taxnotes® international
Volume 105, Number 2 ■ January 10, 2022

The BEAT's Impact on U.S. Federal Tax Revenue

by Thomas Horst

Reprinted from *Tax Notes International*, January 10, 2022, p. 163

The BEAT's Impact on U.S. Federal Tax Revenue

by Thomas Horst

Thomas Horst

Thomas Horst is the founder and a managing director of Horst Frisch Inc. He thanks Elizabeth Stevens and David Rosenbloom for their constructive comments on earlier drafts of this article. He is also grateful to Laura Power of the U.S. Treasury Office of Tax Analysis for her assistance with his analysis of data from a recent study performed by the IRS Statistics of Income division.

In this article, Horst examines the base erosion and antiabuse tax's effects on U.S. federal tax revenue and the tax incentives for large corporations to avoid the tax.

Portions of this analysis were previously included in a report prepared as part of a professional engagement.

This article evaluates the effect of the base erosion and antiabuse tax on federal tax revenues and the tax incentives that large corporations have to change their behavior to avoid the BEAT. It finds that the BEAT's principal effect has been to encourage corporations to find ways to avoid the tax altogether even though doing so might increase their regular tax liabilities. For example, reg. section 1-59A(3)(c)(6)(i) allows a corporation to waive the regular tax deduction for a base erosion tax benefit, which lets it avoid paying any base erosion minimum tax amount but at the price of a significant increase in its regular tax liability. Waiving deductions may have been unattractive when the BEAT rate was 5 percent, but it became advantageous when the rate increased to 10 percent.

I. Legislative History and Structure of the BEAT

The section 59A BEAT was one of several provisions enacted by the Tax Cuts and Jobs Act in December 2017. Unlike the TCJA's other international tax provisions, the BEAT first appeared late in the legislative process, about a month before the TCJA was enacted.[1] According to a reconciliation report by the Senate Budget Committee:

> This provision aims to level the playing field between U.S. and foreign-owned multinational corporations in an administrable way. To the extent that corporations with significant gross receipts are able to utilize deductible related party payments to foreign affiliates to reduce their U.S. corporate tax liability below 10-percent, the Committee intends that the base erosion and anti-abuse tax function as a minimum tax to preclude such companies from significantly reducing their corporate tax liability by virtue of these payments. Significant gross receipts is defined as a corporation with $500 million or more in annual gross receipts.
>
> The Committee also concluded that this minimum tax should limit the extent to which tax credits permit large, profitable corporations with significant base erosion payments to avoid virtually all tax liability in the reformed corporate tax system. This

[1] *See* Joint Committee on Taxation, "Description of the Chairman's Mark of the 'Tax Cuts and Jobs Act,'" JCX 51-17 (Nov. 2017).

> is to ensure that those corporations with significant gross receipts and deductible foreign related party payments pay an appropriate amount of U.S. income tax on an annual basis.[2]

Broadly speaking, the BEAT applies only if two prerequisites are met: The corporation has average annual gross receipts for the three preceding years of at least $500 million; and its aggregate base erosion tax benefits equal at least 3 percent[3] of its total deductions for the current year.

The aggregate amount of a corporation's base erosion tax benefits determines whether the corporation will exceed the threshold percentage that triggers a potential BEAT liability. If both BEAT prerequisites are met, the aggregate amount of a corporation's base erosion tax benefits is included in its base erosion modified taxable income and thus potentially increases its actual BEAT liability. That is, base erosion tax "benefits" generally result in an increase in the corporation's total federal tax liability.

The BEAT is structured as an alternative minimum tax. In other words, if both qualifying requirements are met, the corporation calculates base erosion modified taxable income and multiplies it by the applicable BEAT rate, which was 5 percent for fiscal years beginning in 2018 and 10 percent for later years.[4] The corporation incurs an additional base erosion minimum tax amount equal to the excess of the BEAT rate times the base erosion modified taxable income over the corporation's base erosion adjusted regular tax liability.

That liability equals the corporation's regular tax liability reduced by some of the regular tax credits available to it. For instance, the section 41 credit for increasing research activities and 80 percent of the section 38 general business credit are not taken into account in calculating the base erosion adjusted regular tax liability.

The most important tax credit considered in calculating the base erosion adjusted regular tax liability is the foreign tax credit. While an FTC reduces a corporation's regular tax liability, the consequent reduction in the corporation's base erosion adjusted regular tax liability implies a commensurate increase in its base erosion minimum tax amount. Here, too, a benefit for regular tax purposes becomes a detriment for BEAT purposes.

II. Early JCT Revenue Projections

In December 2018 the Joint Committee on Taxation published its general explanation of the TCJA and provided year-old estimates of the BEAT's effect on federal tax revenue for fiscal 2018-2027.[5] For the government's fiscal years ending September 30, 2020, and 2021, the JCT projected that the BEAT would increase federal tax receipts by $13.3 billion and $16.1 billion, respectively. Both amounts include not only the projected amounts of the BEAT itself, but also the JCT's estimates of the BEAT's indirect effects on corporations' regular income tax resulting from likely behavioral changes (for example, restructuring transactions with foreign affiliates to avoid or minimize the BEAT).

The JCT prepared those revenue estimates during the last few months of 2017, shortly before the TCJA was enacted. Because the BEAT provisions were novel, the JCT had limited data on which to rely. Further, it had no way of knowing how the Treasury Department's subsequent regulations would interpret ambiguities in the BEAT statutory provisions. Finally, the JCT advised me in a meeting in 2019 that the BEAT revenue effects it projected in 2017 reflected significant behavioral changes it assumed corporations would make to avoid the BEAT rather than report base erosion minimum tax amounts on their filed tax returns.

[2] S. Prt. 115-20, at 396 (Dec. 2017).

[3] For affiliated groups that include a bank or a registered securities dealer, the threshold rate is 2 percent.

[4] The base erosion tax rate increases from 10 percent to 12.5 percent for fiscal years starting after December 31, 2025. For affiliated groups that include a bank or a registered securities dealer, the applicable rate increases by 1 percentage point.

[5] JCT, "General Explanation of Public Law 115-97," JCS-1-18, at 440 (Dec. 2018).

The analysis in Section IV fully supports the JCT's assumption that the BEAT's principal federal revenue effect is not its direct effect on the base erosion minimum tax amounts reported by corporations, but rather the indirect effect on corporations' regular tax liabilities resulting from behavioral changes made to avoid the BEAT. I have also calculated the increase in regular income taxes that would result if taxpayers elected to avoid their potential BEAT liability by waiving regular tax deductions. Those calculations lead me to conclude that the JCT's 2017 revenue estimates appear reasonable, given the large increase in regular tax liabilities that would result from the estimated waiver of regular tax deductions.

III. Treasury Estimates of the Direct BEAT Effects

Until very recently, no U.S. government estimates of the BEAT's direct effect on corporate tax liabilities for 2018 or any other year were available. However, according to a footnote in Treasury's April 2021 explanation of President Biden's tax proposals:

> The IRS Statistics of Income reports direct BEAT revenues of $1.8 billion in 2018, and Treasury expects revenues of $7 billion for the two years of 2019 and 2020. JCT had forecast more than twice that revenue as the law was being enacted.

In response to my request, the Treasury Office of Tax Analysis clarified that the $7 billion estimate is a cumulative two-year amount, so the average annual effect would be $3.5 billion for those two years. The department also confirmed that $3.5 billion is a projection of the direct BEAT effect in 2019 and 2020 taking into account the increase in the BEAT rate from 5 percent to 10 percent.

The Office of Tax Analysis's projections are not estimates of the federal tax revenue that would be lost if the BEAT provisions were repealed and do not include the indirect effect on the regular income taxes that corporations may have paid to avoid triggering a BEAT liability. The wording of the footnote quoted above indicates that the $1.8 billion estimate for tax year 2018 is based on corporate tax return data tabulated by the IRS SOI, whereas the $3.5 billion per year estimate for tax years 2019 and 2020 is an extrapolation by the department. The Office of Tax Analysis apparently assumed that the BEAT's direct effect on federal tax revenue would double from $1.8 billion in 2018 to $3.5 billion in 2019 and 2020 when the BEAT rate doubled to 10 percent.

IV. IRS Aggregate BEAT Results for Fiscal 2018

In July 2021 the IRS SOI published its tabulations of aggregate amounts reported by corporations on IRS Form 8991 for tax year 2018. Table 1 summarizes key statistics from the IRS SOI BEAT study. Important points to note:

- Almost 3,500 corporations disclosed that their average annual gross receipts over their three most recent years exceeded $500 million (the first BEAT prerequisite), and 1,089 of them also reported a base erosion percentage of at least 3 percent (the second BEAT prerequisite).
- For the 1,089 corporations that met both BEAT prerequisites, the average base erosion tax benefits ($206.6 million) represented just over 10 percent of average total deductions ($1.99 billion).
- Of those 1,089 corporations, 479 reported a positive base erosion minimum tax amount in tax year 2018. Conversely, 610 of those corporations had no base erosion minimum tax amount, which implies that applying the 5 percent BEAT rate to their modified taxable incomes must have been less than their base erosion adjusted regular tax liabilities in tax year 2018.
- For the 479 corporations reporting a positive base erosion minimum tax amount:
  - the *aggregate* base erosion minimum tax amount ($1.8 billion matches the BEAT revenue amount reported in the Treasury footnote quoted above); and
  - the *average* base erosion minimum tax amount ($3.8 million) represents less than 2 percent of the average value of base erosion tax benefits and less than 0.2 percent of the average total deductions for corporations that met both BEAT prerequisites.

The low value of the aggregate amount suggests that corporations that anticipated incurring a base erosion minimum tax amount in tax year 2018 made behavioral changes to minimize it.

Table 1. Key Results From IRS SOI BEAT Study Based on IRS Form 8991 for Fiscal 2018

		<A> Number of Returns	<B> Aggregate Amount ($ millions)	<C> Average Per Return ($ millions)
Base Erosion Tax Benefits				
1	Returns with at least $500 million of average annual gross receipts[a]	3,423	$309,817	$90.5
2	Returns with base erosion percentage of at least 3%[b]	1,089	$224,980	$206.6
Total Deductions				
3	Returns with at least $500 million of average annual gross receipts[a]	3,423	$16,414,201	$4,795.3
4	Returns with base erosion percentage of at least 3%[b]	1,089	$2,171,250	$1,993.8
5	Base erosion minimum tax amount	479	$1,801	$3.8

Source: IRS Statistics of Income Division, "Base Erosion Payments of Taxpayers With Substantial Gross Receipts Study" (July 2021).

[a]The base erosion and antiabuse tax of section 59A is generally levied on certain large corporations that have deductions regarding amounts paid or accrued to foreign related parties that are greater than 3 percent of their total deductions (2 percent in the case of certain banks or registered securities dealers), a determination referred to as the base erosion percentage test. Large corporations are those with gross receipts of $500 million or more, as calculated under the regulations of section 59A, a determination referred to as the gross receipts test.

[b]Two percent or higher for banks and securities dealers.

Based on data from the IRS SOI BEAT study, I have also estimated the additional base erosion minimum tax amount that the 479 corporations would have incurred in tax year 2018 had the BEAT rate been 10 percent, rather than 5 percent (see Table 2). My estimate assumes that those corporations made no further behavioral adjustments to mitigate the effects of the increase in the tax rate.

Table 2. Impact of Increasing BEAT Rate From 5 to 10 Percent — All Industries

	Selected Item	All Sectors <A> Number of Returns	All Sectors <B> Average Amount ($ thousands)	<C> Explanation
Reported Amounts for Fiscal 2018				
1	Base Erosion Minimum Tax Amount	479	$3,760	Average value in fiscal 2018 per tax return per SOI
2	Regular Tax Liability Adjusted	1,109	$63,958	Average value in fiscal 2018 per tax return per SOI
3	Modified Taxable Income * BEAT Rate		$67,718	#1 + #2
4	Applicable BEAT Rate		5%	BEAT rate for 2018
5	Modified Taxable Income		$1,354,367	#3/#4
6	Base Erosion Tax Benefit	907	$150,073	Average value in fiscal 2018 per tax return per SOI
7	Regular Taxable Income		$1,204,294	#5 - #6

Table 2. Impact of Increasing BEAT Rate From 5 to 10 Percent — All Industries *(Continued)*

	Selected Item	All Sectors <A> Number of Returns	All Sectors <B> Average Amount ($ thousands)	<C> Explanation
8	Base Erosion Minimum Tax Amount as Percentage of Base Erosion Tax Benefit		2.5%	#1/#6
Effect of Increasing BEAT Rate to 10% Assuming No Behavioral Changes				
9	Regular Taxable Income		$1,204,294	#7
10	Base Erosion Tax Benefit		$150,073	#6
11	Modified Taxable Income		$1,354,367	#9 + #10
12	Applicable BEAT Rate		10%	BEAT rate after 2018
13	Modified Taxable Income * BEAT Rate		$135,437	#12 * #11
14	Regular Tax Liability Adjusted		$63,958	#2
15	Base Erosion Minimum Tax Amount		$71,478	#13 - #14
16	Base Erosion Minimum Tax Amount as Percentage of Base Erosion Tax Benefit		47.6%	#15/#10

Key points in Table 2:

- Lines 1-8 estimate the aggregate amounts reported by the IRS SOI for tax year 2018 when the BEAT rate was 5 percent. Because the IRS SOI BEAT study did not report the aggregate values of the base erosion adjusted regular tax liability, the base erosion tax benefits, or modified taxable income for just the 479 corporations that reported a base erosion minimum tax amount in tax year 2018, I had to estimate those unreported amounts using the assumptions and methods described in lines 1-8.[6]
- Lines 9-16 provide my estimates of the aggregate amounts that those 479 corporations would have reported for tax year 2018 had the BEAT rate been 10 percent, assuming they made no behavioral changes that would affect their regular taxable incomes, base erosion adjusted regular tax liabilities, base erosion tax benefits, or modified taxable incomes shown on lines 1-8. Line 15 indicates that if the BEAT rate had been 10 percent in tax year 2018 and the 479 corporations made no changes in their behavior, their aggregate base erosion minimum tax amount would have been $34.2 billion,[7] which is almost 10 times larger than the U.S. Treasury's estimate of $3.5 billion for 2019 and 2020.
- Lines 8 and 16 calculate a BEAT effective rate equal to the base erosion minimum tax amount expressed as a percentage of the base erosion tax benefits. When the BEAT

[6]Line 2 assumes that the average base erosion adjusted regular tax liability for the 479 corporations that reported a base erosion minimum tax amount in 2018 was equal to the average value for the 1,109 corporations reporting that amount on IRS Form 8991. Line 6 makes a comparable assumption about the average value of the 479 corporations' base erosion tax benefits. Given the available data, these assumptions were the best I could devise. While it is possible that my assumptions led me to overstate the base erosion minimum tax amount based on the 10 percent rate (line 15), I believe that under any reasonable assumptions, (1) the base erosion minimum tax amount based on a BEAT rate of 10 percent would be sharply higher than the reported base erosion minimum tax amount based on a BEAT rate of 5 percent, and (2) corporations would generally have a clear incentive to waive regular tax deductions once the tax rate was increased to 10 percent if no better alternative was available.

[7]That amount is the result of multiplying the average base erosion minimum tax amount ($71,478) shown on line 15 of Table 2 by the 479 returns for fiscal 2018 reported in line 1, column <A> of Table 2.

Table 3. Effective Tax Rate on BEAT Benefits for Various Industries

	Base Erosion Minimum Tax Amount as Percentage of Base Erosion Tax Benefit (by Industry)	BEAT Rate on Modified Taxable Income	
		5%	10%
1	All Sectors	2.5%	47.6%
2	Mining	4.7%	23%
3	Manufacturing	4.8%	65.7%
4	Wholesale Trade	2.1%	34.1%
5	Retail Trade	0.9%	37.9%
6	Transportation and Warehousing	0.9%	18.6%
7	Information	0.9%	46.5%
8	Finance and Insurance	1.9%	40.5%
9	Real Estate and Rental and Leasing	0.5%	24.8%
10	Professional, Scientific, and Technical Services	1.7%	13.2%
11	Management of Companies (Holding Companies)	8.5%	67.6%
12	Administrative and Support and Waste Management and Remediation Services	1.5%	55.8%

Note: Method for all sectors is illustrated in Table 2.

rate increases from 5 percent to 10 percent, the effective BEAT rate spirals from 2.5 percent to 47.6 percent of the base erosion tax benefits.

Tables 1 and 2 are both based on aggregate BEAT data for tax year 2018 for all industry sectors. Table 3 applies the method applied in Table 2 to calculate the increase in BEAT effective rates for major industry sectors when the BEAT rate increases to 10 percent, assuming no change in taxpayer behavior. Although the BEAT effective rate varies from one industry sector to another, in all cases it would rise sharply when the BEAT rate increases to 10 percent, again assuming no change in behavior.

V. The BEAT's Indirect Effects

I do not know of any public domain information that would allow me to estimate the indirect effects the BEAT may have had on the regular tax liabilities of corporations seeking to avoid the tax. Table 4 shows how a hypothetical corporation subject to the BEAT might adjust its behavior to reduce the tax's effect on its overall income tax burden.

Lines 1-18 illustrate the calculation of various BEAT-related amounts assuming the BEAT rate is 5 percent. The dollar values are hypothetical but generally consistent with amounts that U.S. corporations reported on IRS Form 8991 for tax year 2018. Table 4 considers four hypothetical cases.

Column <C> presents a base case in which the corporation's base erosion percentage is 5.7 percent, which is above the 3 percent threshold. The applicable BEAT rate times modified taxable income exceeds the base erosion adjusted regular tax liability, so the corporation incurs a positive base erosion minimum tax amount. That amount is 2.5 percent of the corporation's aggregate base erosion tax benefits if the BEAT is 5 percent. However, if the rate increases to 10 percent and there are no behavioral changes, the amount increases sharply to 45 percent of the corporation's aggregate base erosion tax benefits.

Column <D> modifies the base case by assuming the corporation elects, as permitted by reg. section 1.59A(3)(c)(6)(i), to reduce both its total deductions and base erosion tax benefits by the same amount ($20 million). The only possible

Table 4. Base Erosion Minimum Tax Amount Under Alternative Behavioral Assumptions

	<A>	<B> Rate	<C> Base Case	<D> Waive Tax Deductions	<E> Reduce Base Erosion Tax Benefits	<F> Reduce Foreign Income Tax	<G> Explanation
Regular Income Tax							
1	Gross Income		1,000	1,000	1,000	1,000	Assumed values
2	Total Available Deductions		700	700	700	700	Assumed values
3	Deductions Waived		0	20	0	0	Assumed values
4	Total Deductions		700	680	700	700	#2 - #3
5	Regular Taxable Income		300	320	300	300	#1 - #4
6	Regular Tax Before Tax Credits	21%	63	67.2	63	63	21% of #5
7	Foreign Income Tax and Foreign Tax Credit		47	47	47	25	Assumed values
8	Base Erosion Adjusted Regular Tax Liability		16	20.2	16	38	#6 - #7
Base Erosion Minimum Tax							
9	Regular Taxable Income		300	320	300	300	#5
10	Base Erosion Tax Benefits		40	20	20	40	Assumed values
11	Base Erosion Percentage		5.7%	2.9%	2.9%	5.7%	#10/#4
12	Base Erosion Minimum Tax Applies?	3%	yes	no	no	yes	If #11 < 3%, no; if not, yes
13	Modified Taxable Income		340	340	320	340	#9 + #10
Results if Base Erosion Rate Is 5%							
14	Base Erosion Rate * Modified Taxable Income	5%	17	17	16	17	5% of #13
15	Base Erosion Minimum Tax Amount		1	0	0	0	If #12 = 1, excess of #14 - #8; otherwise $0
16	Combined Federal Tax for Base Erosion Purposes		17.0	20.2	16.0	38.0	#8 + #15
17	Combined Total Tax for Base Erosion Purposes		64.0	67.2	63.0	63.0	#7 + #16
18	Base Erosion Minimum Tax Amount/Tax Benefits		2.5%	0%	0%	0%	#15/#10

Table 4. Base Erosion Minimum Tax Amount Under Alternative Behavioral Assumptions *(Continued)*

	<A>	<B> Rate	<C> Base Case	<D> Waive Tax Deductions	<E> Reduce Base Erosion Tax Benefits	<F> Reduce Foreign Income Tax	<G> Explanation
Results if Base Erosion Rate Is 10%							
19	Base Erosion Rate * Modified Taxable Income	10%	34	34	32	34	10% of #13
20	Base Erosion Minimum Tax Amount		18	0	0	0	If #12 = 1, excess of #19 - #8; otherwise $0
21	Combined Federal Tax for Base Erosion Purposes		34	20.2	16	38	#8 + #20
22	Combined Total Tax for Base Erosion Purposes		81	67.2	63	63	#7 + #21
23	Base Erosion Minimum Tax Amount/Benefits		45.0%	0%	0%	0%	#20/#10

benefit of waiving tax deductions results from reducing base erosion tax benefits by the amount that is just sufficient to bring the base erosion percentage below 3 percent. There are several consequences of that waiver:

- The corporation's base erosion adjusted regular tax liability increases by $4.2 million, or 21 percent of the $20 million in waived deductions.
- Although regular taxable income has increased by $20 million, base erosion tax benefits have been reduced by $20 million, so waiving deductions has no net effect on the corporation's modified taxable income or the amount of tax incurred when the BEAT rate is applied to modified taxable income.
- If the rate is 5 percent, the $4.2 million increase in the base erosion adjusted regular tax liability exceeds the $1 million base erosion minimum tax amount absent the waiver of deductions, so waiving regular tax deductions is counterproductive.
- When the BEAT rate is increased to 10 percent, the base erosion adjusted regular tax liability again increases by $4.2 million when $20 million in deductions are waived, but the base erosion minimum tax amount is $18 million. Because that amount can be avoided by waiving $20 million of deductions, the net savings in combined federal taxes for base erosion purposes is $13.8 million.

In short, waiving regular tax deductions is counterproductive when the BEAT rate is 5 percent, but yields significant savings in total federal tax when the rate is 10 percent. And while the corporation avoids paying any base erosion minimum tax amount when the rate is 10 percent, the BEAT's indirect effect is to increase the corporation's base erosion adjusted regular tax liability by $4.2 million.

Columns <E> and <F> demonstrate that corporations can avoid the direct cost of the BEAT if they find ways to reduce either their base erosion tax benefits or their foreign income tax liabilities.

In Column <E>, the corporation achieves the same pretax values of gross income and total available deductions by shifting some purchases from a related foreign service provider to an unrelated provider. That reduces its base erosion tax benefits and thus its base erosion percentage to a rate below the 3 percent threshold, so it avoids any base erosion minimum tax amount.

Column <F> is a second alternative case in which the corporation achieves the same gross income and total available deductions as in the

Table 5. Increase in Regular Tax From Waiving Deductions for Excess Base Erosion Tax Benefits

		<A> Number of Returns	<B> Aggregate Amount ($ millions)	<C> Average Per Return ($ millions)	<D> Source
1	Total Deductions — Returns With Base Erosion Percentage of at Least 3%	1,089	$2,171,250	$1,993.8	Table 1, #4
2	Threshold Value for Base Erosion Tax Benefits	1,089	$65,138	$59.8	3% of #1
3	Base Erosion Tax Benefits — Returns With Base Erosion Percentage of at Least 3%	1,089	$224,980	$206.6	Table 1, #2
4	Maximum Waiver of Regular Tax Deductions to Avoid BEAT Liability	1,089	$159,842	$146.8	#3 - #2
5	Regular Income Tax Rate		21%	21%	IRC statutory rate
6	Additional Regular Tax From Waiving Deduction for Excess Aggregate Base Erosion Tax Benefits	1,089	$33,567	$30.8	#5 * #4

base case but can somehow reduce its foreign income tax and FTC from $47 million to $25 million. Reducing the FTC increases the base erosion adjusted regular tax liability and thus reduces both the base erosion minimum tax amount and the combined total tax for base erosion purposes.

The ultimate conclusions illustrated by the calculations in lines 1-18 are that the BEAT created tax incentives to reduce not only the corporation's base erosion tax benefits, but also foreign income taxes that are creditable against the corporation's regular tax liability. However, waiving deductions may not have been advantageous when the base erosion tax rate was 5 percent.

Lines 19-23 of Table 4 assume that the BEAT rate has increased from 5 percent to 10 percent, thus doubling the amount obtained when the rate is applied to modified taxable income. The result is that the base erosion minimum tax amount has increased from $1 million to $18 million, so the tax incentives for avoiding the BEAT increase sharply when the BEAT rate increased to 10 percent. As when the rate was 5 percent, a corporation can reduce its combined total tax for base erosion purposes if it can find a way of either reducing its base erosion tax benefits without waiving regular tax deductions or avoiding foreign income taxes.

As illustrated by columns <E> and <F>, a corporation that would otherwise have faced a sharp increase in its base erosion minimum tax amount when the BEAT rate increased to 10 percent might have alternatives that would have a lower tax cost than waiving regular tax deductions. Unfortunately, we have no way of quantifying the tax revenue consequences of those other behavioral changes.

However, we can quantify the increase in corporations' regular tax liabilities in tax year 2018 that would have resulted if all 1,089 corporations that met both BEAT prerequisites had waived deductions for 100 percent of their base erosion tax benefits exceeding 3 percent of their total deductions (see Table 5). My calculations indicate that this large waiver of regular tax deductions would have increased federal tax revenue by $33.6 billion. Given that many corporations could and would have found other, less costly ways of avoiding the BEAT, I consider the $33.6 billion a theoretical upper limit on the BEAT's effect on federal tax revenue.

By comparison, the JCT's original estimate of the BEAT's direct and indirect effect on federal tax revenue for fiscal 2021 was $16.1 billion, which is less than half of my theoretical upper limit of $33.6 billion. In other words, based on my $33.6 billion estimate of the cost of waiving deductions for the aggregate excess base erosion tax benefits, the JCT's 2017 BEAT revenue estimates seem plausible.

In December 2020 the IRS revised Form 8991 to require corporations to report the dollar amounts of waived deductions. I urge the IRS SOI to perform a new survey of the amounts reported on the revised form, including the aggregate value of waived deductions reported on Part I, line 2i. A survey based on the revised form would allow Treasury and the JCT to more accurately assess not only the aggregate base erosion minimum tax amount, but also the larger indirect effect of BEAT-induced waivers of deductions on corporations' regular tax liabilities. ■