI tax assessment from worldwide to country-by-country

The proposed changes are intended to reduce the incentive to shift profits to low-tax jurisdictions by raising the tax rate on the foreign earnings of US MNCs.[6] Currently, the tax rate on foreign earnings is below the tax rate on domestic earnings of US corporations as the TCJA attempted to balance the differential between the tax on foreign and domestic earnings of US MNCs with the competitive pressures of US MNCs operating abroad. Some policymakers had argued that the lower tax on foreign source income may lead to offshoring of American jobs because companies have a tax incentive to produce and earn income outside the United States.[7]

The view underlying proposed GILTI changes is that the foreign activities of US MNCs substitute for domestic activities. That is, US businesses invest overseas instead of investing in the United States. **There is, however, significant research – both conceptual and empirical – that suggests that the overseas businesses of US MNCs are complementary to the US domestic businesses.[8] That is, when the foreign investment and employment of US MNCs increases, so does the domestic investment, exports, R&D, and employment of the US MNCs. This report is informed by this research.**

A canonical example of complementarity is a hotel or restaurant opened in a foreign country. A hotel or restaurant in Paris is in no way a substitute for a hotel or restaurant in Pittsburgh. The business opens in Paris or not at all. There is no loss to the United States. Indeed, to the extent that the operations in Paris require headquarters support or exports from the United States, jobs in the United States would increase. Hindering the ability of the US hotels or restaurants to compete with foreign-owned businesses, often taxed at low rates, is not a desirable policy.

While businesses like hotels and restaurants are instructive as they are easy examples to visualize, most of the foreign activities of US MNCs have a similar character. US MNCs face foreign competition. If US businesses are not active in the foreign markets, they may have to give them up. Relying on foreign operations can result in cost savings because, for example, of savings on transportation costs, establishing local distribution and sales networks, and building local good will. Indeed, some products are too heavy to ship, and services cannot be shipped.

Furthermore, when US businesses expand globally, they tend to export more overall from the United States and are able to spread the cost of product development over a larger market.[9] This allows the US operations to more fully exploit where it has a competitive advantage while using foreign labor, other inputs, and proximate location to markets in order to make and sell products or parts of products that are more efficiently produced and sold abroad.

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[5] This analysis models a 100% inclusion at the current 21% corporate income tax rate as opposed to the Biden Administration's proposal of a 75% inclusion at a 28% corporate income tax rate.
[6] See the references in footnote 4.
[7] See the references in footnote 4. For example, page 5 of the *General Explanation*, states that the current GILTI regime, specifically the deduction of the return on tangible assets, "incentivizes U.S. multinational companies to invest in tangible assets abroad rather than domestically."
[8] This literature is discussed in the body of this report.
[9] See, for example, Gary Clyde Hufbauer, Theodore H. Moran, and Lindsay Oldenski (2013). *Outward Direct Investment and US Exports, Jobs, and R&D: Implications for US Policy*, The Peterson Institute for International Economics, 2013 (see chapter 3, especially Figure 3.1).

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I. Introduction

Global Intangible Low-Taxed Income (GILTI) is a definition of certain earnings of foreign affiliates of US-based multinational corporations (MNCs) – referred to as controlled foreign corporations (CFCs) – that was adopted as part of the Tax Cuts and Jobs Act (TCJA) of 2017. The GILTI rules operate as a form of minimum tax on the profits of US-based MNCs. GILTI is targeted at the income earned by the foreign affiliates of US-based MNCs on intangible assets such as patents, trademarks, and copyrights.

GILTI was adopted as a movement towards a territorial approach to taxing foreign profits of US MNCs. The US international tax system had historically taxed US-based MNCs on their worldwide income, but also generally allowed for the deferral of US taxes owed on foreign affiliate income until the earnings were distributed as dividends to the US parent. A foreign tax credit was allowed to prevent double taxation of those earnings. A pure territorial system would exempt from US tax the active earnings of foreign affiliates because those earnings generally are taxed in the foreign jurisdictions in which the foreign affiliates operate.

However, to discourage US-based MNCs from shifting profits and real economic activity overseas, the Congress added the GILTI rules that tax some foreign-source income at (approximately) half the US corporate tax rate (10.5%).[1] In effect, GILTI is an attempt to balance the somewhat competing goals of (1) allowing US MNCs to compete with foreign rivals by imposing little or no US tax in addition to the tax imposed by the foreign jurisdiction and (2) discouraging tax-induced shifting of profits and real economic activity out of the United States.

<u>Overview of GILTI tax</u>

The GILTI tax is imposed currently (without deferral) and implemented by allowing a deduction of 50% of the income through 2025 and 37.5% thereafter. The implied statutory GILTI tax rate is generally 10.5% (=21% x (1-50%)) through 2025 and 13.125% (=21% x (1-37.5%)) thereafter.[2] Roughly speaking, through 2025 the effective minimum US statutory tax rate on the foreign earnings of US MNCs is one-half of the 21% corporate income tax rate applied to the domestic earnings of US corporations.

To prevent double taxation, GILTI allows US MNCs to take a credit against US tax for taxes paid to foreign jurisdictions. GILTI is applied on a worldwide basis, so that taxes paid to higher tax jurisdictions may be used to offset US tax liability from income earned in low tax jurisdictions.[3] However, the tax credit that the United States allows for foreign taxes paid on GILTI is limited to 80%. Thus, GILTI effectively taxes at a rate of 13.125% even though the (after-deduction) statutory rate is 10.5%. That is, the credit can eliminate GILTI-related tax liability if the foreign tax rate is at least equal to 13.125% (13.125% x 80% = 10.5%). The foreign tax credit "haircut" is intended to limit the extent to which a US MNC is indifferent between paying taxes to a foreign government and paying them to the US government.

Foreign tax credits are further limited by the application of pre-existing rules requiring the allocation of a portion of US expenses, like interest expense, to foreign source earnings, meaning that foreign earnings subject to even higher foreign tax rates are subject to the GILTI tax. In addition, currently unused foreign tax credits related to GILTI income cannot be carried back or forward – they expire unused.

GILTI also allows a deduction against taxable income for a 10% rate of return on tangible assets used in a US MNC's foreign operations as a high-level measure of the normal return on tangible assets.[4] It is through this deduction that GILTI attempts to measure and tax only the intangible foreign income (rather than all income) of US MNCs. This deduction lowers the effective tax rate on total foreign source income (intangible plus tangible income). The extent of the reduction depends on the extent to which income is from tangible assets, as proxied by GILTI tax rules.[5]

Proposed changes[6]

The Biden Administration has proposed three key changes to the GILTI calculation. It would:[7]

1. Raise the effective GILTI statutory tax rate from 10.5% to 21%
2. Eliminate the currently allowed deduction against taxable income for a 10% rate of return on tangible assets
3. Change the basis of the GILTI tax assessment from world-wide to country-by-country

The proposed changes are intended to reduce the incentive to shift profits to low-tax jurisdictions by raising the tax rate on the foreign earnings of US MNCs.[8] Some policymakers have argued that the lower tax on foreign source income may lead to offshoring of American jobs because companies have a tax incentive to produce and earn income outside the United States.[9]

II. Analysis of proposed changes to GILTI

The proposed GILTI changes are consistent with the view that the foreign activities of US MNCs are a substitute for domestic activities. That is, US businesses invest overseas instead of investing in the United States. There is, however, a substantial body of conceptual and empirical research suggesting that this is not the case.[10] Rather, a number of studies going back over 40 years suggest that the overseas businesses of US MNCs are complementary to the US domestic businesses. That is, when the foreign investment and employment of US MNCs increases, so does the domestic investment, exports, R&D, and employment of the US MNCs.

A canonical example of this is a hotel or restaurant opened in a foreign country. A hotel or restaurant in Paris is in no way a substitute for a hotel or restaurant in Pittsburgh. The business opens in Paris or not at all. There is no loss to the United States. Indeed, to the extent that the operations in Paris require headquarters support, jobs in the United States would increase.

While businesses like hotels and restaurants are instructive as they are easy examples to visualize, most of the foreign activities of US MNCs have a similar character. US MNCs face foreign competition. If the US businesses are not active in the foreign markets, they may have to give them up. Relying on foreign operations can result in cost savings because, for example, of savings on transportation costs, establishing local distribution and sales networks, and building local good will. For example, transportation of products containing water (e.g., beverages, detergents) are often transported with the water removed and water is added back after shipping to a foreign country by a US MNC's foreign operations. This is because the additional shipping costs due to the water can make the US MNC's product uncompetitive relative to foreign competitors.

Furthermore, when US businesses expand globally, they tend to export more overall from the United States and are able to spread the cost of product development over a larger market. This allows the US operations to more fully exploit where it has a competitive advantage while using foreign labor, other inputs, and proximate location to markets in order to make and sell products or parts of products that are more efficiently produced and sold abroad.

Relevant economic literature

Some economic research suggests that when the foreign investment and employment of US MNCs increases, so does the domestic investment, exports, R&D, and employment of the US MNCs. One set of studies finds that when investment overseas goes up, domestic investment and employment also rise. Another set of studies indicates that shifting profits from domestic investment abroad to low tax jurisdictions reduces the tax cost of, and, therefore, results in more, domestic investment. That is, domestic investment is encouraged by the manner in which the tax on domestic investment is reduced through such strategies.

For example, Kovak et al. (2017) finds that a 10% increase in affiliate employment results in a 1.8% increase in US parent employment.[11] Desai et al. (2009) finds that a 10% increase in foreign investment is associated with a 2.6% increase in domestic investment, a 10% increase in foreign employee compensation is associated with a 3.7% increase in domestic employee compensation, and a 10% increase in foreign employment is associated with a 6.6% increase in domestic employment.[12] Becker and Reidel (2011) finds that a 10 percentage point increase in the corporate income tax rate in the parent company's country is associated with a 5.6% decrease in the capital stock of affiliates; this suggests a complementarity between a US MNC's domestic and foreign activity.[13] Hufbauer, Moran, and Oldenski (2013) finds that a 10% increase in employment at foreign affiliates leads to a 5.4% increase in R&D spending in the United States, a 4.3% increase in capital spending in the United States, a 4.2% increase in exports from the United States, a 4.1% increase in US sales, and a 3.9% increase in US employment. Hufbauer, Moran, and Oldenski (2013) also finds similar domestic effects for increases in sales, R&D, and capital expenditures by foreign affiliates.[14]

Serrato (2019) examines the impact of the repeal of §936, which prior to its repeal effectively eliminated corporate tax on US profits earned in Puerto Rico. Serrato finds that impacted firms reduced their US employment and investment relative to firms that were not affected by the change and, in particular, that a 1 percentage-point increase in a firm's effective tax rate was associated with a 1.2% to 1.44% decrease in employment over a 10-year period.[15] This list of papers is not exhaustive.[16] Some research is less supportive of the view that increases in the taxes paid on the income of foreign affiliates of US MNCs will adversely impact their US operations.[17]

III. Estimated effective tax rate impacts

This analysis estimates the effective tax rate impact of GILTI and the proposed changes using the Internal Revenue Service Statistics of Income's country-by-country reporting data supplemented with other publicly available industry-level data.[18] The analysis is done for seven industry aggregates using the most detailed applicable publicly available data treating each industry as if it were a single company. These seven industries are:[19]

1. Agriculture, forestry, fishing and hunting, mining, quarrying, oil and gas extraction, utilities, and construction
2. Manufacturing
3. Wholesale and retail trade, transportation and warehousing
4. Information
5. Finance and insurance, real estate and rental and leasing
6. Professional, scientific, and technical services
7. Management of companies and enterprises and all other services

Data on the effective tax rate of the foreign operations of the seven industries is available for more than 60 jurisdictions.[20] These data are used to generate the distribution of effective tax rates for the foreign activity of each of seven industry aggregates.[21]

As displayed in Table 1, these estimates suggest that the proposed changes would raise the effective tax rates on the foreign operations of US MNCs significantly. Overall, this analysis estimates the effective tax rates would rise by approximately 3 to 11 percentage points, depending on the industry, averaging over 8 percentage points across the seven industries.[22]

Table 1. Estimated impact of proposed GILTI changes on GILTI income effective tax rate

Industry	Current law	Proposed law	Percentage-point change in ETR
Agriculture, oil & gas extraction, utilities, and construction	18.6%	25.2%	6.6%
Manufacturing	13.6%	23.6%	10.0%
Wholesale trade, retail trade, and transportation	15.4%	24.2%	8.8%
Information	12.2%	23.4%	11.2%
Finance, insurance, and real estate	12.6%	23.6%	10.9%
Professional, scientific, and technical services	16.8%	24.8%	8.1%
Management of companies and all other services	25.1%	28.0%	2.9%
Average	**16.3%**	**24.7%**	**8.4%**

Note: Average is the unweighted average of the seven industries displayed in the table. Estimates calculated with framework displayed in appendix and described in text. Figures are rounded.
Source: EY analysis.

Under current law, the effective tax rate on foreign income subject to GILTI ranges from approximately 12% to 25% across the seven industries, averaging 16.3% across the industries. These calculations include the effects of the GILTI deduction (50% through 2024), the foreign tax credit rules, including the 20% haircut, expense allocation, and the deduction for the 10% rate of return on tangible assets (i.e., the QBAI deduction).

The table then shows the cumulative impact of the following three changes:

1. Change the basis of the GILTI tax assessment from world-wide to country-by-country
2. Raise the effective GILTI tax rate to 21%
3. Eliminate the currently allowed deduction against taxable income for a 10% rate of return on tangible assets

The estimates displayed in Table 1 are consistent with some other research. For example, the 16.3% effective tax rate on foreign source income under current law is similar to the 17.7% effective tax rate reported by Dowd et al. (2020) for a sample of 81 US MNCs.[23] In addition, a recent Penn Wharton Budget Model analysis found that the proposed GILTI changes would raise the effective tax rate by approximately 10 percentage points.[24]

IV. Estimated economic impacts

Key points

- *US MNC domestic employment is estimated to decline by between 0.6% and 10.9%*
- *US MNC domestic compensation is estimated to decline by between 2.2% and 10.4%*
- *US MNC domestic investment is estimated to decline by between 1.1% and 7.3%*
- *When scaled to the most recent data on US MNCs (2018) this results in a decline in jobs at impacted firms of between 200,000 and 3.1 million, a decline in compensation of between $51 billion and $243 billion, and a decline in investment of between $8 billion and $53 billion*
- *Combining professional judgment with the report's results suggest a plausible national job loss ranging between 500,000 (1.8%) and 1 million (3.5%) and a plausible decline in investment ranging between $10 billion (1.4%) and $20 billion (2.8%)*

An increase in taxes raises a company's cost of capital because the company must earn enough to cover taxes and still pay a competitive return to its investors. This increase in the cost of capital means that fewer investments will be undertaken because fewer are profitable. There is a large academic literature supporting this effect in general and for foreign investment in particular.[25]

This analysis uses two approaches to estimate the potential impact of the proposed GILTI changes on the domestic activities of US MNCs. Both are based on the evidence supporting the notion that reductions in the activities of foreign affiliates lead to reductions in US domestic economic activity. Alternative approaches and sensitivity therein are used to produce a range of results that highlights the uncertainty in the magnitude of the potential impact.

There is significant research – both conceptual and empirical – that suggests that the overseas businesses of US MNCs are complementary to the US domestic businesses. That is, when the foreign investment and employment of US MNCs increases, so does the domestic investment, exports, R&D, and employment of the US MNCs. This report is informed by this research.

Approach #1

The first set of estimates relies on Serrato (2019) to estimate the impact of the proposed GILTI tax increases on the domestic activity of US MNCs. Serrato examines the impact of the repeal of §936, which prior to its repeal effectively eliminated corporate tax on US profits earned in Puerto Rico. This paper is well-suited to provide an analytical framework for examining changes to GILTI as it examines a change in US tax policy increasing the tax on foreign operations of US MNCs in a low-tax jurisdiction, it is well-identified, and it examines the impact over time.

Serrato finds that impacted firms reduced their US employment and investment relative to firms that were not affected by the change and, in particular, that a 1 percentage-point increase in a firm's effective tax rate was associated with a 1.2% to 1.44% decrease in employment over a 10-year period.[26] Given the 8.4 percentage-point increase in the effective tax rate on foreign income and that approximately 40% of US MNC income is foreign income (i.e., the average change in a firm's effective tax rate would be 8.4% x 0.4 = 3.4%) this suggests a 4.1% (=3.4% x 1.2) to 4.9% (=3.4% x 1.44) decline in domestic US MNC employment.[27]

Serrato also finds that impacted firms – which experienced a 5.73 percentage-point increase in their effective tax rate – also reduced domestic investment by 19.3% to 25.7%. Domestic investment declined as a result of (i) a decrease in global investment and (ii) shifting of investment to lower-tax foreign jurisdictions. The proposed GILTI changes should generally prevent this latter impact so estimates from Serrato (2019) isolating only the former are used. Serrato finds that §936 firms reduced investment by 9.9% to 11.1% relative to other firms (i.e., a semi-elasticity of approximately 1.8). Given the 3.4 percentage-point increase in the effective tax rate this suggests a 6.1% (=3.4% x 1.8) decline in domestic US MNC investment.[28]

Approach #2[29]

The second set of estimates combines the literature on (1) the responsiveness of foreign investment and employment to changes in its taxation with (2) estimates of the relationship between foreign and domestic activities of US MNCs. That is, the effect of the GILTI changes on the foreign operations of US MNCs is estimated and then those changes are translated back to effects on their US operations.

Foreign investment

A literature review by de Mooij and Ederveen (2008) finds a central tendency estimate that a 1 percentage-point increase in the marginal effective tax rate would be associated with a 0.8% decrease in foreign investment.[30] Combined with this analysis' effective tax rate change this suggests that foreign investment by US MNCs would fall by about 6.7% (i.e., the 8.4 percentage-point change in Table 1 multiplied by 0.8).

However, de Mooij and Ederveen (2008) also finds that the response may be much larger for foreign investment: the mean effect of the studies they reviewed is that a 1 percentage-point increase in the effective tax rate would result in a 3.3% decrease in foreign investment.[31] Combining this with the 8.4 percentage-point change in the effective tax rate from the GILTI changes implies a reduction in foreign investment of approximately 28% (=8.4% x 3.3). A more recent review, Feld and Heckemeyer (2011), finds a similarly large central tendency effect of 2.5%, which results in a 21% reduction in foreign investment from the 8.4 percentage-point increase in the effective tax rate.[32] Overall, these estimates suggest a reduction in foreign investment ranging from 6.7% to 28%.

Domestic investment

The change in foreign investment can then be translated into the change in the domestic investment of US MNCs using the results of Desai, Foley, and Hines (2009). The authors find that a 10% increase in foreign investment is associated with a 2.6% increase in domestic investment.[33] The range of responses obtained above regarding the estimated reduction in foreign investment suggests that the domestic investment of these firms would fall by between 1.7% (=6.7% x 0.26) to 7.3% (=28% x 0.26). The results reported in Hufbauer, Moran, and Oldenski (2013) are of the same sign but smaller. They find that a 10% increase in investment by the affiliate leads to a 1.6% increase in investment in the United States. Combining this response with the range from above (i.e., the estimated reduction in foreign investment) suggests that domestic investment would fall by between 1.1% (=6.7% x 0.16) and 4.5% (=28% x 0.16).

Foreign employment and labor compensation

One potential approach to estimate the change in foreign labor or compensation assumes that the percentage change in employment and labor compensation is the same as the percentage change in investment. This might apply, for example, if the firm wanted to keep the ratio of capital to labor constant. Under this assumption, the percentage decline in foreign employment would range between 6.7% and 28%. If compensation per hour (or per worker) remained unchanged (e.g., if US subsidiaries must accept the prevailing wage in its market) then total compensation would change by the same percentages.

An alternative assumption is to use an empirically based estimate of the effect of tax changes on employment. One such estimate is Clausing (2009).[34] Clausing estimates that a 1 percentage-point decrease in the difference between the foreign effective tax rate on capital income and the US effective tax rate would lead to a 1.6% increase in employment abroad by US MNCs. She reports that results based on statutory tax rates are about 30% smaller (i.e., an elasticity of 1.1). Assuming that the 8.4 percentage point increase in the GILTI tax rate has an effect like that of an increase in the foreign tax rate in Clausing's estimate,[35] and using the lower of Clausing's two reported elasticities results in a 9.2% (=8.4 x 1.1) decline in foreign employment and, holding the wage rate constant, a 9.2% decline in the associated labor compensation.

A third estimate is obtained based on Clausing (2012), which estimates the employment effect of going from the pre-TCJA US tax system to a territorial tax system.[36] Using results from her 2009 paper, she estimated that going to a territorial system would expand employment by the foreign subsidiaries of US MNCs by about 800,000 in 2012.[37] A principal policy change of going from the pre-TCJA system of taxing the income of US MNCs to a territorial system would have been the removal of the residual tax paid to the US government on repatriated profits. However, the size of this tax was relatively small. For example, in 2010, US corporations paid about $27 billion of residual tax on foreign earnings of about $930 billion, so the residual tax rate was about 3%.[38] There was, though, an implicit cost in the form of planning and interest costs to managing the tax deferral allowed under pre-TCJA law. Altshuler and Grubert (2013) estimated that this cost was equivalent to a tax at a 7% rate.[39] Including both the explicit and the implicit tax suggests that going to territorial would have lowered the US tax by roughly 10 percentage points. Assuming that employment effects are symmetrical with respect to tax changes, this suggests the 8.4 percentage point increase in the effective tax rate from the proposed GILTI changes would lower foreign employment by about 670,000 in 2012. In 2012 employment by US majority-owned foreign affiliates was about 11.3 million, so that reduction corresponds to a drop of about 5.9%.

Combining all of these estimates suggests that foreign employment by US MNCs would decline by between 5.9% and 28%.

Domestic employment and labor compensation

Desai, Foley, and Hines (2009) finds that, for US MNCs, a 10% increase in foreign employee compensation is associated with a 3.7% increase in US employee compensation. This suggests that the reduction in foreign employment by US MNCs resulting from the GILTI changes would reduce domestic compensation by 2.2% (=5.9% x 0.37) to 10.4% (=28% x 0.37).

Hufbauer, Moran, and Oldenski (2013) finds that a 10% increase in employment at foreign affiliates leads to a 3.9% increase in US employment for US MNCs.[40] This suggests that the reduction in foreign employment by US MNCs as a result of the GILTI changes would reduce domestic employment by 2.3% (=5.9% x 0.39) to 10.9% (=28% x 0.39). Hufbauer, Moran, and Oldenski (2013) also find that a 10% reduction in investment in the foreign affiliate leads to a 0.9% decrease in employment in the United States. Using this relationship gives a decrease in US domestic employment of between 0.6% (=6.7% x 0.09) and 2.5% (=28% x 0.09).

Overall, these estimates suggest that US domestic employment by the parents of foreign affiliates might fall between 0.6% and 10.9%.

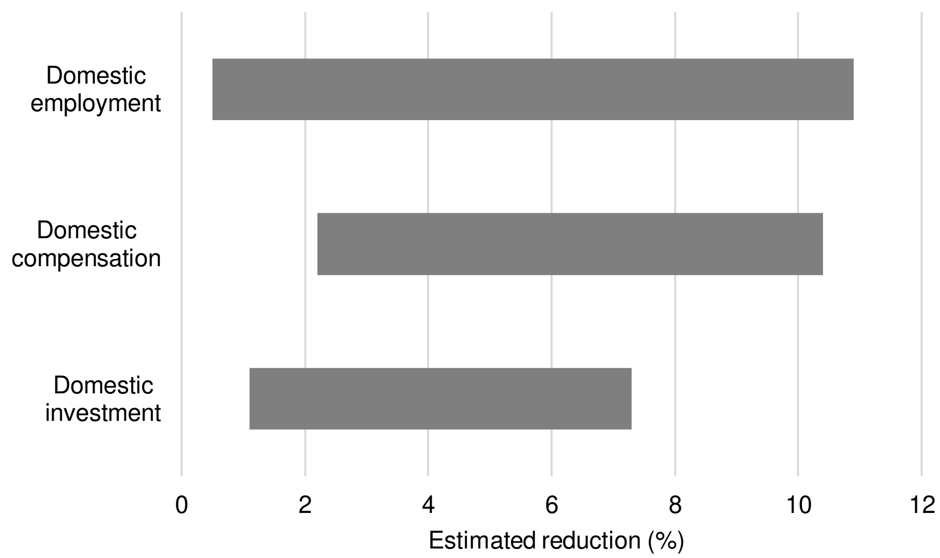
<u>Estimated impacts</u>

The potential range of results is summarized below in Figure 1:[41]

- US MNC domestic employment is estimated to decline by between 0.6% and 10.9%
- US MNC domestic compensation is estimated to decline by between 2.2% and 10.4%
- US MNC domestic investment is estimated to decline by between 1.1% and 7.3%

When scaled to the most recent data on US MNCs (2018) this results in a decline in jobs at impacted firms of between 200,000 and 3.1 million, a decline in compensation of between $51 billion and $243 billion, and a decline in investment of between $8 billion and $53 billion.

Figure 1. Estimated impact of proposed GILTI changes on domestic activity of US MNCs



Source: EY analysis.

Interpreting the range of results

The effects that are computed above span a very wide range. Because they are constructed using parameters from a diverse set of empirical papers, they have no real central tendency or mean. In addition, the estimates are high level and subject to a number of limitations, as discussed above and in the Caveats and Limitations section below. Nonetheless, based on professional judgement, it seems plausible that the employment effects for the US MNCs could range somewhere between 500,000 and 1,000,000 lost jobs and the investment declines might range between $10 billion and $20 billion.

One point that might be made is that the high-end of the range of estimates is based on a 28% reduction in foreign investment in response to the GILTI changes. To the extent that the actual response would be smaller, the high-end estimates would be smaller.

In addition, more comprehensive and detailed estimates of other somewhat similar tax proposals might offer some perspective. One such tax proposal is that to increase the corporate income tax rate from 21% to 28%.[42] A recent EY general equilibrium analysis of that proposal estimated that in the long-run, once the full effects of the policy had been realized, the loss in labor income would be equivalent to a loss of about 800,000 jobs, inclusive of the effects of the government spending the revenue.[43] Because the tax change is of a similar type (a tax rate increase on corporations) and the revenue raised is in the same ball park, although with the revenue raised from GILTI being somewhat smaller,[44] the estimates for the corporate tax rate increase might offer some perspective on the GILTI estimates. The comparison might suggest broadly similarly sized economic effects, with the GILTI effects being somewhat smaller. The more likely GILTI employment/labor income and investment effects, then, could be sizable, but not as large as the extreme upper range of the estimates summarized above.

Additionally, while the exact approach for analyzing the potential GILTI changes is subject to professional judgement, it is worth noting that Serrato (2019) is on some dimensions better suited than many of the other cited papers to providing an appropriate analytical framework. Specifically, it examines a change in US tax policy that increased the tax on foreign operations of US MNCs in a low-tax jurisdiction, it is well-identified, and it examines the impact over time.[45] As previously described, relying on Serrato (2019) results in a reduction in domestic employment at US MNCs by between 1.2 million (4.1%) and 1.4 million (4.9%); this, however, does not account for the general equilibrium effects of the tax change, including the effects from the way the tax revenue is spent. These seem likely to reduce the magnitude, but not the sign, of the impacts. This again suggests that the GILTI employment effects could be sizable, but not as large as the extreme upper range of the estimates summarized above.

Professional judgement informed by these considerations suggest that employment losses for directly affected US MNCs might most plausibly range between 500,000 and 1,000,000 and investment might fall by between $10 billion and $20 billion. Of course, in exercising professional judgement, others may come to a different assessment of the likely size of the effects.

V. Caveats and limitations

Any modeling effort is only an approximate depiction of the economic forces it seeks to represent, and the economic model developed for this analysis is no exception. Although various limitations and caveats might be listed, several are particularly noteworthy:

- **Estimates are limited by public information and use industry-level data.** The analysis relies on information reported by federal government agencies (primarily from the Internal Revenue Service and US Bureau of Economic Analysis). One key limitation to this analysis is the limited publicly available company-level data ideal for doing an analysis of changes to the GILTI regime. Ideally this analysis would rely on company-level tax return data as aggregating such data – as is necessary when using publicly available data – will generally reduce the accuracy of the results. Instead, this analysis primarily relies on the Internal Revenue Service Statistics of Income's country-by-country reporting data supplemented with other publicly available industry-level data.[46] One particular limitation of this data is that it may double count income of US MNCs, particularly in low tax jurisdictions, and so could bias downward our effective tax rate calculations for current law. The size of this problem, however, appears to be uncertain and there appears to be no straight forward way to adjust the data to eliminate double counting.[47]

- **The responsiveness of domestic activity to changes in foreign activity is uncertain.** As is apparent from this report, there is significant uncertainty surrounding the responsiveness of domestic activity to changes in foreign activity. In addition to the range of estimates provided, some papers find that domestic and foreign activities are substitutes, rather than complements.[48]

- **Some estimates are not specific to tax policy changes.** Some of the papers (e.g., Desai, Foley, and Hines (2009) and Hufbauer, Moran, and Oldenski (2013) that are used to inform the estimates of the domestic effects of GILTI do not examine the effects of taxation *per se*. Rather, those authors examine the relationship between foreign expansion and domestic expansion for a panel of firms over time. To the extent that the relationships between foreign and domestic activity would be different for tax policy changes, the domestic effects of GILTI would differ from those estimated in this paper.

- **The GILTI calculations are high-level approximations.** In addition to treating each industry as a single firm, the GILTI calculations abstract from a number of factors such as the treatment of losses and the high-tax exclusion.[49]

- **Proposed GILTI changes are modeled in isolation.** The GILTI tax increases are part of a wider proposed set of corporate and individual tax increases. This set includes increasing the US corporate income tax rate from 21% to 28%.[50] This analysis, however, looks at the impact of the proposed GILTI changes on US domestic activity in isolation, without considering other aspects of the Made In America Tax Plan or the American Families Plan. Additionally, this analysis does not examine the potential impacts of the spending for which these tax increases pay. Certain types of spending increases are productivity enhancing or may have other potential benefits.

- **GILTI is modeled as 2021 law.** The analysis assumes that the GILTI deduction is 50%. Calculations based on a 37.5% deduction, as scheduled to begin after 2025, would show a smaller effect.

- **Not all foreign affiliate income is subject to GILTI.** The calculations above assume that the increase in the GILTI tax applies to all foreign source income of US MNCs or otherwise is relevant for deciding the level of foreign economic activity. But not all foreign source income is subject to GILTI. While GILTI represents a, possibly the, major source of foreign source income, and its taxation is likely to play a key role in investment decisions, to the extent that foreign source income relevant to the investment decisions of US MNEs is not GILTI, the economic effects from changing the GILTI tax rate could be smaller than estimated in this report, although this effect is part of the reason that we judge that the most likely effects are in the lower half of the range we estimate. Regardless, even though perhaps smaller, the sign of the effects would not change.

- **Estimates are a comparative static.** This analysis compares fully phased in versions of current law and of the policy. Because firms have not yet had a chance to respond fully to GILTI, the actual response could be smaller than the response estimated. In addition, it is likely to take time form any such adjustments to work themselves out, so that the full effects would be realized over time, not immediately.

- **Modeling does not capture "general equilibrium" effects.** The empirical work on which this analysis is based does not include "general equilibrium effects" that might accompany the GILTI tax changes that affect a wide range of firms. For example, employment might go up in other firms not subject to the GILTI changes. Foreign investment might replace reduced investment by US multinational corporations. Nonetheless, there may remain losses for the economy as a whole. Multinational businesses tend to be highly productive and innovative businesses.[51] Damaging them may hurt the economy even if workers eventually find jobs elsewhere. Some researchers have argued that "general equilibrium effects" are likely to reduce the response but not to change the direction.[52] These economy wide effects, however, might be realized as lower labor income, caused by a shift of labor to less productive activities and a reduced US capital stock. rather than as reduced employment. Labor earnings would be harmed in any event.

- **Modeling does not include the effects of proposals to establish an international global minimum tax.** There are ongoing international negotiations intended to establish a world-wide minimum tax on corporate income.[53] A global minimum tax could reduce the GILTI effects estimated in this paper. If all countries imposed a higher corporate minimum tax, the effects of a higher US minimum tax on the decision of US MNCs to reduce foreign affiliate investment might be smaller than otherwise, since the US tax increase would have a smaller effect on the competitive position of US MNCs.

- **This report does not include state corporate income taxes.** It is likely that changes to the amount of GILTI included in federal taxable income would result in state tax increases in some jurisdictions because states generally incorporate federal taxable income as the starting point for determining state taxable income, and they do not offer corporations a credit for taxes paid to foreign (non-US) countries. Based on their ongoing response to the TCJA, it is also likely that state lawmakers would review the impact of conforming to or decoupling from federal changes to GILTI.

- **While on average the US benefits from expansion of the foreign businesses of US MNCs, some segments will be hurt.** There is evidence suggesting, for example, that low-wage, low-skilled US workers may be among those hurt.[54] Foreign expansion allows the United States to specialize more effectively in what it does best, which may leave these workers behind. Using tax policy to hinder the ability of US businesses to compete in world markets is not the solution to this. Other solutions, such as providing upskilling and relocation assistance would allow these workers to gain new-economy skills.

- **Range of estimates is not statistical in nature.** This report provides a range of point estimates from the empirical literature on how changes in the foreign activity of a US MNC translates into changes in the domestic activity of that US MNC. The range should not be viewed as a confidence interval or statistical in nature.

- **Analysis does not reflect impacts of COVID-19.** This analysis does not reflect any potential impacts of the COVID-19 health crisis.

Endnotes

[1] See Joint Committee on Taxation, "U.S. International Tax Policy: Overview And Analysis," 2021 (JCX-16R-21) and Congressional Research Service, "Issues in International Corporate Taxation: The 2017 Revision (P.L. 115-97)," 2021.
[2] The calculations in this paper compare GILTI with a 50% deduction against the Biden administration's proposed changes.
[3] GILTI also includes a high-tax exclusion that can generally be elected when foreign income is taxed at an effective rate greater than 18.9% (i.e., 90% of the 21% US corporate income tax rate).
[4] Formally, at a high level, GILTI requires the inclusion of the active income of a US parent's controlled foreign corporations (CFCs) that exceeds 10% of the CFCs' basis in their depreciable tangible property (so called Qualified Business Investment Assets (QBAI)). Here and throughout the report "foreign income" and "foreign operations" are used synonymously with "CFCs" for simplification. GILTI also puts GILTI-related foreign taxes in a separate basket, gives a 20% haircut to the credit allowed for foreign taxes, and does not allow unused credits to be carried back or forward. Changes proposed do not change these rules.
[5] GILTI does not apply to Subpart F income, foreign oil and gas income, or income effectively connected to a US business. GILTI also does not apply to the dividends from related foreign affiliates. But this is to prevent double counting in the measurement of GILTI income, not to subject such income to an alternative tax regime.
[6] The Biden Administration's proposed GILTI tax increases are part of a wider set of corporate and individual tax increases. This set, for example, includes increasing the US corporate rate income tax rate from 21% to 28%. This analysis, however, looks at the impact of the proposed GILTI changes on US domestic activity in isolation, without considering the Administration's other proposed tax changes. This analysis does not examine the potential impacts of the spending for which these tax increases may serve as an offset. Certain types of spending increases are productivity enhancing or may have other potential benefits. See US Treasury Department, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021
[7] See US Department of the Treasury, "The Made in America Tax Plan," 2021.
[8] See White House, *Fact Sheet: The American Jobs Plan*, March 2021 and US Treasury Department, *The Made In America Tax Plan*, April 2021; and Treasury Department, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021.
[9] See White House, *Fact Sheet: The American Jobs Plan*, March 2021 and US Treasury Department, *The Made In America Tax Plan*, April 2021; and Treasury Department, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021.
[10] This literature is discussed later in the report.
[11] See Kovak, Brian, Lindsay Oldenski, and Nicholas Sly, "The Labor Market Effects of Offshoring by US Multinational Firms: Evidence from Changes in Global Tax Policies," Working Paper, National Bureau of Economic Research, 2017.
[12] See Desai, Mihir, C. Fritz Foley and James Hines, "Domestic Effects of the Foreign Activities of US Multinationals", American Economic Journal: Economic Policy, 2009.
[13] See Becker, Johannes, and Nadine Riedel, "Cross-border Tax Effects on Affiliate Investment – Evidence from European Multinationals," European Economic Review, 2012.
[14] Gary Clyde Hufbauer, Theodore H. Moran, and Lindsay Oldenski (2013). Outward Direct Investment and US Exports, Jobs, and R&D: Implications for US Policy, The Peterson Institute for International Economics, 2013 (see original research and chapter 3).
[15] See Serrato, Juan Carlos Suarez, "Unintended Consequences of Eliminating Tax Havens," Working Paper, National Bureau of Economic Research, 2019.
[16] See, for example, Hubbard, R. Glenn, "Outsourcing is Good for America," 2004; Slaughter, Matthew, "How Multinational Companies Strengthen the US Economy," United States Council Foundation, 2009; and Griswold, Daniel, "Investing Abroad Means More Jobs Abroad and More Employment at Home," 2016; Barbe, Andre and Riker, David, "The Effects of Offshoring on U.S. Workers: A Review of the Literature," United States International Trade Commission Journal of International Commerce and Economics, 2018.
[17] See, for example, Martin Feldstein, "The Effects of Outbound Foreign Direct Investment on the Domestic Capital Stock," In Martin Feldstein, James R. Hines Jr. and R. Glenn Hubbard (eds.), The Effects of Taxation on Multinational Corporations (Chicago: University of Chicago Press), 43-63 (1995). Ambiguities notwithstanding, there is a substantial body of support for the complementarity view that informs the analysis in this paper, even with full acknowledgement that empirical results in economics are rarely one sided, and they are not entirely one sided here.
[18] The effective tax rate analysis primarily relies on 2018 IRS country-by-country reporting data. In particular, the distribution of income in each CFC ETR category by industry and the estimates of QBAI for each CFC ETR category by industry are from these data. Additional calculation parameters were derived from other IRS data and BEA data. A

caution in using these 2018 IRS country-by-country reporting data is that intra-company dividends could be included in pre-tax income, which could lead to artificially low effective tax rates. Specifically, the OECD notes: "MNEs may have included intra-company dividends in profit figures, meaning that profit figures could be subject to double counting. Uncertainty about the inclusion or exclusion of intra-company dividends in profit before tax hampers the interpretation of CbCR statistics and the comparability of the aggregate data across reporting jurisdictions. While the inclusion of dividends in the profit figure is normal in separate financial accounting, in the context of corporate income tax analysis it can lead to biased results. As a distribution of post-tax profits, dividends are often lightly taxed or tax-exempt. Therefore, the inclusion of intra-company dividends in "profit (loss) before income tax" can result in artificially low effective tax rates (ETRs)." Notably, the overall effective tax rate estimate derived primarily from these data and displayed in Table 1 (16.3% effective tax rate on foreign source income under current law) is similar to the 17.7% effective tax rate reported by Dowd et al. (2020) for a sample of 81 US MNCs. See Tim Dowd, Christopher Giosa, and Thomas Willingham. Corporate Behavioral Responses to the TCJA for Tax Years 2017-2018. National Tax Journal. Table 3, p. 1120. December 2020. Actually, the comparison is closer than it seems because Dowd et al.'s income measure is after the deduction for a 10% normal return on tangible assets, while the income measure here is before that deduction. Also see https://www.oecd.org/tax/tax-policy/corporate-tax-statistics-country-by-country-reporting-FAQs.pdf.

[19] Industry classifications follow North American Industry Classification System (NAICS), which is the standard industry classification for government statistics. These are: 11, 21, 22, 23 (Agriculture, oil & gas extraction, utilities, and construction); 31-33 (Manufacturing); 42, 44-45, 48-49 (Wholesale trade, retail trade, and transportation); 51 (Information); 52, 53 (Finance, insurance, and real estate); 54 (Professional, scientific, and technical services); and 55-81 (Management of companies and all other services).

[20] This IRS data used in this report implies the following distribution of cash effective tax rates on foreign income: 44% in <5% ETR jurisdictions, 13% in 5-10% ETR jurisdictions, 9% in 10-15% ETR jurisdictions, 11% in 15-20% ETR jurisdictions, 6% in 20-25% ETR jurisdictions, and 16% in 25%+ jurisdictions. Notably, this finding is broadly similar to the 40% to 56% reported by Clausing (2020a). See Kimberly A. Clausing, "5 Lessons on Profit Shifting From U.S. Country-by-Country Data," *Tax Notes Federal, November 9, 2020*, p. 925-940. "Big tax havens" in Clausing (2020) include Puerto Rico, Ireland, Luxembourg, the Netherlands, Switzerland, Bermuda, UK Caymans, and Singapore. However, there are concerns that this data may overstate the share of profits taxed in low-tax jurisdictions, although the extent of the overstatement is uncertain. See, e.g., Martin Sullivan (2020), "Economic Analysis: Are Country by Country Reports Worthless?", *Tax Notes*, January 21 https://www.taxnotes.com/tax-notes-today-international/information-reporting/economic-analysis-are-country-country-reports-worthless/2020/01/13/2brx4; Kimberly Clausing (2020b), "Profit Shifting Before and After the Tax Cut and Jobs Act", *National Tax Journal*, December https://www.journals.uchicago.edu/doi/10.17310/ntj.2020.4.14; and Jennifer Blouin and Leslie A. Robinson (2020), "Double Counting: How much profit of multinational enterprises is really in tax havens?" https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3491451.

[21] Note that this calculation nets profits and losses when computing effective tax rates, which may result in misleading effective tax rates. In aggregate this does not significantly impact the share of foreign income in each effective tax rate category, but it could for particular industries. Data restricted to only positive income companies by jurisdiction is only publicly available in aggregate, not by industry. In particular, when restricted to positive income companies the distribution of foreign income is 47% in <5%, 9% in 5% to 10%, 16% in 10 to 15%, 8% in 15 to 20%, 11% in 20 to 25%, and 9% in 25%+.

[22] The table reports the simple average across industries. The 8.4 percentage-point change increases to 8.6% when weighted by US MNC domestic employment, 9.3% when weighted by US MNC capital expenditures, and 8.9% when weighted by foreign affiliate capital expenditures.

[23] See Tim Dowd, Christopher Giosa, and Thomas Willingham. Corporate Behavioral Responses to the TCJA for Tax Years 2017-2018. National Tax Journal. Table 3, p. 1120. December 2020. Actually, the comparison is closer than it seems because Dowd et al.'s income measure is after the deduction for a 10% normal return on tangible assets, while the income measure here is before that deduction.

[24] See Pen Wharton Budget Model, Profit Shifting and the Global Minimum Tax, July 21, 2021, https://budgetmodel.wharton.upenn.edu/issues/2021/7/21/profit-shifting-and-the-global-minimum-tax

[25] Literature reviews include Kevin Hassett and Glenn Hubbard, (2002), "Tax policy and business investment" in M. Feldstein and A. Auerbach (eds.), Handbook of Public Economics, Vol. 3, Elsevier North Holland, pp. 1293-1343; Ruud de Mooij and Sjef Ederveen, (2008), "Corporate tax elasticities: a reader's guide to empirical findings," *Oxford Review of Economic Policy* 24(4), pp. 680-697; and Lars Feld and Jost Heckemeyer, 2011, "FDI and Taxation: A Meta-Study," Journal of Economic Surveys 25(2): 233-272.

[26] See Serrato, Juan Carlos Suarez, "Unintended Consequences of Eliminating Tax Havens," Working Paper, National Bureau of Economic Research, December 2019.

[27] The 40% adjustment is based on Internal Revenue Service country-by-country reporting data.

[28] This 6.1% is near the top of this analysis' 1.1% and 7.3% overall range.

[29] The literature cited in this section includes other estimates that are potentially relevant. All of the results suggest complementarity. The results that are reported in the body of this paper span a wide rage and seem sufficient to suggest the potential responses estimated in the literature.
[30] See Ruud de Mooij and Sjef Ederveen, (2008), "Corporate tax elasticities: a reader's guide to empirical findings," *Oxford Review of Economic Policy* 24(4), pp. 680-697. This analysis of GILTI treats the proposed GILTI tax increase as an increase in the tax on foreign investment income of US MNCs – it does not distinguish between taxes imposed by the foreign jurisdiction and those imposed by the United States.
[31] See Ruud de Mooij and Sjef Ederveen, (2008), "Corporate tax elasticities: a reader's guide to empirical findings," Oxford Review of Economic Policy, 24(4), pp. 680-697.
[32] See Lars Feld and Jost Heckemeyer, 2011, "FDI and Taxation: A Meta-Study," Journal of Economic Surveys 25(2): 233-272.
[33] Desai, Foley, and Hines (2009) focus on the subsidiaries with US parents in manufacturing industries. Results may differ for other industries. However, Hufbauer, Moran, and Oldenski (2013) obtain broadly similar results using firms across all industries other than banks. For example, HMO find that a 10% increase in capital expenditures at foreign affiliates leads to a 1.6 percent increase in capital expenditures in the US and a 0.9 percent increase in US employment; a 10% increase in employment at foreign affiliates leads to a 4.3% increase in capital expenditures in the US and a 3.9% increase in US employment. (Figure 3.1, location 592-593 in Kindle version).
[34] See Clausing, Kimberly, (2009), "Multinational Firm Tax Avoidance and Tax Policy," *National Tax Journal* 62(4), pp: 703-725.
[35] The GILTI tax rate estimated here is the total tax rate paid on the foreign source income of US MNCs, including taxes paid to foreign jurisdictions and taxes paid to the US government.
[36] See Clausing, Kimberly, (2012), "A Challenging Time for International Tax Policy," *Tax Notes* pp. 281-283.
[37] Clausing arrived at this number by increasing her estimated elasticity based on de Mooij and Ederveen (2008), not by changing the tax rates. Nonetheless, the estimate is of a shift to territorial so it should be compatible with an estimate of the same thing but based on tax changes.
[38] See US Department of Treasury, The Case for Responsible Business Tax Reform, 2017.
[39] See Grubert, Harry and Rosanne Altshuler, (2013), "Fixing the System: An Analysis of Alternative Proposals for the Reform of International Tax," *National Tax Journal* 66(3): pp. 671-712
[40] Desai, Foley, and Hines (2009) finds that a 10% increase in foreign employees is associated with a 6.6% increase in domestic employment. Combined with the high-end estimate of a 28% decrease in foreign employment, however, this leads to an implausibly large result that is not considered in the range of results reported in the body of the paper. That should not be interpreted as a comment on the Desai, Foley, and Hines (2009) estimate but rather an acknowledgement that the estimate does not seem easily applicable when the foreign employment changes so significantly.
[41] For manufacturing the ranges are 0.7% to 13.0% (US MNC domestic employment), 2.6% to 12.4% (US MNC domestic compensation), and 1.3% to 8.7% (US MNC domestic investment). Scaled to 2018 data this produces estimates of 50,000 to 973,000 US MNC domestic jobs, $19 billion to $92 billion of US MNC domestic compensation, and $3 billion to $18 billion of US MNC domestic investment.
[42] See US Treasury Department, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021.
[43] Mackie, James (2021), "Economic considerations for raising the US corporate income tax rate", slide deck prepared for the National Retail Federation.
[44] See Penn Warton Budget Model (2021), "President Biden's $2.7 Trillion American Jobs Plan: Budgetary and Macroeconomic Effects", https://budgetmodel.wharton.upenn.edu/issues/2021/4/7/president-biden-american-jobs-plan-effects. The ten-year revenue estimate for the corporate tax rate increase is $891.6 billion and for the GILTI changes is $727.7 billion. Revenue estimates for the GILTI tax increase from other organizations are lower, and so may suggest a smaller although still sizeable response for GILTI. For example, the US Treasury reports a ten-year revenue estimate for raising the corporate tax rate of $858 billion and $534 billion for the GILTI proposal. See Treasury Department, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021.
[45] There are, of course, limitations to relying on the Serrato paper. In particular, using results relying on the change to the §936 credit in Puerto Rico could in some respects overstate the employment change. Specifically, it would suggest the availability of other low-tax jurisdictions to which real US economic activity could be shifted that were available in the context of the repeal of the §936 credit but would not likely be available with the proposed GILTI changes analyzed in this paper. Using a similar proration as used for investment would suggest this 1.2 to 1.4 million jobs estimate could be reduced approximately by half. However, Serrato finds that the repeal of the §936 credit reduced US employment at directly impacted firms by 720,000 and it seems likely that the proposed changes to GILTI would have a larger overall impact than the repeal of the §936 credit. In particular, comparing Serrato's calculations to this analysis' calculations, the effective tax rate increase from the repeal of the §936 credit is somewhat smaller than that from the proposed GILTI changes on impacted firms. Additionally, it is also likely that the GILTI tax would impact a larger number of firms (e.g., JCT (2006) notes §936 credits were highly concentrated within §936 firms and Grubert and Slemrod (1998) note that 96% of the tax credits were claimed by 214 firms in their data). Overall, this suggests that the GILTI employment effects

could be sizable, but not as large as the extreme upper range found in this paper's overall range of results. Note that the 720,000 job impact is reported in Juan Carlos Suárez Serrato, Unintended Consequences of Eliminating Tax Havens, Cato Institute Research Briefs in Economic Policy No. 142, December 2018. See also Joint Committee on Taxation, "An Overview of the Special Tax Rules Related to Puerto Rico and an Analysis of the Tax and Economic Policy Implications of Recent Legislative Options," 2006 and Harry Grubert and Joel Slemrod, (1998), "The Effect of Taxes on Investment and Income Shifting to Puerto Rico," *Review of Economics and Statistics* 80(3): 365-373.

[46] This analysis uses 2018 country-by-country reporting data, which are the most recent available.

[47] See endnote 20.

[48] See endnote 17.

[49] Publicly available data do not allow for the modeling of losses (e.g., CFCs with losses). Additionally, the high-tax exclusion is not included for several reasons. One is that the aggregated approach is not well suited to determining its effect. The second is that it is not clear how to model it when the GILTI tax rate goes to 21% but there is no change in the basic corporate tax rate, as is assumed in this analysis. Third, the preliminary Biden Administration's proposal was silent on the high-tax exclusion but additional detail released in the *General Explanation* eliminated it. Elimination would place greater importance on modeling it accurately for current law were it to be included. Fourth, its effect seems likely to be of a second order of importance. Including the effects of the high-tax exclusion would be likely to widen the difference between current law and proposed law, but it is difficult to assess the magnitude of the effect.

[50] See US Treasury Department, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021.

[51] Hufbauer et al. (2013), chapter 2; Slaughter, Mathew J. (2009). How U.S. Multinational Companies Strengthen the U.S. Economy. Business Roundtable and The United Sates Council Foundation.

[52] In particular, Desai, Hines, and Foley (2009) qualify their results as follows: "These estimated effects of foreign operations on domestic sales and factor demands are identified by differences between firms in the growth rates of the foreign economies in which they invest, which in turn affect the rates at which firms expand their foreign investments. As a result, the estimates are cross-sectional in nature: they reflect comparisons of the subsequent domestic activities of firms that invested in certain foreign countries with firms that invested in others. The total domestic effects of policies affecting foreign investment include price changes that affect all firms and are not reflected in cross-sectional comparisons of some firms with others. These general equilibrium considerations include changes in output prices of industries with significant foreign exposure, any endogenous effects on interest rates, exchange rates, wages, prices of investment goods, and others. These endogenous price changes are likely to attenuate, but not reverse in sign, the estimated firm-level effects of foreign operations on domestic capital accumulation, employment, R&D spending, and exports. In the absence of a complete general equilibrium analysis it is difficult to estimate the aggregate magnitudes of these effects on the U.S. economy, but there is nonetheless a presumption that the signs of aggregate effects resemble those estimated on the basis of firm-level evidence."

[53] See EY (2020), "OECD releases BEPS 2.0 Pillar Two Blueprint and invited public comments", https://www.ey.com/en_gl/tax-alerts/oecd-releases-beps-2-0-pillar-two-blueprint-and-invites-public-comments.

[54] See, for example, the discussion and citations in Andre Barbe and David Riker, "The Effects of Offshoring on US Workers: A Review of the Literature," Journal of International Commerce and Economics, United States International Trade Commission, 2018 and in Hufbauer et al. (2013), locations 248-249, 726 in Kindle version.