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Economic Effect and Possible Mitigating Actions of a Tax Rate Increase on Existing Tax Lease Transactions

Leading up to the 2020 election, the Democratic party promised an increase in the federal corporate tax rate from 21% to 28%. That could happen before the 2022 midterm elections. What would be the effect of that increase on tax-advantaged equipment leases booked under the 21% rate? Here are some scenarios that can be used to model potential alternatives.

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By Raymond James

This article showcases a study examining the effects that a federal corporate tax rate change could have on tax-advantaged equipment leases originated when the federal corporate tax rate was 21%, should the tax rate be increased to, for example, 28%.

In addition, the article discusses some of the potential effects of a tax rate increase and the possible actions that lessors may take to mitigate or minimize the risk associated with a tax rate increase.

This article illustrates how the after-tax return on equity would drop from a positive 13.32% to a *negative* 7.80% should the federal corporate tax rate be increased from 21% to 28%.

BACKGROUND

While the drop in the federal corporate tax rate from 35% to 21% initiated in 2017 arguably spurred economic growth, it also arguably caused an increase in the national debt as well as observations that it was an unfair giveaway to corporations.

As a result of these beliefs, leading up to the 2020 election, the Democratic party promised an increase in the federal corporate tax rate to 28% — which happens to be the midpoint between 35% and 21% — as one means of paying for the party's extensive spending proposals.[1,2]

During the Biden administration, there is no guarantee of when a rate change might occur nor the magnitude. A change in power in Congress away from the party winning the presidential election is often experienced in the midterm elections. However, if the current administration is able to obtain the votes needed for a change, a tax rate increase may occur prior to the midterm elections, now less than two years away.

All of the analyses herein use a 28% federal corporate tax rate as the comparison to the current 21% rate, since we do not have a better number to use at this time.

As of this writing, it is not known whether an increase in the federal corporate tax rate can be passed nor what the new rate would be.[1,2] Furthermore, other measures could be implemented such as a flat tax or a revised alternative minimum tax (AMT). Nonetheless, a worthwhile exercise is to examine the effect a rate increase would have on existing tax-oriented leases — as well as those written between now and when a rate increase occurs.

Secondarily, exploring what potential actions a lessor could take to mitigate the potential impact of such an increase on yields and profits is also worthwhile.

DISCUSSION AND ANALYSIS

All of the analyses herein use a 28% federal corporate tax rate as the comparison to the current 21% rate, since we do not have a better number to use at this time. The parameters for all seven examples are included under Example 1, below.

Rather than save the "punchline" as to how we arrived at it for after the discussion, we are presenting the results in Table 1.

A tax rate increase that would negatively affect transactions that were priced and booked under a 21% tax rate where 100% bonus depreciation was taken creates a substantial increase in income tax paid versus what was calculated at the time of booking.

This situation is caused by the tax benefit of 100% bonus depreciation being taken under a 21% tax rate and leaves the remaining rental payments without depreciation to offset them. Thus, the rental income and future sale of the asset would be taxed at a higher tax rate.

The examples in this study attempt to quantify the effect of a higher tax rate and then measure the impact of possible mitigating alternatives.

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Table 1.

Highlights from the Article

Metric	**Status quo** 21% rate claiming 100% bonus; no tax rate increase	**Do nothing** Effect of tax rate increase to 28% in 2022 on status quo (claiming 100% bonus)	**No bonus with rate increase** Effect of NOT claiming bonus and ASSUMING a tax rate increase	**No bonus no rate increase** Effect of NOT claiming bonus and assuming NO tax rate increase
IRR	4.10%	4.10%	4.10%	4.10%
Taxes paid	$22,400	$92,809	$36,809	$22,400
AT cash/profit	$84,270	$13,861	$69,861	$84,270
AT MISF	4.00%	0.69%	2.94%	3.47%
AT ROE	13.32%	-7.80%	7.17%	9.75%

Source: Raymond James, Ivory Consulting, using SuperTRUMP software (all tables).

A significant benefit can be realized from one mitigating effect: not taking 100% bonus depreciation on transactions priced using a 21% tax rate booked in 2021.

Equipment Leasing and Finance Association members who participated in the 2020 and 2021 Survey of Equipment Finance Activity covering the years 2018, 2019 and 2020 averaged booking approximately $32 billion each year, or 30% of their new business volume, as tax-advantaged leases under a 21% tax rate.

The data from these three years is important because they were the first three years of the historically low 21% federal corporate tax rate and the 100% bonus depreciation option.

The 21% tax rate provided less incentive to book tax-advantaged leases. However, 100% bonus depreciation happened to essentially offset the advantages of tax leasing for lessors.

In this study, the metrics used to measure the impacts are actual taxes paid without an increase versus with the proposed tax increase. Changes to the economic Multiple Investment Sinking Fund (MISF) yield and return on equity (ROE) yield are also explored.

Both yields are expressed as after-tax (AT) yields, while the internal rate of return (IRR) and cost of funds (COF) are expressed as pre-tax (PT) yields. The need and quantification of a tax-indemnification agreement is considered from both a full-term and an early termination perspective.

The analysis performed in this study looks at a lease booked in 2021, which is expected to end four years later with the asset ultimately sold. It is a 48-month, $1,000,000, tax-advantaged lease booked July 1, 2021, priced using a 21% tax rate with 100% bonus depreciation and assuming a 30% residual value, resulting in a 4.10% IRR.

Assuming the proposed increase in the 2022 federal corporate tax rate from 21% to 28% is taken into consideration, the taxes paid over the transaction's life increase from $22,400 to $92,809, or 4.14 times greater. The economic effect is to reduce the AT MISF from 4.00% to 0.91% and the ROE from 13.32% to *negative* 7.80%.

A significant benefit can be realized from one mitigating effect: not taking 100% bonus depreciation on transactions priced using a 21% tax rate booked in 2021. If 5-year MACRS depreciation is the only depreciation used, the increase in taxes paid is only 1.64 times greater, the AT MISF drops more moderately from 4.00% to 2.94%, and the ROE falls from 13.32% to a more acceptable 7.17%.

The risk in using this mitigating factor is that the tax rate remains at 21% indefinitely. Then the AT MISF and the ROE yields will be lower because of the deferral of depreciation, which would otherwise have been taken as 100% bonus. The pre-tax IRR remains the same.

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Given the significant beneficial impact of not taking 100% bonus depreciation in 2021, lessors might give serious consideration to advanced tax planning now.

Given the significant beneficial impact of not taking 100% bonus depreciation in 2021, lessors might give serious consideration to advanced tax planning now. The summary below presents the basis for the first example.

EXAMPLE 1. BASE CASE: FEDERAL CORPORATE TAX RATE REMAINS AT 21%

Assumptions

- *No federal corporate tax increase*
- Booked and funded: July 1, 2021
- Equipment cost: $1,000,000
- Depreciation: MACRS 5-year
- Bonus depreciation: 100% first year
- Term: 48 months (monthly in advance)
- Payment: $16,805.64
- Residual: 30%
- COF pretax: 3.00%
- Tax rate: 21%

Results

- IRR (pre-tax nominal): 4.10%
- MISF (after-tax nominal): 4.00%
- ROE (after-tax economic @ 85% leverage): 13.32%
- Tax paid: $22,400
- After-tax cash/profit: $84,270

Two simple reports shown in Table 2 and Table 3 illustrate what drives these results:

In the first year, 100% bonus depreciation more than offsets the small amount of rental income, leaving a tax benefit of $188,825 to offset other enterprise income in 2021. The following years have the balance of the rental income plus the tax gain on the residual value, which is fully taxable at 21% without any offsetting depreciation.

The bottom line is $106,672 of taxable income and $22,400 in taxes. The delayed payment of taxes is what ultimately led to an 4.00% AT MISF and a 13.32% ROE.

The cash-flow report (Table 2) was fed by the tax report above. It is presented in this example only to illustrate the final after-tax cash flows supporting the MISF calculation. *Further analyses will not present the cash-flow report, to avoid repetition.*

EXAMPLE 2. FEDERAL CORPORATE TAX RATE INCREASES TO 28%

The following example illustrates the results of a federal corporate tax rate increase to 28% effective January 1, 2022, for business booked in 2021 under a 21% rate, while maintaining all other assumptions.

Assumptions

- *Federal corporate tax rate increases to 28% effective January 1, 2022.*
- All other assumptions stay the same.

Results

- IRR (pre-tax nominal): 4.10%
- MISF (after-tax nominal): 0.69%

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- ROE (after-tax economic @ 85% leverage):-7.80%
- Tax paid: $92,809
- After-tax cash/profit: $13,861

In order to understand what happened, it is best to look at the tax report generated under this new assumption (Table 4).

Table 2.

Tax Report: Federal Corporate Tax Rate Stays at 21% and 100% Bonus Depreciation

Period ending	Rent	+	Residual	-	Depreciation	=	Taxable income	Rate 21.0%*	=	Tax due/paid
12/30/2021	100,834		-		1,000,000		(899,166)	21		(188,825)
12/30/2022	201,668		-		-		201,668	21		42,350
12/30/2023	201,668		-		-		201,668	21		42,350
12/30/2024	201,668		-		-		201,668	21		42,350
12/30/2025	100,834		300,000		-		400,834	21		84,175
Total	**806,672**		**300,000**		**1,000,000**		**106,672**			**22,400**

Table 3.

Cash-Flow Report: Federal Corporate Tax Rate Stays at 21% and 100% Bonus Depreciation

Period ending	Rent	+	Residual	-	Asset cost	=	Pretax cash	-	Tax paid	=	After-tax cash
12/30/2021	100,834		-		1,000,000		(899,166)		(188,825)		(710,341)
12/30/2022	201,668		-		-		201,668		42,350		159,317
12/30/2023	201,668		-		-		201,668		42,350		159,317
12/30/2024	201,668		-		-		201,668		42,350		159,317
12/30/2025	100,834		300,000		-		400,834		84,175		316,659
Total	**806,672**		**300,000**		**1,000,000**		**106,672**		**22,400**		**84,270**

Table 4.

Tax Report: Federal Corporate Tax Rate Increases to 28% January 1, 2022, and 100% Bonus Depreciation

Period Ending	Rent	+	Residual	-	Depreciation	=	Taxable income	Rate*	=	Tax due/paid
12/30/2021	100,834		-		1,000,000		(899,166)	21		(188,825)
12/30/2022	201,668		-		-		201,668	28		56,467
12/30/2023	201,668		-		-		201,668	28		56,467
12/30/2024	201,668		-		-		201,668	28		56,467
12/30/2025	100,834		300,000		-		400,834	28		112,233
Total	**806,672**		**300,000**		**1,000,000**		**106,672**			**92,809**

The most powerful way to mitigate the effect of a federal corporate tax rate increase in 2022 on business booked in 2021 is to not take bonus depreciation in 2021 and to use only MACRS depreciation.

It is immediately apparent why taxes due rose sharply from the 21% to 28% corporate tax rate change. Much of what is driving this change comes from taking the 100% bonus in 2021, when the transaction was booked, leaving no depreciation to offset future rent and a residual value income gain. Therefore, these income items must be taxed at the new rate of 28%, which caused the taxes paid to increase significantly — from $22,400 to $92,809.

POSSIBLE ACTIONS TO MITIGATE OR MINIMIZE THE EFFECT

Mitigating the Effect of the Potential Federal Corporate Tax Rate Increase in 2022 for Lease Transactions Booked in 2021

The most powerful way to mitigate the effect of a federal corporate tax rate increase in 2022 on business booked in 2021 is to *not* take bonus depreciation in 2021 and to use only MACRS depreciation.

This election allows depreciation to be expensed over more years and offset against income in those years when the federal corporate tax rate could be 28%. A series of tables have been designed to show the effect on the above example with various changes, as noted below.

EXAMPLE 3. NOT TAKING 100% BONUS DEPRECIATION AND THE TAX RATE INCREASES AS OF JANUARY 1, 2022

Table 5 illustrates the benefit of using 5-year MACRS instead of 100% bonus depreciation. The AT MISF increases from 0.69% to 2.94%, while the related profit increases from $13,861 to $69,861. Similarly, the ROE increases from -7.80% to 7.17%.

EXAMPLE 4. NOT TAKING 100% BONUS DEPRECIATION AND THE TAX RATE INCREASES AS OF JANUARY 1, 2023

If the proposed tax rate increase is delayed a year and is increased effective January 1, 2023, applicable to business booked in 2021 under a 21% rate, then the results are as shown in Table 6.

By not taking the 100% bonus depreciation in 2021 and using 5-year MACRS, the results are again

Table 5.

Business Booked in 2021

	IRR	AT MISF	AT ROE	PT profit	Tax paid	AT profit
Rate changes 2022 to 28% - 100% bonus taken	4.10%	0.69%	-7.80%	$106,672	$92,809	$13,861
- 5 year MACRS no bonus	4.10%	2.94%	7.17%	$106,672	$36,809	$69,861

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The adverse impact on the earnings of a tax lease, due to a federal corporate tax rate increase from 21% in 2021 to something higher in 2022 or beyond, could be borne by the lessee.

better. The AT MISF increases from 1.39% to 2.58%, while the related profit increases from $27,978 to $61,578. Similarly, the ROE increases from -3.50% to 4.42%.

Note: These results are the same as new business booked July 1, 2020, with the rate increasing in 2022 to 28%. In both instances, there are 18 months of income realized at 21% followed by 30 months of income realized at 28%.

EXAMPLE 5. NOT TAKING 100% BONUS DEPRECIATION AND THE TAX RATE DOES NOT INCREASE

The last scenario to be considered is a review of the results if the federal corporate tax rate does not change.

Table 7 shows the cost of *not* taking the 100% bonus depreciation and instead using 5-year MACRS. The AT MISF decreases from 4.00% to 3.47%, and the ROE decreases from 13.32% to 9.75%.

Similarly, the related *after-tax profit stays the same.* The reason it does not change is that bonus depreciation only improves the yields related to the timing of tax benefits, not actual taxes paid, in a static tax rate environment.

Mitigating the Federal Corporate Tax Rate Increase in 2022 by Having the Customer Pay

The adverse impact on the earnings of a tax lease, due to a federal corporate tax rate increase from 21% in 2021 to something higher in 2022 or beyond, could be borne by the lessee. Asking a lessee may

Table 6.

Business Booked in 2021

	IRR	AT MISF	AT ROE	PT profit	Tax paid	AT profit
Rate changes 2023 to 28% - 100% bonus taken	4.10%	1.39%	-3.50%	$106,672	$78,693	$27,978
- 5 Year MACRS no bonus	4.10%	2.58%	4.42%	$106,672	$45,093	$61,578

Table 7.

Business Booked in 2021

	IRR	AT MISF	AT ROE	PT profit	Tax paid	AT profit
Rate stays at 21% - 100% bonus	4.10%	4.00%	13.32%	$106,672	$22,401	$84,270
- 5 year MACRS no bonus	4.10%	3.47%	9.75%	$106,672	$22,401	$84,270

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One caution to lessors: write tax-indemnity language in such a way that it applies the additional costs of the tax rate change to any early buyout or early termination.

be difficult, but as the likelihood of a rate increase grows, lessors may become more emboldened to consider this as part of the lessee-lessor bargain.

This transfer of obligation has been typically done with indemnification language in the lease agreement. There are perhaps several ways the transfer of obligation could be structured. Two are:

- Periodic lease payments are increased during the periods in which the tax rate increases.
- A one-time payment is required at the end of the lease, no matter the form of termination.

The second item to consider would be the metric to use for determining the amount of the transfer of obligation:

- Protecting the AT MISF yield or the ROE yield used when the lease was originally priced and executed
- Protecting the AT Cash/Profit to the extent it is impacted by the tax rate change

One caution to lessors: write tax-indemnity language in such a way that it applies *the additional costs of the tax rate change to any early buyout or early termination.* Without including tax indemnity on early terminations, smart lessees will end their leases early and enjoy much better terms with a new lease written in a 28% federal corporate tax rate environment compared with paying a tax indemnity reimbursement at the end of an existing lease.

Below is an example of how a tax rate change indemnification could be executed based on examples 1 and 2.

EXAMPLE 6. TAX RATE CHANGE INDEMNIFICATION

Table 8 shows how much more the lessee must pay in order to compensate the lessor with the federal corporate tax rate increase to 28% effective January 1, 2022. The additional amount paid by the lessee is more than might be expected by the IRR, almost doubling from 4.00% to approximately 7.50%.

Without after-tax pricing, the effect of 2021 or earlier bonus depreciation taken in a 21% environment is difficult to measure. The IRR provided here is one of the few metrics that the lessee will likely be able to use to quantify the cost as it is easily calculated because it is a pre-tax number.

For example, the lessee may likely know the price of the equipment being leased, the payments in the lease, an EBO (Equitable Business Opportunities) number, and price cap on the residual or fixed-price option. A simple financial calculator or Excel spreadsheet could then produce the IRR yield.

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The profitability of transactions that might be booked in 2022 under a federal corporate tax rate of 28% is not nearly as adversely affected as those booked in 2021 under a federal corporate tax rate of 21%.

Lessor Considerations if the Federal Corporate Tax Rate Increases in 2022 for Business Booked in 2022

The profitability of transactions that might be booked in 2022 under a federal corporate tax rate of 28% is not nearly as adversely affected as those booked in 2021 under a federal corporate tax rate of 21%.

An additional consideration for analysis is bonus depreciation, which is scheduled to drop from 100% in 2022 to 80% in 2023. Below are the economic results from these changes.

EXAMPLE 7. TAX RATE CHANGE PLUS BONUS DEPRECIATION RATE CHANGE

Looking at Table 9, when the tax rate is 28% and 100% bonus depreciation is taken, both the AT

Table 8.

Tax Rate Indemnification Alternatives Explored

	IRR	AT MISF	AT ROE	AT profit
Rate stays at 21% - 100% bonus	4.10%	4.00%	13.32%	$84,270
Rate changes 2022 to 28% - 100% bonus	4.10%	0.69%	-7.80%	$13,861
Payment adjustment alternative:				
2021 payments (1-6)	$16,805.64	$16,805.64	$16,805.64	$16,805.64
2022 payments and beyond (7-48)	$16,805.64	$19,071.62	$18,971.42	$16,805.64
One-time payment at the end		$-	$-	$97,790
Pre-tax profit/cash (rent+residual-investment)		$201,842	$197,633	$204,461
Taxes paid		$(119,457)	$(118,279)	$(120,191)
AT cash/profit		$82,385	$79,354	$84,270
Resultant metrics	4.10%	4.00%	13.32%	$84,270
NOTE: Lessee's perceived IRR w/ tax indemnity		7.62%	7.47%	7.20%

Table 9.

Business Booked in 2022/2023

	IRR	AT MISF	AT ROE	PT profit	Tax paid	AT profit
Rate changes 2022 to 28% - 100% bonus taken	4.10%	3.95%	14.23%	$106,671	$29,868	$76,803
Rate changes 2022 to 28% - 80% bonus taken	4.10%	3.77%	13.11%	$106,671	$29,868	$76,803

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Ultimately, lessors that offer tax-advantaged leases will need to ensure they look at all the costs of a federal corporate tax rate change via modeling various potential alternatives.

MISF and ROE change slightly from what they are under the current 21% federal corporate tax rate. AT MISF decreases from 4.00% to 3.95% and ROE increases from 13.32% to 14.23%.

The after-tax profitability in 2022 is lower than what it is under the current 21% federal corporate tax rate. After-tax profits of $84,270 become $76,803. If bonus depreciation is limited to 80% for business booked in 2023, then the AT MISF decreases from 3.95% to 3.77% and the ROE falls from 14.23% to 13.11%, as shown above.

CONCLUSIONS

The primary purpose of this study was to investigate the impact on lessor profits from tax-advantaged equipment leases booked under the recent 21% federal corporate tax rate should the rate be increased in 2022 to 28% — consistent with the 2020 Democratic party platform. The impact of the tax rate change(s) will vary depending on a number of factors that include:

- timing and magnitude of the tax rate increase and/or bonus depreciation change via lessor election
- structure of the leases: term, payment structure, etc.
- state taxes

Ultimately, lessors that offer tax-advantaged leases will need to ensure they look at all the costs of a federal corporate tax rate change via modeling various potential alternatives. They will need to review those potential alternatives with skilled internal tax staff or with a consultant who can accurately analyze all the specifics related to a given corporate situation.

In addition, where possible, lessors may want to employ tax-indemnification language in their lease agreements so that they are protected from adverse tax costs arising out of either a full-term or early termination.

No attempt has been made to assign any probability to the various examples and scenarios in this article. There are so many other possibilities that could develop beyond the examples presented here.

After-tax pricing software designed for use by the equipment finance industry allows a user to produce tax-related scenarios with a few minutes of inputting assumptions. Thus, it is suggested that lessors work with those who follow the probabilities of various potential changes in the future federal corporate tax laws — including no change at all.

Scenarios can be easily constructed to model and answer many what-if questions, to come to a consensus on how to handle various tax elections, pricing changes, and quantification of a tax-indemnification clause for each of the financial products offered by a lessor in 2021 and beyond.

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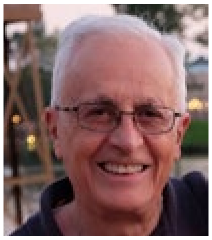
Endnotes

1. Alan Rappeport, "The Biden administration seeks to raise $2.5 trillion through corporate tax increases," *New York Times,* April 7, 2021.

2. Theo Francis and Richard Rubin, "A 28% Tax Rate Will Cost Companies, but Not Equally," *Wall Street Journal,* April 5, 2021.



Raymond A. James

Ray.james@ivorycc.com

Raymond James, based in Chicago and Fort Myers, Florida, has served since 2006 as senior consultant for Ivory Consulting Corp. in Walnut Creek, California. He started his finance career in commercial loans for the National Bank of Detroit then held managerial positions at Chrysler Corp., Computer Sciences Corp., the Upjohn Co., and Senstar Capital Corp. Senstar was sold to John Deere Financial in 1999. For the next six years, Mr. James worked at John Deere Financial as a director of various areas, including strategic planning, mergers and acquisitions, business development, corporate pricing and syndication. He retired from John Deere Financial in 2005. Mr. James is the recipient of the ELFA's 2016 Michael J. Fleming Distinguished Service Award. He has served on the Research Committee since 1991 and is the current chair. As a pioneering member of the Research Committee, he has helped the Survey of Equipment Finance Activity (SEFA) report grow into ELFA's signature benchmarking and research tool. Mr. James graduated from Eastern Michigan University in Ypsilanti with a BS in mathematics and economics and from Wayne State University in Detroit with a MA in econometrics.

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