
Market Outlook

Q3 2017

Morningstar Equity and Credit Research and PitchBook

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Stock Market Outlook: Equity Valuations Look Lofty

It's getting harder to find undervalued stocks with so much optimism factored into stock prices.

By Elizabeth Collins, CFA
Director of Equity Research,
North America

- ▶ The Morningstar Global Markets Index has returned more than 11.72% year to date and 18.68% over the past year.
- ▶ The market-cap-weighted price/fair value estimate ratio for our equity analysts' coverage universe is 1.05.
- ▶ Energy is currently the most undervalued sector, with a price/fair value estimate ratio of 0.96. Basic materials remains the most overvalued sector, with a price/fair value estimate ratio of 1.24.

In April Morningstar equity analysts began incorporating expected U.S. tax reform into valuation model assumptions. We currently believe that U.S. corporate tax reform is more likely than not to occur during the Trump administration, despite continued delays to the administration's agenda on other legislative items such as repeal of the Affordable Care Act.

The assumptions that we will use in our valuation models are based on Trump's and the House Republican plans but modified for what we believe are reasonable compromises needed for tax reform to occur. Most importantly, we are only incorporating a U.S. federal corporate tax cut down to 25% instead of 20% or 15%. As a reminder, the Trump administration's proposal calls for a 15% tax rate.

Our more shallow tax cut assumption when combined with our other policy assumptions make the reform package close to budget-neutral on a dynamic basis. Largely offsetting the federal revenue loss from the headline tax cut is the elimination of corporate tax credits (excluding research and development), a one-time tax revenue gain from a tax on cash held overseas, and additional tax revenue from near-term economic growth stimulated by tax reform.

Healthcare reform in the U.S. has dominated popular headlines. Our equity analysts' view is that should the Senate's healthcare bill become law, it should be a net positive for pharmaceutical and device firms and a mixed impact for hospitals and managed care firms. Pharmaceutical and device firms currently face various fees and taxes that would be eliminated under the proposed American Health Care Act, while hospitals and managed care firms could suffer from volume declines that would be offset by the eliminations of regulations and fees.

That said, there are challenges still to translating the House's and Senate's healthcare bill into law. The Senate Republicans' bill shares many similarities with the House GOP's, including the elimination of mandates, the option for states to redefine essential benefits, and a move toward capping Medicaid spending. Republicans control 52 seats in the Senate as well as the vice president's tie-breaking vote,

but Republican senators from states that have expanded Medicaid face negative reactions from both constituents as well as governors that would oppose capping Medicaid. While Republican leaders want a vote on the bill as soon as possible, many individual senators are seeking delays so that they have time to assess the wisest move forward for their political careers.

In late May, OPEC and certain other countries agreed to extend their oil production cuts by nine months. The cuts makes sense, given that stocks within OECD countries are still 13% above the top of the 2010-14 range. Although the production cuts could help meet the objective of bringing inventories into the targeted range, the cartel might pay a steep long-term price for any near-term benefit.

Our equity analysts believe the cartel is underestimating the ability of shale producers in the U.S. to rapidly increase volumes in a \$50-\$55/bbl environment (West Texas Intermediate). Our energy sector team's 2018 and midcycle forecasts for WTI are still \$45/bbl and \$55/bbl, respectively, compared with spot prices around \$44 per barrel these days.

Meanwhile, investor demand continues to prop up gold prices at \$1,200 to \$1,300 per ounce, with ETF gold holdings largely recovered to levels last seen before the December 2016 rate hike. But as the Federal Reserve continues to pursue rate increases, prices look primed to fall. Additional rate hikes by the Fed would further discourage investor flows into gold and have the potential to unleash accumulated ETF holdings back into the market, pressuring prices. Longer term, we're more optimistic, as we expect rising Chinese and Indian jewelry demand to fill the gap of shrinking investor demand for the yellow metal. ■■■

Elizabeth Collins, CFA, does not own shares in any of the securities mentioned above.

Credit Market Insights: Bond Indexes Perform Well in a Quiet Market

Credit spreads remain tight as volatility declines to near-record lows.

By Dave Sekera, CFA
Managing Director
Corporate Bond Strategist

- ▶ Volatility declines toward near-historical lows.
- ▶ Yield curve flattens despite rising federal-funds rate.
- ▶ Corporate credit spreads remain near the tightest quartile they have registered over the long term.

Fixed-income indexes performed well during the second quarter of 2017. Long-term fixed-income indexes easily outperformed short-term, as long-term yields have declined while short-term rates have risen, resulting in a flattening yield curve. Corporate bond indexes also performed well, as credit spreads have continued to tighten over the course of the second quarter as asset volatility has declined toward near-historic lows. A combination of factors has supported corporate credit markets: generally improving credit metrics, fewer debt-funded M&A or shareholder enhancement programs, and the market's expectation of possible Trump administration revisions to tax and regulatory policies reinvigorating economic growth and earnings.

Morningstar's Core Bond Index, our broadest measure of the fixed-income universe, rose 2.10% in the second quarter through June 23. A combination of the yield carry on the underlying securities and the positive impact that lower long-term interest rates and tighter credit spreads have on bond prices has generated the return. The Short-Term Core Index has risen only 0.54% thus far this quarter as rising short-term interest rates pressured returns; whereas, the Intermediate Core index and the Long-Term Core Indexes have risen 1.58% and 4.83%, respectively, benefiting from declining long-term interest rates. Representative of the Treasury market, the Morningstar U.S. Government Bond Index rose by 1.90%, and the Morningstar Agency Bond Index rose 1.35%. The laggard this quarter was the Morningstar TIPS Index, which rose only 0.32% as inflation expectations have moderated along with the price of oil.

In the corporate bond market, the Morningstar Corporate Bond Index (our proxy for the investment-grade bond market) rose by 3.02%, bolstered by a decrease in long-term interest rates and tightening credit spreads. In the high-yield market, the Bank of America Merrill Lynch High Yield Master Index rose 1.84%, as declining long-term interest rates did not have as much of an impact on the high-yield market because of its shorter duration. In Europe, the Morningstar Euro Corporate Bond Index rose 0.95% as tightening credit spreads helped to bolster its return.

The emerging-markets fixed-income indexes posted solid returns in the second quarter, benefited by the low-volatility environment. The Morningstar Emerging Market Composite Index rose 2.16%, as the

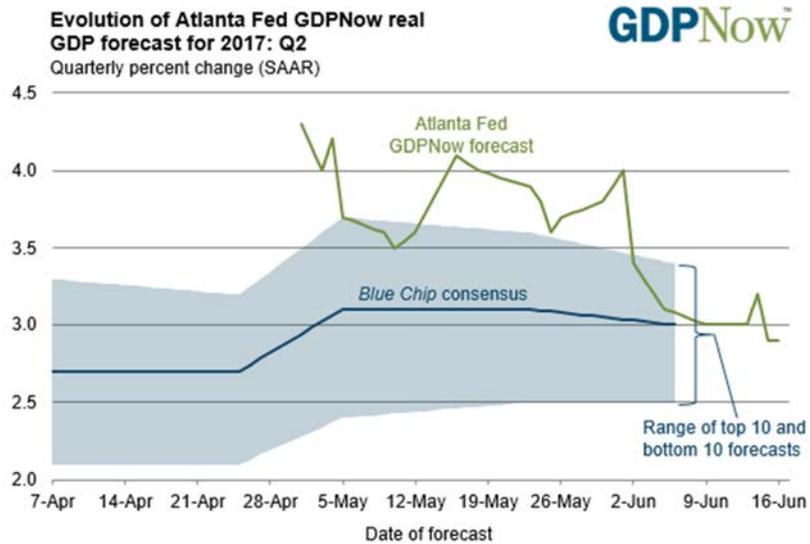
underlying Morningstar Emerging Market Sovereign Index rose 2.80% and the Morningstar Emerging Market Corporate Index rose 1.73%.

Exhibit 1 Fixed-Income Index Returns

	QTD	YTD	2016	2015	2014	2013	2012
Broad Market Index							
Core Bond	2.10	2.96	2.64	0.98	6.07	-1.89	4.41
Short-Term Core	0.54	1.05	1.46	0.79	1.04	0.57	1.75
Intermediate Core	1.58	2.26	2.22	1.96	5.56	-1.07	4.25
Long-Term Core	4.83	6.44	5.10	-1.55	15.10	-6.88	8.32
Sector Indexes							
US Gov't Bond	1.90	2.65	0.97	0.91	5.08	-2.74	1.98
Agency	1.35	2.14	1.67	0.72	3.01	-1.03	1.96
Corporate Bond	3.02	4.44	5.81	-0.46	7.20	-1.50	10.54
BofAML High Yield Master II	1.84	4.60	17.49	-4.64	2.50	7.42	15.58
Eurobond Corp	0.95	1.04	4.66	-0.59	8.35	1.94	12.67
TIPS	0.32	1.71	4.68	-1.60	3.95	-8.53	6.93
Emerging Markets Indexes							
Emerging Mkt Composite	2.16	5.69	9.94	0.62	5.06	-4.39	16.25
Emerging Mkt Sovereign	2.80	6.89	9.25	1.15	7.69	-3.40	13.75
Emerging Mkt Corporate	1.73	4.99	11.30	0.08	3.47	-2.81	15.32

Source: Morningstar, Inc., Bank of America Merrill Lynch Global Indexes. Data as of June 23, 2017.

Part of the lack of volatility in the marketplace thus far this year has been due to ongoing lackluster economic growth. Real GDP in the United States expanded only by 1.2% in the first quarter. Second-quarter growth is expected to accelerate from the sluggish pace of the first quarter. For example, currently, the GDPNow estimate for second-quarter GDP produced by the Federal Reserve Bank of Atlanta is 2.9%.

Exhibit 2 GDPNow—Federal Reserve Bank of Atlanta

Source: Federal Reserve Bank of Atlanta

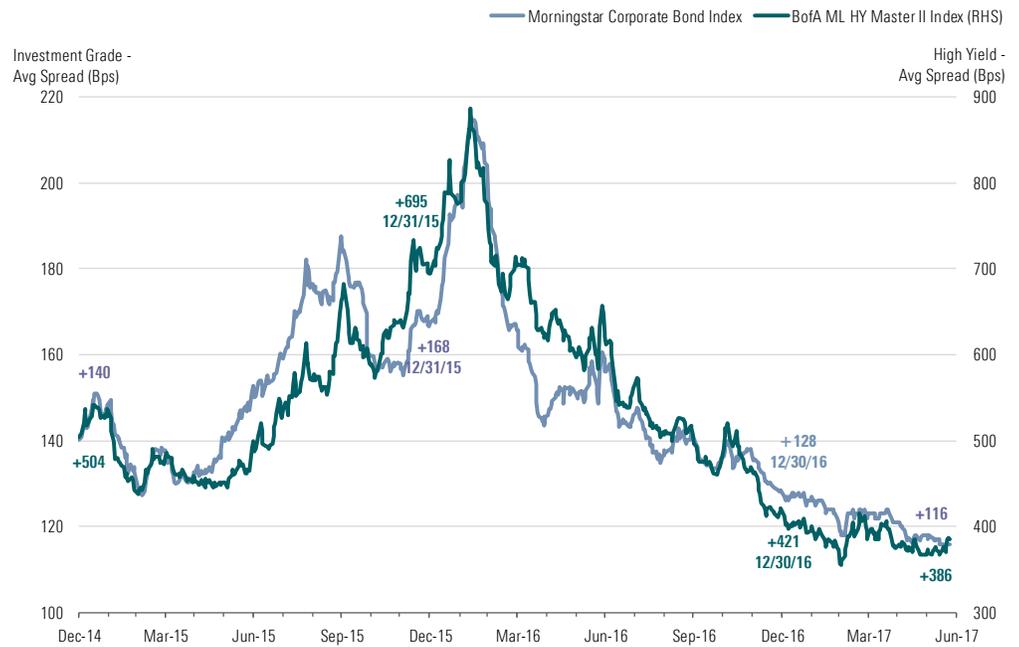
Although growth may accelerate in the second quarter, that acceleration may be short-lived. Morningstar Research Service LLC's Director of Economic Research Robert Johnson, CFA, provided a midyear update to his economic forecasts in a June 23 video, [Midyear Economic Forecast: Lower Inflation, Slow Growth](#). Generally, Johnson reiterated most of the projections he made at the beginning of the year, but he did lower his estimate for core inflation to range between 1.8% and 2.0%. Otherwise, Johnson still expects real GDP growth for 2017 to range between 1.75% and 2% and established a new forecast for economic growth in 2018 to also range between 1.75% and 2%. The prior week, Johnson had stated that he thinks the Fed will not hike the federal funds rate this year, and in his view, it is more likely that the Fed will begin its program to reduce the size of the Fed's balance sheet as early as the September FOMC meeting. According to Johnson, the Fed's plan will be to halt reinvesting the principal on maturing bonds to the tune of \$10 billion a month. Yet, the Fed's goal will be to increase the portfolio roll-off to \$50 billion per month, which is an annualized rate of \$600 billion. Considering that the Fed's balance sheet is well north of \$4 trillion, and it would likely want to keep about \$1 trillion of assets on its books, this wind-down would occur over multiple years.

Corporate Credit Spreads Continue Tightening Trend in the Second Quarter

Since the end of last quarter, through June 23, the Morningstar Corporate Bond Index, our proxy for the investment-grade bond market, tightened 7 basis points to +116; whereas the Bank of America Merrill Lynch High Yield Master Index tightened only 6 basis points to +386. The main impetus for the underperformance of credit spread tightening by the high-yield market as compared with the investment-grade market was the decline in oil prices to approximately \$43 per barrel over the course of the second quarter. At this level, oil prices are near their lowest levels since last November. As oil prices

dropped, the credit spread of the high-yield energy sector widened 115 basis points this quarter to +546; whereas, the energy sector in the investment-grade sector widened only 6 basis points. The average spread of the high-yield energy sector first breached +500 on June 16, which was the first time credit spreads had risen above that level since last November, when oil had last fallen below \$45 per barrel. Year to date, the energy sector has tightened one basis point in the investment-grade market and has widened 97 basis points in the high-yield market.

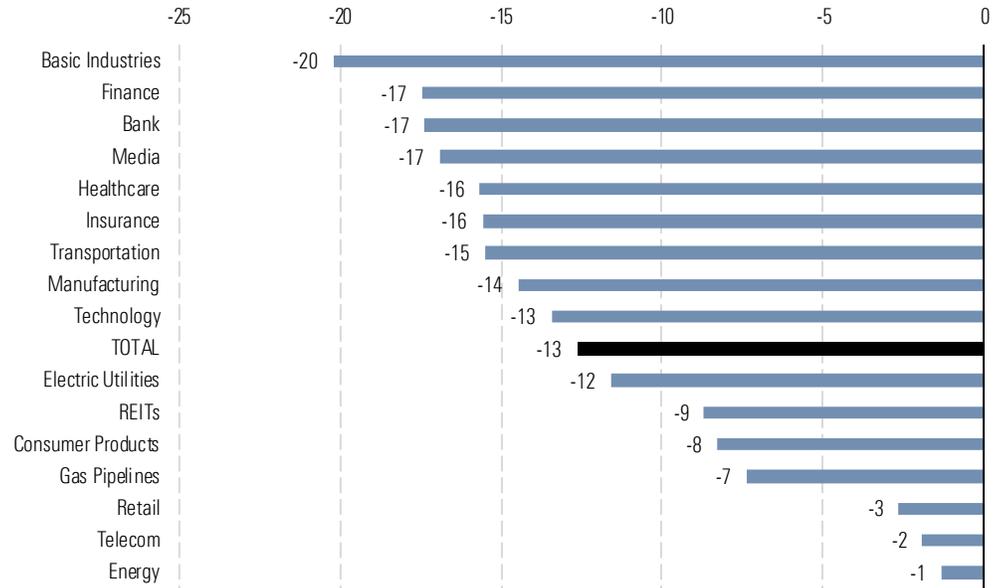
Exhibit 3 Corporate Bond Credit Spreads



Source: Morningstar, Inc., Bank of America Merrill Lynch Global Indexes. Data as of June 23, 2017.

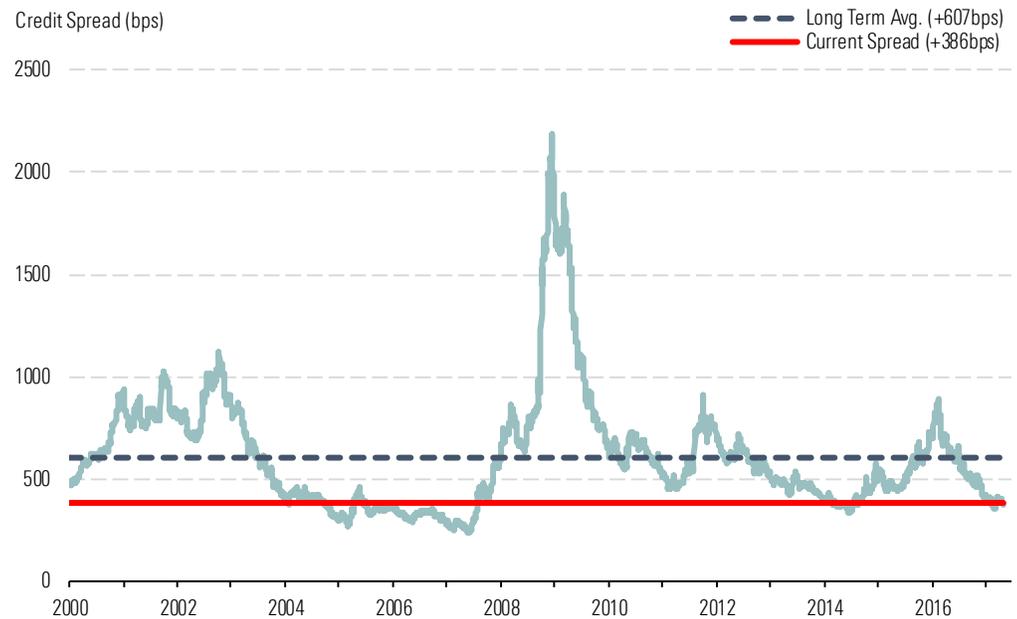
Other than the underperformance in the energy sector, year to date, the retail and telecommunications sectors have performed poorly. In the retail sector, lower same-store sales and a shift away from traditional retailers to e-commerce have led to declining credit quality. In the telecommunications sector, the decline in credit quality has mainly been self-inflicted, as management teams look to increase growth through strategic acquisitions, which have been funded by greater amounts of debt, leading to worsening credit quality. Some of the best performance in the corporate credit markets have been in the cyclical sectors such as basic materials and transportation.

Exhibit 4 Morningstar Corporate Credit Index YTD Spread Change



Source: Morningstar, Inc. Data as of June 23, 2017.

At current levels, both the investment-grade and high-yield indexes are trading much tighter than their long-term historical averages. Since the end of 1998, the average spread of our investment-grade index is +167, and since the end of 1996, the average spread of the high-yield index has averaged +607. As an indication of how tight corporate credit spreads have become compared with their historical averages, since the beginning of 2000, the average spread of the Morningstar Corporate Bond Index has registered below the current level only 24% of the time. In addition, not only are credit spreads tighter now than in much of the recent past, the average credit quality of the Morningstar Corporate Bond Index is lower than it has been much of the time. Currently, the average credit quality of the Morningstar Corporate Bond Index is A-; whereas since 2000, the average credit quality has been either closer to, or a single A for much of the time.

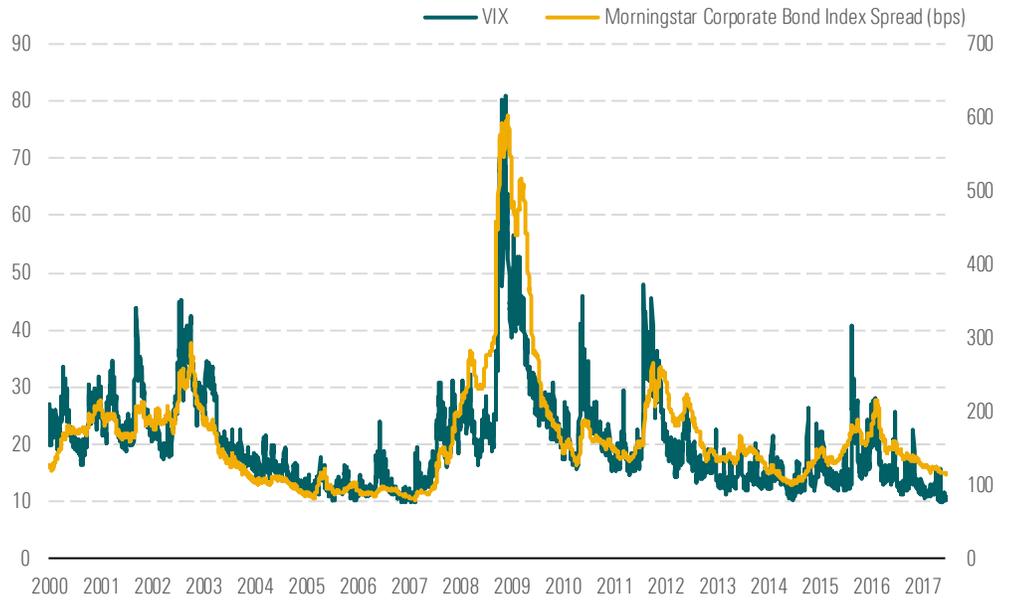
Exhibit 5 Morningstar Corporate Bond Index Average Credit Spread

Source: Morningstar, Inc. Data as of June 23, 2017.

Volatility in the asset markets has been steadily declining and is bouncing around near new historic lows. Among the factors that have helped suppress volatility is a lack of many surprises in the first-quarter earnings season, which saw results generally within the range of expectations. From an economic point of view, while GDP was weak in the first quarter, it is expected to rebound in the second quarter. Although we may see a rebound this summer, merger and acquisition activity has also been generally quiet over the past few weeks. Even geopolitical risk has quieted down over the past few months. As markets expected, Macron won the French election, Brexit negotiations have not yet yielded any negative surprises, the ECB is maintaining its quantitative easing policy for now, and the rhetoric surrounding North Korea has subsided.

In the equity market, the CBOE Volatility Index (which measures the market expectations of near-term volatility as conveyed by S&P 500 stock index option prices) declined to as low as 9.8 on May 8. Although this may not be a new historical low, there have been only three instances since 1990 in which the index has registered lower. Market volatility and corporate credit spreads have been highly correlated over time. Based on the average spread of the Morningstar Corporate Bond Index since 1990, the VIX and investment-grade credit spreads have an r-square of approximately 85%.

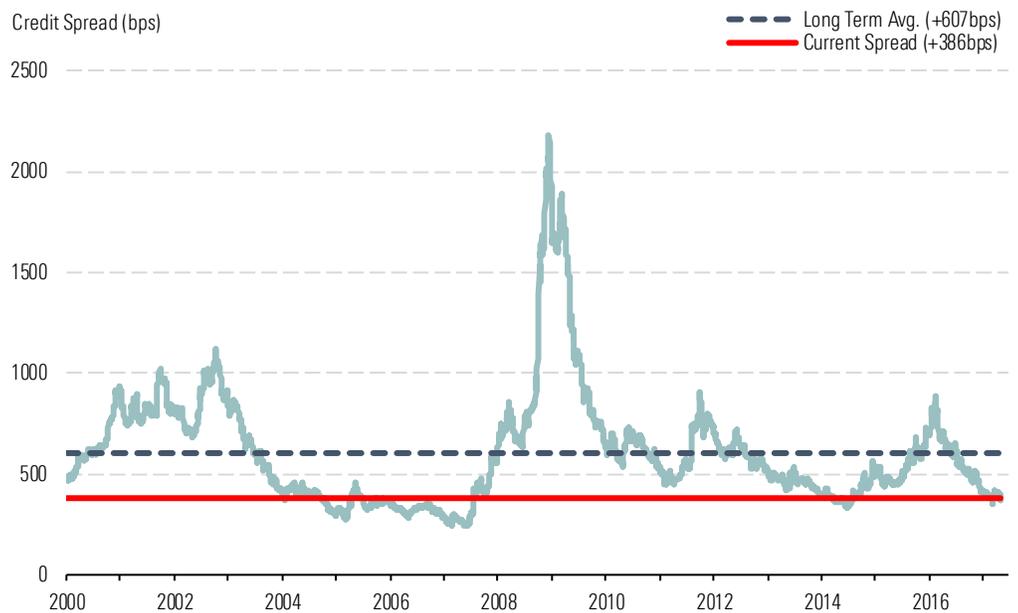
Exhibit 6 VIX Index vs Morningstar Corporate Bond Index Spread



Source: CBOE, Morningstar Inc. Data as of June 23, 2017.

In the high-yield market, the average spread of the Bank of America Merrill Lynch High Yield Master Index has registered below its current level less than 19% of the time over the past 17 years.

Exhibit 7 Bank of America Merrill Lynch U.S. High Yield Option-Adjusted Spread



Source: Bank of America Merrill Lynch Global Indexes. Data as of June 23, 2017.

Most of the time that these corporate bond market indexes were tighter than the current credit spread was during the buildup to the 2008-09 credit crisis. In 2004 through 2007, corporate credit spreads were pushed to new historically tight levels as new structured investment vehicles were engineered to arbitrage the differentials in expected default risk; however, once the credit crisis emerged, investors found that many of these vehicles did not perform as advertised. ■■

Basic Materials: Propped Up and Too Expensive

Bolstered by unsustainable, debt-fueled Chinese construction spending, much of the sector is overvalued.

By Daniel Rohr, CFA
Director of Basic Materials Equity
Research

- ▶ On a market-capitalization-weighted basis, our basic materials coverage trades at a 24% premium to our estimate of intrinsic value, making it the most expensive sector we cover.
- ▶ Mining shares have faltered as the effect of China's stimulus has waned, but most still look expensive; so, too, do U.S. steel stocks, which had enjoyed a China-led and Trump-abetted runup.
- ▶ We see comparably less downside among gold miners, but we expect rising real interest rates to curtail investor demand for gold in the quarters to come.
- ▶ Regulators continue to take a light-handed approach to business combinations in the seeds and crop chemicals industries; each of the three big deals announced in 2016 should close this year.
- ▶ Despite temporary hiccups, U.S. construction continues to build momentum; the long-term outlook remains bright for lumber and aggregates companies hitched to this wagon.

With few exceptions, we continue to see mined commodity and miner share prices as overvalued. After a very strong start to the year, the markets for mined commodities have generally softened. Market attention has turned from the tailwind of last year's fiscal stimulus in China and enthusiasm around U.S. President Donald Trump to the headwind posed by structural change and the reduced importance of fixed-asset investment for China's future economic growth.

The second quarter of 2017 saw a meaningful correction in mined commodity prices, particularly for iron ore. The benchmark 62% iron ore spot price of \$54 per metric ton is down nearly 40% from the buoyant first quarter of \$85 per metric ton. With further low-cost additions looming, demand from China likely to be anemic, and port stockpiles at high and still-rising levels, the market continues to look oversupplied longer term. Coking coal has fared better, with the disruption to Australian supply from Cyclone Debbie sending the spot price above \$300 per metric ton. However, spot markets have quickly cooled as supply has recovered, and we now expect long-term drivers to reassert on the market.

For similar reasons, we're pessimistic on steel. Trump's protectionist leanings, highlighted by an announced investigation into whether high volumes of imported steel represent a threat to U.S. national security, have proved to be a boon to steelmaker stock prices in 2017. We contend that weak fundamentals will eventually win out, however, as substantial global overcapacity and decelerating fixed-asset investment in China will weigh on steel prices. As Chinese stimulus measures have tapered, so have steel and steelmaking raw material prices. In the near term, U.S. steelmaker profits should

remain attractive, but we see tougher times ahead. Based on our outlook, every U.S. steelmaker we cover is trading above fair value.

Investor demand continues to prop up gold prices at \$1,200 to \$1,300 per ounce, with ETF gold holdings largely recovered to levels last seen before the December 2016 rate hike. But as the Federal Reserve continues to pursue rate increases, prices look primed to fall. With the 10-year U.S. Treasury now yielding 2.2% and market inflation expectations at 1.8%, real interest rates are in positive territory, raising the opportunity cost of gold ownership. Additional rate hikes by the Fed would further discourage investor flows into gold and has the potential to unleash accumulated ETF holdings back into the market, pressuring prices. Longer term, we're more optimistic, as we expect rising Chinese and Indian jewelry demand to fill the gap of shrinking investor demand for the yellow metal. We see limited opportunities in gold miners and caution that even undervalued companies are likely to face near-term headwinds.

Two of the three big pending deals in the seeds and crop chemicals industries moved closer to fruition in the second quarter. After the European Commission's approval, ChemChina announced it had had tendered around 95% of **Syngenta's** SYT shares and would begin the delisting process. The merger of **Dow Chemical** DOW and **DuPont** DD now looks set to close in the second half of 2017 after clearing European and U.S. regulatory hurdles. To facilitate European approval, DuPont agreed to part with its crop protection chemicals business in an asset exchange with **FMC** FMC.

While we think the Dow-DuPont combination benefits shareholders of both forms, we are somewhat skeptical of management's projected revenue synergies related to the combined agricultural segments, as we see limited benefit from the combination of a seed and crop chemicals operation as GMO seeds have mixed effects on crop chemical demand. For instance, a seed that has been modified to contain herbicide-resistant traits is likely to create greater demand for herbicides, but a seed that has been modified with insect-resistant traits is likely to reduce demand for insecticides. Regulatory approvals of these two deals bode well for Bayer's BAYRY proposed acquisition of Monsanto MON, which involves little product overlap. We expect this transaction to close as planned before the end of 2017.

Residential construction in the U.S. lost some steam in the second quarter, but much of the deceleration can be chalked up to a mixture of labor and land constraints rather than demand troubles. We expect activity to rise more rapidly during the second half of 2017, as tighter inventory of existing homes puts upward pressure on pricing, and higher prices induce more homebuilding. With U.S. housing starts running at a pace of 1.19 million units through May, we think there's a far larger recovery ahead, as starts advance to just under 2 million units by 2021.

A rising tide in U.S. housing has helped lift lumber prices, which have trended above \$400 per thousand board-feet, up roughly 14% versus the prior year. In part, this has been a function of the recently imposed softwood lumber tariffs, averaging around 20% on the value of lumber shipped to the U.S. from Canada. Given that a substantial portion of lumber consumed in the U.S. originates in Canada, this has lifted North American lumber prices. Although this still has a negative impact on Canadian lumber

producers **Canfor** CFP and **West Fraser Timber** WFT, it's partially offset by higher margins on their U.S. operations.

U.S. nonresidential construction has continued to build momentum in 2017. U.S.-focused aggregates and concrete stocks rallied heavily after reporting significant first-quarter gains in volumes, price increases, and margin expansion. Though global cement companies cited similar strength in their U.S. operations, weaknesses in other parts of the globe hamstrung overall results.

We continue to believe that the U.S. construction market has even more growth to come, as housing demand rises and infrastructure repair and improvement activity picks up. Although the Trump administration touted plans for increased spending during its "infrastructure week" in early June, larger political issues stole public attention and weakened the impact of the announcements. In addition, the administration's plans continued to lack sufficient detail, while also still heavily relying on politically polarizing privatization.

Top Picks

Cameco CCO

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: CAD 24.00

Fair Value Uncertainty: High

5-Star Price: CAD 14.40

We think the market is mispricing narrow-moat uranium miner Cameco. Uranium offers a rare growth opportunity in metals and mining. China's structural slowdown portends the end of a decadelong boom for most commodities—but not for uranium. China's modest nuclear reactor fleet uses little uranium today, but that's set to change in a major way. Beijing is pivoting to nuclear to reduce the country's heavy reliance on coal. We believe the market overemphasizes the current supply glut caused by delayed Japanese reactor restarts, and this situation won't last much longer. We expect global uranium demand to grow 40% by 2025, a staggering amount for a commodity that saw near-zero demand growth in the past 10 years. Supply will struggle to keep pace. We believe uranium prices will rise from about \$30 a pound currently to \$65 a pound (constant dollars), as higher prices are required to spur new mine investment. As one of the largest and lowest-cost producers globally with expansion potential, Cameco should benefit meaningfully from higher uranium prices.

Compass Minerals CMP

Star Rating: ★★★★★

Economic Moat: Wide

Fair Value Estimate: \$88.00

Fair Value Uncertainty: Medium

5-Star Price: \$61.60

Compass Minerals produces two primary products: deicing salt and sulfate of potash, a specialty fertilizer. We think the company has carved out a wide economic moat based on cost advantage, thanks to its massive rock salt mine in Goderich, Ontario, which benefits from both location and geology advantages. The company also sits toward the low end of the cost curve in specialty potash. After a couple of mild winters in Compass' important U.S. Midwest markets, the company's profits have been dented, and high customer inventories darken the near-term outlook for salt volumes and pricing. However, over the long run, we think a return to more normal snow in the Midwest, and thus more normal salt volumes for Compass, will spark a rebound in shares. Further, we think the market may be underappreciating the company's ability to control unit costs, as recent capital improvements at Goderich are set to put a lid on Compass' future salt costs.

Hi-Crush Partners HCLP

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$17.50

Fair Value Uncertainty: High

5-Star Price: \$10.50

Hi-Crush is one of the top four public proppant suppliers, which we collectively expect to supply 54% of all proppant demand in 2020, up from 40% in 2014. This increase can largely be attributed to organic greenfield and brownfield capacity expansion from these lower-cost producers. We expect Hi-Crush to increase its Northern White proppant tons supplied to 7.2 million in 2020 from 4.5 million in 2014. Fears about expanding low-cost frac sand supply have led to an overly negative view on frac sand pricing at the mine, leading to a general undervaluation of frac sand producers. We feel that these fears are overblown, however, given that the recently announced new mines as well as existing sources of regional sand are all confined to a relatively small, unique geographic area. This pattern doesn't portend that a wave of new mines across Texas will push out Northern White supply, as current market pricing seems to indicate. ■■

Daniel Rohr, CFA, has a position in the following securities mentioned above: CMP MON.

Communication Services: AT&T and Verizon — A Duopoly No More

AT&T and Verizon still own industry economics, but T-Mobile is now dictating the rules.

By Brian Colello, CPA
Director of Technology, Media, and
Telecom Equity Research

- ▶ Overall, we view the communications services sector as fairly valued at a market-cap-weighted price/fair value of 1.01.
- ▶ **AT&T** T and **Verizon** VZ still own industry economics, but **T-Mobile** TMUS is now dictating the rules.
- ▶ Fixed-line telecom convergence continues to increase in Europe.

Although Verizon remains the leader in the U.S. wireless market, we believe that its duopoly with AT&T is being undermined at the margins by T-Mobile and **Sprint** S. Disruptive actions by these two smaller rivals, such as offering unlimited data plans, threaten to make overall U.S. telecom industry economics less attractive and conflict with Verizon's core strategy of leading with network quality and monetizing increasing amounts of data traffic. Although Verizon still benefits from a cost advantage over these smaller rivals and will still earn returns above its cost of capital, we expect Verizon's ability to command premium pricing to decrease, which we believe will constrain the firm's returns.

As the U.S. wireless market matures, AT&T has pursued large acquisitions in order to grow and diversify revenue. First, with the DirecTV acquisition, AT&T aims to cross-sell video offerings with its wireless service in the hopes of reducing churn and extracting increased value out of its subscriber base through strategies such as bundled packages. Second, with the pending **Time Warner** TWX acquisition, AT&T hopes that vertical integration will provide both revenue synergies and cost efficiencies in content-rights negotiations. We think AT&T paid a rich price for DirecTV, an asset that we believe delivers minimal benefits to the core telecom business, and we fear that the firm's horizontal and vertical expansion efforts will prevent returns from meaningfully exceeding its cost of capital.

T-Mobile is the top organic growth story among U.S. telecoms, coming off of three-plus years of industry disruption and outsized share gains. T-Mobile is the only large U.S. carrier growing wireless service revenue, and though we doubt the firm can keep growing wireless service revenue in the double digits, mid-single-digit growth appears achievable, versus declining revenue for the industry as a whole. As T-Mobile benefits from recent volume growth, we believe that the firm is approaching a multiyear ramp in profitability and free cash flow. In addition, T-Mobile presents added upside given its strategic appeal to potential partners.

Fixed-Line Telecom Convergence Continues to Increase in Europe

The convergence of fixed-line telecom services, which can include traditional telephone service, broadband, and pay-TV service, with wireless telephone service continues to increase in Europe. Carriers benefit from convergence via reduced churn and lower customer marketing and retention costs.

Spain remains furthest along this path, with around 80% of its broadband subscribers also taking wireless services in a packaged deal from the same operator. Other countries are following suit, with large amounts of bundled services in Belgium and the Netherlands. One of the drivers for **Vodafone** VOD and **Liberty Global** LBTYA joining their Dutch assets at the end of 2016 into a joint venture was to create a company that could go head to head in all areas and bundles with incumbent operator **KPN** KKPNY.

In France, operators are laying fiber to enhance their broadband speeds in an attempt to distinguish their networks and drive both fixed-line and wireless subscriber growth. In Germany, Vodafone has completed the integration of Kabel Deutschland and is increasingly offering bundled services that combine broadband and pay TV from Kabel Deutschland with its traditional wireless service.

Although the U.K. has been slow to move toward convergence, we expect this to increase as BT finishes up the integration of EE, which provides it with wireless capabilities on top of its traditional fixed-line offerings. As customers begin to move to bundled offerings by those companies that first offer them, other operators tend to follow. We anticipate this trend lasting for several years.

Top Picks

China Mobile CHL

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$67.00

Fair Value Uncertainty: Medium

5-Star Price: \$46.90

We expect narrow-moat China Mobile to generate underlying earnings per share growth of high single digits annually over the next five years, putting it toward the upper end of Asia-Pacific telecom companies in terms of growth. We expect China Mobile's strong market share gains in broadband and from moving to 4G mobile technology to drive this growth. Also driving growth are the upgrading of around 25% of its customer base to phones supporting mobile data, cost savings from the tower company, and a potential rerating in its stake in the tower company when it lists.

Telefonica TEF

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$14.50

Fair Value Uncertainty: High

5-Star Price: \$8.70

Telefonica is leading the European communications market into converged services. Additionally, it is laying extensive amounts of fiber to better compete with cable operators in providing fixed broadband services. It acquired E-Plus in Germany and GVT in Brazil, which strengthens its position in both countries and provides lots of opportunities for cost savings. We don't believe the market appreciates how well the firm is positioned and its margin expansion opportunities, which has caused its stock to trade around a 25% discount to our fair value estimate.

Millicom International Cellular MIICF

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$83.00

Fair Value Uncertainty: High

5-Star Price: \$49.80

Despite the decline in the stock due to the Colombian peso's weakness in 2015 and 2016, Millicom is still one of our Best Ideas. We expect the acquisition of UNE, the second-largest cable-TV operator in Colombia, and other smaller cable systems in other countries to enable Millicom to generate revenue growth again starting in 2018. We expect the firm to generate average organic revenue growth in local currency terms of about 3.4% from 2018 to 2021, which remains one of the fastest growth rates of the European communication companies we cover. On an enterprise value/EBITDA basis, Millicom trades at about 4.4 times our estimate of 2017 EBITDA, one of the lowest in our European coverage. The stock also yields in excess of 4%, a dividend that we believe is safe. ■■

Brian Colello, CPA, does not own shares in any of the securities mentioned above.

Consumer Cyclical: Amazon Reshapes Retail in Real Time

The consumer cyclical sector looks fairly valued, as restaurants and travel-related stocks help offset the carnage in retail following Amazon's bid to acquire Whole Foods.

By R.J. Hottovy, CFA
Consumer Strategist

- ▶ On the surface, consumer cyclical sector valuations remained relatively flat in the second quarter, with a market-weighted-average price/fair value ratio of 1.01, coming in just ahead of last quarter's 1.00. However, price movements varied widely across the cyclical categories, with restaurants and travel-related stocks helping offset the carnage across the retail sector resulting from **Amazon's** **AMZN** bid to acquire **Whole Foods** **WFM**.
- ▶ Despite making inroads into grocery and apparel the past several years, we believe Amazon's Whole Foods acquisition and Amazon Wardrobe represent the most significant moves to date in removing key barriers to accelerate growth in these large retail categories, adding credibility in fresh food through Whole Foods' suppliers and making apparel returns an effortless process.
- ▶ Not surprisingly, we believe the U.S. retail category may be overstored because of these disruptive moves from Amazon, with **Target** **TGT**, traditional grocers, department stores, and apparel retailers likely the most exposed to the company's recent moves.
- ▶ That said, we believe there are a handful of traditional retailers offering some combination of product specialization, convenience, and experience that have been excessively punished by the market.

On the surface, consumer cyclical sector valuations remained relatively flat this quarter, with a market-weighted-average price/fair value ratio of 1.01, coming in just ahead of last quarter's 1.00. However, price movements varied widely across the cyclical categories, with restaurants and travel-related stocks helping to offset the Amazon-related carnage across the retail sector.

Although no consumer cyclical name is completely immune to Amazon's disruptive potential—a consideration behind the company's wide economic moat rating—we also find a handful of retail concepts that can withstand this competitive threat that may have been excessively penalized by the market.

Amazon's \$14 billion acquisition of Whole Foods marks its most significant push into the grocery category, but likely left some investors scratching their heads after more than two decades of building an e-commerce empire without physical stores. What's more, Amazon followed this announcement with Amazon Wardrobe, a service that will allow Prime members to try on clothing, footwear, and accessories at home and return unwanted items using a prepaid box.

Despite Amazon making inroads into grocery and apparel over the past several years, we believe these are the most significant moves to date in removing key barriers to accelerate growth in these large retail categories, adding credibility in fresh food through Whole Foods' suppliers and making apparel returns an effortless process. We also view these developments as more than just an expanded push into the new categories, offering new sources of customer data that Amazon's rivals can't match while enhancing the network effect underpinning our wide moat rating.

In our view, Amazon's Prime membership platform is why these developments have a high probability of success. As of the most recent quarter, we estimate that there were close to 100 million Prime members globally, with more than 60 million in the U.S. With this level of engagement—our analysis suggests that retention rates for Prime memberships exceeds 90%—we believe Amazon will use services like Wardrobe as a new Prime membership tool while using Whole Foods to migrate existing Prime members to Prime Fresh memberships (which run \$14.99 per month in addition to the \$99 annual fee for traditional Prime members). We've discussed the importance of Amazon Prime membership fees and adding new third-party vendors in driving the company's retail profitability in the past, and we believe this shift will help Amazon's retail margins move to mid-single-digit operating margins over time (compared with 3.0% in 2016).

Like Amazon's other physical store tests, we believe Whole Foods and Amazon Wardrobe offer intriguing outlets to showcase Amazon's existing and future private-label brands. While Amazon's AmazonBasics and Amazon Essentials platforms are relatively well-known and could find their way to Whole Foods shelves in the near future, we believe the greater opportunity will ultimately be in Amazon's packaged food and household product private labels, such as Happy Belly, Mama Bear, and Wickedly Prime. Combined with the ability to sell Whole Foods' 365 label to existing Prime customers, we believe Amazon could develop a grocery private-label presence that rivals other leading retail defensive competitors over the next decade. With respect to apparel, Amazon has quietly built out a portfolio of brands spanning women's, men's, and children's apparel, each of which will likely have key placement on the Amazon Wardrobe platform.

Although we don't anticipate wholesale changes to Whole Foods stores—especially since Whole Foods management (including CEO John Mackey) will remain largely in place—we expect them to become testing grounds for many new Amazon products and services in the years to come. The most likely examples of new retail technologies implemented will be the "Just Walk Out" technology piloted at the Amazon Go test store in Seattle (which detects when products are taken from shelves and tracks purchases via a virtual shopping cart on the Amazon Go mobile app, which is scanned as consumers enter the store), greater in-store targeted marketing opportunities via mobile devices, and showcasing Alexa/Echo products within the stores. However, we believe Amazon has near-endless optionality in which it could use Whole Foods stores, including developing new payment solutions, expanding its meal-kit offerings, or even developing virtual restaurants.

With our positive outlook regarding the Amazon/Whole Foods transaction and Amazon Wardrobe, the natural question is which competing retailers are most at risk? We believe **Wal-Mart** WMT is likely the

best positioned to weather the front, given its 4,700 stores, relationships with suppliers, pricing, and improving logistics capabilities via Jet.com. We also believe that **Costco** COST and traditional grocers with meaningful gas businesses like **Kroger** KR have some insulation, at least over the medium term.

That said, we suspect that Target, traditional grocers without gas operations, and even dollar stores have already begun to rethink their online strategies, as it is becoming clear that Amazon will be a more disruptive force in grocery over the next several years. We also believe department stores and other traditional apparel retail stores could find it difficult to replicate a program like Amazon Wardrobe given the logistics costs, making Amazon Prime an indispensable channel to reach consumers (which likely explains rumors that **Nike** NKE is exploring a direct sales relationship with Amazon).

Not surprisingly, we believe the U.S. retail category may be overstored in light of these disruptive moves from Amazon. According to the International Council of Shopping Centers, the United States has 23.5 square feet of retail space per person compared with 16.4 square feet in Canada and 11.1 square feet in Australia, the next two highest. This does not appear to be sustainable, and CoStar Portfolio Strategy believes that retailers need to rationalize nearly 1 billion square feet of U.S. store space (10%) in order to reverse the trend in declining sales per square foot. This could be done through rent reductions, closures, or conversions to other categories. American retailers are closing stores at a record pace, with 2,880 announced as of April, more than double the number from the same period in 2016. If the pace continues, more retailers will close shop than during the 2008 recession. At the start of the last decade, a basket of publicly traded retailers produced retail sales of more than \$350/square foot versus less than \$330/square foot today.

That said, we think there are three ways traditional retailers can compete with Amazon: specialization, convenience, and experience. Although it's not easy to implement each of these qualities into a retail concept, the companies that can combine a specialized product assortment (including home improvement and auto-parts retailers, which offer unique, often hard-to-ship products), a convenient omnichannel (in-store, mobile, and online) approach to ordering and fulfillment, and experiential retail environments are the best positioned to at least keep Amazon at bay over the immediate future. For this reason, we believe the market has overreacted on names such as **Williams-Sonoma** WSM and **Tractor Supply** TSCO, which are now some of the most attractively priced names in our consumer cyclical coverage.

Top Picks

TripAdvisor TRIP

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$67.00

Fair Value Uncertainty: High

5-Star Price: \$40.20

We believe near-term growth headwinds resulting from TripAdvisor's global rollout of its Instant Booking platform and increased metasearch competition have presented a sufficient margin of safety for investors looking to take a position in this narrow-moat company. Despite recent headwinds, we contend the firm is poised to benefit from industry online travel bookings growth longer term, which we expect to average high-single digits annually over the next several years.

TripAdvisor faces a few near-term challenges. To begin, the company's sales growth in the second quarter of 2017 will likely see negative impact from temporary testing of a new website user interface, which can cause conversion disruption. Additionally, the company will be transitioning away from some marketing channels during the second quarter, ahead of a TV campaign launch. Other headwinds include competition and educating customers on the company's network capability, resulting in higher near-term marketing expense, which we model to average 57% of total revenue the next three years versus 46% reported the previous three years. Also, revenue has slowed recently as there is a learning process to improving Instant Booking conversion, and the direct booking platform shifts revenue recognition out until a stay has occurred versus the company's core metasearch platform, which records sales upfront.

That said, we believe Instant Booking enhances the user experience (no re-entering of information and more accurate pricing and availability), which, along with TripAdvisor's solid network advantage, should lead to accelerating revenue in 2017 to a low-double-digit level that is sustained over the next several years. We believe our forecast is supported by resumed platform revenue growth in the United States after the region lapped the Instant Booking launch in August 2015 and management's commentary of improving conversion.

Williams-Sonoma WSM

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$76.00

Fair Value Uncertainty: Medium

5-Star Price: \$53.20

Narrow-moat Williams-Sonoma's shares have declined about 10% over the last year, as high-end home furnishing peers have forced an increasingly promotional environment, pressuring the firm's ability to

generate higher merchandise margins. Coming off inventory mismatches due to West Coast port delays in 2015 and increased discounting in 2016, Williams-Sonoma appears better positioned than its peers to meet consumer demand, thanks to its robust trove of consumer analytics that allows the company to forecast unit demand on a more localized level, but margins remain compressed from industrywide discounting. Although some pricing pressure from peers could persist, we believe Williams-Sonoma's evolving real estate strategy, supply-chain optimization, and still-growing global reach will help returns on invested capital rise to 19% over the next five years (versus our weighted average cost of capital of 9%). We expect store sales will be able to rise roughly 2%-3% on average over the next decade, while e-commerce grows at a faster clip, around 6% on average. These growth rates bring us to top-line growth of 4%-5% over our explicit forecast, in line with the mid-single-digit outlook of the company (but lower than the high-single-digit they would like to reach). With operating efficiencies building as scale ticks up, low-double-digit earnings growth persists throughout the majority of our outlook.

Tractor Supply TSCO

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$84.00

Fair Value Uncertainty: Medium

5-Star Price: \$58.80

In our opinion, narrow-moat Tractor Supply shares have fallen out of favor with investors after reporting earnings shortfalls four of the past five quarters, leading to wavering confidence surrounding execution at the firm. We don't think the brand is tarnished, however—rather, the focus on improved analytics may not be matching the speed of changing weather patterns the company is competing against. We think the leadership team is reacting smartly, following in the footsteps of other successful big-box retailers by focusing its strategic initiatives on the consumer, improving its omnichannel presence, and investing in its supply chain, leading to operating margins that expand to 10.7% over the next five years, from 10.2% in 2016. ■■■

R.J. Hottovy, CFA, does not own shares in any of the securities mentioned above.

Consumer Defensive: Retailer Consolidation Sparks Concerns, but Opportunities Exist

Although growth has been hard to come by, we think worries related to heightened competitive intensity are creating pockets of value.

By Erin Lash, CFA
Director of Consumer Equity Research

- ▶ Consumer defensive valuations generally remain inflated, with the sector trading at about a 6% premium to our fair value estimates, generally in line with the 5% premium in the previous quarter.
- ▶ From our vantage point, the tie-up between **Amazon** AMZN and **Whole Foods Market** WFM stands to further elevate an already-competitive landscape across the retail defensive category.
- ▶ However, we fail to see how the pending deal will constrain consumer product operators, and we believe the combination could actually prove advantageous for manufacturers.
- ▶ Although firms throughout the space remain laser-focused on driving further efficiencies, these efforts to extract costs have failed to offset languishing top-line trends, prompting management teams to pursue more sweeping changes.

Valuations across the consumer defensive sector fail to present a compelling risk/reward opportunity at current levels, trading 6% above our fair value estimates. While the reaction to Amazon's acquisition of Whole Foods drove a broad-based retreat in the shares of firms across the landscape, creating pockets of value, we tend to still view valuations as a bit elevated even after accounting for recent declines.

In our view, a portion of the market's favor for firms throughout the sector reflects speculation about the potential for additional consolidation (particularly given the expressed hunger by **Kraft Heinz** KHC to scoop up additional targets) down the road. We think this supports our contention that long-term investors continue to favor companies that have amassed a sustainable competitive edge, and as a result, those that should be able to offset intense competitive pressures and slowing global growth.

The news in the consumer defensive space this quarter was without a doubt Amazon's decision to acquire Whole Foods in a \$14 billion all-cash transaction. Although the timing of the announcement caught us by surprise, we recognize the strategic benefit — affording Amazon the opportunity to gain a larger brick-and-mortar presence, as well as access to higher-quality fresh food (which stands to benefit its ambitions to expand its fresh grocery offerings).

The longer-term sector implications resulting from the tie-up, however, are more far-reaching. For one, competitive pressure across the retail defensive industry will undoubtedly intensify. Before this deal, we had already been concerned about a tough competitive environment as deflation and the entrance of Aldi and Lidl could hurt margins (factors that were baked into our assumptions). We now think that a Whole Foods/Amazon tie-up could exacerbate the pressure, as we expect Amazon to reposition Whole

Foods more aggressively at lower average price points, leading to additional margin degradation across the space.

And while we believe this heightened competition will take a toll on most established operators, we think wide-moat **Wal-Mart** WMT is best-positioned to survive this new competitive entrant. As evidence, Wal-Mart remains the largest retailer in the world by revenue, with nearly \$490 billion in annual sales. Although Amazon's ownership of Whole Foods could eliminate some of the physical footprint advantage that Wal-Mart held over the digital behemoth, we still maintain that Wal-Mart's approximately 4,700 U.S. stores with existing general merchandise trump Whole Foods' approximately 450 stores carrying only groceries (as opposed to general merchandise—making it less of an online general merchandise fulfillment center).

Further, within the online grocery business, we acknowledge that Amazon Fresh and Instacart (which is used in Whole Foods' online delivery offering and represents around 3% of total sales) should now be able to leverage Amazon's infrastructure to improve the speed and cost of delivery. However, Wal-Mart has also been working to bolster its exposure to the e-commerce channel (acquiring Jet.com last year for \$3 billion, as well as Bonobos, an Internet clothing brand, in June) to gain further insights into the channel and close the gap with its bigger foe. As such, we haven't wavered on our expectation that Wal-Mart is poised as one of the few traditional retailers that can compete in e-commerce and stay relevant over the next decade.

Conversely, we fail to see how the Amazon-Whole Foods deal is a significant negative for consumer product operators. The acceptance of purchasing groceries online has failed to amass much traction until recently in the U.S. (accounting for just a low-single-digit percentage of total sales), and we portend that this deal may accelerate consumer adoption of purchasing through this channel.

Further, the differing assortment mix at Whole Foods (which consists primarily of natural and organic fare) compared with Amazon's existing grocery efforts (consisting mostly of traditional consumer packaged goods) also supports our contention that this combination is unlikely to constrain the negotiating leverage of consumer product firms. Even before this tie-up was inked, we surmised that consumer product operators would need to adapt their go-to-market approach and product mix to support these faster-growing channels or risk missing out on a growing number of purchase occasions—factors that fail to change after the combination.

Similar to what we've seen in physical retail outlets, we continue to believe that consumer packaged goods firms with significant resources to invest behind their brands (both from a product innovation and marketing perspective) can entrench themselves with online retailers and support their brand intangible assets.

In an industry where sales growth has proved elusive as efficiency efforts have taken top billing (particularly after the merger of Kraft and Heinz two years ago), we aren't surprised that consumer product firms are now pursuing more drastic actions to ignite improved financial performance. For one,

in a break with industry norms, **Kellogg** *K* announced earlier this year its intentions to part ways with its direct-store delivery system (taking a page from Hostess' playbook) in favor of moving 100% of its distribution to a warehouse model, an action that was promptly rebuffed by some of its global snack food peers (including wide-moat **Mondelez** *MDLZ*) as unwise. Kellogg management has suggested that an evolving retail landscape (including growing e-commerce penetration) amid intense competitive pressures made now the right time to pounce on this opportunity—reasoning that strikes us as sound.

We believe this shift affords the firm the ability to more effectively reinvest behind its brand set (as opposed to its capital-intensive distribution network) and to further entrench its relationships with retailers (one aspect of its intangible asset), which we view as prudent. However, we doubt the decision to abandon direct-store delivery will materially bolster Kellogg's sales or margin prospects beyond our current expectations, which call for low-single-digit annual sales growth and 300-400 basis points of operating margin expansion to 19% by fiscal 2026. And despite the soundness of its actions, the shares fail to represent a compelling proposition at current levels, trading in line with our valuation at almost 20 times forward earnings.

Top Picks

Kroger *KR*

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$28.50

Fair Value Uncertainty: Medium

5-Star Price: \$19.95

The grocery industry has been plagued by deflation and price cuts lately, partially as Wal-Mart and Amazon work to prompt traffic and in anticipation of Aldi and Lidl entering the U.S. While these challenges are heightened after the tie-up between Amazon and Whole Foods, we surmise that Kroger's sufficient scale, regional market share dominance, and brand equity should enable it to counteract material degradation to either its cost advantage or intangible assets. Kroger is the largest traditional grocer in the United States by revenue at \$115 billion in annual sales, nearly double the level generated by number-two player Albertsons, with \$60 billion. Kroger holds a number-one or -two position in 98 of 120 major and minor markets (three or more stores present), which, paired with its national and local scale, gives it a cost advantage over smaller foes. It also benefits from strong data analytics (amassed over decades) that enables it to tailor its merchandising mix and promotions to more effectively align with customer preferences. We believe the combination of its cost edge and intangible assets positions it well to compete with other mass merchants as well as alternative outlets including e-commerce and hard discounters such as Aldi and Lidl.

Symrise SY1

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: EUR 78.00

Fair Value Uncertainty: Low

5-Star Price: EUR 62.40

As the world's fourth-largest supplier of flavors and fragrances, with an 11% market share, we believe Symrise stands to benefit as emerging-markets populations grow, urbanize, and increase processed food consumption as female workforce mobilization rises. With developing economies accounting for 43% of sales, Symrise is poised to augment developed-market demand drivers stemming from an increased focus on health and wellness issues and clean labeling. While pricing power is limited, we assign Symrise a narrow moat rating on the basis of switching costs, as the firm's customers hesitate to take risks with other suppliers that would face the daunting task of replicating proven tastes or fragrances (around 95% of sales are customized). Shares trade at an attractive price/fair value ratio of 0.8, which we believe offers a favorable risk/reward profile.

Dollar Tree DLTR

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$90.00

Fair Value Uncertainty: Medium

5-Star Price: \$63.00

Although we see competition intensifying, we think these competitive threats are more than priced in and view Dollar Tree as offering a favorable risk/reward opportunity, trading at about a 25% discount to our fair value. Moreover, we think the firm's narrow moat positions it well to defend against these competitive threats and deliver excess returns to shareholders. In line with our contention, Dollar Tree blends value and convenience for its low- and fixed-income customer base, enabling above-average markups (between 35% and 45% versus the low teens to high 20s we estimate Wal-Mart and Costco COST charge), highlighting the brand intangible asset as consumers are willing to pay up for the convenience the firm offers. Further, low-cost store economics paired with "relative" scale for procuring items (with 13,000-14,000 stores and more than \$20 billion in annual sales) supports our belief that it has secured a cost edge. And despite recent consolidation (after Amazon inked a deal to acquire Whole Foods), we believe that lower-income demographics and low-price merchandise (ranging from \$1-\$10) makes Dollar Tree more insulated against the e-commerce threat than other retailers. ■■

Erin Lash, CFA, does not own shares in any of the securities mentioned above.

Energy: Despite OPEC Cuts, a Crude Awakening Is Near at Hand

OPEC output cut extensions don't appear to be enough to balance the oil market.

By Joe Gemino, CPA
Equity Analyst

- ▶ OPEC and certain other countries agreed to extend their production cuts, originally set to expire at the end of June, by nine months (ending March 2018). There was no change to the magnitude of the production cuts of 1.8 million barrels per day, including 0.6 mmb/d from non-OPEC nations such as Russia, Mexico, and Kazakhstan.
- ▶ The cartel might pay a steep price for any near-term benefit. We believe it is underestimating the ability of shale producers in the United States to rapidly increase volumes in a \$50-\$55/barrel environment (West Texas Intermediate). After several upward revisions, the International Energy Agency currently expects U.S. crude production to end the year 0.8 mmb/d higher than year-end 2016; that looks conservative to us, as we forecast 1 mmb/d. As such, the rapid U.S. shale growth in the back half of the year will meaningfully increase U.S. oil supply.
- ▶ Once the OPEC cuts are lifted, full OPEC production coupled with rapidly growing U.S. output is likely to outstrip near-term demand growth and could easily tip the industry back into oversupply in 2018. Therefore, we are not changing estimates after this first look at the new OPEC agreement. Our 2018 and midcycle forecasts for WTI are still \$45/bbl and \$55/bbl, respectively.
- ▶ Energy sector valuations look fairly valued at current levels with an average price/fair value estimate of 0.96.

OPEC's production cuts and strong demand growth have 2017 crude fundamentals in their best shape since oil prices crashed two years ago. The consensus outlook is that market fundamentals are now strong enough to remain healthy even after OPEC returns to higher production.

This might have been possible a few months ago, but the odds of this scenario playing out have since markedly worsened. The reason is that the major increases in shale activity now have U.S. oil production firmly on a path toward rapid growth, even if shale rig counts don't increase from current levels. This growth—plus the eventual production increases from OPEC—is likely to erase any market tightness and throw crude markets back into oversupply within the next six to 18 months.

Current oil prices provide economics that are very attractive to the major U.S. shale producers. This has created the conditions that will allow tight oil to grow rapidly and is a reality that even forthcoming cost inflation will not change. Unless shale producers become more disciplined or OPEC resigns itself to permanently ceding market share to U.S. producers—neither of which is likely to occur—oil markets have major problems looming on the horizon.

There remains a good chance that oil prices could rise further in the coming months if OPEC compliance remains high. Because surging shale production won't truly begin to move the supply needle until the second half of the year, OPEC discipline would allow for significant global inventory draws in the interim. This could bolster the perception that oil market fundamentals are continuing to improve. However, oil prices above current levels at any point in the coming months would be pouring gasoline on the fire, since this would encourage even higher levels of U.S. shale investment and production.

Nothing is ever certain in the world of oil, but a crude awakening for energy investors could be near at hand.

Top Picks

HollyFrontier HFC

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$44.00

Fair Value Uncertainty: High

5-Star Price: \$26.40

HollyFrontier operates a high-quality set of refining assets located solely in the Midcontinent, Rockies, and Southwest regions. Currently, it's suffering from weak product margins, narrow crude spreads, and high renewable fuel supply costs. Although we do not expect these poor conditions to persist, the market appears to be discounting a continuation for several years. Furthermore, we think it is not fully crediting Holly for the company's self-improvement initiatives. As a result, we think the shares are significantly undervalued. We expect product margins to improve with continued strong demand and a rebalancing of inventories. Meanwhile, crude spreads should widen with future U.S. production growth. Renewable fuel supply costs are likely to persist in 2017, but a new administration increases the probability that reform will occur that ultimately reduces compliance costs. At a price/fair value estimate of 0.60, the current stock price offers an attractive entry point for long-term investors.

Cenovus Energy CVE

Star Rating: ★★★★★

Economic Moat: None

Fair Value Estimate: \$17.00 (CAD 23)

Fair Value Uncertainty: Very High

5-Star Price: \$8.50 (CAD 11.50)

Cenovus is our best pick among our Canadian integrated stocks and one of our Best Ideas. The stock is currently trading at a 60% discount to its fair value estimate, while on average the industry looks fairly valued. We believe the market is overlooking the immense growth potential in the company's oil sands reserves that can be brought on line with industry-leading, low-cost solvent-aided process technology in

addition to the benefit from low-cost Palliser Block production. We also think the market is underestimating the application of SAP technology to the company's recent FCCL acquisition, which will provide Cenovus with ample opportunities to bring on low-cost bitumen production. Growth projects that once faced challenged economics are now positioned to add significant value to shareholders over the long term. Consequently, we believe the stock presents an attractive opportunity for long-term investors.

Antero Resources AR

Star Rating: ★★★★★

Economic Moat: None

Fair Value Estimate: \$29.00

Fair Value Uncertainty: High

5-Star Price: \$17.40

Antero Resources is the most active driller in the Appalachia region (Marcellus and Utica plays). We believe it is also one of the most attractively priced. The stock currently trades at a 30% discount to our fair value estimate. Though natural gas still constitutes around 75% of the firm's production, a substantial portion of its acreage is situated in areas with fairly high liquids content, differentiating the company from its peers, which are predominantly targeting dry gas.

The profitability of Antero's inventory continues to trend higher. Drilling and completion costs have declined steadily over the past two years in the Marcellus and Utica plays, and there is scope for further efficiency gains that could lower costs further. Meanwhile, the productivity of Antero's wells is likely to increase across the portfolio, due to the widespread adoption of high-intensity completions (using at least 1,300 pounds per foot of proppant). Despite perennially weak natural gas prices in the Appalachia region, Antero's extensive firm transport and sales portfolio are enabling the company to sell the majority of its production at premium (out-of-basin) prices. ■■

Joe Gemino, CPA, does not own shares in any of the securities mentioned above..

Financial Services: Our Take on U.S. Tax Reform and Bank Deregulation

Tax reform may still happen even as banking deregulation in the U.S. faces more hurdles.

By Stephen Ellis
Director of Financial Services Research

- ▶ The financial-services sector is slightly overvalued, trading at a 2% premium to our fair value estimates.
- ▶ Banking deregulation in the U.S. still faces an uphill battle, but smaller banks would reap the majority of any benefit.
- ▶ In our view, U.S. tax reform is still more likely than not, but if it does not get through before midterm elections, the chances decrease.
- ▶ Singapore banks are recovering from oil- and gas-related losses, the real estate market is not likely to slow down in Hong Kong, and bank levies increase the burden on Australian banks.

U.S. Banking Regulation

By Eric Compton

We still believe that efforts to repeal or replace Dodd-Frank entirely will face significant hurdles, and we don't expect significant boosts to profitability in the near future. Although headlines of a bill passing through the House of Representatives sound hopeful, the current bill would have to undergo many changes before getting past the Senate. We also do not expect this regulatory review to affect moats.

In our view, the most likely positive impact for bank shareholders would be an eventual easing of capital return restrictions, which could make it easier for banks to increase dividends and buybacks, and run their businesses with moderately higher leverage. Rolling back regulation could also decrease compliance costs for some banks as thresholds are adjusted for stress tests like the Comprehensive Capital Analysis and Review, or CCAR, for example. These changes would probably provide a greater benefit to smaller banks rather than the largest institutions.

U.S. Tax Reform

By Joshua Aguilar

We still believe U.S. corporate tax reform is more likely than not. Republicans have the requisite votes to pass both houses of Congress until the next midterm elections. Also, in the highly unlikely event that President Donald Trump would either resign or be forced out of office before the midterms, Vice President Mike Pence would take his place and likely continue similar tax-reform efforts. If anything, there's a slightly higher probability of tax reform under Pence given the issue's continued central importance to the Republican platform and his legislative experience.

Our calculus of tax reform passing would change with the passage of time and the Republicans' failure to pass reform before campaigning for the midterm elections is fully underway. On average, we would anticipate a modest 3% to 7% increase in our fair value estimates as a result of incorporating U.S. tax reform into our valuation models.

Singapore and Hong Kong Banks

By Michael Wu

The three Singaporean banks we cover rallied strongly in the second quarter as the deterioration of nonperforming loans to the oil and gas sector showed signs of stability in the first quarter. This was a key concern for the banks in the past two years, as a decline in oil prices pressured the oil- and gas-services sector, resulting in rising nonperforming loans. Our thesis on the three banks has largely played out, as we believe the downside from the oil- and gas-services sector was factored into their share prices last year. The banks are currently trading between 0.88 times and 0.97 times price/fair value and only slightly undervalued.

The Hong Kong Monetary Authority rolled out its eighth round of prudential measures for the residential property market. Not only has HKMA tightened the debt-services ratio and loan/value ratios for mortgages as per previous rounds of measures, the regulator also lifted the risk-weights used by banks to calculate regulatory required capital for new residential mortgages. The banks have responded to the higher cost of capital by increasing mortgage rates, and we believe the measures should alleviate the fierce competitive pressure in the mortgage markets.

In our view, the measures are unlikely to dent record increases in the residential property market as borrowers are able to finance mortgages through the financing arms of developers, which are not subjected to the HKMA prudential measures. As noted in a special report last year, we do not believe the Hong Kong banks are at risk if residential property prices decline, as the loan/values for their mortgage books are conservative, ranging from 60% to 70%. With the Hong Kong dollar fixed against the U.S. dollar, HKMA has lifted its base rate in line with the U.S. Federal Reserve's interest-rate increase. Our forecast for a slight increase in net interest margin in 2017 is unchanged, and the benefit of the interest-rate increase is factored into the share price of Hong Kong banks.

Australian Banks

By David Ellis

The four wide-moat-rated major Australian banks have individually quantified the estimated cost of the 2017 Federal Budget bank deficit repair levy, with the collective cost expected to be approximately AUD 965 million per year after tax. The collective pretax cost of the bank levy is estimated at AUD 1.38 billion per year, but all banks stressed significant uncertainty surrounding the calculation and the likely impact of the tax, as the proposed legislation is yet to be finalized.

We believe the introduction of the bank levy is a bad outcome for the major banks, customers, staff, and the broader economy. The revenue raised from the tax may address a budget deficit issue, but it sets a

dangerous precedent. The Federal Treasurer has stated the bank levy is permanent. The bank levy is expected to be implemented on July 1, 2017, and applies to the four major banks and Macquarie Group. We remain confident that the four major banks can recoup most of the levy via pricing power over customers, improving productivity, and lowering cost bases.

Top Picks

Capital One Financial COF

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$102.00

Fair Value Uncertainty: Medium

5-Star Price: \$71.40

We believe rising charge-offs at narrow-moat Capital One have created another investment opportunity in what we regard as one of the best-managed banks we cover. While rising charge-offs have caused a sell-off in the stock, we view it as an expected normalization of credit losses and simply the result of Capital One's growth strategy. The stock currently trades below book value, which we view as too cheap.

Wells Fargo WFC

Star Rating: ★★★★★

Economic Moat: Wide

Fair Value Estimate: \$67.00

Fair Value Uncertainty: Medium

Consider Buying: \$46.90

We believe the recent controversies surrounding U.S. bank Wells Fargo have created a buying opportunity. The company is already showing some signs of stabilization. Total branch interactions were down only 4% from March 2016, and account closures actually declined from the year-ago period. Average deposit balances—the key source of Wells Fargo's competitive advantage—expanded at a healthy rate for its most recent quarterly earnings. We believe the bank will more than recover from the issues of 2016.

T. Rowe Price Group TROW

Star Rating: ★★★★★

Economic Moat: Wide

Fair Value Estimate: \$88.00

Fair Value Uncertainty: Medium

While the active management industry is under assault for poor investment performance and high fees, wide-moat T. Rowe is the best-positioned among the 100 largest asset management firms (which

account for 95% of the open-end fund and ETF AUM that Morningstar tracks). The biggest differentiators for T. Rowe Price are its scale, the stickiness of its asset base, strong brand identity, consistently solid long-term investment performance, and reasonable fees. While the growth from the revenue derived from its defined-contribution business will face headwinds from baby boomer rollovers, we think T. Rowe still has a compelling argument to retain more of this business than the market acknowledges. We believe T. Rowe deserves a premium valuation among its peer group. ■■■

The authors of this sector outlook don't own shares in any of the securities mentioned above.

Healthcare: ACA Repeal Efforts Unlikely to Yield Major Legislative Changes

While the Republican-led Congress continues the push to repeal the Affordable Care Act, we still see challenges in passing any new legislation.

By Damien Conover, CFA,
Director of Healthcare Equity Research

- ▶ In aggregate, the healthcare price/fair value of 1 is largely flat from the end of the last quarter and up from 0.87 at the start of the year as the continued abatement of concerns over branded drug prices is helping valuations. Our top picks include **Express Scripts** ESRX, **Roche** RHHBY, and **Allergan** AGN.
- ▶ While the Republican-led Congress continues to push forward new healthcare legislation aimed at repealing the Affordable Care Act, we still see challenges in passing any new legislation, since the ACA has provided millions with healthcare insurance that will be difficult to strip away.
- ▶ Innovation within the drug and biotech industries remains robust, with pipelines continuing to bring forward the next generation of drugs, helping mitigate pricing pressures from pharmacy benefit managers.
- ▶ We expect mergers and acquisitions, stock buybacks, and steady dividends to continue from the larger healthcare companies as steady cash flows surrounded by moats should enable continued redeployment of capital.

Across the political landscape for the healthcare sector, the dynamics are most robust in the United States as Republicans try to push forward legislation to repeal the Affordable Care Act, but we continue to see challenges for any attempt to significantly change the healthcare system.

While legislation was passed in the House of Representatives, Republicans wield only a slight majority in the Senate, which means fewer than a handful of Republican senators could scrap a reform bill or cause major concessions. This narrow majority is further in jeopardy, because there is significant disagreement among Republicans about what policy should replace the ACA. Further, Republican reform ideas could lead to more than 20 million Americans newly insured under the ACA losing coverage, which would probably result in major political backlash.

As the largest industry in the healthcare sector, the drug and biotechnology group continues to innovate and create new drugs, helping mitigate the pricing pressures from pharmacy benefit managers (PBMs). Drug development in areas of complex treatment, such as in oncology and immunology, is bringing forward new drugs with strong pricing power.

In particular, new immuno-oncology drugs are creating a paradigm shift in treating cancer as the drugs work by helping the body's immune system recognize tumor cells that had been evading the body's response mechanisms. These drugs carry strong efficacy in an area of unmet medical need, which

enables the strong pricing power of over \$100,000 per year of treatment. The steady drug development in oncology and other specialty treatment areas is helping offset the weakness in less innovative areas, such as diabetes and respiratory disease, which are facing heavy pricing pressures.

On the capital allocation front, we expect large healthcare companies to continue to support dividends and buy back shares while engaging in heavy acquisition activity. However, the highly competitive landscape for acquisitions is leading to potential overpayments for smaller targets as several large-cap firms would like to augment internal growth with smaller firms. The recent high-cost acquisitions of Actelion by **Johnson & Johnson** JNJ and Medivation by **Pfizer** PFE show the heightened need of larger firms to acquire growth and potentially overpaying for smaller firms.

Additionally, any change that lowers the U.S. corporate tax rate by the Republican-led Congress would likely free up international capital for U.S. firms, leading to the likely increase in acquisition activity. Overall, the low interest rates combined with the need for scale and growth should continue to drive healthcare acquisitions over the next six months.

Top Picks

Express Scripts ESRX

Star Rating: ★★★★★

Economic Moat: Wide

Fair Value Estimate: \$89.00

Fair Value Uncertainty: Medium

5-Star Price: \$62.30

The likely loss of the Anthem relationship and drug price transparency concerns have weighed on Express Scripts' stock over the last year. Nevertheless, we believe the firm's stock trades at a deep discount to its current market price as the company will still play a critical role within the healthcare market for years to come. Given the significant level of market concentration in the PBM market, Anthem's alternative PBM vendors are extremely limited. Drug price transparency has also been an overhanging issue for many investors related to Express; however, we believe this concern is not rooted in facts. All clients have transparency surrounding the total costs of the drug plan Express manages on their behalf since these firms underwrite for the risk of providing healthcare insurance to their members. From our perspective, the 98% annual client renewal rate for Express is evidence its clients are largely satisfied with the transparency they receive from the PBM.

Roche RHHBY

Star Rating: ★★★★★

Economic Moat: Wide

Fair Value Estimate: \$41.50

Fair Value Uncertainty: Low

5-Star Price: \$33.20

We think the market underappreciates Roche's drug portfolio and industry-leading diagnostics that conspire to create sustainable competitive advantages. As the market leader in both biotech and diagnostics, this Swiss healthcare giant is in a unique position to guide global healthcare into a safer, more personalized, and more cost-effective endeavor. The collaboration between Roche's diagnostics and drug-development groups gives the firm a unique in-house angle on personalized medicine. Also, Roche's biologics constitute three fourths of its pharmaceutical sales, and biosimilar competitors have seen development setbacks while Roche's innovative pipeline could make these products less relevant by their launch.

Allergan AGN

Star Rating: ★★★★★

Economic Moat: Wide

Fair Value Estimate: \$300.00

Fair Value Uncertainty: Medium

5-Star Price: \$210.00

Unlike most of its peers in specialty pharma, Allergan retains one of the most attractive product portfolios and innovative pipelines, particularly in its core markets of aesthetics, ophthalmology, gastro, and central nervous system. Allergan's diverse portfolio, key durable products including Botox, and healthy pipeline support a wide economic moat and high-single-digit organic growth over the next five years, in our view. The firm has used a nice mix of focusing on core internal research and development strengths while supplementing its pipeline with M&A, which creates numerous capital deployment opportunities following the \$40 billion sale of its industry-leading generics unit to **Teva** TEVA in 2016. ■■■

Damien Conover, CFA, does not own shares in any of the securities mentioned above.

Industrials: China Shows Signs of Softening, but the Sector Remains Healthy Overall

U.S. job creation could become more of a concern later on, but we still see some bargains across our global industrials coverage.

By David Whiston, CFA, CPA, CFE
Equity Strategist

- ▶ Industrial stocks were about 10% overvalued in our first-quarter report, and this ratio has declined slightly, with our sector coverage's market price/fair value estimate ratio at 1.07. Our fair value estimates have increased on some names, partly due to a new department-wide tax policy, where we model the U.S. statutory corporate rate falling to 25% from 35% in 2018.
- ▶ Industrial activity still looks healthy with expansion levels of the Institute for Supply Management's Purchasing Index for U.S. manufacturing and solid freight volumes.
- ▶ U.S. auto sales almost certainly peaked in 2016, but current U.S. levels are nowhere near recessionary, and sales in China and European registrations are still up year over year.
- ▶ Millennials' homebuying is causing surging demand for housing at the lower end of the pricing spectrum.

Despite the initial market euphoria of a Republican presidential victory turning into uncertainty over what, if any, changes such as tax reform will come out of Washington, manufacturers seem quite willing to move ahead with investments.

The April U.S. PMI fell to 54.8 from 57.2 in March but remains well above the threshold indicating expansion of 50, with May's reading of 54.9. Survey respondents reported that the economy grew for the 96th straight month in the ISM's May Report on Business. May's PMI saw 15 of the 18 manufacturing sectors surveyed growing, led by nonmetallic mineral products, furniture, and plastics and rubber products.

Apparel and textile mills reported contraction in May relative to April, but sentiment across the PMI survey cited very healthy business conditions, and respondents from fabricated metal products and food, beverage, and tobacco products cited difficulty in finding workers. The index last fell below 50 in August 2016.

May's employment report saw unemployment reach 4.3%, a 16-year low, but our economics team would like to see more actual jobs being created, and there remains debate as to whether there are too few jobs or too few workers. The May report showed 138,000 jobs created, coming in well below the consensus expectation of 185,000.

Our director of economic analysis, Bob Johnson, continues to look for second-quarter U.S. GDP annualized growth of 2.5%-3.0%, up from the government's first-quarter number of 1.2% (revised up from 0.7% originally reported). April durable goods orders did decline from March by 0.4%, but Johnson sees this as nothing to be too alarmed about after three good months of growth to start 2017. Five of the six major sectors tracked posted a decline, with only computers and electrical components increasing orders. The Federal Reserve's Industrial Production Manufacturing index through April is averaging 103.986, up about 1.1% year over year, and through April, the index has increased from the prior month in each month of 2017, except in March.

International markets are not showing major signs of distress either, but Chinese growth is slowing and something to keep an eye on. China's National Bureau of Statistics Purchasing Managers Index dipped in April to 51.2 from 51.8 in March and remained at 51.2 in May. The government's index has remained above 50 since a 49.9 reading last July.

The Caixin PMI, which focuses on small and midsize Chinese firms and is administered by the private sector, fell to a seven-month low in April of 50.3 and grew at its slowest pace since September 2016. The May Caixin PMI brought more weakness, with the index falling below 50 for the first time in 11 months to 49.6. The report also cited the slowest growth in new order books since the most recent upturn began in July 2016. Employment is also concerning, with the survey saying job losses slightly increased for the third straight month, and May had the largest decline in workforce numbers since September. The survey mentioned some downsizing but also the nonreplacement of workers who voluntarily quit, none of which indicates confident companies. Continued weakness in China would potentially have ramifications across a wide swath of our industrials coverage, including large diversified manufacturers and autos.

The IHS Markit Eurozone Manufacturing PMI for May contrasted well with China's reading, posting a 73-month high of 57.0. The index has come a long way from below 35 in 2009. Seven of the eight nations surveyed reported improved business conditions, led by Germany, with its fastest growth rate in over six years. German PMI was a 73-month high of 59.5. Only Greece posted a contraction level below 50, with its 49.6 level still a nine-month high for the country. Eurozone manufacturing production grew at its fastest rate since April 2011, and for the first time since November 2016, employment rose in all nations surveyed. Moreover, manufacturing backlog grew for the 25th consecutive month at a rate not seen since April 2011, which is also encouraging. Firms that sell industrial equipment in Europe may be seeing more growth coming, as per the survey, supplier capacity is strained, with vendor lead times increasing at the largest rate in over six years.

Demand for industrial bellwether **General Electric** GE showed encouraging datapoints in the firm's first-quarter results. The company posted its strongest quarterly organic revenue growth in nearly two years, expanded industrial operating margins by 130 basis points, and reported a 5% increase in equipment orders, including a 9% increase in oil and gas equipment. Energy remains a wild card but could provide

more upside for the industrials space if producers can adjust their production costs, or should oil prices unexpectedly rise.

Another conglomerate, **United Technologies** UTX, reported securing HVAC orders in the first quarter at their highest rate since 2014, while competitor **Johnson Controls International** JCI reported a 6% organic rise in its building technology segment's backlog, which is mostly HVAC, to \$8.3 billion. Buildings tend to be a late-cycle business, but for now, we see no evidence of a recession coming to the U.S., based on company data and the macroeconomic data above.

Autos

Trends throughout our industrials coverage suggest plenty of healthy data, but areas such as Chinese autos or rail volume could be better. European passenger car registrations are healthy, with year-to-date growth through April up 4.7% year over year. Even the U.K. is still up 1.1%, despite the uncertainty of Brexit's effects on the economy. The five largest markets of Germany, the U.K, Italy, France, and Spain, which together comprise about 75% of registrations, have grown 3.5% year over year through April.

Chinese passenger demand in the first quarter increased year over year by 4.6%, led by SUVs growing by 20.9%, per data from the China Association of Automobile Manufacturers. With the government increasing the sales tax on vehicles with engine displacements up to 1.6L back to 10% (from 7.5%) in 2018, we expect a prebuy rush in the fourth quarter. Vehicles with this displacement make up over 70% of the Chinese passenger car market.

For U.S. autos, we made a call earlier this year that sales peaked for this cycle in 2016 at 17.54 million, and that prediction is playing out through May. After April's sales fell by 1%, adjusting for one less sales day in April 2017, May's sales to end customers fell 0.5% (down 4.5% adjusting for one extra selling day this May), and sales for the first five months of the year are down 2%, not far from our full-year expectation of a roughly 2.5% decline to a range of 17.0 million-17.2 million.

Sales have fallen year over year for five straight months. Incentive pressures have elevated this year, but we do not see an across-the-board price war under way. Cheap gas and some crossovers cheaper than large sedans are resulting in a continued mix shift to light-truck models (crossovers, SUVs, vans, and pick-ups) from cars, which is helping incentive pressures. In 2016, light trucks' share of the U.S. market increased by 400 basis points versus 2015 to 60.7%. This shift continues in 2017, with the year-to-date light-truck mix through May up 410 basis points year over year to 62.8%.

Crossovers are the big winner in this shift, while midsize sedans are the biggest loser. Vehicle segment share data shows crossovers through May constituting 33.5% of the U.S. market, up 290 basis points year over year, while midsize sedans have lost 260 basis points of share and now comprise 13.6% of the market. This news is not as favorable for **Toyota Motor** TM, which is launching the new-generation Camry sedan in a couple months, as it is for **General Motors** GM, which has a long overdue swath of new crossovers launching throughout 2017. We do not see the mix shift for the U.S. industry waning anytime soon, given crossovers' popularity and our energy team's long-term expectations of oil prices

per barrel remaining range bound in the mid-\$40s to mid-\$50s. However, crossovers declined year over year in May for only the second time since February 2012.

For the first five months of 2017, U.S. car model sales have declined year over year by 11.6%, while light truck models are up 4.8%. Light trucks did surprisingly post roughly flat growth in April but rebounded in May to grow by 6.2%. Despite slowing U.S. auto demand, we do not see current levels as anywhere close to a recession, or as indicative that a recession is imminent. Automaker executives would be quite happy to see sales sit in the 16 million-17 million unit range forever. Sales won't stay here forever, as it's still a cyclical business, but the industry is still at reasonably healthy volume.

Housing

U.S. housing demand is improving, and we believe U.S. residential construction growth will be robust over the coming decade, but the road to a fuller recovery has proved longer than expected. Household formation is building momentum, but slowly, especially among younger adults.

Younger adults were hit harder by the global financial crisis than any other age group, and their circumstances have been slowest to improve. Household formation among younger adults has been correspondingly weak post-crisis, which explains much of the slow pace of the housing recovery. We estimate as many as 2 million households were "postponed" among the 25-39 age group since 2006.

Recently, conditions have begun to improve for younger adults, setting the stage for stronger housing activity in the years to come. Labor markets have tightened since early 2015, catalyzing a significant and long-awaited rebound in inflation-adjusted wages for younger adults. With unemployment remarkably low, underemployed young workers are finding better job opportunities. Household formation among younger adults should accelerate, with a lag, as balance sheets are rebuilt. Rising mortgage rates are unlikely to prove an insurmountable barrier to homeownership, nor do we see any evidence that millennials are meaningfully less inclined to own than prior generations. Meanwhile, new housing supply is changing to meet nascent millennial demand, as homebuilders' mix shifts to affordable starter homes.

Year-to-date housing starts have been running at a seasonally adjusted annual rate of just over 1.2 million, about in line with our forecast for total housing starts in 2017. However, we expect housing starts will accelerate through 2021 as 2.25 million new households are formed by those aged 25-39. We expect starts to peak at 1.9 million by 2021 before falling back to a demographically sustainable 1.5 million.

Railroads

North American railroads are benefiting from solid recovery after nearly two years of freight recession. Total North American carloads are up 7.6% for the year to date through late May, and intermodal units are up 3%. We find the intermodal recovery encouraging, but attribute much of the other growth to three idiosyncratic situations related to commodity prices and weather, rather than a sign of broad economic expansion.

First, after sliding for years, coal volume tipped into free fall during most of the past two years. This year, because natural gas is more expensive than coal in some regions, coal volume has improved 18% in the year to date over last year's weak comparisons. Some export coal is also helping, particularly in the East, backfilling demand for Australian mines taken off line due to harsh weather.

Second, U.S. and Canadian grain harvests were robust last year, and grain and farm products carloads are up 10% and 17% so far this year.

Third, due to more attractive natural gas prices and somewhat stable oil prices, well activity has increased, and frac sand shipments have expanded tremendously from 2016 lows.

In keeping with our auto team's sales expectations for this year, rail shipments of motor vehicles and parts are down 3.8% in 2017—autos had been a rare bright spot in rail volume in 2015-16.

Although intermodal container volume is still grappling with headwinds from depressed rates in the competing truckload-shipping sector, we still believe conditions will improve by the first half of 2018 as truckload capacity finds a healthier balance, driven by work-hour-logging device installations required by new regulations. Essentially, the intermodal industry needs full-truckload pricing to firm—excluding fuel, TL industry rates fell 1.5% on average last year and were still down slightly less than 1% (year over year) in the first quarter. As those trends improve, we expect truck-to-rail conversion activity to recover, benefiting both the Class-I railroads and intermodal marketing companies, which originate most of the freight moving on domestic intermodal containers.

Overall, our optimism concerning intermodal container volume offsetting coal declines has been stymied over the past year and early in 2017, but we still think intermodal will be the secular growth engine for the rails in the longer term. Additionally, volume malaise and decreased commodity prices have posed insufficient concern to threaten our railroad moat ratings or dramatically transform long-term sector fundamentals—indeed, margins remain strong. Extensive track networks form staggering barriers to entry that we expect to remain high, fending off economic moat deterioration.

Top Picks

Currently, our industrials coverage is trading at roughly a 7% premium to our fair value estimates on average. As in our first-quarter update, fewer than 20% of stocks we cover trade in 4-star or 5-star territory. Nonetheless, the space isn't without its opportunities, and we would point to GM, Johnson Controls, Fluor FLR, and GEA Group (G1A) as some of the stocks that look attractive.

General Motors GM

Star Rating: ★★★★★

Economic Moat: None

Fair Value Estimate: \$51.00

Fair Value Uncertainty: High

5-Star Price: \$30.60

General Motors is starting to see the upside to high operating leverage, thanks to lower fleet sales and smarter manufacturing than in the past, including a reduction in its vehicle platforms. GM also has a cash hoard that it could use for share buybacks or discretionary pension funding, and we like the announcement of a significant initial dividend in January 2014 of \$0.30 per quarter, followed by a 20% increase in 2015 and another 6% increase in 2016, equivalent to a yield often in the 4%-5% range.

In January 2017, GM announced an additional \$5 billion buyback authorization with no expiration date, in addition to the \$9 billion by the end of 2017 it had already announced. Buybacks totaled \$6 billion at year-end 2016, and after the Opel sale announcement, GM changed its guidance for 2017 buybacks to total \$5 billion (about 10% of GM's market capitalization) from \$3 billion. In March GM announced a lowering of its cash target to \$18 billion upon completion of the Opel sale in late 2017. We like that GM is focusing only on markets where it can be profitable in the long term, even if that means exiting a huge market such as Europe, where it has not made money since 1999, or large markets such as India where GM's share was minuscule.

Our investment thesis is based on great product and manufacturing efficiencies rather than top-line growth, and the company isn't done reducing its cost base—it is \$4.5 billion into removing \$6.5 billion of costs through 2018 from year-end 2014 levels, up from previous cost-reduction guidance of \$5.5 billion. Further reductions in platforms and partnering with suppliers to gain purchasing scale and save on shipping costs are starting to have an impact, but the transformation is not complete.

Key holes in the U.S. product lineup (full-size sedans, full-size trucks, and SUVs) are now filled or will be this year as the new generation of crossovers launches. Old GM broke even with 25% U.S. share and a U.S. industry sales level of 15.5 million units, while New GM breaks even depending on mix at just 18%-19% share of 10.5 million-11 million U.S. industry units. The ignition switch recall increases headline risk and litigation risk, but we think GM can pay any fines or judgments that come its way, thanks to \$34.4 billion of automotive liquidity as of March 31, including \$20.4 billion of cash.

We see GM remaining viable even in an autonomous world, as it is making the right investments now. Examples are its Maven car-sharing brand, taking about a 9% stake in Lyft, bringing the all-electric Chevrolet Bolt to market well before Tesla's TSLA Model 3 and with a better range, and testing autonomous cars, all while also dominating the full-size SUV segment, which should remain popular with consumers outside dense cities in an autonomous world. We see many reasons to remain optimistic about GM, and we do not think the U.S. market peaking means only bad news for the company.

Johnson Controls International JCI

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$54.00

Fair Value Uncertainty: High

5-Star Price: \$32.40

Before its recent transformation, Johnson Controls was long viewed as an automotive-parts company, and rightfully so, given that the company had historically generated two thirds of its revenue from the automotive industry. Company veteran Alex Molinaroli stepped into the CEO role in 2013, and under his leadership, Johnson Controls embarked on a mission to transform itself into a true multi-industrial company by divesting noncore assets and acquiring businesses that complemented the building efficiency segment.

The most transformative transactions came in 2016, when the company merged with Tyco International (Sept. 2, 2016) and spun off its automotive seating business, now called **Adient ADNT**, to shareholders on Oct. 31, 2016. As a result of these transactions, Johnson Controls is now a more profitable and less cyclical business with much lower exposure to the automakers (was 59% of sales, now 6%), and more exposure to higher-margin, recurring service and aftermarket revenue, which now represents over 40% of sales.

We are taking a more conservative stance than JCI management on the company's merger-related revenue and cost synergy opportunities, and we assume that the company realizes 70% of its goal. If we assume 100% of the company's synergy goal is realized, our fair value estimate increases to \$58 per share.

Tyco, the global leader in security and fire-protection products and services, should nicely complement Johnson Controls' legacy building efficiency business, which is a global leader in HVAC systems and building automation and controls, and the combination should result in meaningful synergies and enhanced market penetration as the company eliminates redundant costs, streamlines operations, leverages research and development capabilities, and goes to market with a more comprehensive portfolio of products and services. Over the next three years, Johnson Controls is targeting \$1.2 billion (about \$1.10 EPS) of cost and revenue synergies. In addition, as an Irish-domiciled company, Johnson Controls should also benefit from a lower tax bill.

In addition to synergy realization, Johnson Controls should benefit from secular growth trends. We expect global urbanization, increased demand for smart building technology, and growing aftermarket and retrofitting activity to act as tailwinds for Johnson Controls' enhanced building technology business. Johnson Controls' power solutions segment is the largest producer of lead-acid automotive batteries in the world, manufacturing approximately 152 million annually. The company has 36% global market share and is the leading supplier in the Americas and Europe, and the firm is the third-largest supplier in

China, with aspirations to become the second-largest by 2020. Power solutions' significant exposure to the inelastic aftermarket business (74% of segment sales) yields stability, while the segment's participation in emerging markets and start-stop vehicle technology provides substantial growth opportunities.

Fluor FLR

Star Rating: ★★★★★

Economic Moat: Narrow

Fair Value Estimate: \$61.00

Fair Value Uncertainty: High

5-Star Price: \$36.60

Narrow-moat Fluor currently offers an attractive risk-reward trade-off for those willing to invest in a global market leader near its cyclical earnings trough. Our \$61 fair value estimate represents our opinion that the market undervalues Fluor's broad-based competitive strengths, experienced management, clean balance sheet, and industry-leading order backlog. We expect this to translate into healthy growth as customers' appetite for discretionary capital spending steadily returns.

Engineering and construction providers have faced weakening demand since the crude oil and industrial commodities peak. However, it is now more than three years from the energy price peak, and we believe the downside risk to E&P spending declines are modest. Share prices for Fluor and other E&C stocks have eased in 2017, as the catalyst of optimism following the U.S. election fades. While we doubt a federal infrastructure spending boom is imminent, potential benefits from lower U.S. corporate tax rates, reduced regulatory burdens on business, and repatriation incentives all seem achievable and of tangible benefit to those considering capital projects.

Fluor is one of the premier "big-project" E&Cs, with a broad range of in-house capabilities tailored for billion-dollar project work in infrastructure, energy, petrochemicals, power, and industrial sectors. Industry-leading capabilities in offshore engineering, modular design, remote construction, and equipment leasing enhance its reliability and flexibility to keep large, complex projects on track.

Fluor's strengths extend across the entire energy chain. Rising domestic production will boost development in midstream distribution and logistics, as well as downstream refining. Demand growth from cheap energy beneficiaries in petrochemicals, power generation, and (within a few years) LNG appears set to grow. Rising government defense and security spending, along with demand from healthy niches in pharma, aerospace, and technology, offer further opportunities.

GEA Group G1A

Star Rating: ★★★★★

Economic Moat: Wide

Fair Value Estimate: EUR 45.00

Fair Value Uncertainty: Medium

5-Star Price: EUR 31.50

GEA supplies food and dairy processing equipment, specializing in decanters and separators that determine a product's texture and consistency. These qualities are essential to brand creation for food companies, and together with food safety standards, create high switching costs for GEA's customers. Nearly another third of its equipment is used in food processing to make products such as edible oils, instant coffee, and baked goods. As GEA is a leading global supplier and the number-one or number-two player in nearly all its markets, it will benefit over the long term from increasing food production demand to feed the world's growing population, as well as urbanization increasing demand for convenience food.

We believe management's clumsy handling of its restructuring program has clouded the market's view of wide-moat GEA's long-term value, reflected in our EUR 45 fair value estimate. At issue, from the market's standpoint, is a disappointing margin relative to the company's previous medium-term guidance of 13%-16% adjusted EBIT margins, starting with a profit warning at the end of last year. Our forecasts are roughly 2% above consensus on revenue in the medium term. We think 2017 will mark a rebound in demand for dairy-related equipment, which drives about one third of revenue, and we also expect to see margin improvement by the end of the year. ■■

David Whiston, CFA, CPA, CFE, does not own shares in any of the securities mentioned above.

REITs: Some Scattered Opportunities in a Fairly Valued Sector

Continued tension in Washington, along with the potential inability to pass tax reform, could make for a rocky rest of the year.

By Brad Schwer
Equity Analyst

- ▶ Morningstar's real estate coverage is trading at a 2% discount to our fair value estimates.
- ▶ We view themes in commercial real estate as generally defensive in nature, with lingering concerns about increasing bond yields associated with future rate hikes. However, we continue to focus on underlying performance, which has remained healthy overall, as REITs have been focused on repositioning and strengthening their portfolios, deleveraging, and capital recycling.
- ▶ Construction of new property continues, however, as firms look for higher returns, putting into question levels of new supply as economic uncertainty remains.
- ▶ At current pricing, we see attractive investment opportunities scattered across various asset classes within our REIT coverage. **Vornado VNO**, **Public Storage PSA**, **Capitaland Mall Trust C38U** are each trading at noteworthy discounts to our respective fair value estimates.

Morningstar's real estate coverage looks fairly valued, trading at a 2% aggregate discount to our fair value estimate. Investors should continue to be particularly discriminating, as we expect actions by the new presidential administration, as well as potential for increased central bank interest-rate activity throughout the remainder of the year, to continue to affect property and capital markets activity, asset pricing, and overall volatility in the near term. Continued tension in Washington, along with the potential inability to pass tax reform, could make for a rocky rest of the year.

As the new administration approaches its half-year mark, details surrounding proposed tax reform remain murky, yet House Speaker Rep. Paul Ryan, R-Wis., remains confident that fundamental tax reform affecting corporations, small businesses, and individuals will be completed in 2017. Continued speculation regarding potential trade policy, healthcare reform, infrastructure spending, and general deregulation, among many other matters, had the markets hitting all-time highs on the increased expectation for overall economic growth, while the 10-Year U.S. Treasury yield had retreated to 2.2% by mid-June.

Downward movement in Treasury yields, often used as a benchmark for real estate valuation, have supported REIT share prices over the quarter. Given the circumstances, many investors continue to wonder whether we are near the peak of the commercial real estate cycle; higher interest rates could put pressure on growth rates, cap rates, return expectations, and ultimately asset prices. Also, to the extent that low interest rates have diverted investor funds to REITs searching for higher yield and capital

preservation, the same funds could flow out of REITs if interest rates rise, further pressuring commercial real estate valuations.

Despite recent hikes, U.S. interest rates are expected to remain historically low in the near term, which we view as a plus for real estate in general. Additionally, several economic signals, including unemployment levels, wage growth, and GDP growth, supported the case for positive momentum going into the current administration. While we now expect increased near-term volatility as market speculation and expectations eventually converge with economic reality over the next several months (or years), the same perceived positive catalysts for the market that have affected interest rates should only help to support fundamental demand for real estate and offset pressure on relative valuations.

That said, much of our U.S. REIT coverage still enjoys healthy underlying operating performance. Most portfolios are characterized by historically high levels of occupancy and durable balance sheets, and they benefit from in-place leases that can potentially be re-leased at higher current market rents, giving these firms embedded cash flow growth if not a safety cushion for future economic weakness. While growth has slowed from elevated levels seen in recent years, we believe the market has been expecting this slowdown and has priced it into the sector. Many firms have also continued to recycle capital, trading out of weaker, more vulnerable assets into stronger assets with better long-term growth prospects and risk profiles. While near-term uncertainty has affected leasing and transaction volumes, private-market asset values have largely stayed intact and should continue to serve as an anchor for public-market valuations.

However, as we get deeper into the cycle, increased new supply in localized markets (such as New York and San Francisco) and asset classes (including office, multifamily, and senior housing) have become greater concerns. Furthermore, a wave of legacy, peak-market property debt maturing over the remainder of the year may cause significant disruption in real estate property and capital markets. And if effective debt yields ultimately rise relative to overall performance, we would expect asset values and performance to be increasingly challenged. As investors and businesses become weary and return expectations decrease, a reduction in overall investment will slow demand and reinforce negative outlooks.

Given that our real estate coverage is nearly fairly valued as a whole, it's important that investors enter the sector with caution. Historically high asset prices for existing, stabilized institutional real estate is forcing the hand of many U.S. REITs to focus on new development and redevelopment opportunities. Although we still acknowledge the opportunity for prudent capital allocation to achieve excess returns, we are cautious of firms overextending themselves into riskier investments. Reasonably leveraged companies with solid prospects for long-term growth that can weather the natural cyclicity of the real estate markets are our preferred investment vehicles.

Australian and New Zealand Real Estate Outlook

By Tony Sherlock

Australian REITs have now been tracking sideways since December 2016, but there has been a divergence in performance between sub-categories, with industrial and office in favor and retail out of favor. The decline in the share price of the retail REITs reflects a confluence of factors, the most significant being weakening investor sentiment due to slowing sales performance and a lift in the number of retailers in financial distress. There are also heightened concerns about the impact that the forthcoming arrival of **Amazon** AMZN will have on incumbent retailers. A longer-term concern is the marked slowdown in the rate of Australian wage growth, which is now at a 20-year low of 1.9%, and an increase in the proportion of part-time workers in the workforce.

On average the 26 Australian and New Zealand REITs under coverage screen as 2% over-valued, with just **Westfield** WFD and **Hotel Property Investments** HPI rated 4 stars, both of which are Best Ideas. The whole property sector remains beholden to interest rates, but we have not reduced fair value estimates as our central thesis remains that interest rates will rise very slowly over the foreseeable future.

Westfield was put on our Best Ideas list in June as we view the stock as being oversold on concerns around struggling USA apparel brands. The risk is real, as brick-and-mortar retailers will face further challenges from a higher proportion of sales occurring through online channels. However, Westfield has the option to reallocate space that is currently occupied by struggling fashion brands to alternative uses such as dining and services. We expect the incoming tenants to have marginally lower rent-paying capacity and account for this in our forecasts for the annual growth trajectory to systematically trend down to 3%. We see Westfield's retail malls evolving to become de facto town centers, rich with entertainment, dining, and essential services, but also extended trading hours. The combination of an attractive tenant mix and the higher household income of inner city locations is forecast to result in the sales and rental performance of Westfield's larger centrally located malls outperforming the broader market.

Singapore Property Outlook

By Michael Wu

Most developers and REITs under our coverage outperformed the Strait Times Index in the second quarter. Moderate increase in REITs' unit prices have seen most REITs trading close to our fair value; however, we continue to see value in two developers: **CapitaLand** and **City Developments** C09.

Despite reporting a positive first quarter result, **CapitaLand**'s share price eased off slightly after a strong rally early in the year, while **City Development** maintained its positive trajectory as concerns over a hard exit for the United Kingdom from the European Union alleviates, in our opinion. With both developers trading close to a 10% discount to our fair value estimates, our preference is for the narrow-moat rated **CapitaLand**, as we believe its earnings and cash flow are better quality, supported by its mall and serviced-residence business.

In the REIT space, the strongest performer was **CDL Hospitality J85** post-acquisition of a hotel in the United Kingdom. The acquisition of a high-quality asset, as one of two five-star hotels in Manchester, was in line with the trust's strategy in diversifying away from its core market of Singapore, which has seen room rates pressured from weaker corporate travels and increased room supply. The latter continues to make up 59% of its earnings, and we believe the trust is fairly valued.

CapitaLand Commercial Trust, one of two REITs we favored last quarter, is also fairly valued, as it posted a resilient first-quarter result and more importantly, monetized its asset by divesting a 50% stake in One George Street for SGD 591.6 million to FWD Group. In our view, the valuation was favorable and represented a transactional net property yield of 3.2%, compared with a valuation capitalization rate of 3.75% to 4.25% for the rest of its portfolio.

Japanese Property Outlook

By Mari Kumagai

Our preference for developers over REITs, as noted in the last quarter, remains the same after cap rates fell closer to a historical low of 3.8% with the net REIT fund outflow continuing into the quarter-end.

Similar to other geographies under our coverage, Japanese property markets have been tracking sideways after hitting the peak around the end of last year. Major Japanese developers under coverage are now fairly priced with limited upsides after we have adjusted our fair value estimates incorporating their year-end results. The property sector remains sensitive to interest rate increases, but interest rates in Japan remain low. We also do not expect that 10-year risk-free rates would rise meaningfully above 0.1% during our forecast horizon in a political attempt to control the large debt burden of the government.

Market performance across asset categories saw more mixed trends, with logistics and hotels falling into favor and residential sales falling out of favor. The mainstay office leasing markets remain steady, as limited supply within the central business districts still supports a reasonable annual rent increase of 2% and vacancy rates tracking below 2.5%. Over the next five years, we expect incoming tenants to have marginally higher pricing power given a slowly rising net building supply, and we have revised down our annual revenue growth forecast to 4% against industry growth of 1.5%.

For major developers, the unique combination of attractive locations, long-term relationships with an affluent client base, and higher pricing power under a low interest rate environment will remain the same, keeping sales and rental performance tracking substantially above the broader markets.

Hong Kong and China Property Outlook

By Phillip Zhong

In Hong Kong, the physical property market moved higher during the quarter, promoting additional prudential measures from HKMA, including higher risk weighing and lower LTV for new mortgages. The regulator also tightened lending to developers by limiting construction financing.

Year to date, **Cheung Kong Property Holdings'** 01113 shares rallied 27% versus HIS up 17%. The shares are currently trading at 13 times earnings and 0.8 times book, only slightly below our fair value estimate. The company has entered into several yield-focused businesses outside the property sectors as well as continued share buybacks to deploy its excess cash. **Sun Hung Kai Properties'** 00016 shares are trading at 14 times earnings and 0.7 times book, still attractive relative to our fair value estimate. However, the overheated physical market is likely to be very volatile ahead, affected by higher interest rates, lower liquidity, and increasing supply. As the bellwether of the Hong Kong real estate sector, Sun Hung Kai Properties' shares will be volatile as well.

In China, major developers' shares moved sideways after the rally during the first few months of the year. Government policies are gradually tightening with regard to the real estate sector. While sales volume will be down relative to a year ago, prices will likely stay firm on account of successful destocking in 2016 and a possible supply shortage in certain upper-tier cities.

We prefer developers with land bank exposure to growing metropolitan areas, and those with a track record of earnings growth through fast asset turn and portfolio acquisitions. We remain positive on **China Overseas Land & Investment** 00688, currently trading at a P/E and P/B of approximately 8.5 times and 1 times, respectively. We expect the CITIC acquisition last year to bolster the company's growth with a pipeline of projects at reasonable cost.

Top Picks

Vornado VNO

Star Rating: ★★★★★

Economic Moat: None

Fair Value Estimate: \$118.00

Fair Value Uncertainty: Medium

5-Star Price: \$82.60

We still like high-end Class A office providers such as Vornado, which is currently trading at a 20% discount to our \$118 fair value estimate. As its competitors pour concrete and cash into the upcoming Hudson Yards project, Vornado remains set to benefit from the improving neighborhood with 6.5 million square feet of office space and half a million square feet of retail property just east of the incoming development. We were pleased with rental rates surrounding Penn Plaza, which climbed into the upper-60s to end 2016. We see this trend continuing, as half of lease expirations for 2018 are concentrated in One Penn and Two Penn Plaza, so next year serves as a real opportunity to realize higher rental spreads given the greater appeal for that submarket.

Public Storage PSA

Star Rating: ★★★★★

Economic Moat: None

Fair Value Estimate: \$237.00

Fair Value Uncertainty: Low

5-Star Price: \$189.60

Within self-storage, we note that Public Storage is trading at an 11% discount to our \$237 fair value estimate. The company should benefit from management's continuous price increases passed along to its sticky customer base every eight to 10 months. Its recognizable brand name and development focus should position the company to absorb growth driven by macro factors such as dislocation associated with a stronger jobs market, the strong number of renters versus buyers, and increasing popularity of urban living. Additionally, the company is development focused, which can add between 3% and 5% to yields compared with its acquisitive competitors that have been buying at peak prices. Public Storage's balance sheet is among the strongest in storage, which provides support for its ability to profitably expand its market-leading presence in a highly lucrative industry. Storage facilities can operate profitably with occupancy rates below 40%, so we view firms with easy access to capital to fund growth as the winners in this asset class.

CapitalLand Mall Trust C38U

Star Rating: ★★★★★

Economic Moat: None

Fair Value Estimate: SGD 2.30

Fair Value Uncertainty: Medium

5-Star Price: SGD 1.61

Within retail, CapitalLand Mall Trust remains our preferred trust as its unit price weakened after a soft first-quarter result. Many of its assets saw negative rental reversions while foot traffic fell and tenant sales per square feet per month declined. At close to a 15% discount to our fair value, we believe the trust is undervalued, and we maintain our view that softer rental is cyclical and the trust will maintain high occupancy levels, which is underpinned by its high-quality malls at favorable locations. ■■

The authors of this sector outlook don't own shares in any of the securities mentioned above.

Tech: A Tectonic Shift Toward Enterprise Cloud Computing

The ongoing migration to cloud computing is having ramifications for dozens of stocks across our coverage.

By Brian Coello, CPA,
Director of Technology, Media, and
Telecom Equity Research

- ▶ Overall, we view the tech sector as notably overvalued at a market-cap-weighted price/fair value of 1.13.
- ▶ We still see a tectonic shift toward enterprise cloud computing.
- ▶ Semiconductors appear overvalued due to the hype around artificial intelligence.

Overall, we view the tech sector as notably overvalued today at a market-cap-weighted price/fair value of 1.13 as of the end of May, versus 1.06 at the end of February and 0.98 two quarters ago. The Nasdaq index has risen about 6% from the end of February to the end of May.

Semiconductor business conditions have been downright stellar in recent months, perhaps to the point of warnings that a cyclical peak is emerging. Former Best Ideas within the enterprise software and IT Services sectors have appreciated in recent months, although we still see a handful of undervalued names in these spaces.

Tech bellwethers **Apple** AAPL, **Alphabet** GOOGL (Google), **Facebook** FB, **Oracle** ORCL, and **Intel** INTC all appear modestly overvalued to us. In general, we still believe that valuations across tech are painting overly rosy scenarios in new and emerging technologies around artificial intelligence, for example, where **Nvidia** NVDA and **Advanced Micro Devices** AMD appear significantly overvalued. In our view, some growth prospects, like rising demand from the automotive sector, are properly being considered by the market.

We think the single most important trend in technology remains the ongoing shift toward cloud computing, which is having ramifications for dozens of stocks across our coverage. Both startups and enterprises, in efforts to reduce the high fixed costs associated with running on-premises IT hardware and software, are shifting more and more workloads to infrastructure-as-a-service vendors, such as **Amazon's** AMZN Web Services, **Microsoft's** MSFT Azure, and Google. In turn, IaaS vendors, along with software-as-a-service vendors, are seeing tremendous growth, while legacy IT vendors face ongoing headwinds. **Adobe** ADBE and Microsoft have been especially adept at transitioning to the SaaS model, as selling subscription software, rather than charging for upfront licenses, has expanded their customer bases. Oracle, for one, has been relatively slower to pivot, although has shown recent signs of optimism.

Across our coverage universe, some of our Best Ideas include SaaS providers such as **Salesforce.com** CRM, while former Best Ideas like **ServiceNow** NOW, Microsoft, and **Guidewire Software** GWRE have all had nice runups in recent months.

Salesforce.com remains a leading example of a software vendor that should continue to gain market share and see outsize revenue growth over the next decade as it rides SaaS and cloud tailwinds. Yet we think future operating leverage in the Salesforce business model is still being discounted, as the company is forsaking profits today in order to spend on customer acquisition in a land grab.

As we look beyond the next one to two years, future spending by SaaS leaders should lead to customer retention, which is far less costly than customer acquisition spending today. In turn, we foresee many SaaS vendors like Salesforce.com benefiting from tremendous operating leverage and earning robust profitability, similar to software leaders like Oracle today.

On the other hand, semiconductors remain among the most overvalued names within the tech sector, albeit for different reasons. Chipmakers tied to artificial intelligence, such as Nvidia and AMD, are significantly overvalued, in our view, as the hype around their graphics chips used in artificial intelligence far exceeds our views regarding how revenue growth will truly materialize. Meanwhile, we fear that the tremendous growth of their graphics chips used in video gaming won't last forever.

We also see a handful of overvalued stocks tied to the upcoming launch of Apple's iPhone 8, as the rumored addition of 3D-sensing capabilities like facial recognition will lead to new component opportunities for firms such as **STMicroelectronics** STM and **Lumentum Holdings** LITE, although we think the growth potential of these opportunities will not meet the hype.

Top Picks

Infosys INFY

Star Rating: 3 Stars

Economic Moat: Narrow

Fair Value Uncertainty: High

Fair Value Estimate: \$17.70

5-Star Price: \$10.62

Infosys has launched several initiatives to improve its performance, and a number of signs are promising, with revenue growth, client mining, and employee attrition improving. We think the appointment of well-respected CEO Vishal Sikka has also reinvigorated the company's morale and strategic direction. Sikka's appointment signifies a greater emphasis on proprietary software product development and a shift away from increasingly commodified outsourcing services.

To that end, revenue from new software and software-related services such as Mana, Edge, Panaya, and Skava are growing rapidly (42% year over year in fiscal 2017), and Infosys will look to break out these strategically important and rapidly growing business lines in the first quarter of fiscal 2018.

Over the long term, we think the growth and margin profile of these newer services will change the complexion of Infosys' traditional labor arbitrage-type business model. On U.S.-based work visas, which we believe is a primary concern for investors today, Infosys has stated the current uncertainty and that it has no clear understanding of what is likely to eventuate. In any case, the company is expanding its onshore development center capacity to help mitigate any future pressure. As we have previously published, we do not expect this issue to be a major hindrance to our base-case valuation on Infosys. Additionally, management commented that it would relentlessly focus on higher offshoring and onsite role mix optimization, and that it benefits from automation to minimize any impact on operating margins.

Salesforce.com CRM

Star Rating: 3 Stars

Economic Moat: Wide

Fair Value Uncertainty: High

Fair Value Estimate: \$103.00

5-Star Price: \$61.80

Salesforce.com remains one of Best Ideas, as we believe the shares of this wide- moat software firm have meaningful upside to our \$103 fair value estimate. Salesforce is the world's leading software-as-a-service provider, and although it has had extraordinary success since its launch in 1999, we believe the market is underappreciating the broad opportunity that awaits Salesforce as the enterprise cloud migration still has plenty of runway left.

Salesforce's primary customer relationship management suite is the most cloud-ready, scalable offering on the market, in our view. Although Salesforce has built its suite via a mix of internally developed technology and acquisitions, the company has been highly selective in how it builds and integrates software products (in particular, limiting itself to purchases of cloud-native application vendors such as ExactTarget), allowing it to build a complete, end-to-end customer relationship management platform. The firm's flagship salesforce automation is the largest and most mature product, but the company is seeing more than 20% revenue growth across its other major product categories, including Service Cloud, Marketing Cloud, and App Cloud, the last of which is one of the most promising offerings in the rapidly broadening platform-as-a-service market. Further, as the firm's billing mix tilts more toward renewals versus new business, Salesforce should generate significant operating leverage via sales and marketing and research-and-development spending, yielding consistent margin expansion for several years.

Qualcomm QCOM

Star Rating: 4 Stars

Economic Moat: Narrow

Fair Value Uncertainty: High

Fair Value Estimate: \$68.00

5-Star Price: \$40.80

Qualcomm remains one of our Best Ideas, as we continue to see an adequate margin of safety in this narrow-moat chip leader. Recent allegations levied against the firm by South Korea, the U.S., and Apple have caused the firm's licensing business to be called into question. As a result, Qualcomm's stock has fallen considerably and now trades in 4-star territory.

We believe the litigation process will be a lengthy one, particularly as it occurs on multiple fronts with regulatory agencies and major customers alike. Additionally, we surmise the financial fallout will be fines on the order of \$1 billion from the regulatory lawsuits—a considerable sum, but not debilitating for Qualcomm. Nonetheless, we expect our fundamental thesis on Qualcomm, as it pertains to its ability to collect fair and reasonable royalties on its essential patent portfolio, to be upheld. Our fair value estimate is \$68 per share, and implies a fiscal 2018 price/adjusted earnings ratio of 15 times.

On the chip side, we forecast a steeper decline in modem business from Apple, given its recent suit against Qualcomm and dual-sourcing endeavors. Along with an increasing trend of smartphone OEMs to use internally developed chips, we expect chip sales to be down modestly for fiscal 2017. We think licensing revenue will fall in the low single digits in fiscal 2017, as Apple has withheld payments in recent quarters, and we surmise it will continue to do so over the rest of the fiscal year. However, we expect Qualcomm to receive catch-up payments over the next few years to offset these shortfalls once the litigation is resolved.

Regarding the pending tie-up with NXP Semiconductors **NXPI**, we expect revenue synergies to take effect a few years after the close (projected by the end of calendar 2017). Our valuation incorporates our preliminary view on potential revenue and cost synergies, particularly with respect to the automotive and Internet of Things end markets. With shares currently trading at 13 times our adjusted fiscal 2018 earnings estimate, we believe prospective investors should find this an attractive entry point. ■■

Brian Colello, CPA does not own shares in any of the securities mentioned above.

Utilities: Tough to Stop This Sector's Powerful Performance

Current spreads suggest utilities could still produce attractive returns even if the Fed continues to raise rates.

By Andrew Bischof, CFA, CPA
Senior Equity Analyst

- ▶ On a global basis, utilities continue to be overvalued, with a 1.12 market-cap-weighted price/fair value ratio as of the end of May. On an equal-weighted basis, U.S. utilities' 1.15 P/FV and 21 forward P/E as of mid-June are down from their mid-2016 peak but still far above what we consider reasonable. We see more value among the large European diversified utilities, but we caution those come with higher uncertainty ratings and few economic moats.
- ▶ We've long told investors that a wide spread between utilities' dividend yields and interest rates would dampen the market's reaction to rising rates. This continues to play out. In June, the 10-year U.S. Treasury rate fell again to 2.2%, yet utilities' dividend yields have held near 3.5%, with dividend growth offsetting still-climbing stock prices. The 130-basis-point spread between Treasuries and dividend yields remains a bullish signal.
- ▶ Despite the Trump administration's recent decision to exit the Paris agreement, we continue to see strong renewable development opportunities for utilities. We continue to forecast U.S. renewable energy capacity doubling during the next eight years. State renewable portfolio standards, or RPS, and other local policies remain the industry's primary growth driver, not federal environmental policy.
- ▶ Rising interest rates and a dearth of potential acquirers has quashed the regulated M&A market, but depressed independent power producer valuations have received interest from private equity firms that have the appetite to stomach near-term volatility for long-term upside.

Utilities continue to buck conventional stock investing wisdom. The Morningstar U.S. Utilities Sector Index continues to hit all-time highs despite talk of rising interest rates and investors' turn toward high-growth sectors. Utilities are up 13% in 2017 as of mid-June, beating the S&P 500 (10%) and every sector except healthcare and technology. The current spread between utilities' 3.5% average dividend yield and the 2.2% 10-year U.S. Treasury yield remains historically wide, suggesting utilities could still produce attractive returns even if the Federal Reserve continues to raise rates. Attractive dividend growth is a key component.

The Trump administration made headlines in early June after announcing plans to exit the Paris Climate agreement. Despite the withdrawal, we continue to forecast U.S. renewable energy capacity doubling during the next eight years. State RPS and other local policies remain the industry's primary growth driver, not federal environmental policy. Our analysis indicates that renewable energy, including hydro, will grow to meet nearly 20% of U.S. electricity use by 2025, up from 15% now, based solely on existing state RPS.

We think Trump's move to abandon the Paris Agreement could even embolden states to strengthen renewable energy standards, offering upside to our forecasts. Supportive tax policy and pro-manufacturing initiatives also offer upside. And corporate renewable energy purchases should continue to grow as businesses realize the economic and public perception benefits. Thus, we are not surprised that many business leaders denounced Trump's decision.

Regulated utility consolidation has cooled, with even pending mergers facing tough regulatory scrutiny. Kansas regulators surprised us—and the market—by rejecting **Great Plains Energy's** GXP \$12.2 billion offer to buy **Westar Energy** WR. Regulators were concerned about combined leverage of the tie-up, but appeared to leave room for another suitor by reaffirming their support for M&A and the potential benefits of consolidation. Texas regulators used similar reasoning to reject **NextEra Energy's** NEE acquisition of Oncor Holdings.

While regulated utility consolidation appears to have subsided, activity among independent power producers has heated up. **Calpine** CPN surged nearly 25% in May after reports suggested that it has received interest from several private equity firms. Ultimately, we think Calpine is better suited in private hands given these investors' ability to stomach near-term volatility for long-term upside potential. **Dynegy** DYN rallied as well after similar market reports suggesting it was also seeking a tie-up.

We think utility investors should invest in utilities with constructive regulation and a strong pipeline of organic growth opportunities, which should drive strong annual earnings and dividend growth the next five years.

Top Picks

Dominion Energy D

Star Rating: 3 Stars

Economic Moat: Wide

Fair Value Estimate: \$85.00

Fair Value Uncertainty: Low

Consider Buying: \$68.00

Dominion Energy's investments in energy infrastructure projects in the Eastern United States should result in wide-moat businesses generating approximately 50% of earnings by 2021, up from about 40% in 2013. The remaining earnings are primarily from narrow-moat regulated gas and electric utilities in states with long histories of constructive regulatory frameworks, industry-leading sales growth, and high-return investment opportunities. In addition, the 2016 Questar acquisition added a 2,700-mile pipeline network in Utah, Wyoming, and Colorado that we believe will offer wide-moat investment opportunities into the next decade. These opportunities and the earnings power of its core businesses should allow Dominion to increase its dividend over 8% annually during the next five years. Dominion's

wide moat, secure and growing dividend, and long-term earnings growth outlook should allow it to outperform its peers even if rising interest rates weigh on all utilities' returns.

Duke Energy DUK

Star Rating: 3 Stars

Economic Moat: Narrow

Fair Value Estimate: \$86.00

Fair Value Uncertainty: Low

Consider Buying: \$68.80

Duke Energy became the largest utility in the United States after it merged with Progress Energy in 2013 and has completed its transition to a predominantly regulated utility. We believe investors should pay attention to Duke's strong management team, which has long focused on regulated capital investment opportunities. In 2017-21, we anticipate \$42 billion of capital investment in grid modernization, new power generation, and natural gas infrastructure. We anticipate that Duke will be able to recover these costs through constructive regulatory outcomes, supporting our 6% annual earnings and dividend growth outlook.

Calpine CPN

Star Rating: 4 Stars

Economic Moat: None

Fair Value Estimate: \$19.00

Fair Value Uncertainty: High

5-Star Price: \$11.40

Calpine is uniquely positioned among independent power producers as the industry's only predominant natural-gas generator, with the most efficient fleet in the U.S. This allows Calpine to benefit from tightening supply-demand conditions in the power markets and low gas prices across Texas, California, and the Mid-Atlantic. All of Calpine's operating regions are struggling to provide market incentives for new-build expansion and pending emissions regulations that will take significant coal plant capacity offline throughout the U.S. We expect this to create supply constraints across Calpine's core operating regions, allowing it to capture significant margin expansion independent of natural gas prices. We forecast \$738 million free cash flow before growth in 2017, an effective 21% yield. ■■■

Andrew Bischof, CFA, CPA, does not own shares in any of the securities mentioned above.

M&A Outlook: Activity Slows Amidst Political Uncertainty

Investors tap the brakes after two consecutive years of record consolidation.

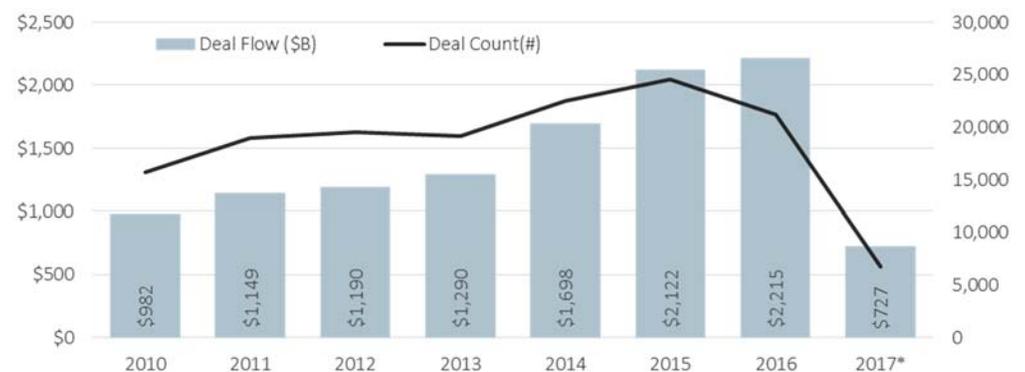
By Dylan Cox
Private Equity Analyst, PitchBook



- ▶ Deal value fell especially sharply in Europe, where investors worried that Brexit's separatist sentiment would manifest in other elections.
- ▶ Inorganic growth continues to be expensive. The median enterprise-value-to-EBITDA multiples hit 9.0x for transactions completed through June 9, 2017.
- ▶ We expect M&A activity to intensify in the second half of the year as investors react to recent elections and regain confidence in their own capital deployment strategies.
- ▶ Rising interest rates and a dearth of potential acquirers has quashed the regulated M&A market, but depressed independent power producer valuations have received interest from private equity firms that have the appetite to stomach near-term volatility for long-term upside.

M&A activity in the first half of 2017 was strong on a historical basis, but well behind the pace we've witnessed in the last two years. Through June 9, North American and European investors completed 6,819 transactions totaling \$727.2 billion, each on pace for greater than 25% year-over-year decreases.

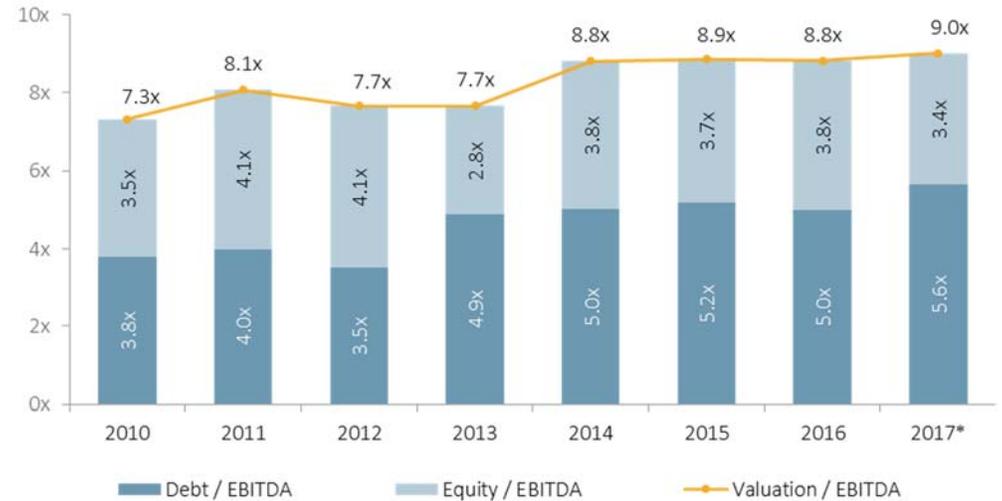
North America and European M&A Activity



Source: PitchBook | Data as of 6/9/2017

Despite the slowdown, prices continue to increase. The median enterprise-value-to-EBITDA multiple reached 9.0x for transactions completed in the same timeframe, up slightly from the 8.8x recorded for the entirety of 2016. Corporate balance sheets remain full of cash, and private equity firms have record levels of dry powder to deploy, creating intense competition for a shrinking pool of desirable acquisition targets.

North America and European M&A EBITDA Multiples

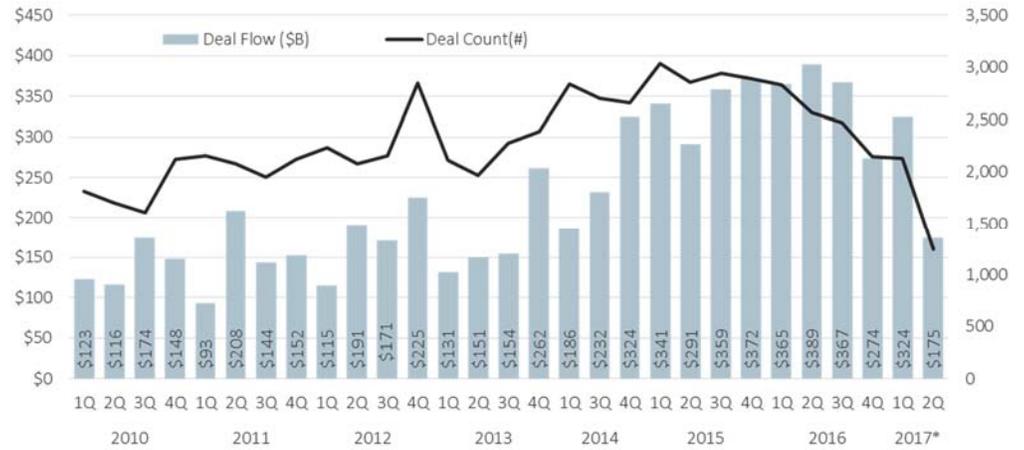


Source: PitchBook | Data as of 6/9/2017

Deal value fell especially sharply in Europe, where the economic fallout from Brexit has not yet been what many expected, but the uncertainty stemming from the recent Dutch and French elections put many dealmakers on hold, fearing further political and economic disintegration. As more becomes known after the Brexit negotiations begin, and since the EU remains otherwise intact in the near term, we expect European deal flow to increase in the back half of the year, especially if public equity prices continue to rally, giving strategic acquirers more buying power in terms of their own stock.

Across the Atlantic, the U.S. is still seen as a bastion of stability compared to Europe and emerging markets, though it too has seen a decrease in M&A activity this year. While the ECB continues its quantitative easing (QE), the Fed has proceeded with its long-anticipated, albeit modest, rate hikes. This has inspired confidence in both corporate and financial sponsors while maintaining historically cheap credit markets to finance larger and larger acquisitions.

U.S. M&A Activity



Source: PitchBook | Data as of 6/9/2017

Along with the Fed’s normalization, much speculation about a new infrastructure bill and corporate tax cuts fueled first-quarter M&A activity in the U.S. Since then, the likelihood of such legislation being passed by year-end has diminished, but other market dynamics should encourage plenty of U.S. consolidation in the second half of the year. Most notably, large strategic acquirers continue struggling to create the kind of organic growth that shareholders expect, so growth by acquisition becomes the next-best option. ■■■

Private Equity: Capital Deployment Remains a Challenge

Despite record amounts of capital overhang and demonstrated interest for the asset class, valuations and heightened competition continue to constrain deal flow.

By Nizar Tarhuni
Analysis Manager, PitchBook Data

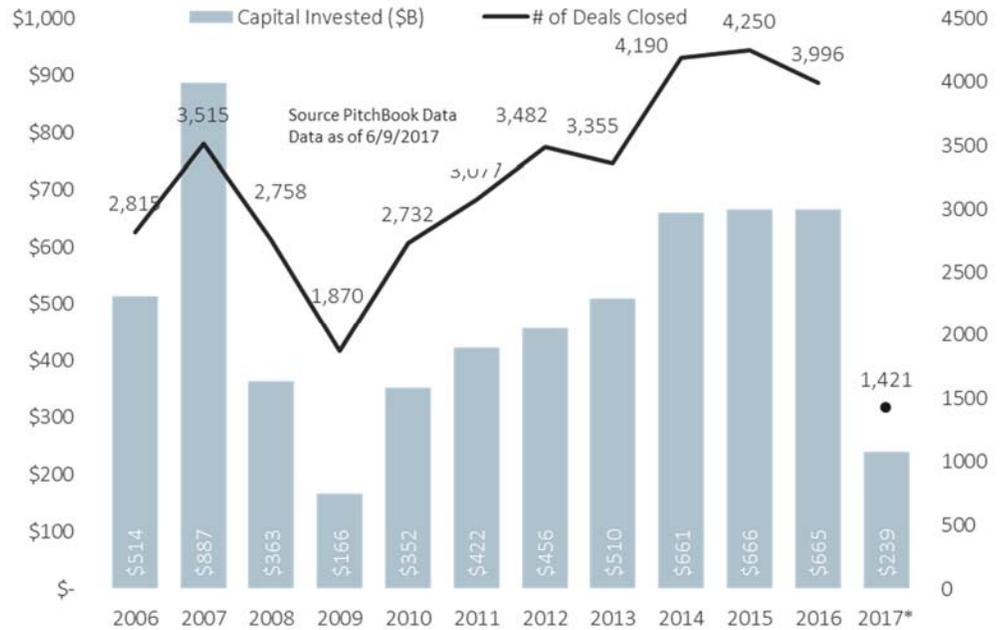


- ▶ Record EV-to-EBITDA multiples continue to challenge capital deployment..
- ▶ With a significant portion of PE-backed inventory acquired over the last 3.5 years, we expect exit flow to continue sliding as we are still a couple of years away before many of these assets are ready to be sold.
- ▶ With over \$1 trillion distributed to LPs since the beginning of 2014, LPs have recycled a significant amount of capital back to the same fund managers who provided such distributions. Although we believe many managers will be able to sustain their relative outperformance over other asset classes, we do expect return profiles in newer vintages to decline given today's heightened valuations and competitive auction processes. Further, fund lives could continue to extend as managers look to maintain quality and price discipline—the result of which could put pressure on time-sensitive IRRs.

Approaching the end of 2017's first half, we've continued to see completed transaction counts inch lower on a quarterly basis, as has been the case since the beginning of 2016: Just \$239 billion has been invested across over 1,400 transactions so far this year. At this pace, total U.S. deal value and volume would come in roughly 18% lower than what we experienced in 2016.

As we make our way through the upcoming quarters, we expect to see deal flow continue to move at a consistent, but tepid pace. Capital will continue to cycle back into the industry, as evident by the fundraising data we highlight below and the ability of PE to outperform many other asset classes on a relative basis.

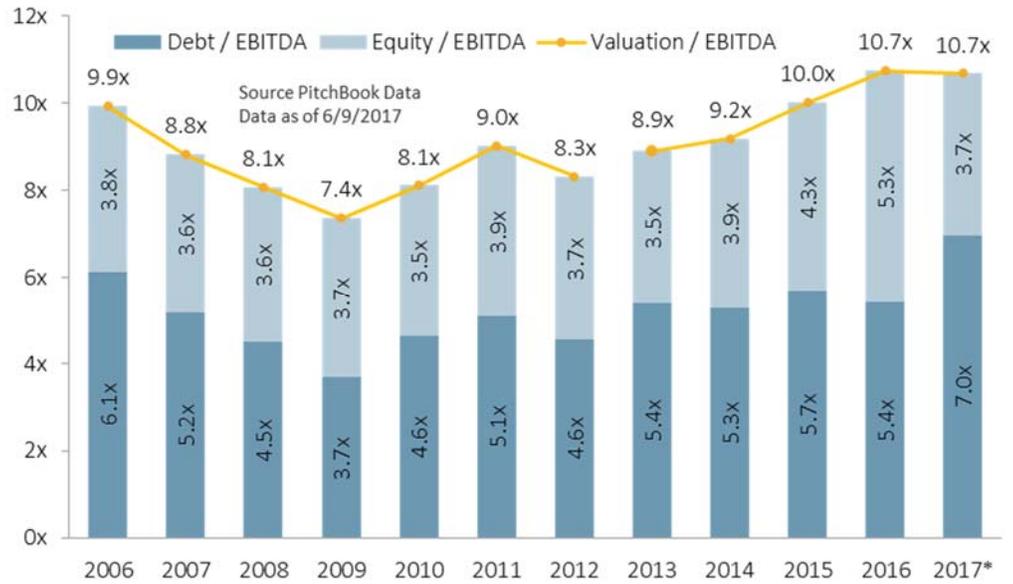
Alongside the decline in deal flow, we also expect newer vintages to experience lower return profiles driven by a combination of persistently high valuations, stiff competition, and a shrinking pool of available targets, given the pace at which existing company inventory has grown.



Source: PitchBook | Data as of 6/9/2017

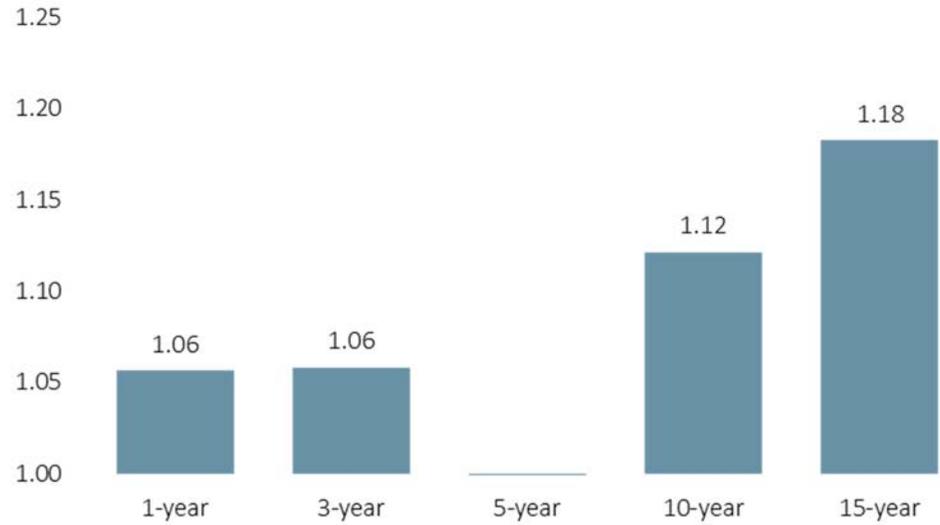
The median price-to-EBITDA multiple thus far into 2017 has stayed flat with what we experienced in 2016 at near 11x EBITDA, the highest figure we’ve seen since at least 2006. Further, despite concerns that have arisen around the sheer amount of capital overhang sitting in PE vehicles, our view is that we won’t see much fluctuation on this front, which doesn’t bode well for transaction multiples.

The primary driver of our conclusion stems from the continued interest and trust limited partners have placed in the industry. Over a 15-year horizon, PE has outperformed its public market counterpart by some 18%, and roughly 12% over a 10-year time frame. Even looking at returns over the previous three years, where public markets reached various record highs, the industry has outperformed by some 6%.



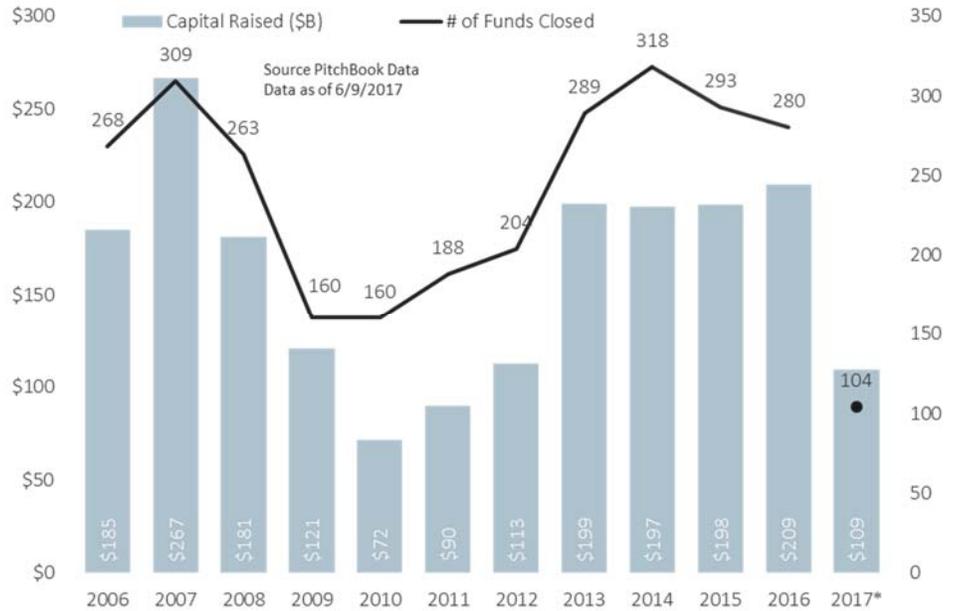
Source: PitchBook | Data as of 6/9/2017

Horizon KS-PME vs. Russell 3K

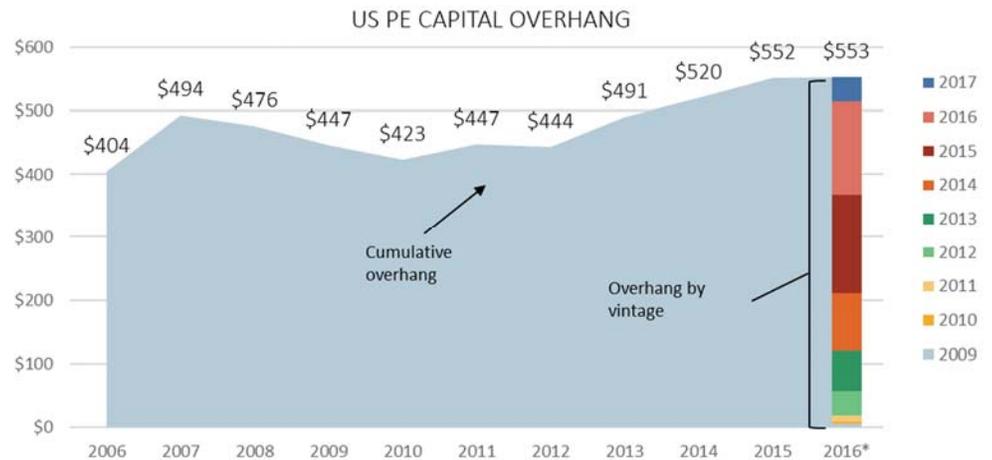


Source: PitchBook | Data as of 6/9/2017

The success of the industry has fueled more than \$1 trillion in LP distributions since the beginning of 2014, and as we near the end of 2017's second quarter, more than \$109 billion has already been raised this year across 104 vehicles. Notably, first-half fund closings will likely come in near the lowest levels we've seen in recent years. Yet as LPs have continued to make larger commitments to a smaller group of managers, we expect that 2017 could very well still be on pace to see another near-record year of capital raised. ■■■



Source: PitchBook | Data as of 6/9/2017



Source: PitchBook | Data as of 6/9/2017

Venture Capital: Less Is more? Volume Normalizes While 2Q Deal Value Floats Near Record Level

Coming off a record fundraising year, total VC invested remains strong despite completed transaction counts trending lower.

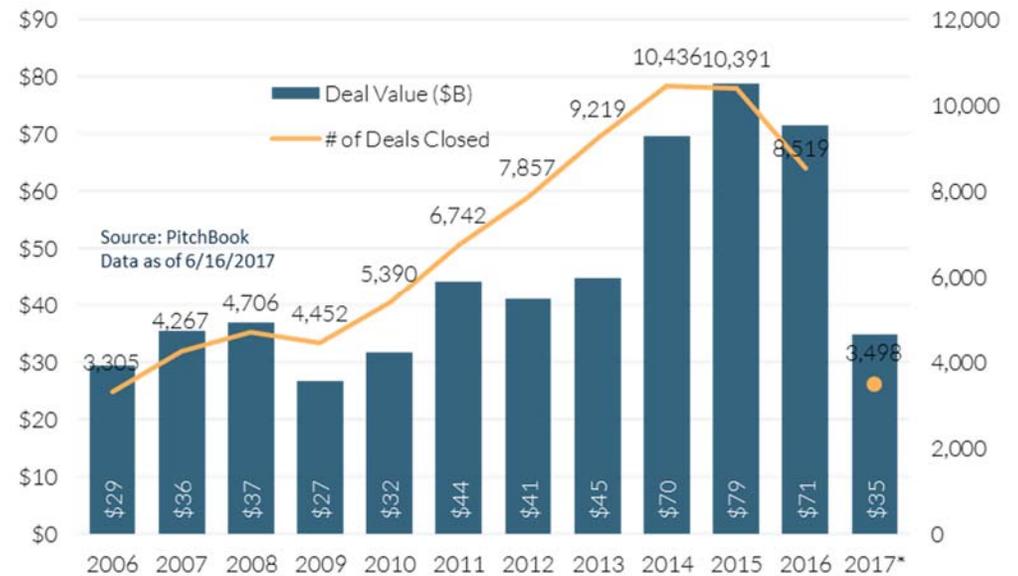
By Nizar Tarhuni
Analysis Manager, PitchBook Data



- ▶ While completed financings have trended lower toward historical norms, the largest contributor to this remains an outsized decrease in financings at the angel/seed level, rather than a blanket decline across all venture stages.
- ▶ With more than \$5.1 billion raised via VC-backed IPOs midway through the year, 2017 has already seen roughly 75% more capital raised via public offerings than all of 2016 saw. Four venture-backed companies valued at \$1 billion+ ("Unicorns") have entered the public markets. Two more (Blue Apron and Forescout) have also filed. Should the latter two companies go public, 2017 will set a record for the most Unicorns to IPO in a single year.
- ▶ Private equity ("PE") has shown heightened interest in the IT sector, with nearly one-fifth of all PE deals completed to date coming in the space. With a large group of venture-backed companies playing in the IT sector, we believe PE firms will account for a heightened proportion of VC-backed exits moving forward. PE can serve as an attractive option to founders looking to remain private in today's market, while also providing coveted liquidity to VCs, which is an issue that has become increasingly publicized as companies continue to hold off on exit processes.

Midway through 2017, nearly \$35 billion in VC has been deployed across an aggregate of 3,498 completed U.S. financings. At the current pace, 2017 would see total VC invested come in higher than what we experienced in 2016 and at the second-highest level we've tracked over the last decade. On a quarterly basis, the second quarter has seen \$18.6 billion invested across 1,560 financings as of June 16, 2016, representing a quarter-over-quarter jump of nearly 15% in terms of capital invested with still a couple of weeks of data yet to be collected.

U.S. VC Activity by Year



Source: PitchBook | Data as of 6/16/2017

We believe the consistent decline we’ve seen in VC funding counts since the beginning of 2016 has been much more isolated than many have presumed. As we’ve written in previous research, the chief driver of this trend has primarily stemmed from investments at the angel and seed level. We’ve continued to see headlines over the past few quarters speaking to a trend of VCs investing less as they’ve ostensibly become more stringent and selective with the companies they choose to back. And while we believe there is validity to that argument, investments across both early- and late-stage deals have remained relatively stable, as highlighted in the chart below.



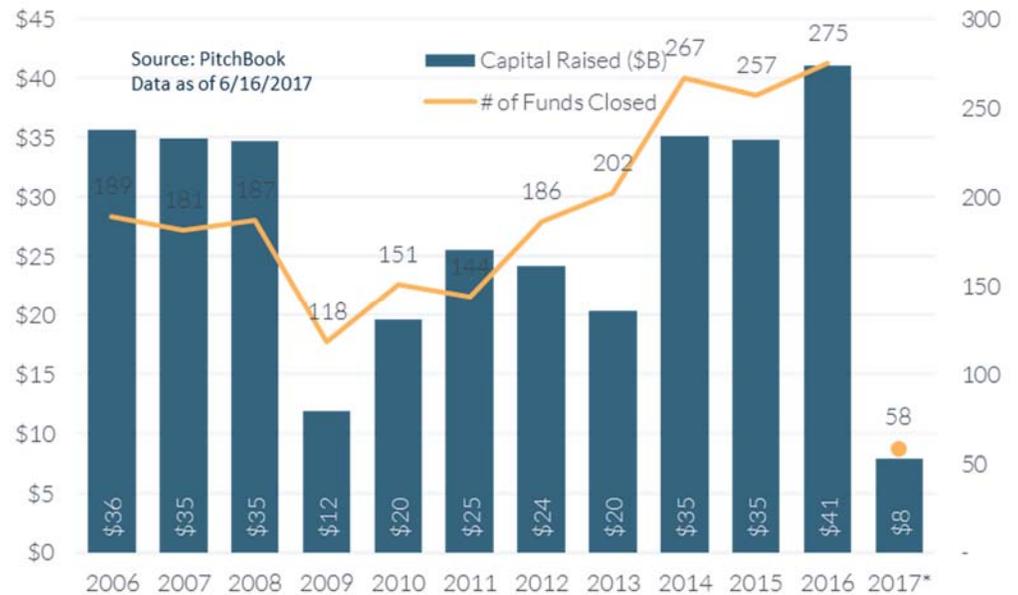
Source: PitchBook | Data as of 6/16/2017

Instead, the venture markets have seen angel/seed investments jump 236% between 2010 and 2015, driven by the proliferation of seed-stage and micro VC firms, along with the prevalence of accelerator graduates and angel groups. Naturally, earlier-stage VCs operating (just past the angel/seed stage) have been forced to be a bit more selective and disciplined as they evaluate quality in a market where the number of companies looking to raise capital has increased. We don't envision this trend going away as we move through the remainder of 2017 and expect to see angel/seed rounds continue at a more subdued pace.

Although we do see long-term round volume clawing back to more normalized levels after peaking in 2014 and 2015, we see potential for volume across the entire venture market to increase in the back-half of the year, or at least remain stable as we rebound from an enormous VC fundraising cycle. \$41 billion was raised in 2016 across 276 funds, both the highest figures we've tracked since at least 2006. First-time fund managers also raised the most capital last year since 2008, a trend that has stayed in place through the first half of 2017.

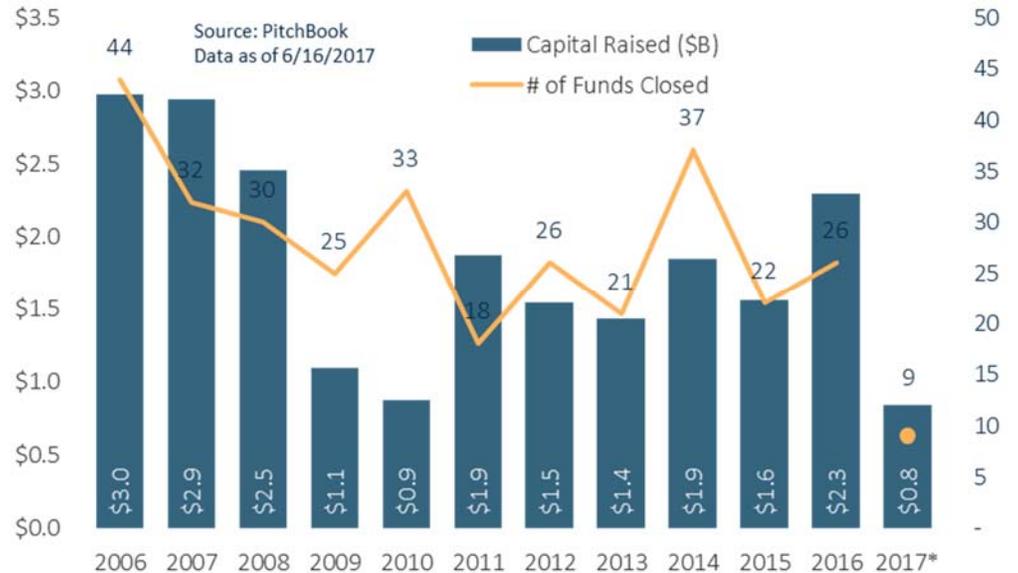
As managers were busy on the fundraising trail, we believe some of the slight retrenchments in round counts could be chalked up to VCs prioritizing closing their fundraising. To be sure, much of that capital will come to market in the form of larger, later-stage rounds as companies continue to push back exit plans. Yet at this point, many managers should have begun to shift their focus to vetting and sourcing transactions that could close within the next couple of quarters.

U.S. VC Fundraising by Year



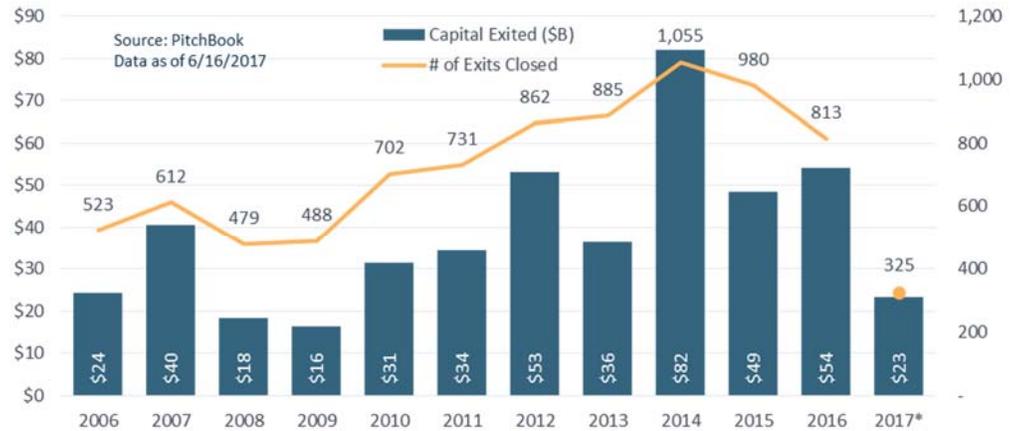
Source: PitchBook | Data as of 6/16/2017

U.S. VC First Time Funds by Year



Source: PitchBook | Data as of 6/16/2017

VC-backed exit flow has remained a bit constrained, yet we’ve recently noticed a couple of positive signals. The IPO markets have seemed to open up a bit, and 2017 is already on pace to see more VC-backed listings come to market than we saw in 2016. More notably, 2017 to-date has already seen total capital exited via the public markets (\$5.1 billion) surpass what we saw in the entirety of 2016—by 75%.



Source: PitchBook | Data as of 6/16/2017

We also continue to see a more prominent role and opportunity for private equity to play within the late-stage venture markets, primarily on the IT and enterprise software front. Nearly one-fifth of all PE deals completed thus far into 2017 have involved companies in the IT sector, above the 10%-15% range we've seen for most of the last decade. In addition, software transactions have accounted for a whopping 66% of all completed PE deals within IT.

We've seen the likes of major PE players such as Vista Equity Partners and KKR raise multi-billion-dollar funds to focus on technology. While the above-mentioned funds could put capital to work via larger take-privates or growth rounds, late-stage venture companies could serve as enticing opportunities for PE firms, which can help them become increasingly efficient operators and ultimately sponsor a future exit. Year-to-date, PE buyouts have accounted for 18.5% of all completed VC-backed sales as well as 19% of all VC capital exited, both the highest figures we've tracked in our datasets. ■■



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