

Tax Reform 101: Provision and Perspective

March 2018

The Tax Cuts and Jobs Act (TCJA) was signed into law on December 22, 2017 with changes primarily effective as of January 1, 2018. As one of the most significant tax reforms in history, it is crucial individuals and businesses alike understand how they will be affected. We partnered with RSM, an international audit, tax and consulting firm, to provide an overview of the TCJA and how the provisions will affect businesses moving forward.

Provided is a summary of the reform affecting privately held corporations, private equity firms and the overall M&A market. For further perspective, we included examples of key provisions as financial models including a pre- and post-reform depiction for corporate and pass-through entities. While additional technical corrections and guidance will be released from the Department of the Treasury and IRS in the coming months, this piece is intended to be an introductory guide based on the provisions that we believe will have the largest impact.

To further the conversation, please call your Piper Jaffray representative or a RSM contact listed here:

RSM REPRESENTATIVES



Jennifer Kalla
Partner, RSM US LLP
jennifer.kalla@rsmus.com
+1 612 376-9830



Marc Logan
Partner, RSM US LLP
marc.logan@rsmus.com
+1 212 372-1894



Nick Gruidl
Partner, RSM US LLP
nick.gruidl@rsmus.com
+1 202 370-8242

AG, CLEAN TECH & RENEWABLES



Tom Halvorson
Group Head
j.t.halverson@pjc.com
+1 612 303-6371

BUSINESS & DIVERSIFIED INDUSTRIALS



Mike Dillahunt
Group Co-Head
michael.r.dillahunt@pjc.com
+1 612 303-6337



Ted Garner
Group Co-Head
ted.h.garner@pjc.com
+1 704 602-3914

CAPITAL ADVISORY



Len Sheer
Group Head
len.l.sheer@pjc.com
+1 212 284-9328

CONSUMER



Michael Hoffman
Group Co-Head
michael.j.hoffman@pjc.com
+1 612 303-6386

CONSUMER



Damon Chandik
Group Co-Head
damon.s.chandik@pjc.com
+1 650 838-1340

ENERGY



Fred Charlton
Group Co-Head
fred.w.charlton@simmonspjc.com
+1 713 546-7311

ENERGY



James Baker
Group Co-Head
james.p.baker@simmonspjc.com
+1 713 546-7217

FINANCIAL SERVICES



Bob Hutchinson
Group Head
robert.p.hutchinson@pjc.com
+1 617 654-0750

FINANCIAL SPONSORS



Pam Nightingale
Managing Director
pam.s.nightingale@pjc.com
+1 612 303-6753

HEALTHCARE



Bob DeSutter
Group Co-Head
robert.a.desutter@pjc.com
+1 612 303-6392

HEALTHCARE



J.P. Peltier
Group Co-Head
j.p.peltier@pjc.com
+1 612 303-6457

TECHNOLOGY



Michael Kim
Group Head
michael.p.kim@pjc.com
+1 415 616-1817

MERGERS & ACQUISITIONS



Peter Lombard
Managing Director
peter.a.lombard@pjc.com
+1 617 654-0751

M&A Implications

Tax Reform Provision	Description	Perspective	Illustration																																								
Corporate Rate Reduction	Corporate tax rate reduced from 35% to 21%.	<ul style="list-style-type: none"> • Lower corporate tax rate drives higher after-tax free cash flows • The reduction creates >22% improvement in after-tax free cash flows • Implies higher M&A valuation levels • Flow-through entities may consider a conversion to corporate status • Future acquisitions may favor corporate structure 	<table border="1"> <thead> <tr> <th></th> <th>Before</th> <th>After</th> </tr> </thead> <tbody> <tr> <td>Pre-Tax Income</td> <td>\$100</td> <td>\$100</td> </tr> <tr> <td>Tax Rate</td> <td>35%</td> <td>21%</td> </tr> <tr> <td>Tax Expense</td> <td>(\$35)</td> <td>(\$21)</td> </tr> <tr> <td>Net Income</td> <td>\$65</td> <td>\$79</td> </tr> <tr> <td>% Improvement</td> <td></td> <td>22%</td> </tr> </tbody> </table>		Before	After	Pre-Tax Income	\$100	\$100	Tax Rate	35%	21%	Tax Expense	(\$35)	(\$21)	Net Income	\$65	\$79	% Improvement		22%																						
				Before	After																																						
			Pre-Tax Income	\$100	\$100																																						
			Tax Rate	35%	21%																																						
			Tax Expense	(\$35)	(\$21)																																						
Net Income	\$65	\$79																																									
% Improvement		22%																																									
Interest Deductibility	Business interest deduction limited to 30% of EBITDA (EBIT in 2022 and beyond). Note that EBITDA and EBIT are based on tax basis financials. Disallowed interest carried forward indefinitely.	<ul style="list-style-type: none"> • Limits interest tax shield in high-leverage and high-yield situation • No grandfathering of existing debt • Expect limited impact in current low rate environment, except for low EBITDA situations • M&A implications primarily in highly levered deals and those with high-cost subordinated or mezzanine debt, which may drive returns down with lower after-tax cash flows or higher initial equity requirements 	<table border="1"> <tbody> <tr> <td>EBITDA</td> <td>\$120</td> </tr> <tr> <td>Deductible Interest (30%)</td> <td>\$36</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Leverage</th> <th>Debt Levels</th> <th>Full Deduction If Rate Is Below:</th> </tr> </thead> <tbody> <tr> <td>3.0x</td> <td>\$360</td> <td>10.0%</td> </tr> <tr> <td>4.0x</td> <td>\$480</td> <td>7.5%</td> </tr> <tr> <td>5.0x</td> <td>\$600</td> <td>6.0%</td> </tr> <tr> <td>6.0x</td> <td>\$720</td> <td>5.0%</td> </tr> </tbody> </table>	EBITDA	\$120	Deductible Interest (30%)	\$36	Leverage	Debt Levels	Full Deduction If Rate Is Below:	3.0x	\$360	10.0%	4.0x	\$480	7.5%	5.0x	\$600	6.0%	6.0x	\$720	5.0%																					
			EBITDA	\$120																																							
			Deductible Interest (30%)	\$36																																							
			Leverage	Debt Levels	Full Deduction If Rate Is Below:																																						
			3.0x	\$360	10.0%																																						
4.0x	\$480	7.5%																																									
5.0x	\$600	6.0%																																									
6.0x	\$720	5.0%																																									
Full Capital Expensing	Immediate write-off for capital equipment purchased (generally tax depreciable life less than 20 years). Sunsets 20% per year starting in 2023.	<ul style="list-style-type: none"> • Lowers cost of capital investments (new and used property) • Asset purchases in M&A are potentially more attractive given immediate purchase price expensing for eligible assets by buyer, with reduced tax leakage by seller via the lower corporate tax rate • Most states do not allow full expensing 	<p>Purchase Price Allocated to Fixed Assets: \$5,000,000</p> <table border="1"> <thead> <tr> <th>Before</th> <th colspan="3">5-Year Depreciable Life (Subject to Original Use Limitations)</th> </tr> <tr> <th></th> <th>Deduction</th> <th>Tax Benefit at 21%</th> <th>Present Value at 5%</th> </tr> </thead> <tbody> <tr> <td>Year 1</td> <td>\$1,000,000</td> <td>\$210,000</td> <td>\$909,190</td> </tr> <tr> <td>Year 2</td> <td>\$1,000,000</td> <td>\$210,000</td> <td></td> </tr> <tr> <td>Year 3</td> <td>\$1,000,000</td> <td>\$210,000</td> <td></td> </tr> <tr> <td>Year 4</td> <td>\$1,000,000</td> <td>\$210,000</td> <td></td> </tr> <tr> <td>Year 5</td> <td>\$1,000,000</td> <td>\$210,000</td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>After</th> <th colspan="3">Immediate Full Expensing</th> </tr> <tr> <th></th> <th>Deduction</th> <th>Tax Benefit at 21%</th> <th>Present Value at 5%</th> </tr> </thead> <tbody> <tr> <td>Year 1</td> <td>\$5,000,000</td> <td>\$1,050,000</td> <td>\$1,000,000</td> </tr> </tbody> </table>	Before	5-Year Depreciable Life (Subject to Original Use Limitations)				Deduction	Tax Benefit at 21%	Present Value at 5%	Year 1	\$1,000,000	\$210,000	\$909,190	Year 2	\$1,000,000	\$210,000		Year 3	\$1,000,000	\$210,000		Year 4	\$1,000,000	\$210,000		Year 5	\$1,000,000	\$210,000		After	Immediate Full Expensing				Deduction	Tax Benefit at 21%	Present Value at 5%	Year 1	\$5,000,000	\$1,050,000	\$1,000,000
			Before	5-Year Depreciable Life (Subject to Original Use Limitations)																																							
				Deduction	Tax Benefit at 21%	Present Value at 5%																																					
			Year 1	\$1,000,000	\$210,000	\$909,190																																					
			Year 2	\$1,000,000	\$210,000																																						
Year 3	\$1,000,000	\$210,000																																									
Year 4	\$1,000,000	\$210,000																																									
Year 5	\$1,000,000	\$210,000																																									
After	Immediate Full Expensing																																										
	Deduction	Tax Benefit at 21%	Present Value at 5%																																								
Year 1	\$5,000,000	\$1,050,000	\$1,000,000																																								

M&A Implications

Tax Reform Provision	Description	Perspective	Illustration																											
Net Operating Losses (NOLs)	Repeals two-year carryback and changes carryforward from 20 years to indefinite. Limits deduction to 80% of taxable income each year. Pre-2018 NOLs remain eligible for 100% income utilization subject to prior expiration schedule.	<ul style="list-style-type: none"> Eliminates ability to carryback stub period loss in M&A for the benefit of sellers and shifts the negotiation to receiving future benefits from transaction-related losses Tax attributes are less valuable with lower tax rate and capped annual utilization 	<table border="1"> <thead> <tr> <th></th> <th>Before</th> <th>After</th> </tr> </thead> <tbody> <tr> <td>Taxable Income</td> <td>\$100</td> <td>\$100</td> </tr> <tr> <td>NOL Cap</td> <td>0%</td> <td>80%</td> </tr> <tr> <td>NOLs Utilized</td> <td>\$100</td> <td>\$80</td> </tr> <tr> <td>Remaining Taxable Income</td> <td>\$0</td> <td>\$20</td> </tr> <tr> <td>Tax Rate</td> <td>35%</td> <td>21%</td> </tr> <tr> <td>Cash Tax Payable</td> <td>\$0</td> <td>\$4</td> </tr> </tbody> </table>		Before	After	Taxable Income	\$100	\$100	NOL Cap	0%	80%	NOLs Utilized	\$100	\$80	Remaining Taxable Income	\$0	\$20	Tax Rate	35%	21%	Cash Tax Payable	\$0	\$4						
				Before	After																									
			Taxable Income	\$100	\$100																									
			NOL Cap	0%	80%																									
			NOLs Utilized	\$100	\$80																									
			Remaining Taxable Income	\$0	\$20																									
			Tax Rate	35%	21%																									
Cash Tax Payable	\$0	\$4																												
Pass-Through Business Rate Reduction	Allows deduction of 20% of pass-through income for qualified businesses. For full deduction, qualified businesses must meet certain criteria for level of wage payments and/or tangible, depreciable assets in the business.	<ul style="list-style-type: none"> Pass-through rate reduction in the top individual bracket from 39.6% to 29.6%, resulting in a 17% improvement in after-tax cash flows New corporate rate is lower, but pass-through form eliminates the potential for a double layer of taxation 	<table border="1"> <thead> <tr> <th></th> <th>Before</th> <th>After</th> </tr> </thead> <tbody> <tr> <td>Business Income</td> <td>\$100</td> <td>\$100</td> </tr> <tr> <td>Deduction</td> <td>\$0</td> <td>(\$20)</td> </tr> <tr> <td>Taxable Income</td> <td>\$100</td> <td>\$80</td> </tr> <tr> <td>Tax Rate</td> <td>39.6%</td> <td>37.0%</td> </tr> <tr> <td>Tax Expense</td> <td>(\$40)</td> <td>(\$30)</td> </tr> <tr> <td>Owner Net Income</td> <td>\$60</td> <td>\$70</td> </tr> <tr> <td>Effective Tax Rate</td> <td>39.6%</td> <td>29.6%</td> </tr> <tr> <td>% Improvement</td> <td></td> <td>17%</td> </tr> </tbody> </table>		Before	After	Business Income	\$100	\$100	Deduction	\$0	(\$20)	Taxable Income	\$100	\$80	Tax Rate	39.6%	37.0%	Tax Expense	(\$40)	(\$30)	Owner Net Income	\$60	\$70	Effective Tax Rate	39.6%	29.6%	% Improvement		17%
				Before	After																									
			Business Income	\$100	\$100																									
			Deduction	\$0	(\$20)																									
			Taxable Income	\$100	\$80																									
			Tax Rate	39.6%	37.0%																									
			Tax Expense	(\$40)	(\$30)																									
			Owner Net Income	\$60	\$70																									
Effective Tax Rate	39.6%	29.6%																												
% Improvement		17%																												
Carried Interest	Three-year holding period imposed to achieve long-term capital gain treatment.	<ul style="list-style-type: none"> Constrains opportunistic sales by PE owners within the three year period. However, resulting short-term capital gain can be managed with other capital losses No significant M&A impact expected given typical hold periods 	<table border="1"> <thead> <tr> <th></th> <th>2-Year</th> <th>4-Year</th> </tr> </thead> <tbody> <tr> <td>Carried Interest Gain</td> <td>\$200</td> <td>\$200</td> </tr> <tr> <td>Capital Gain Tax Rate</td> <td>37%</td> <td>20%</td> </tr> <tr> <td>Tax Liability</td> <td>(\$74)</td> <td>(\$40)</td> </tr> <tr> <td>After-Tax Income</td> <td>\$126</td> <td>\$160</td> </tr> <tr> <td>% Improvement</td> <td></td> <td>27%</td> </tr> </tbody> </table>		2-Year	4-Year	Carried Interest Gain	\$200	\$200	Capital Gain Tax Rate	37%	20%	Tax Liability	(\$74)	(\$40)	After-Tax Income	\$126	\$160	% Improvement		27%									
				2-Year	4-Year																									
			Carried Interest Gain	\$200	\$200																									
			Capital Gain Tax Rate	37%	20%																									
			Tax Liability	(\$74)	(\$40)																									
			After-Tax Income	\$126	\$160																									
% Improvement		27%																												
International Tax-Repatriation	One-time mandatory deemed repatriation of foreign earnings and profits. All entities with foreign earnings & profits are taxed at reduced rates for cash (15.5%) and illiquid assets (8%). Installment payment plan over eight years is available.	<ul style="list-style-type: none"> Enables significantly more offshore cash to be available for use in U.S. acquisitions immediately and in the future as generated Reduces current cash on balance sheet Estimated \$2-3 trillion of offshore cash is held by U.S. corporations 	<table border="1"> <tbody> <tr> <td>U.S. Cash</td> <td>\$300</td> </tr> <tr> <td>Offshore Cash</td> <td>\$100</td> </tr> <tr> <td>Offshore Cash Tax Rate</td> <td>15.5%</td> </tr> <tr> <td>Offshore Illiquid Assets</td> <td>\$50</td> </tr> <tr> <td>Illiquid Asset Tax Rate</td> <td>8%</td> </tr> <tr> <td>Tax Liability (8 years)</td> <td>\$19</td> </tr> <tr> <td>Available Cash - Pre Tax</td> <td>\$300</td> </tr> <tr> <td>Available Cash - After Tax</td> <td>\$380</td> </tr> </tbody> </table>	U.S. Cash	\$300	Offshore Cash	\$100	Offshore Cash Tax Rate	15.5%	Offshore Illiquid Assets	\$50	Illiquid Asset Tax Rate	8%	Tax Liability (8 years)	\$19	Available Cash - Pre Tax	\$300	Available Cash - After Tax	\$380											
			U.S. Cash	\$300																										
			Offshore Cash	\$100																										
			Offshore Cash Tax Rate	15.5%																										
			Offshore Illiquid Assets	\$50																										
			Illiquid Asset Tax Rate	8%																										
			Tax Liability (8 years)	\$19																										
			Available Cash - Pre Tax	\$300																										
Available Cash - After Tax	\$380																													

Case Study 1: Corporate Entity

The following case studies highlight the impact on net after-tax cash flow resulting from various changes in the federal tax law from the TCJA. Note that state tax impacts are not included in this analysis and are beyond the scope of this discussion but can have a material impact on the analysis.

Assumptions	
EBITDA	\$100
Leverage Multiple	5.0x
Debt	\$500
Interest Rate	7%
Actual Interest Expenditures	\$35
Interest Expense Limitation	\$30
Current Year CapEx	\$5
D&A (assets previously placed in service)	\$4

Commentary

Due to the amount of leverage the corporation has utilized, the limitation on business interest deductions becomes an immediate issue, with \$5 of interest expense subject to the limitation. Under prior law, the corporation would have been able to deduct \$35 of interest expense but is now limited to a \$30 deduction, equal to 30% of its EBITDA. Although the limited portion carries forward for an indefinite period of time, the value of the carry forward asset would need to be assessed based on future EBITDA (EBIT starting in 2022) and leverage modeling.

The corporation enjoys the benefit of the increased capital expensing provisions of the TCJA and is allowed to deduct 100% of the \$5 it plans to spend on qualified capital expenditures, rather than 50% under pre-TCJA.

Although the maximum corporate tax rate dropped 14 percentage points from 35% to 21% (a 40% reduction), the corporation in this example receives only a 37% reduction in its corporate level tax due to the cumulative impact of additional bonus depreciation and the interest limitation. In addition, assuming the corporation distributes \$10 to its shareholders as a dividend, the example reflects the second layer of tax paid by the shareholders (\$2.4 assuming a 20% rate on qualified dividend income plus 3.8% net investment income tax). Layering in this second level of tax results in a combined increase in net after-tax cash of only 21%.

Although the full “windfall” of the corporate rate reduction is not achieved in this example, the corporation may choose to payout a portion of the excess cash it does retain to its shareholders. The increase in dividends further reduces the combined net after-tax cash flow, perhaps making it more advantageous for the company to use the cash flow benefits for further investments in its people, capital or reduction of debt.

	Pre-TCJA	TCJA	TCJA	TCJA
EBITDA	100.0	100.0	100.0	100.0
Interest Expense	(35.0)	(30.0)	(30.0)	(30.0)
CapEx Immediate Expensing	(2.5)	(5.0)	(5.0)	(5.0)
Depreciation & Amortization (D&A)	(4.0)	(4.0)	(4.0)	(4.0)
Taxable Federal Income	58.5	61.0	61.0	61.0
Federal Corporate Income Tax Rate	35%	21%	21%	21%
Federal Corporate Income Taxes	20.5	12.8	12.8	12.8
Dividend	10.0	10.0	20.0	30.0
Shareholder Income Tax Rate	23.8%	23.8%	23.8%	23.8%
Shareholder Income Tax	2.4	2.4	4.8	7.1
Cash Flow:				
Corporate Taxable Income	58.5	61.0	61.0	61.0
Non-Cash D&A	4.0	4.0	4.0	4.0
CapEx Not Immediately Expensed	(2.5)	-	-	-
Interest Expense Limitation	-	(5.0)	(5.0)	(5.0)
Corporate Tax	(20.5)	(12.8)	(12.8)	(12.8)
Individual Tax	(2.4)	(2.4)	(4.8)	(7.1)
Net Combined After-Tax Cash Flow	37.2	44.8	42.4	40.0
After-Tax Cash Flow % Increase		21%		

Case Study 2 : Pass-Through Entity

Case Study 2 contains the same financial assumptions as Case Study 1, but assumes the company operates in a pass-through, rather than corporate entity structure. The results of the increased bonus depreciation and business interest limitation are the same as Case Study 1, as both of these items apply at the entity rather than the shareholder level. In both cases, the income of the company increases from \$58.5 to \$61. However, Case Study 2 assumes that the company is a qualified trade or business that would allow its shareholders to claim an additional 20% deduction against their pass-through income.

Assumptions	
EBITDA	\$100
Leverage Multiple	5.0x
Debt	\$500
Interest Rate	7%
Actual Interest Expenditure	\$35
Interest Expense Limitation	\$30
Current Year CapEx	\$5
D&A (assets previously placed in service)	\$4
Pass-Through Assumptions:	
100% Qualified Business Income (QBI)	
QBI Deduction	20%
Individual Income Tax Rate	37%
Effective Individual Tax Rate after QBI Deduction	29.6%

Commentary

Applying the 20% deduction, coupled with the decrease in the top individual tax rate from 39.6% to 37%, results in an effective tax rate on the pass-through income of 29.6%. Although the individual shareholders recognize a 25.2% reduction in the tax rate on their income, the actual reduction in tax from \$23.2 to \$18.1 is just over 22%, again due to the additional bonus depreciation but offset by the interest limitation.

Case Study 2 also assumes that the shareholders of the pass-through entity would not only distribute cash out of the entity to fund their tax liabilities, they would also distribute another \$10 in excess of their tax distribution, similar to the corporate entity structure. While these distributions lead to a second layer of tax in the corporate entity analysis, both the tax and non-tax distributions from the pass-through entity are non-taxable to the pass-through shareholders and simply reduce the basis of their stock. Therefore, the second layer of tax is avoided in the pass-through structure. In addition, the shareholders in the pass-through entity achieve a net increase in their stock basis of \$32.9.

	Pre-TCJA	TCJA	TCJA	TCJA
EBITDA	100.0	100.0	100.0	100.0
Interest Expense	(35.0)	(30.0)	(30.0)	(30.0)
CapEx Immediate Expensing	(2.5)	(5.0)	(5.0)	(5.0)
D&A	(4.0)	(4.0)	(4.0)	(4.0)
Taxable Federal Income	58.5	61.0	61.0	61.0
Effective Individual Income Tax Rate	39.6%	29.6%	29.6%	29.6%
Individual Income Taxes	23.2	18.1	18.1	18.1
Tax Distribution	23.2	18.1	18.1	18.1
Non-Tax Distribution	10.0	10.0	20.0	30.0
Total Distribution	33.2	28.1	38.1	48.1
Tax on Distribution	-	-	-	-
Increase in Shareholder Outside Basis	25.3	32.9	22.9	12.9
Cash Flow:				
Corporate Taxable Income	58.5	61.0	61.0	61.0
Non-Cash D&A	4.0	4.0	4.0	4.0
CapEx Not Immediately Expensed	(2.5)	-	-	-
Interest Expense Limitation	-	(5.0)	(5.0)	(5.0)
Corporate Tax	-	-	-	-
Individual Tax	(23.2)	(18.1)	(18.1)	(18.1)
Net Combined After-Tax Cash Flow	36.8	41.9	41.9	41.9
After-Tax Cash Flow % Increase		14%		

Corporate vs. Pass-Through Entity Considerations

An important question now being asked by any taxpayer currently structured as a pass-through entity is whether or not to consider a conversion to corporate entity status. The two case studies also offer a comparison of the net after-tax cash flow under a corporate entity or pass-through structure assuming the same financial results at the company level. Under the base assumption of a \$10 non-tax dividend, the corporate entity structure nets a combined after-tax cash amount of \$44.8, compared to \$41.9 under the pass-through structure. However, if the cash flow needs of the shareholders dictate a larger distribution, the double tax in a corporate entity structure starts to offset the benefit of the lower corporate tax rate. The case studies reflect that a \$30 non-tax dividend results in the net after-tax benefit of the pass-through entity exceeding that of the corporate entity.

In addition to the above considerations, there are many other factors which need to be considered when making the decision whether or not to change your current pass-through entity structure. Among the most important is the eventual exit strategy of the business and the timing of that exit. The building of stock basis in a pass-through entity structure will be foregone upon a conversion, which could have a significant impact on the amount of gain recognized upon a future sale. Additional pass-through vs. corporate entity considerations are outlined here, but each taxpayer situation is unique. We recommend consulting your tax advisor to assist in making any decisions regarding a change in entity status.

Pass-Through Entity Advantages

- Build basis and generally distribute cash tax-free
- Single level of tax
- Attractive target in an exit
- Tax efficiency with estate planning

Pass-Through Entity Disadvantages

- 37% top individuals tax rate (29.6% if a qualified business)
- State income tax deduction limitation
- Complex shareholder returns

Corporate Entity Advantages

- 21% tax rate
- Cash needs at the entity level/low level of discretionary dividends
- Deduction for state taxes available
- Reduced shareholder compliance cost

Corporate Entity Disadvantages

- Double layer of tax/high level of discretionary dividends
- No building of outside stock basis
- Step up not achieved by buyer in an exit

Piper Jaffray Companies (NYSE: PJC) is a leading investment bank and asset management firm. Securities brokerage and investment banking services are offered in the U.S. through Piper Jaffray & Co., member SIPC and FINRA; in Europe through Piper Jaffray Ltd., authorized and regulated by the U.K. Financial Conduct Authority; and in Hong Kong through Piper Jaffray Hong Kong Limited, authorized and regulated by the Securities and Futures Commission. Asset management products and services are offered through five separate investment advisory affiliates - U.S. Securities and Exchange Commission (SEC) registered Advisory Research, Inc., Piper Jaffray Investment Management LLC, PJC Capital Partners LLC and Piper Jaffray & Co., and Guernsey-based Parallel General Partners Limited, authorized and regulated by the Guernsey Financial Services Commission.

Information contained in this publication is based on data obtained from sources we deem to be reliable, however, it is not guaranteed as to accuracy and does not purport to be complete. Nothing contained in this publication is intended to be a recommendation of a specific security or company nor is any of the information contained herein intended to constitute an analysis of any company or security reasonably sufficient to form the basis for any investment decision.

Since 1895. Member SIPC and NYSE
© 2018 Piper Jaffray & Co. piperjaffray.com

This document contains general information, may be based on authorities that are subject to change, and is not a substitute for professional advice or services. This document does not constitute audit, tax, consulting, business, financial, investment, legal or other professional advice, and you should consult a qualified professional advisor before taking any action based on the information herein. RSM US LLP, its affiliates and related entities are not responsible for any loss resulting from or relating to reliance on this document by any person. Internal Revenue Service rules require us to inform you that this communication may be deemed a solicitation to provide tax services.

RSM US LLP is a limited liability partnership and the U.S. member firm of RSM International, a global network of independent audit, tax and consulting firms. The member firms of RSM International collaborate to provide services to global clients, but are separate and distinct legal entities that cannot obligate each other. Each member firm is responsible only for its own acts and omissions, and not those of any other party. Visit rsmus.com/aboutus for more information regarding RSM US LLP and RSM International.