PitchBook

From IRS to IRRs

How tax reform will impact PE

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Key takeaways

- The reduction in the US corporate tax rate from 35% to 21% will lead to an increase in free cash flow (FCF)—and therefore enterprise value (EV)—for most PE portfolio companies as tax payments, on average, decrease. As a result, we expect this to put upward pressure on EV/EBITDA multiples.
- Many PE firms will limit leverage to 6-7x EBITDA because interest deductibility is now capped at 30% of EBITDA, effectively increasing the after-tax cost of debt as leverage rises. As such, if a company's leverage is above the 6-7x range, net tax payments will be higher under the new tax law compared to the old regime.
- We expect an increase in asset acquisitions because new capital expenditure (capex) rules allow for certain new and used asset purchases to be expensed at 100%, giving companies an immediate tax savings for investing themselves.
- Large conglomerates will be more willing to do carveouts and divestitures because their tax payments will have dropped by 40%, which will lead to more opportunities for PE firms.
- PE firms will be more open to international expansion and add-ons because of the changes from a worldwide tax system to a territorial system, reducing foreign taxes on most PE platform companies.
- The timing and impact of tax changes will be beneficial for capex-intensive companies, though the benefits will last only five to six years as the interest deductibility is further reduced to 30% of EBIT in 2022 and the bonus capex expensing begins to trail off in 2023.
- More PE firms will choose C-corp structures as opposed to flow-through entities (aka pass-through entities) for their portfolio companies because of the reduced US corporate tax rate and C-corps' relatively favorable international tax treatment.
- We expect fewer exits to occur in less than three years due to the changes in carried interest taxation requiring a three-year hold period to realize long-term capital gains rates on the carry. These quick exits represented only 16.9% of exits in 2017, and we expect that number to further decrease.

Introduction

The Tax Cuts and Jobs Act (TCJA) of 2017 was the largest overhaul of the US tax code in decades. Regarding PE portfolio companies, there are certainly some negatives in the bill, but most industry professionals believe the TCJA is a net positive for PE, a sentiment with which we largely agree. The changes impact general partners (GPs), limited partners (LPs) and portfolio companies, but each sector will see different levels of benefits. Some may see no benefits at all. Every case is unique and depends on strategy, deal structure, hold time and more.

This new tax plan adds complexity to an already onerous tax code. Initial estimates project the 429-page bill to cost the US government $1.5 trillion over the next 10 years in lost revenue.[1] The benefit to economic growth and GDP over the next 10 years is less certain, but the changes are expected to add to US GDP growth in the short run due to an increase in investment. The long-term effects will play out for years to come, but private market participants need to understand the most impactful changes and how they will affect the PE industry.

Summary of tax changes and subsequent impacts[2,3,4]

Subject of change	Previous law	New law	Why it's important
Headline tax rate	US companies were taxed at 35%.	US C-corps are now taxed at 21%. Certain flow-through entities may receive a 20% deduction for qualified income.	The corporate tax rate has dropped by 40%. GPs must re-assess the structure for portfolio companies going forward, as C-corps now compare more favorably to flow-through entities.
Interest deductibility	Interest expense is deductible up to 100% of taxable income.	Interest expense deductibility is capped at 30% of EBITDA.	Portfolio companies with leverage above 6-7x debt/EBITDA will likely pay more in taxes due to the limit on interest deductibility. Many highly levered companies will see a net tax increase.
Net operating losses	NOL could be carried back two years and could offset up to 100% of taxable income. Carryforward was up to 20 years.	NOL can no longer be carried back and can be carried forward indefinitely, offsetting up to 80% of taxable income.	PE firms can no longer finance a portion of the acquisition with the carryback refund. The reduction from offsetting 100% of taxable income to 80%, combined with tax rates dropping from 35% to 21%, further decreases the value of NOLs.
Capex depreciation	Companies could realize bonus depreciation up to 50% of purchase cost on only new equipment.	Companies can now realize bonus depreciation up to 100% of purchase cost. This includes new and used equipment acquired via asset deals.	This bonus depreciation will allow PE firms to save tax dollars sooner. The change incentivizes companies to invest in their growth. It also applies to used equipment (when applicable) for the first time. Beginning in 2023, expensing is limited to 80%, falling by 20% each subsequent year before eventually falling to zero in 2028.[5]
International taxation	US companies with international operations were taxed on a worldwide tax system with repatriated funds taxed at US rates.	Now US companies with international operations are taxed on a territorial system with deductions for controlled foreign companies (CFCs) that effectively prevents subsidiaries from paying US tax.	The dividend received deduction (DRD) allows most foreign income to be repatriated without paying US taxes. Companies without the ability to off-shore billions of dollars for years will be able to compete on a more equal footing with larger, multinational businesses, because all companies will experience a more similar effective tax rate.
Carried interest	For GPs. carry was taxed at long-term capital gains rates if held over one year and ordinary income rates if held under one year.	For GPs, carry is taxed at long-term capital gains rates if the investment is held over three years and ordinary income rates if held under three years.	PE firms must hold portfolio companies an additional two years to realize long-term capital gains rates. Carry is now specifically defined as a capital item in the tax code. Carry was loosely defined in the tax code under Profits Interest but not specifically defined in the tax code.

1: "The Senate's Official Scorekeeper Says the Republican Tax Plan Would Add $1 Trillion to the Deficit," The New York Times, Jugal K. Patel & Alicia Parlapiano, December 1, 2017
2: "How Tax Reform Will Impact Private Equity," Insights from the BDO Private Equity Practice, December 2017
3: "US tax reform – impact on M&A and the private equity industry," Deloitte, January 24, 2018
4: "Accounting for the Effects of US Tax Reform Under IFRS," The Wall Street Journal, Deloitte, March 1, 2018
5: "US tax reform enacted – Key provisions for private equity and alternative asset management industry," Tax News Update, Ernst & Young, December 22, 2017

![PitchBook]

Primary deal effects

This landmark tax legislation will have sweeping effects throughout the PE industry, particularly regarding deal structure. With thousands of firms competing for deals, PE is an intensely competitive industry. With the largest change to the tax code in decades now in place, PE firms will have to adapt quickly to stay competitive. High debt usage—a lever PE firms have traditionally used to extract value from their portfolio companies—is becoming commoditized and, in fact, less effective because of the recent tax code changes that limit interest deductibility.

Tax reduction

The largest change in the new tax code for PE is the reduction of the corporate tax rate, which will increase FCF. While EBITDA will not be directly affected by a change in the corporate tax rate, EVs in the market should increase, even if cash flow multiples stay the same, due to the decrease in taxes payable. Because of this, we expect an increase in median EBITDA multiples for transactions going forward, while the impact on other valuation metrics will be varied. With tax reform expected to put upward pressure on EV/EBITDA multiples, it is important to note that we are already in an environment of elevated prices. Over the past nine years, competitive pressures in the PE industry, along with cheap financing and more, have pushed up valuations, and may continue to do so going forward.

Below we show the simplified impact of a reduction in taxes on a company's valuation. This example shows an increase in FCF of 15.1% due to the reduction in taxes paid. Holding cash flow multiples constant, the EBITDA multiple and EV would increase 15.1%. Importantly, the multiple of unlevered FCF does not have to change to see an increase in EBITDA multiples.

Old tax		New tax		% change
EBIT	200	EBIT	200	0%
	Tax rate 35%		Tax rate 21%	
Taxes	-70	Taxes	-42	-40%
Depreciation	+15	Depreciation	-15	0%
Amortization	+10	Amortization	+10	0%
Capex	-20	Capex	-20	0%
Change in NWC	-10	Change in NWC	-10	0%
FCF	185	FCF	213	15%
Multiple	**Price**	**Multiple**	**Price**	
14.0 X FCF	2590	14.0 X FCF	2982	15%
11.5 X EBITDA	2590	13.3 X EBITDA	2982	15%

Source: PitchBook
*Assumes no leverage and no interest

Source: PitchBook
*Assumes no leverage and no interest

The reduction in corporate tax rates dramatically alters the math when GPs are determining how to structure portfolio companies. Traditionally, flow-through entities (partnerships and LLCs) have been the preferred structures for portfolio companies because of the after-tax benefits they afforded many LPs. (See chart below.) Another advantage is the tax shield created when the company is acquired, a benefit C-corps do not have. When a partnership is acquired, the premium paid over the target's tax basis in the assets is added to the tax basis. The step-up to the purchase price allows the acquirer to increase amortization deductions (equal to acquisition price minus target's tax basis—from a theoretical standpoint this is similar to amortizing goodwill), partially subsidizing the premium paid.[6]

Now, however, the 40% reduction in the corporate tax rate has narrowed the gap between C-corp and flow-through when choosing how to structure portfolio companies. For many GPs, the 20% deduction (for qualified income, depending on several factors) will be enough to make them stick with their flow-through elections.[7] However, if GPs are blocking a lot of income or have significant foreign income, a C-corp structure will likely be more appealing. Another drawback of partnerships is the added cost and complexity of compliance with K1s and overall resources and hassle required. If the after-tax returns are relatively close, many PE firms will lean toward the C-corp structure, even if it's slightly less economical.[8]

LPs' effective tax rates by portfolio company type and tax status[9]

	Portfolio company type		
	Flow-through	C-corp	Flow-through with 20% deduction
Taxable LP	37%	36.80%	29.60%
Tax-exempt & super tax-exempt LP	0%	21%	N/A

Source: PitchBook

*Super tax-exempt investors are public pension plans. They pay no income tax and are not subject to UBTI concerns.

In addition to company-specific considerations, GPs must also consider how the corporate structure will impact LP returns. Some LPs, including foreign investors and tax-exempt US investors, prefer to block some income through a blocker corporation. Finding the correct balance is difficult because tax-free and foreign investors may prefer a C-corp structure, but taxable and super tax-free investors may prefer a flow-through.[10]

6: Nick Gruidi, personal communication, May 23, 2018
7: Ibid.
8: Ibid.
9: "Re-evaluating your choice of entity after tax reform," RSM US, March 20, 2018
10: Nick Gruidi, personal communication, May 23, 2018

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The cash distribution philosophy will also change the balance. If the GP prefers to recap and distribute cash frequently to shareholders, a flow-through is likely better because of the lower tax rate at which the investors receive the capital; however, if the GP plans on keeping the company levered up and delivering all returns in a single liquidity event, a C-corp is probably a better solution, all else being equal.[11] This is because the liquidity event would be taxed at long-term capital gains rates to the LPs (so long as it is held at least one year) and the cash flows are taxed just at the corporate level and recycled back into the corporation, cumulatively paying less in tax than a partnership would in this scenario. Each decision will have a unique set of circumstances. Overall, we believe there will be an increase in the number of portfolio companies set up as C-corps, though flow-through will remain most popular.

Interest deductibility

While the corporate tax rate deduction is a boon to most profitable companies, the reduction in interest deductibility to 30% of EBITDA could create a net tax increase for more highly levered ones.[14] PE firms have traditionally used high amounts of leverage to purchase companies and boost internal rates of return (IRRs). Per the PitchBook platform, PE firms are currently using about 6.5 turns of leverage during an acquisition (a turn of leverage is a debt amount equal to one times EBITDA). This compares to a median of 3.2 turns of leverage among Russell 3000 companies. (This includes only companies with positive EBITDA values.)

Analysis by Hamilton Lane shows that the benefits of tax reform begin to diminish with debt at 5x EBITDA and companies with leverage of 7.5x EBITDA will actually see a net tax increase.[15] In the 2018 Bain Global Private Equity Report, a generic buyout model with leverage at 6x EBITDA recorded a 16.3% IRR under the new tax code, compared to 15.1% under the old tax code, showcasing that the rate of reduction above 5x leverage is gradual. A bridge analysis by Bain showed that the capping of interest deduction reduced the IRR by 0.2%.[16] The breakeven point will depend on myriad factors and must be modeled out for each company. Our analysis, however, shows that most breakeven levels will coincide with a leverage level in the range of 5–7x EBITDA.

We have created a simplified table to illustrate the estimated impact of tax reduction and interest deduction, depending on leverage levels.

Blocker corporations

Blocker corporations are often used by foreign and tax-exempt LPs for tax reasons to provide a layer in between themselves and GPs. These entities are set up as corporations for US tax purposes, though they can be based in the US or abroad. Blockers can be set up above the fund level, known as "feeders," and can be set up below the fund level, between the fund and portfolio company.[12] Typically, the feeders pool investor assets and make the investment in the PE fund. Foreign-based feeders have the advantage of being able to accept both foreign investors and US tax-exempt investors.

Foreign investors often prefer to invest in PE through a blocker to avoid "effectively connected" income with a US business. The blocker acts as an intermediary, paying US taxes and making the required filings. This prevents the foreign owners, such as sovereign wealth funds, from being subject to filing a US tax return—a task which they are loath to do. The blocker also eliminates the risk that foreign investors are considered to be engaged in a US trade or business, which could cause otherwise non-taxable income to be subject to US taxes.[13] Tax-exempt investors use blockers frequently to avoid reporting unrelated business taxable income (UBTI) on their tax returns, keeping their tax-exempt status intact.

Blockers eliminate certain tax risks for foreign investors and US-based tax-exempt investors. However, they add an extra layer of cost, complexity and taxation, potentially reducing returns.

11: "How Tax-Exempt Investors Can Avoid UBTI: Structuring Private Equity Investments in LLCs," Testa, Hurwitz & Thibeault, Joseph A. Hugg, 2004
12: "Guide to Corporate Blockers," The Tax Adviser, Michael Kosnitzky & Ivan Mitev, September 30, 201115: "U.S. Tax Reform: Private Equity Firms and Portfolio Companies," RSM US, January 31, 2018
13: "U.S. Tax Reform: Private Equity Firms and Portfolio Companies," RSM US, January 31, 2018
14: "Why Private Equity Isn't Cheering the Tax Overhaul," The New York Times, William D. Cohan, January 19, 2018
15: "Here's How Tax Reform Will Shape the Private Markets," Hamilton Lane, Brian Gildea, February 1, 2018
16: "Global Private Equity Report 2018," Bain & Company, February 26, 2018

(An additional chart showing taxes depending on leverage and interest rates is available in Appendix 2.) This example shows that around six turns of leverage is a breakeven point for companies in terms of taxes paid when accounting for the reduction in headline tax rates and the loss of interest deduction up to 100% of taxable income. Leverage much above this level means companies will likely see a tax increase.

There will always be PE firms that utilize debt above these levels, and PE firms will continue to use leverage levels above what we see in the public market. However, we believe that firms will finance fewer transactions with debt/EBITDA above the 6–7x range when acquiring companies due to the limit on interest deductibility. This penalty on high amounts of leverage will be even more pronounced once the net interest expense deduction is lowered to 30% of EBIT for tax years beginning after December 31, 2021, which we see further decreasing PE firms' appetites for high amounts of leverage. Buyouts in the healthcare, B2B, energy, and materials & resources sectors typically use the highest amounts of leverage. Healthcare and B2B can secure high leverage levels because of their stable economics and cash flows, which can be used to pay down debt. Energy and materials companies can obtain high debt levels because they are able to use their assets for collateral when borrowing. We believe the changes to interest deductibility will be a headwind for dealmakers in these sectors that have traditionally used more leverage.

Net tax comparison across leverage levels between the new and old tax laws[17,18]

EBITDA	100	100	100	100	100	100
Debt/EBITDA	0.0X	4.0X	5.0X	6.0X	7.0X	8.0X
Interest rate	0	8%	8%	8%	8%	8%
Interest expense	0	32.0	40.0	48.0	56.0	64.0
EBIT	82.9	82.9	82.9	82.9	82.9	82.9
Old tax						
Tax rate	35%	35%	35%	35%	35%	35%
Tax on EBIT	29.0	29.0	29.0	29.0	29.0	29.0
Deduction	0	-11.2	-14	-16.8	-19.6	-22.4
Net tax	29.0	17.8	15.0	12.2	9.4	6.6
New tax						
Tax rate	21%	21%	21%	21%	21%	21%
Tax on EBIT	17.4	17.4	17.4	17.4	17.4	17.4
Deduction	0	-6.3	-6.3	-6.3	-6.3	-6.3
Net tax	17.4	11.1	11.1	11.1	11.1	11.1
Old tax plus interest	29.0	49.8	55.0	60.2	65.4	70.6
Percentage increase	-	-	10%	9%	9%	8%
New tax plus interest	17.4	43.1	51.1	59.1	67.1	75.1
Percentage increase	-	-	19%	16%	14%	12%

Source: PitchBook

17: "On Tax Reform," Verdad Weekly Research
18: For simplicity and illustrative purposes, we have kept the interest rate constant, though it would likely increase as leverage levels increased.

Net operating losses

The change to how net operating losses (NOLs) are used to offset taxable income will also change the calculus for PE firms, in many cases reducing the price they're willing to pay. Companies create an NOL when deductions exceed taxable income in their fiscal year. During a transaction, PE firms typically accumulate large fees by buying out stock options, doling out transaction bonuses and paying investment banks for their services, all of which can add to NOLs in the portfolio company. In the case of a flow-through entity, an NOL will flow through to the investors, which is still valuable since top personal income rates were only slightly reduced, although, as discussed, NOLs have decreased in value for companies.

Under the previous tax plan, the value of NOLs created during a transaction could be carried back up to two years, creating a tax rebate (see example), which PE firms would use to finance part of the buyout.[19] The new tax laws' reduction in headline rates and a deduction capped at 80% of taxable income have decreased the value of NOLs. The increase to an unlimited carryforward life from 20 years is the sole piece in the new tax law benefiting NOL value. The table below shows how the new tax rules decrease NOL value.

The tax plan's effect on NOL value

Old system					
	T = -2	T = -1	T = 0	T = 1	T = 2
Taxable Income	100.0	110.0	120.0	130.0	140.0
NOL deduction	70.0	110.0	120.0	0.0	0.0
Tax rate	35%	35%	35%	35%	35%
Taxes due	10.5	0.0	0.0	45.5	49.0
Taxes saved	24.5	38.5	42.0	0.0	0.0

New system					
	T = -2	T = -1	T = 0	T = 1	T = 2
Taxable Income	100.0	110.0	120.0	130.0	140.0
NOL deduction	0.0	0.0	96.0	104.0	100.0
Tax rate	21%	21%	21%	21%	21%
Taxes due	21.0	23.1	5.0	5.5	8.4
Taxes saved	0.0	0.0	20.2	21.8	21.0

Source: PitchBook
*Assumes NOL of 300 is created at t=0 (time of tranaction)

Under the prior tax laws, the $300 NOL created during the transaction was applied to eliminate all taxes in year T=0 and retroactively applied to years T=-1 and T=-2 to create a tax refund. Under these assumptions and the old 35% tax rate, the NOL was worth $105 (42.0 + 38.5 + 24.5). Under the new system and reduced tax rate, the NOL is applied in year T=0, but up to only 80% of taxable income. The NOL will roll forward to reduce up to 80% of

19: "Tax Reform Legislation impact on Private Equity," Tax Insights from Private Equity, PricewaterhouseCoopers, December 22, 2017

future income. The NOL value under the new system is decreased by nearly 40% to 57.4 (20.2 + 19.9 + 17.4) due to the reduction in corporate taxes and timing of the tax shield. In this example, we apply a modest 10% discount rate to future tax savings.

To be sure, the reduction in value from NOLs will impact valuation less than the changes to the tax rate and limitations on interest deduction. However, the changes will result in PE firms having to contribute more money up front to finance a deal. In turn, we believe this will exert slight downward pressure on valuations and make high transaction costs, including investment banking fees, harder to swallow.

Capex depreciation

Another change to the tax code that will impact deal structure is the increase in bonus expensing of qualified capex. Under the new tax code, companies can expense up to 100% of capex, realizing a large tax benefit upfront. Though the total deduction over the life of an asset remains unchanged, moving the deduction timing forward allows companies to utilize the non-cash charge and save the taxes sooner. Depending on the industry and discount rate used, this change will be one of the more impactful.

The Bain 2018 Global Private Equity Report deemed the change in the capex expensing schedule as one of three "major" changes to the tax code. The aforementioned example in Bain's report presents a bridge analysis that details the capex deductibility schedule increased IRR by 0.1% for the sample buyout.[20]

The capex expensing schedule will affect some industries and sectors differently than others. Software and services industries may see minimal gains due to their relatively low levels of capex spending. The industrial and energy sectors will see a large and immediate impact due to their relatively high levels of capex and equipment purchasing. Below are four examples, two showing companies with relatively high capex spending and two exhibiting companies with relatively low capex spending to show how substantially capex can vary by industry.

This bonus capex expensing now applies to both new and used

Capex to revenue comparison for select companies in various sectors ($M)

Company	Sector	2017 capex	2017 revenue	Capex as a % of revenue
Moody's Investor Service	Financial services	90.6	4,204.1	2.16%
Booking.com	IT	287.8	12,681.1	2.27%
Exxon Mobil	Energy	15,402.0	237,162.0	6.49%
John Deere	Industrial	2,592.3	29,737.7	8.72%

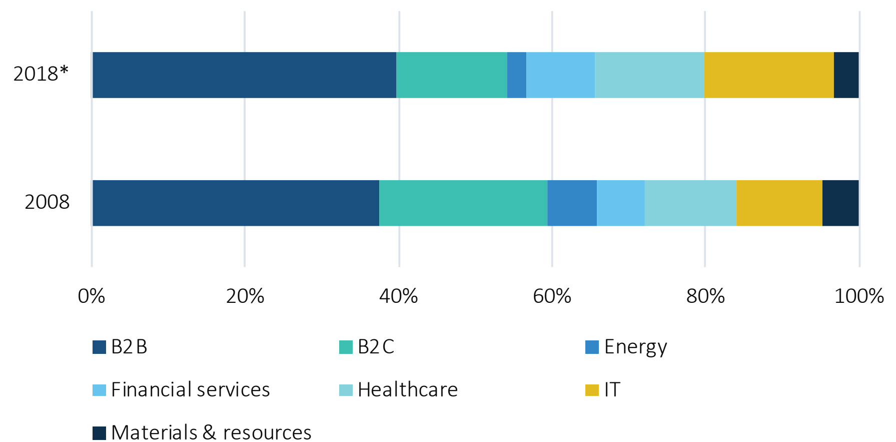
Source: PitchBook

20: "Global Private Equity Report 2018," Bain & Company, February 26, 2018

equipment purchased via an asset sale.[21] Previously, certain items purchased through an asset sale were deducted on a five- to seven-year schedule, whereas now the 100% bonus deduction is applicable to assets acquired with a life of 20 years or less.

We believe these depreciation changes will incentivize more spending and investing in platform companies to drive revenue growth. This trend is already underway as GPs have realized that financial engineering alone is no longer enough. GPs will be more willing to invest in portfolio companies due to the immediate and positive cash flow effects of the 100% capex deduction in an attempt to grow revenue. The increased investment will push out hold times, furthering the current trend, as GPs work longer to incorporate the increased investments in the platform companies. This change to capex expensing will make certain industries even more attractive to PE firms, such as energy, which has seen decreased deal activity in recent years. As mentioned previously, the reduction of interest deductibility will have an outsized negative effect on energy; however, bonus capex expensing will have offsetting effects. Overall, though, the price of oil and returns available will remain the most prominent drivers of PE interest in the energy space.

US PE buyout activity (#) by sector



Source: PitchBook
*As of May 23, 2018

21: "U.S. Tax Reform: Private Equity Firms and Portfolio Companies," RSM US, January 31, 2018

We see these tax changes tilting the value proposition of energy, industrials, manufacturing and other capital-intensive industries, though only in the short term. In 2023, bonus depreciation will begin to sunset out, and the interest deductibility will be further reduced to 30% of EBIT from 30% of EBITDA, having the largest impact on capital intensive businesses.

Change in interest deductibility for select companies across various sectors

Company	2017 EBITDA	2017 EBIT	% change in interest deductibility
Moody's Investor Service	2,133,500	1,975,200	-7.4%
Booking.com	4,857,878	4,495,104	-7.5%
Exxon Mobil	39,168,00	19,275,000	-50.8%
John Deere	2,159,200	1,321,800	-38.8%

Source: PitchBook

Case study: US energy

Two of the previously mentioned tax changes, namely reducing interest deductibility from 30% of EBITDA to 30% of EBIT and 100% bonus capex depreciation (which will eventually decrease to zero) will have profound effects on the US energy industry. As oil prices are rising, many companies are beginning to add to their deeply slashed capex budgets. The immediate expensing allowed for certain capex is certainly a boon for the energy industry because it is so capital intensive. The bonus depreciation, while still a lesser factor than the price of oil, is also driving energy companies to augment investment.

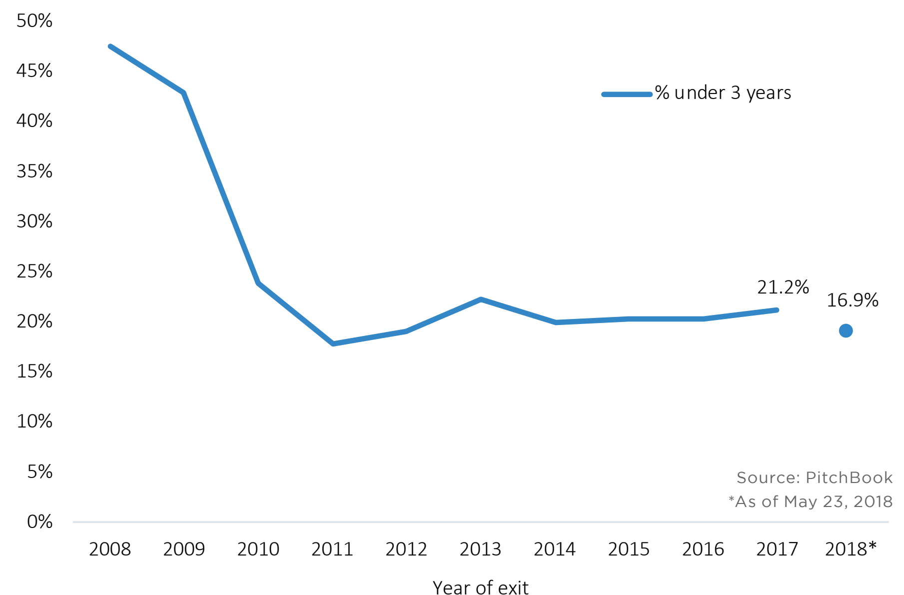
Though the bonus depreciation is a positive for energy, the changes coming later will have a largely negative impact on financial performance in the sector. As detailed above, for tax years beginning after December 31, 2021, interest deductibility is reduced from 30% of EBITDA to 30% of EBIT. The energy sector, which tends to be highly levered, also has the biggest difference in EBIT and EBITDA. For Exxon Mobil, an industry stalwart, interest deductibility would fall by half if recent numbers continue. In 2017, Exxon's EBIT was 49.2% of its EBITDA. Also, the eventual reduction in bonus depreciation from 100% to zero by 2028 will hurt energy worse than any other sector. Our analysis shows that the energy sector's capex to revenue levels are the highest of any sector. For these reasons, we believe the US energy industry will be the most negatively impacted when some of these tax changes come to fruition in five years.

Secondary effects

Carried interest

We believe the changes made to carried interest will have very little impact on the PE industry. Though carried interest generated many headlines leading up to the signing of TCJA, the changes incorporated into the final legislation were relatively minor. The much-maligned subject was in talks of being raised from long-term capital gains rates to ordinary income rates. Though the headline rate for carried interest did not change, the hold time required to realize those rates did. An investment must now be held for at least three years to realize long-term capital gains rates. While this timeframe extension is a negative for PE, the trend has been to hold portfolio companies longer. Some GPs are even starting to offer long-dated funds with decade plus holding times. All in all, this new rule will impact few deals. In fact, PitchBook data shows that only 16.9% of exits in 2017 were completed in under three years.

Proportion of exits with hold time of less than three years



We believe the change to carried interest will have the greatest impact on add-on deals. GPs will have to be careful when structuring add-on deals to platform companies because GPs often use uncalled capital to purchase an add-on for a platform company. Structuring deals in this way can create a split holding period for the investment, leading to the possibility of realizing short-term and long-term carry when exiting a single platform company.[22] Because of this, we expect to see more platform companies directly financing their add-on deals, especially in the last few holding years to prevent any carry from being taxed at ordinary income rates. That said, this change is all about structuring technicalities, and we do not expect any effect on deal flow.

22: "U.S. Tax Reform: Private Equity Firms and Portfolio Companies," RSM US, January 31, 2018

Spotlight: International tax

The alterations to international taxation, though less discussed, will also impact PE deals and strategy. Prior to the TCJA, US companies were taxed based on a worldwide system, whereby repatriated earnings were subject to US corporate taxes.[23] To repatriate profits, US companies typically owed a residual tax equal to the difference between US corporate rates and the tax rate paid in the foreign country where the profits were earned. For this reason, many US companies preferred to leave profits in off-shore subsidiaries, avoiding high US taxes. The new tax code states that international subsidiaries will be taxed according to a territorial system, whereby businesses are taxed on income earned within a country's borders, irrespective of headquarter location.[24] Under the new international taxation system, and with a more competitive tax rate of 21%, US companies are less likely to leave money in foreign bank accounts, something we see driving PE interest in expanding portfolio companies into international markets through organic growth and via add-on acquisitions going forward. The one-time repatriation fee of 15.5% for liquid assets/cash and 8% for illiquid assets was retroactive, affecting all assets held by corporations held outside of the US. This headline-grabbing piece of the tax change caused Goldman Sachs to post a $1.93 billion loss due to a $4.4 billion tax-related repatriation charge.[25] This tax charge it is not recurring though, and therefore should not affect PE going forward.

Under the new system, a US company that owns 10% or more of a foreign corporation is now generally allowed a 100% deduction of foreign-sourced dividends. The divided received deduction (DRD) is a way to exempt certain foreign income from US taxation.[26] This piece of the tax code applies only to C-corps, not partnerships or individuals.

Several additions to the tax code related to international income are worth mentioning due to their impact. Global intangible low-taxed income (GILTI) is meant to implement a minimum tax on companies that have a lot of income and tax savings in a country with little activity. Foreign derived intangible income (FDII) is a special deduction meant to increase exports of US companies' products and services related to US-owned intellectual property. Base erosion and anti-abuse tax (BEAT) is meant to prevent US companies from paying tax-deductible expenses to CFCs and then distributing the profits tax-free. Each of these is a complicated change with a unique formula. More in-depth information on GILTI, FDII and BEAT is available from Rödl & Partner.[27]

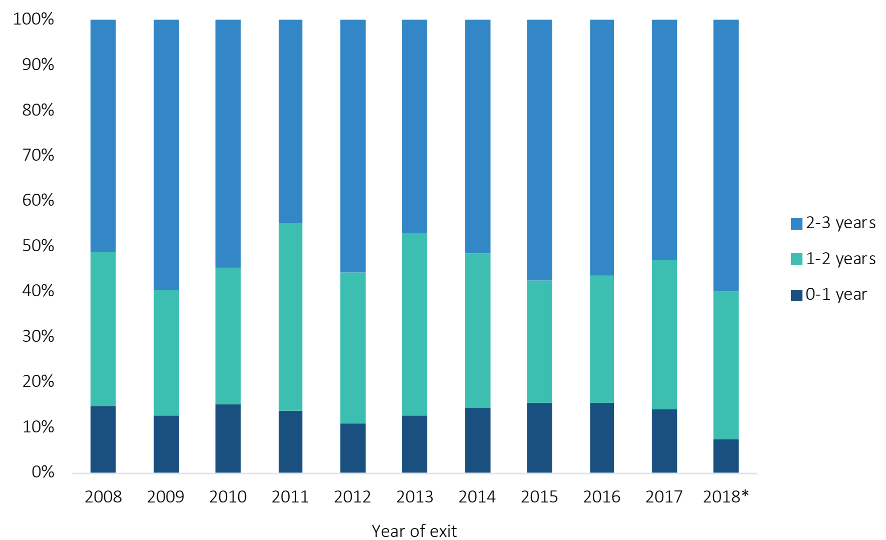
These changes to the international tax code will make PE firms with US-based platform companies more interested in international expansion. Under the prior tax code, larger corporations were able to leave huge sums of capital offshore for extended periods, then use that money to finance international investment. The new tax code will be a boon to smaller companies, which didn't receive the same level of benefit under the prior tax rules. We expect to see US-based PE companies to be more willing to expand internationally due to the lower tax rates on foreign earnings and the territorial system. Also, we believe PE firms will be more willing to do cross-border add-ons, leading to a pickup in cross-border M&A.

23: "Worldwide Tax System vs. Territorial Tax System," The National Law Review, Alex Trostorff & Trevor Wilson, February 1, 2017
24: "'Territorial Tax' Is a Zero Rate on U.S. Multinationals' Foreign Profits, Threatens U.S. Revenues and Wages," Center on Budget and Policy Priorities, October 6, 2017
25: "Goldman investors rattled by latest plunge in bond trading," Thomson Reuters. Catherine Ngai & Aparajita Saxena, January 17, 2018
26: "U.S. Taxation of Foreign Income After Tax Reform," Federal Tax Issues, Lou Vlahos, January 30, 2018
27: "Base Erosion and Anti-Abuse Tax ('Beat')," Rödl & Partner

Hold times

We believe hold times of just under three years will drop as GPs will wait to sell after three years and realize lower taxes on their carry. A simple example shows the after-tax impact on carry of waiting to sell and be taxed at long-term capital gains rates as opposed to ordinary income rates. Our model has an unchanged ex-ante and ex-post EBITDA multiple of 10x, 50/50 debt-to-equity and EBITDA growing at 15%, compounded quarterly. However, selling three years after acquisition, as opposed to two years and nine months, offers a 41% increase in after-tax carry, even though EBITDA grew only 3.75% in the period and equity grew 5.63%. For this reason, we believe the number of PE-backed exits between two and three years will drop substantially. The most recent data shows that 57.6% of all PE exits under three years are exited in the two- to three-year timeframe. GPs will still exit deals in under three years if the price and situation are right because they have a fiduciary obligation to LPs; however, we expect to see a reduction of these sales as GPs seek to increase after-tax carry.

Breakout of PE exits in under three years

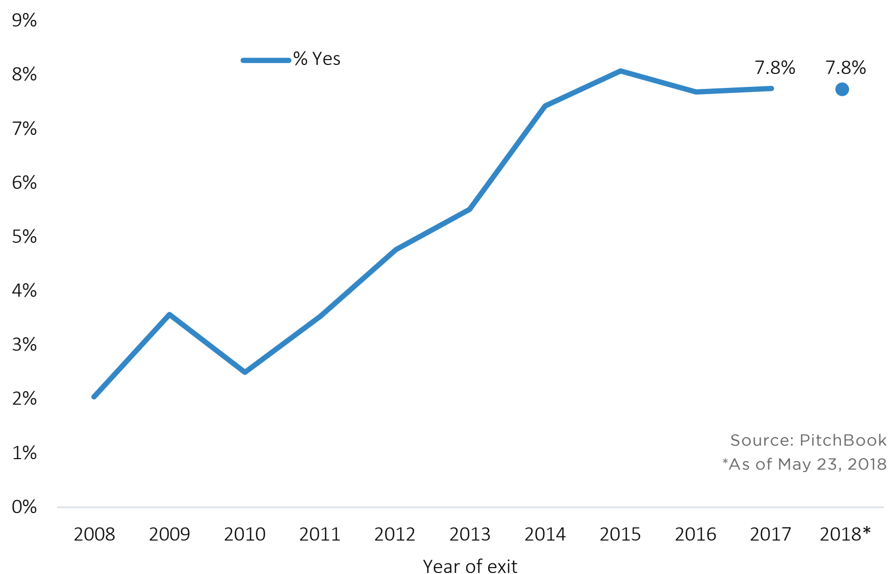


Source: PitchBook
*As of May 23, 2018

Dividend recapitalizations

One way to realize cash distributions faster and keep holding the company is through a dividend recapitalization (recap). A dividend recap can frontload some cash returns to LPs and boost IRR. It is also one way for GPs to take money off the table and realize a liquidity event without having to exit and sell equity. However, recaps are not a panacea for PE firms. The added debt increases costs and interest expense to portfolio companies, reducing the future equity gains. Overall, we believe the changes in the tax plan will lead to a boost in dividend recaps over the coming years as a way for some GPs to continue their strategy of quickly returning LP money without selling before the three-year mark and having their carry taxed at ordinary income rates.

Proportion of platform companies that undergo a dividend recap



Source: PitchBook
*As of May 23, 2018

Carveouts

We believe an additional secondary effect of the decrease in the corporate tax rate from 35% to 21% is that the number of corporate carveouts (and corporate divestitures) will tick upward because CEOs at large companies may be more willing to dispose of non-core assets as the after-tax proceeds have increased by 21.5%. Activist hedge funds often push for carveouts as a way to achieve a simplified operating structure in bloated and inefficient public companies. The goal is to eliminate the "conglomerate discount" and unlock value for shareholders.

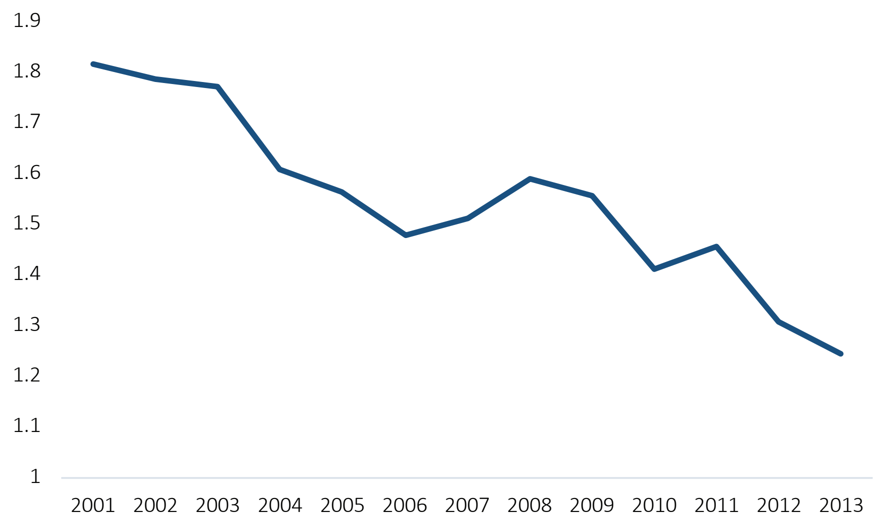
After a sustained period of record-setting M&A, many large corporations are looking to shed some assets and focus on streamlining operations to drive share price growth. Other research has found that executives are reviewing portfolios more often in

an attempt to identify and divest of underperforming or non-core businesses.[28] We believe this increase in corporate divestitures will allow GPs to put more of their dry powder to work by expanding a crucial source for deals. Furthermore, carveout deals tend to be very large, allowing PE firms to put more capital to work. Of the 28 LBOs announced, in progress or completed and valued above $2 billion in 2018, eight have been carveout deals, per the Pitchbook platform.

Decrease in fund performance going forward

Several factors, including a challenging macro backdrop and a variety of competitive pressures, have contributed to the well-documented downtrend in PE returns for more recent vintages. We expect lower levels of debt utilization to be a further drag on IRRs and cash multiples going forward. But while the decrease in leverage is another headwind for PE in delivering performance above public markets, we expect PE to continue its historical outperformance of public markets due to sustained structural advantages, including better flexibility in capital structuring and a long-term operational focus and investment horizon.

Median TVPI (total value to paid-in) by vintage year



Source: PitchBook
*As of May 23, 2018

To that end, there are other methods to drive returns. As discussed previously, GPs are turning to the so-called buy-and-build strategy, using add-on acquisitions to drive top-line growth and improve profitability. When done successfully, this strategy allows GPs to average down the purchase-price-to-EBITDA multiple, leading to more favorable investment outcomes, though this strategy does take more time and effort.

28: "Macroeconomic and M&A outlook," Global Capital Confidence Barometer, Ernst & Young

Increase in IRR for invested funds

While average IRRs and cash multiples across vintages have steadily declined over the past 17 years due to a combination of increased competition, low organic growth rates and less opportunity for multiple expansion, we expect tax reform to boost portfolio company values a few percentage points across the board. As a result, we expect to see a bump in returns for vintages invested during the tax change. A sample five-year buyout deal with a gross IRR of 12.5% would see its IRR jump to 15.8%, assuming an additional 10% in exit valuation due to tax reform. Despite the boon from tax reform, we are expecting PE returns going forward to lag historical performance as heavy competition remains and upward pressure on pricing continues.

Tax reform's benefit to PE returns, however, is not a repeatable event. A bridge analysis of returns, backing out the one-time effect of tax reform, should be performed to understand the repeatable drivers of performance. An example can be found in Appendix 3.

PE firms choosing C-corp structure

One additional side effect to the TCJA is most relevant to publicly traded PE firms. The reduction in the corporate tax rate has made the publicly traded PE firms consider changing from a partnership to a C-corp, with KKR and Ares already taking the proverbial leap. This is a highly complex business decision that is not suited for all firms. The mixture of management fees and performance fees is the reason it may make sense for KKR and Ares, but not necessarily for firms like The Carlyle Group and Blackstone. With Carlyle, Blackstone and Apollo still partnerships, we believe Apollo is now the most likely to switch based on its mixture of management and performance fees, though Leon Black, the CEO, has publicly downplayed the likelihood of a change.[29]

Winners and losers

As with most changes, there will be winners from tax reform, and there will be losers. Luckily for US businesses, most will be winners; however, certain business types and sectors will be bigger beneficiaries than others. Companies with high capital spending, as seen in energy, manufacturing and industrial, will benefit from the ability to fully expense capex, though only for a few years as these provisions sunset back to normal levels and the interest deductibility limit lowers to 30% of EBIT, especially hurting capital-intensive businesses.

US companies with high amounts of in-country revenue will benefit, such as small businesses, telecoms and retail. These companies earn

29: "Apollo CEO sees Ares offering little incentive for stock conversion," Thomson Reuters, Joshua Franklin, March 21, 2018

most, if not all, of their income in the US, incurring a high effective tax rate. The headline tax rate reduction will have an outsized effect on these companies. Small and medium-sized companies with international operations will also benefit from the new territorial system. Under the previous tax code, large companies with the ability to keep cash overseas had a much lower effective tax rate than smaller companies that repatriated all their earnings. The new tax plan puts companies, of all sizes, with foreign income on a more equal footing because they now have similar effective tax rates.

Most GPs and LPs will be net beneficiaries. The boost to portfolio company values from a reduction in the corporate rate will enable funds are that currently invested to realize mark-to-market gains on existing holdings. All else being equal, LPs in these funds will realize higher returns and GPs will realize higher carry.

Companies with debt above 7x EBITDA will likely end up paying more taxes under the new tax plan. Many highly levered companies had enough interest payments to achieve zero taxable income under the old tax plan. With an interest deduction cap at 30% of EBITDA, these firms will be hit with an increased tax bill; 21% of something is more than 35% of nothing.

GPs with a strategy of quick flips (i.e. exits under three years) will be hurt by the new tax rules as their carry on short-term investments will be taxed at ordinary income rates. We believe many GPs in this situation will slightly change their strategy and opt for interim partial liquidity events like dividend recaps, waiting for a full exit until long-term capital gains rates can be realized. PitchBook data shows that half of all LBOs completed since 2014 have used debt/EBITDA above 6.0x.

Conclusion

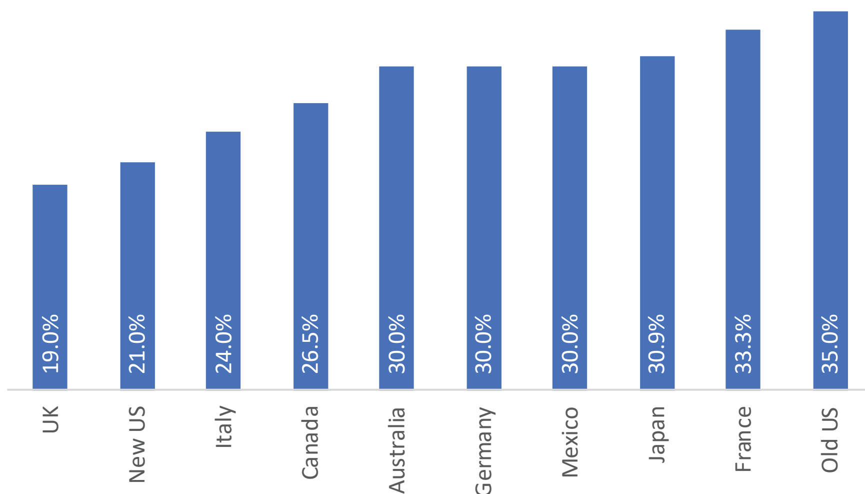
Overall, there are many facets to the TCJA. While this landmark change led to most companies paying a lower tax rate, the bill is by no means a simplification of the tax code. Companies should conduct detailed analysis before making any changes and be sure to consult a tax expert.

This tax bill will usher in many changes to the PE landscape. Those that can adapt quicker, source the new opportunities and structure deals more favorably will earn a competitive edge. The trend towards utilizing new performance levers is continued by the tax bill; financial engineering and multiple expansion alone cannot be relied on for PE firms hoping for top-quartile performance in the future. Many new doors have been opened, especially to international expansion. This will give the industry an opportunity to see which GPs, strategies, operational techniques and growth tactics are most effective at driving returns.

Appendix

Section 1: The developed world

Corporate tax rates in the developed world



Source: "Corporate tax rates table," KPMG

Section 2: Deduction of interest

Net taxes paid per $100 of EBITDA

Debt/EBITDA	4X		5X		6X		7X		8X	
Interest on debt	Old	New	Old	New	Old	New	Old	New	Old	New
6%	20.6	12.4	18.5	11.1	16.4	11.1	14.3	11.1	12.2	11.1
7%	19.2	11.5	16.8	11.1	14.3	11.1	11.9	11.1	9.4	11.1
8%	17.8	11.1	15.0	11.1	12.2	11.1	9.4	11.1	6.6	11.1
9%	16.4	11.1	13.3	11.1	10.1	11.1	7.0	11.1	3.8	11.1
10%	15.0	11.1	11.5	11.1	8.0	11.1	4.5	11.1	1.0	11.1

Source: "Corporate income tax (CIT) rates," PricewaterhouseCoopers
*Assumes constant depreciation and amortization

Section 2 cont.

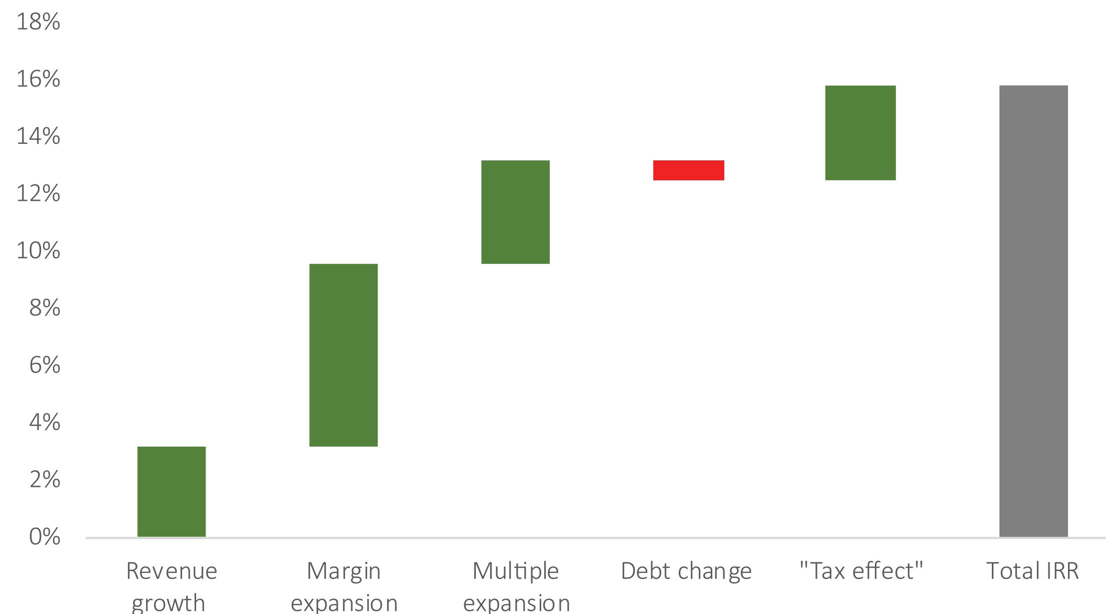
Net tax comparison across leverage levels between the new and old tax laws with a 9% interest rate on debt

EBITDA	100	100	100	100	100	100
Debt/EBITDA	0.0X	4.0X	5.0X	6.0X	7.0X	8.0X
Interest rate	0	9%	9%	9%	9%	9%
Interest expense	0	36.0	45.0	54.0	63.0	72.0
EBIT	82.9	82.9	82.9	82.9	82.9	82.9
Old tax						
Tax rate	35%	35%	35%	35%	35%	35%
Tax on EBIT	29.0	29.0	29.0	29.0	29.0	29.0
Deduction	0	-12.6	-15.8	-18.9	-22.1	-25.2
Net tax	29.0	16.4	13.2	10.1	6.9	3.8
New tax						
Tax rate	21%	21%	21%	21%	21%	21%
Tax on EBIT	17.4	17.4	17.4	17.4	17.4	17.4
Deduction	0	-6.3	-6.3	-6.3	-6.3	-6.3
Net tax	17.4	11.1	11.1	11.1	11.1	11.1
Old tax plus interest	29.0	52.4	58.2	64.1	69.9	75.8
Percentage increase	-	-	11%	10%	9%	8%
New tax plus interest	17.4	47.1	56.1	65.1	74.1	83.1
Percentage increase	-	-	19%	16%	14%	12%

Source: PitchBook

Section 3: Bridge

Sample bridge analysis



Source: PitchBook