NORTHERN TRUST
ASSET MANAGEMENT

CORPORATE CREDIT SECTOR OUTLOOK 2019

Valuations and emerging risks are making credit investing more challenging.

Prospective fixed income returns remain attractive for 2019, likely with less volatility than equity markets.

Fixed Income Research (FIR) favors broad diversification, with a focus on credits with strong balance sheets and exposure to U.S. domestic markets with a high likelihood of performing well during difficult credit markets.

Key Outlook Drivers (+/-)

Growth (-): Economic growth is decelerating in the United States and globally, but we still expect moderate improvements in credit and earnings.

Inflation (+): Inflation is not expected to exceed 1%-2%, while interest rates are expected to stay low and range-bound.

Macro Risks (-): Macro risks include China slowing, an escalation in trade war tensions, a global leadership vacuum, foreign exchange movements and legislative risks.

Technicals (+): Market conditions remain favorable. New issue supply is expected to remain light while demand stays strong as investors redeploy cash from bond maturities and coupon payments into the market.

Capital allocation (+): Issuers are reducing focus on shareholder returns and instead are investing in capital expenditures, M&A, and deleveraging.

Investment Opportunities

Despite the 2019 year-to-date rally, spreads continue to exceed the lows seen at their tightest levels in October, offer investors a solid income benefit for 2019.

FIR sees the best relative opportunities in triple BBBs for investment grade and in single Bs/CCCs in high yield.

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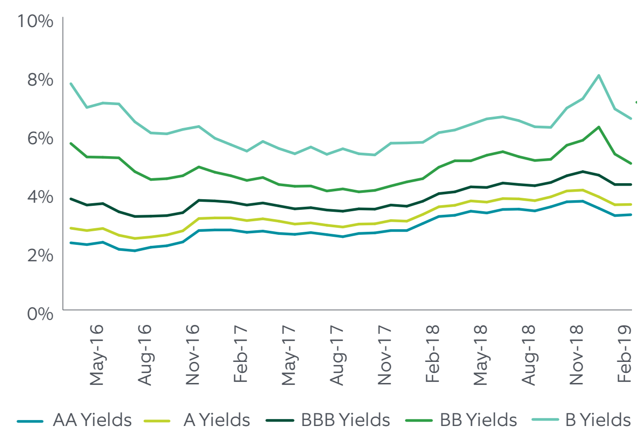
YIELD BY CREDIT RATING



As of 2/28/2019
Source: Bloomberg

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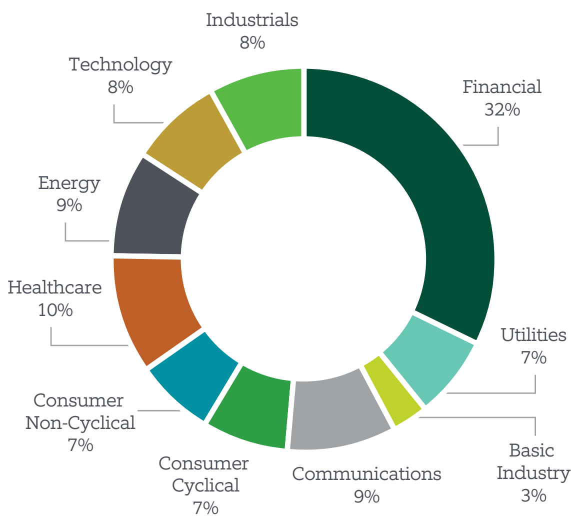
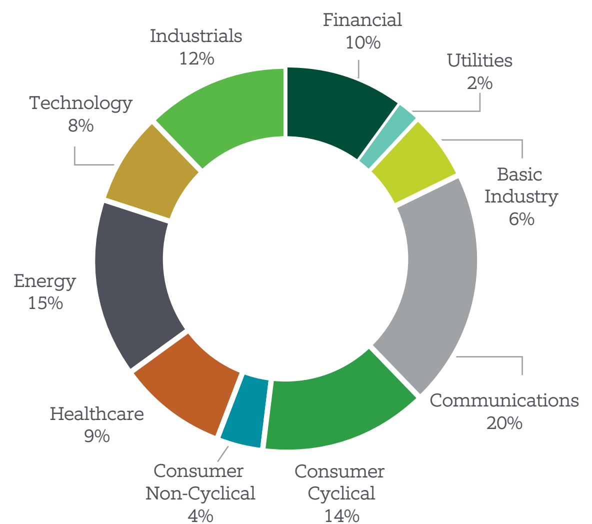
Northern Trust Asset Management forecasts Full Year 2019 total return of 3.8% for IG credit and 9.9% for HY credit.

INVESTMENT GRADE SECTOR BREAKDOWN



As of 2/28/2019
Sources: Bloomberg, Barclays, Bloomberg Barclays Indices

HIGH YIELD SECTOR BREAKDOWN



As of 2/28/2019
Sources: Bloomberg, Barclays, Bloomberg Barclays Indices

CONSUMER CYCLICALS

We have a neutral outlook for consumer cyclicals, which are led by the retail, automotive and homebuilding industries.

Despite generally positive conditions, valuations and input cost pressures lead us to a neutral outlook.

Key Outlook Drivers (+/-)

Positive Sentiment (+): Consumer sentiment is relatively strong and unemployment is at historic lows. Nonfarm payrolls are growing steadily, gas prices remain below levels seen last year and U.S. Average Hourly Earnings are increasing; these factors support healthy consumer demand.

Rising Labor Costs (-): Labor costs have risen due to low unemployment and state mandated minimum wage hikes. A tight labor market is expected to persist through 2019, which will challenge companies' ability to hire qualified employees and manage costs.

Higher Transportation Costs (-): Strong construction, manufacturing, and oil related job growth has outstripped the supply of truck drivers. Tighter enforcement of driving hour regulations and increased shipping activity has further strained transportation costs. This is expected to continue in 2019 and will add a cost headwind to profitability.

Raw Materials Costs (=): Prices should stabilize in 2019 and limit this cost pressure on profitability.

Volatile oil prices hurt profit margins across the board in 2018. In 2019, oil prices are expected to remain in the previous year's trading range.

Agricultural commodity prices are expected to be mixed in 2019, with corn trending higher and soy trending lower.

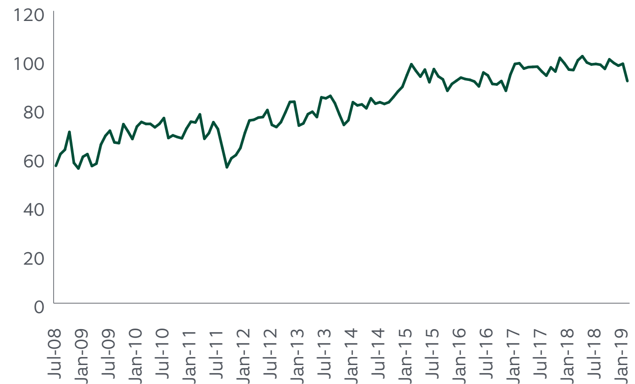
Retail

We are neutral on the retail sector despite the healthy outlook for U.S. consumers and consumption growth, as companies are challenged in adapting to technology-driven changes in shopping preferences.

We favor retailers that have invested in Omni-Channel capabilities. We expect further store closings from retailers that have fallen behind in offering digital shopping.

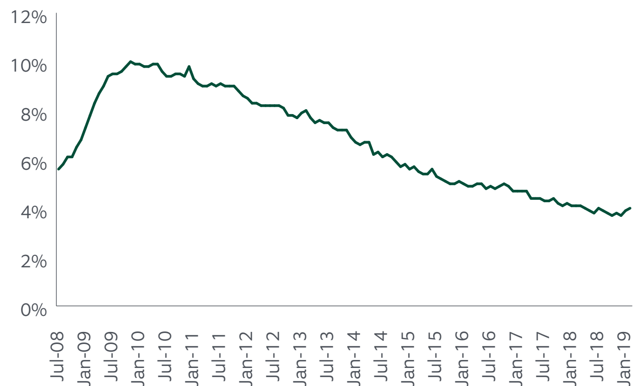
Operational dynamics are shifting as well, adding to industry sector stress. E-commerce retail is limited by shipping constraints and rising costs. Businesses that combine e-commerce and physical retail can use stores as local warehouses, consolidate shipments. This offers a more

UNIVERSITY OF MICHIGAN CONSUMER SENTIMENT



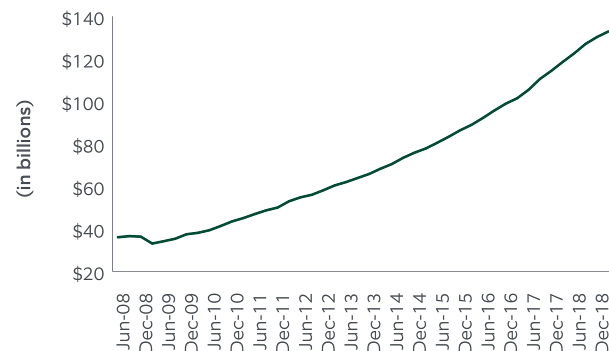
As of 1/31/2019
Source: University of Michigan

U.S. SEASONALLY ADJUSTED UNEMPLOYMENT RATE



As of 1/31/2019
Source: Bureau of Labor Statistics

E-COMMERCE SALES QUARTERLY



As of 12/31/2018
Source: Bloomberg, U.S. Census Bureau

convenient experience to customers as returns can be made in stores, but also increases operating costs. Having completed its first full year of operating Whole Foods' physical stores, even leading e-commerce player Amazon has acknowledged the value of brick and mortar retail and plans to open more physical stores in 2019.

Automotive

Headwinds are mounting in the auto sector following years of elevated sales.

Rising interest rates and tightening incentives will make new car purchases more expensive, while ongoing tariffs on raw materials are a headwind to manufacturers.

Large investments in autonomy and technology are an additional cost headwind that is unlikely to pay off for several years. FIR is underweight the automotive sector.

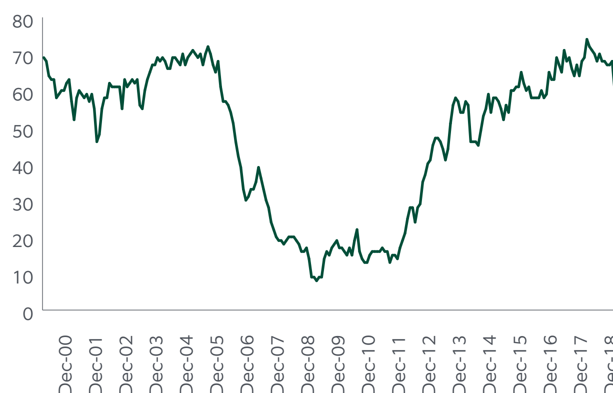
Homebuilding

The housing industry was one of the first sectors to show signs of weakness in 2018, as higher mortgage rates took their toll.

The National Association of Home Builders Market Index fell four points in December after falling eight points in November. Anything above 50 indicates expansion, but the two-month drop was the largest since October 2001.

Homebuilding is driven by employment and interest rates. Since the peak in early October 2018, the 10-year U.S.T rate has fallen and alleviated the primary headwind to growth. Absent another significant spike in interest rates or a severe weakening in the labor market, housing is expected to show signs of stabilization in the first half of 2019.

NATIONAL ASSOCIATION OF HOME BUILDERS MARKET INDEX SA



As of 12/31/2018
Source: National Association of Home Builders

U.S. 10 YEAR TREASURY

As of 3/6/2019
Source: 10 Year Treasury Price on Bloomberg

CONSUMER NON-CYCLICAL

We remain neutral on consumer non-cyclicals that are led by Food/Beverage and Consumer Products. Demand trends continue to favor growth, but we see challenges as material costs rise, technology evolves and consumer behaviors change.

Despite generally positive conditions, tight relative valuations drive our neutral investment outlook.

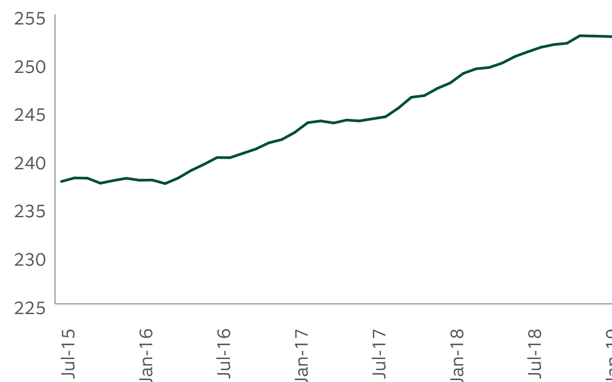
Key Outlook Drivers (+/-)

Inflation Pass-through (+): Companies have finally been able to raise prices to offset higher input costs, including those from higher labor and transportation expenses. The backdrop of strong consumer conditions allowed higher prices to stick, producing modest consumer inflation that enabled companies to improve margins. This trend is expected to continue in 2019.

Increased Investment (+): We expect companies to continue investing in automation technology in 2019 to offset some of the impact of rising labor costs.

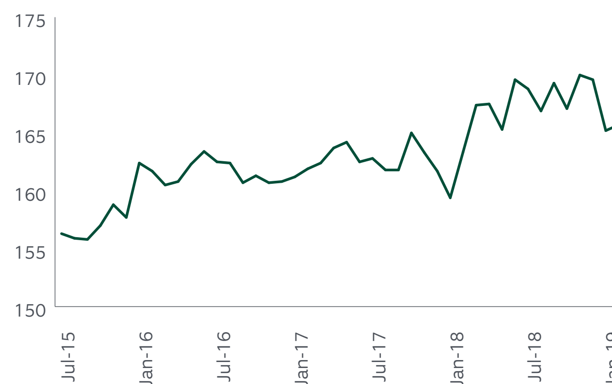
Changing Behaviors (-): Millenial consumers have grown up in a connected and on-demand world and are changing consumption behaviors. We expect companies to continue investing in innovative ways to capture a greater share of consumers' wallets and time by creating experiences and innovative products.

U.S. CPI URBAN CONSUMERS SA



As of 1/31/2019
Source: Bureau of Labor Statistics

U.S. PRODUCER PRICE INDEX GROCERY STORES NSA



As of 1/31/2019
Source: Bureau of Labor Statistics

Food, Beverage & Tobacco

Food retailers have been able to pass rising input costs on to consumers, which is restoring margins. Trade tensions have adversely impacted some food exporters. We think the environment will be less promotional, with an accelerated level of customer centric innovation. FIR expects divestitures and deleveraging in 2019, which will lead to improving credit metrics.

Consumer Products

Consumer products companies have been able to pass through higher input costs to consumers, which should help restore margins. We expect accelerated customer-centric innovation to play a factor in restoring margins for 2019. Companies will continue trying to connect directly with consumers because e-commerce continues to gain as a source of sales.

FINANCIALS

We have a neutral outlook on financials around the globe. This view acknowledges the strong fundamental positions of banks, tempered by valuations that are only modestly attractive relative to other corporate sectors.

As the financial sector of the investable market is dominated by banks, the following discussion pertains to the global banking sector.

U.S. Financials Credit Outlook

Security selection will be key to outperformance among issuers and within complex capital structures.

Spreads are wide to the overall bond market, but offer limited overall upside given market conditions.

Key Outlook Drivers (+/-)

Excess Capital Growth (+): The U.S. Banking Industry continues to generate excess capital and accruing benefits to stockholders. This follows a substantial capital industry build up for both quantity and quality that began in 2013, having previously stabilized following the financial crisis in 2008. Capital ratios are expected to remain stable and represent a material cushion in excess of regulatory minimums and required capital buffers.

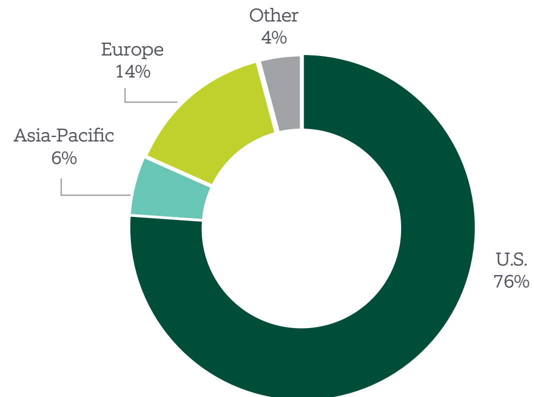
Increased Liquidity (+): Liquidity positions remain strong as well. Banks carry more than enough balance sheet liquidity to fund themselves through severely adverse funding markets.

Rising Costs (-): Rising rates have resulted in some marginally higher funding costs, but the impact has not been significant.

Stable Assets (+): Asset quality remains strong largely due to consumer strength.

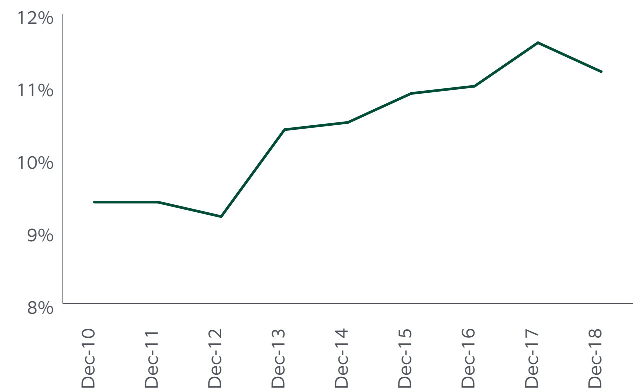
Increased Competition (-): Competition from fintechs (e.g., Square or Quicken) remains. However, a key tenet of our analysis is there has been no noted weakness in the ability of existing financial institutions to adequately price for transactional risks such as loans and service fees.

REGIONAL WEIGHTS FOR INVESTMENT GRADE FINANCIALS



As of 2/28/2019
Source: Bloomberg, Barclays, Bloomberg Barclays Indices

U.S. BANKS TIER 1 COMMON EQUITY RATIO



As of 12/31/2018
Source: Bloomberg, Company Filings

European Bank Credit Outlook

We are neutral on European bank credits. Hybrid securities (AT1) structures appear to offer the best opportunities.

Key Outlook Drivers (+/-)

Brexit Risks (-): With Brexit unresolved, a weak GDP growth outlook, a low interest rate environment and the ongoing risk of a U.S.-China trade war, macro issues remain key risk factors.

Limited Issuance (+): Non-Preferred Senior (NPS) and HoldCo Senior supply will be as large as in 2018. Tier 1 and Tier 2 capital supply are expected to be flat compared to 2018. Preferred senior supply is expected to be slightly less than 2018.

Strong Credit Metrics (+): We expect bank credit fundamentals to remain strong as European banks continue to de-leverage, de-risk and build capital and liquidity buffers. However, profitability will remain challenged because of the weak growth outlook, low interest rates, investment in digitization and poor efficiency. We expect to see selective rating upgrades in 2019 (as in 2018).

Asia-Pacific (APAC) Bank Credit Outlook

While APAC bank valuations are fair, their credit fundamentals are unlikely to improve. Loan growth outlook across the region is tepid due to the slowdown in China, the risk of a trade war and slower global growth prospects. These factors will impact exports in most economies and we are neutral on APAC banks and favor high rated (mid-A and higher), liquid and quasi-sovereign names.

Commentaries on Selected Countries

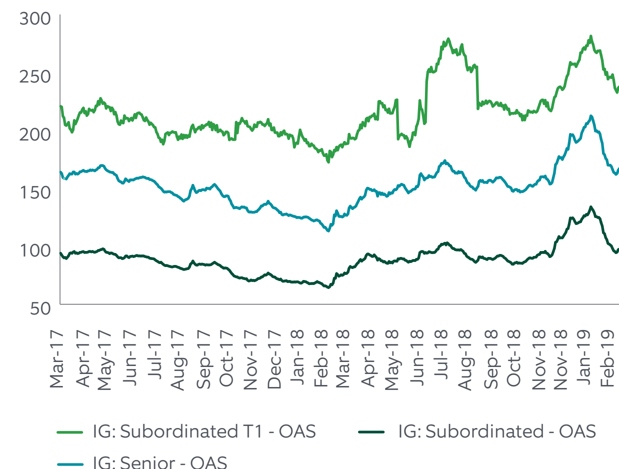
China: Despite a Chinese slowdown amidst trade war tensions and banking sector opacity, the sector is in good stead driven by monetary and fiscal easing, ongoing financial reform and efforts to promote economic deleveraging. We are also reassured by the government's ownership of top Chinese banks

Korea: While we like Korean banks, the South-North conflict remains the main external risk. All the top commercial Korean banks are expected to maintain sound credit metrics. Even though regional economic fundamentals are weak, quasi-sovereign banks remain high quality investable credits given their solvency guarantee.

Australia: Major Australian banks are expected to maintain their sound credit profile despite ongoing regulatory scrutiny, slowing mortgage lending and rising funding costs.

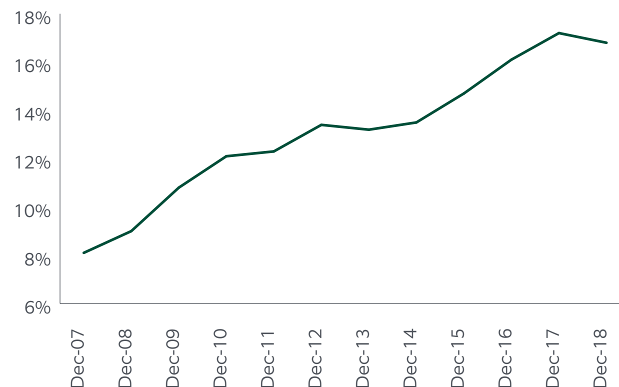
Japan: Japanese mega banks have benefited from a benign credit environment. However, the credit cycle has peaked and we expect credit costs to rise from a very low base. Nonetheless, key risks like the low interest rate environment and chronically weak underlying profitability persist.

BANK SPREADS BY PAYMENT RANK



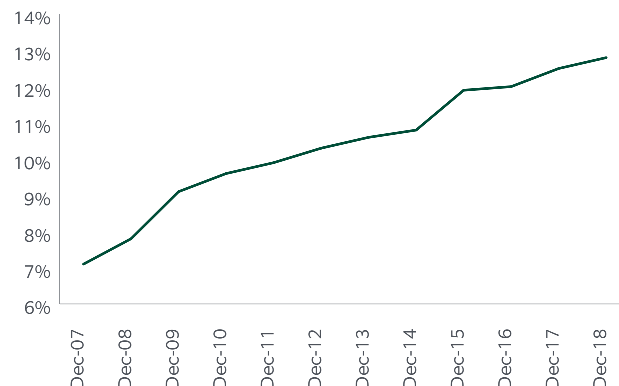
As of 2/22/2019
Source: Bloomberg, Barclays, Bloomberg Barclays Indices

EU BANKS TIER 1 CAPITAL RATIO



As of 12/31/2018
Source: Company Filings

ASIA-PACIFIC BANKS TIER 1 CAPITAL RATIO



As of 12/31/2018
Source: Company Filings, Bloomberg

ENERGY

The Energy Sector offers attractive return opportunities after a dramatic downdraft in crude oil prices (4Q 2018) drove spreads to recent highs. Spreads, particularly in HY, remain elevated despite improving sector fundamentals and oil prices generally remaining range bound.

FIR favors independent Exploration & Production (E&Ps) and midstream sub sectors compared to refiners, integrated and oilfield services.

Key Outlook Drivers (+/-)

Supply and Demand Balance (+): Oil supply and demand are regaining their balance, with OPEC cuts starting to take hold and U.S. shale growth slowing from its 2018 levels. We expect stable demand growth in 2019 for all petroleum products (oil and refined products – gasoline and diesel).

Financial Metrics (+): Costs remain under control and companies are well positioned to manage capital spending and production growth, while generally maintaining credit metrics.

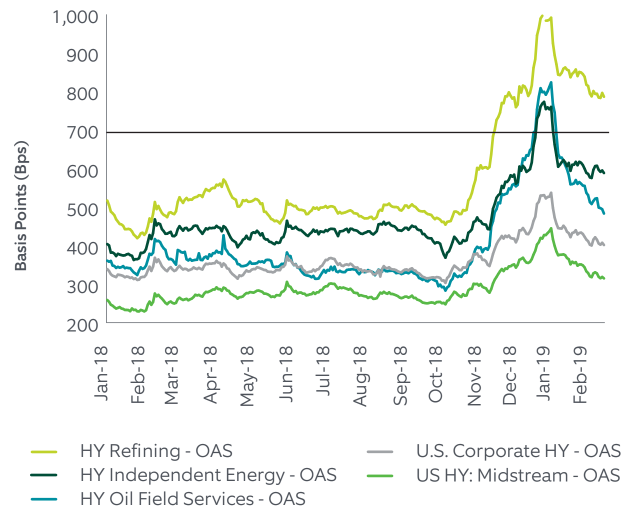
Strong Balance Sheets (+): Liquidity remains quite strong, with little near term refinancing pressure.

Political Controls (+): Geopolitical, supply and trade barriers that impact demand are key risks, but supply has historically had a greater impact on pricing. Thus, judicious management of production volumes by OPEC, Russia and the U.S. should keep risks balanced.

WEST TEXAS INTERMEDIATE PRICE
(Crude oil has had a strong start to the year.)

As of 2/19/2019
Source: NYM-New York Mercantile Exchange, Bloomberg

HIGH YIELD ENERGY SECTOR – OPTION ADJUSTED SPREAD
(Energy yields continue to offer attractive returns.)



As of 2/15/2019
Source: Bloomberg, Barclays, Bloomberg Barclays Indices

EMERGING MARKETS: ASIA

EMs Asia had relatively weak credit performance in 2018. We expect 2019 performance to improve based on cheaper valuations and further easing of monetary and fiscal policies in China. However, there are risks for EM's, including the ongoing threat of a U.S.-China trade war, a GDP slowdown in China and the potential withdrawal of global liquidity as easy money policies are reversed.

We are neutral on EM Asia corporates and prefer a defensive strategy with a focus on high quality issuers due to the asymmetric risk profile of local credits.

Key Outlook Drivers (+/-)

Trade Concerns (-): The key risk factor is renewed escalation in U.S.-China trade negotiations that could fail and trigger a trade war. Direct impact from trade tensions is limited to Asian credits, but Chinese economic growth will be impacted negatively with spillover effects.

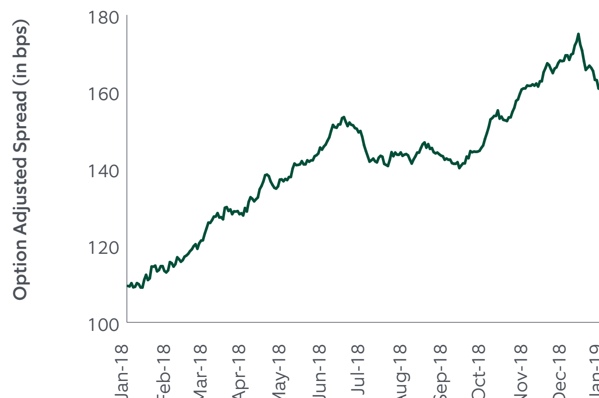
Regional Slowdown (-): Credit growth in Asia was muted in 2018. Corporate defaults in China increased significantly. With a slowing economy and government efforts to reign in risky lending, the number of local defaults is likely to increase further this year.

Rising Headwinds (-): Indonesia looks well placed, with macro fundamentals remaining strong, while India has higher inflation and increasing non-performing loans. Rising oil prices, which are heavily imported, will also create trade balance headwinds.

Limited Issuance (+): After a record year of USD bond issuance in 2017, there was moderation in new supply in 2018. China accounted for the bulk of supply, followed by Korea and Indonesia. The gross new supply of bonds in 2019 is expected to remain firm, but net supply is forecasted to be mildly negative and should support current credit spreads.

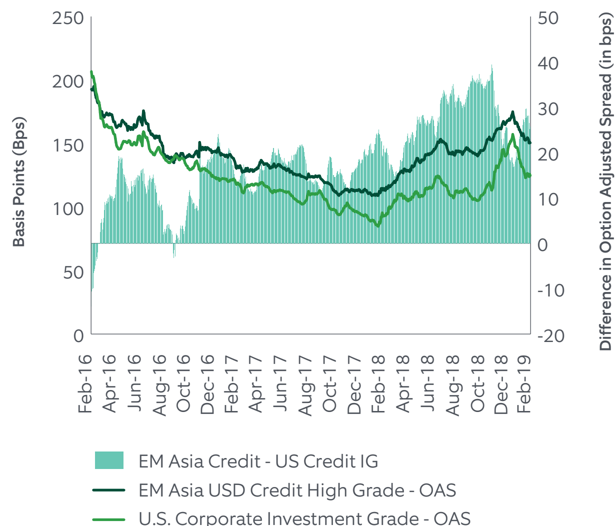
Improving Financial Metrics (+): Asian investment grade corporates are benefiting from years of deleveraging activities that have lowered risks.

EM ASIA USD CREDIT HIGH GRADE – OAS



As of 1/22/2019
Source: Bloomberg, Barclays, Bloomberg Barclays Indices

EM OFFERING SPREAD PICK UP OVER U.S. PEERS



As of 2/15/2019
Source: Bloomberg, Barclays, Bloomberg Barclays Indices

HEALTHCARE

The Healthcare sector outlook is stable for 2019, with M&A expected from large pharmaceutical companies.

Overall, low unemployment levels are a positive for the sector, as this supports commercial health insurance enrollment. Insurers and providers benefit from higher reimbursement rates for commercial healthcare and better collection rates from self-pay patients.

Pharmaceuticals

We have a favorable view on pharmaceutical pricing for branded drug companies and think generic drug companies will see relatively reduced pricing pressure. This should translate into a positive operating year for most companies.

We like relatively small and less diversified pharmaceutical companies, as we view these as potential takeout targets for larger, more diversified and higher rated players.

Pharmaceutical Drivers (+/-)

Generic Competition (-): 2018 marked a moderation in rapid generic pharmaceutical approvals of drugs because the FDA cleared a backlog of approvals in 2017.

Pricing Power (+): Many pharmaceutical companies have communicated only moderate price increases in advance for 2019. This should help avoid the 2018 political spotlight that forced several companies to roll back aggressive price hikes.

Improved Financial Metrics (+): Tax changes to repatriation have given U.S. firms less costly access to their global cash flows, allowing them greater financial flexibility. This has enabled large pharmaceutical companies the stability to enjoy low to mid BBB credit ratings as a result.

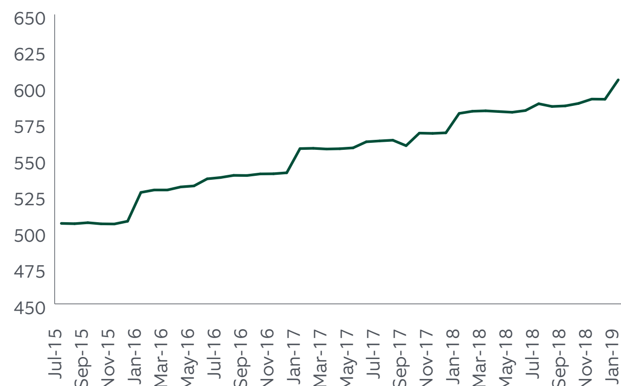
Managed Care, Health Care Facilities, Devices and Equipment

We have favorable outlooks for managed care, medical equipment companies, healthcare IT providers and contract research organizations.

We have a neutral outlook for healthcare providers.

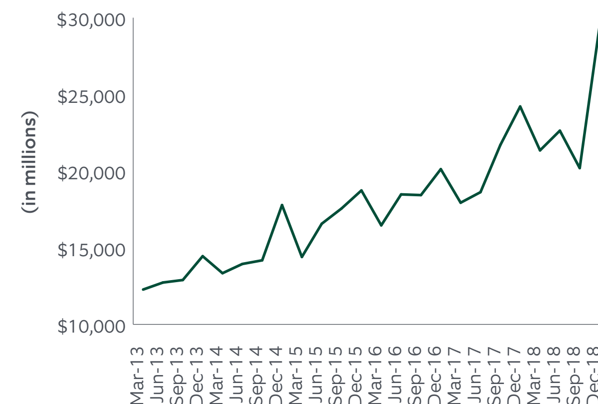
We are negative on diagnostic companies and drug distribution companies in 2019.

U.S. PPI DRUGS & PHARMACEUTICALS INDEX



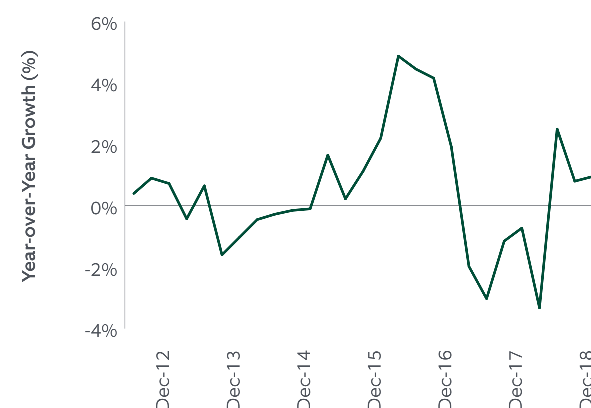
As of 1/31/2019
Source: Bureau of Labor Statistics

BIOTECH AND PHARMACEUTICAL QUARTERLY RESEARCH AND DEVELOPMENT SPEND



As of 12/31/2018
Source: Company Filings, Bloomberg, Northern Trust Asset Management Fixed Income Research

AVERAGE SAME HOSPITAL ADJUSTED ADMISSION TRENDS, YEAR-OVER-YEAR GROWTH, QUARTERLY



As of 12/31/2018
Source: Bloomberg, Company Filings

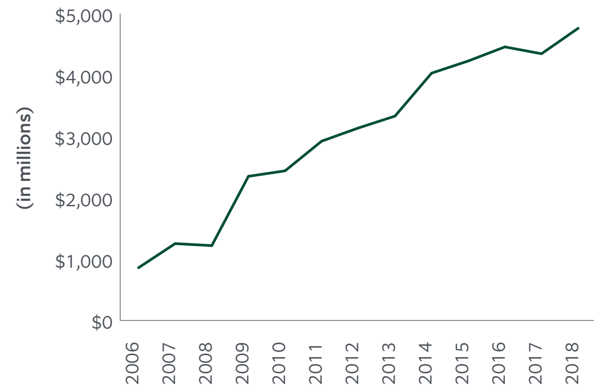
Healthcare Drivers (+/-)

Steady Admissions (+): We expect hospital admissions growth to remain steady at 1% to 2% in 2019, as increased investment in facilities, aging demographics and growth in population support modest volume growth.

Cost Management (+): We expect medical cost growth to slow slightly due to increasing competition from lower cost sellers and increasing scrutiny on drug prices. This is a positive for healthcare insurance companies.

Wage Pressures (-): The tight labor market will drive wage cost pressures and potentially compress margins, specifically at healthcare facilities, while supporting commercial health insurance enrollment. This is a positive for insurers with a large commercial book.

PUBLICLY TRADED HOSPITAL CAPITAL EXPENDITURES



As of 12/31/2018
Source: Company Filings, Bloomberg, Northern Trust Asset Management Fixed Income Research

Solid Financial Footing (+): Healthcare facilities, biotech and pharmaceutical companies continue to increase investment and remain well funded, creating a supportive backdrop for life science and medical equipment companies. Continued innovation from medical supply and equipment companies should also support growth going forward.

Reimbursement Risks (-): Medicare reimbursement reductions for clinical testing through the Protecting Access to Medicare Act (PAMA) are expected to lead to double digit price erosion in the Medicare book of diagnostic companies over the next few years, a headwind for the industry.

Drug Price and Opioid Liabilities (-): Continued deflation in generic drug pricing, modest inflation in branded pricing and potential opioid liabilities are major headwinds to drug distributors going into 2019 and they drive our negative outlook for this industry.

INDUSTRIALS

We have a neutral outlook for the industrial sector. Led by building products, aerospace and defense, and diversified manufacturing, the sector is seeing strong activity. However, various economic metrics, including the ISM Manufacturing PMI, have flashed signs of weakness.

Key Industrial Drivers (+/-)

Strong Macro Trends (+): Industrial activity remains robust, but pockets of turbulence emerged in late 2018.

Commodity Price Weakness (-): 2018 closed with significantly lower commodity prices and declines in some broad leading indicators, hinting that conditions could weaken further into 2019.

Strong Financials (+): Overall, earnings across the manufacturing and industrial sectors remained strong.

Construction Activity Solid (+): Non-residential construction activity has remained strong. Residential construction is expected to generate modest growth, but we expect it may have turned negative in Q1 2019 and could remain muted during 2019.

Building Products

We prefer non-residential to residential construction given larger budgets, longer lead times and resilience to changing economic conditions. There are few specific housing related names that continue to offer good valuation opportunities.

Aerospace and Defense

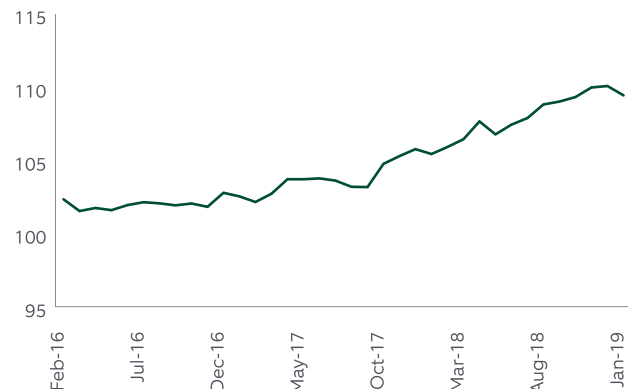
Given solid product demand and moderating spending plans, FIR views A&D as a defensive play that should see less volatility than the overall market in 2019.

Global demand for air travel (planes and parts) will provide strong tailwinds for the aerospace industry in 2019.

Federal budget spending for defense contracts should moderate following a 14% increase in FY18, limiting growth prospects for 2019.

Given tight valuations, there is limited opportunity to outperform in the sector.

U.S. INDUSTRIAL PRODUCTION SEASONALLY ADJUSTED

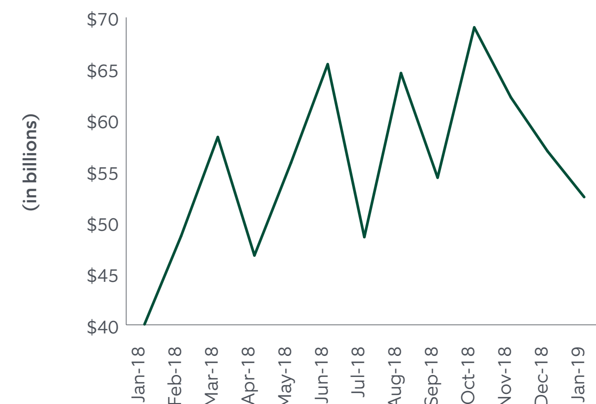


As of 1/31/2019
Source: Federal Reserve

US CONSTRUCTION SPENDING TOTAL SAAR YEAR-OVER-YEAR CHANGE

As of 11/30/18
Source: U.S. Census Bureau

U.S. TREASURY – FED BUDGET NET OUTLAYS – DEFENSE



As of 1/31/2019
Source: Bloomberg, U.S. Treasury

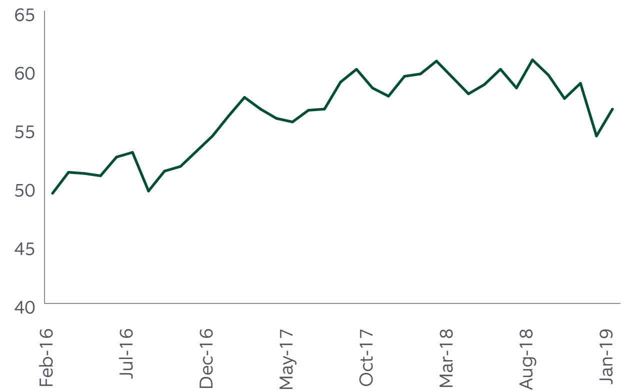
Diversified Manufacturing

Amid weaker global GDP, moderate growth in manufacturing demand is still expected but investment valuations are tight.

Going into 2019, the big risk for this sector is increasing global trade tensions, which continue to push raw material costs higher and foreign demand lower. This could be particularly negative for agricultural equipment manufacturers that rely heavily on export volumes.

The capital goods sector should continue its steady performance into 2019. Trade tensions may cause growth to slow over 2018 levels, but positive growth is still anticipated through 2019.

ISM MANUFACTURING PMI



As of 1/31/2019
Source: Institute for Supply Management

BASIC INDUSTRY

Basic Industries are led by chemicals and metals/mining and FIR is neutral on the sector due to decelerating global growth expectations. There are few opportunities to outperform market indices in the basics sector.

The chemical sector is seeing slowing demand, but is less impacted by cost pressures. Therefore, it is better able to adjust to near-term growth volatility. We remain positively biased toward companies that are exposed to diversified end markets and prefer to avoid highly cyclical, single commodity names.

In Metals/Mining we favor miners of bulk commodities like iron ore and copper, where supply and demand remain balanced. We are cautious on steelmakers as margin pressures mount. Rising costs are driven by a run up in iron ore costs from the Vale SA mine disasters, while trade barriers put in place by President Trump have seen diminishing effects on steel prices.

Spreads to their underlying market index highlight the lack of value in the metals and mining sector and contribute to our neutral outlook. HY metals are trading below the HY index, while IG metals are offering some yield advantage to the IG index.

Key Outlook Drivers (+/-)

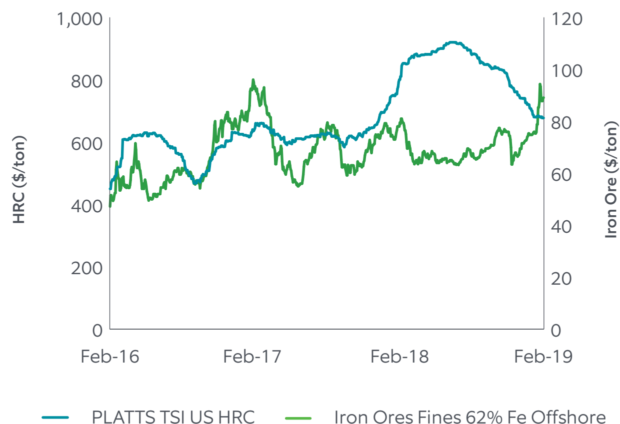
Strong Industrial Demand (+): Global growth and industrial demand metrics have been declining or decelerating due to trade negotiations and the removal of accomodative monetary policies.

Strong Credit Metrics (+): Liquidity is ample and balance sheets are strong, with small near-term amortization needs.

Weak Commodity Prices (-): Commodity prices have been declining, but appear to be stabilizing. Should prices fall again, growth fears will likely lead to greater downside risk.

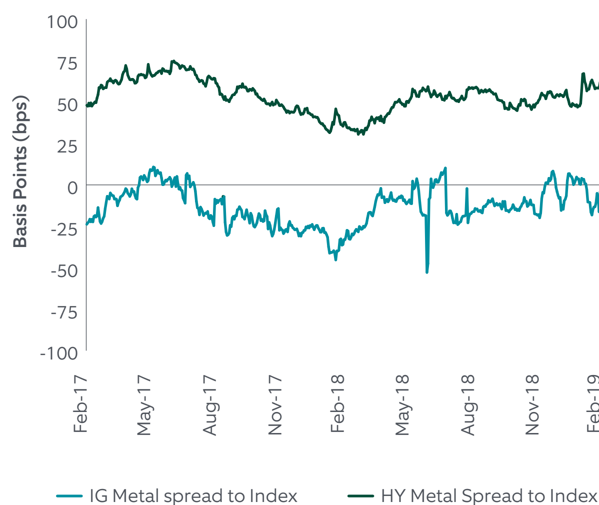
New Production Supply (-): After years of underinvestment and supply discipline, new supply announcements have accelerated and are likely to keep pressure on pricing across many subsectors, dampening the opportunity for profit growth.

STEEL PRICE FALLING WHILE IRON ORE IS RISING HITS STEELMAKER MARGINS



As of 2/19/2019
Source: Shanghai Steelhome E-Commerce Co., LTD, Platts Market Data Pricing, Bloomberg

METALS AND MINING SECTOR SPREADS RELATIVE TO INDEX SPREADS



As of 2/21/2019
Source: Bloomberg, Barclays, Bloomberg Barclays Indices

Communications & Technology

American entrepreneur and investor, Marc Andreessen, coined the phrase "software is eating the world" in 2011*. Today, software permeates our world, driving digital evolution, artificial intelligence (AI) and machine learning, cloud computing, 5G, and quantum computing. The communications and technology industries stand at the center of these transformations.

We expect communications and technology firms to continue positioning themselves for the opportunities and disruptive effects from emerging technologies. The significant transformations promised by these trends are driving companies to prepare for the future now.

M&A: Many firms will continue to pursue M&A strategies to gain scale and/or add capabilities to position themselves better for the future. M&A activity is especially anticipated in the media, telecom and software sectors.

Technology: While we expect M&A to continue, the pace may become tempered given valuations are elevated and political concerns related to cross-border transactions are more prevalent.

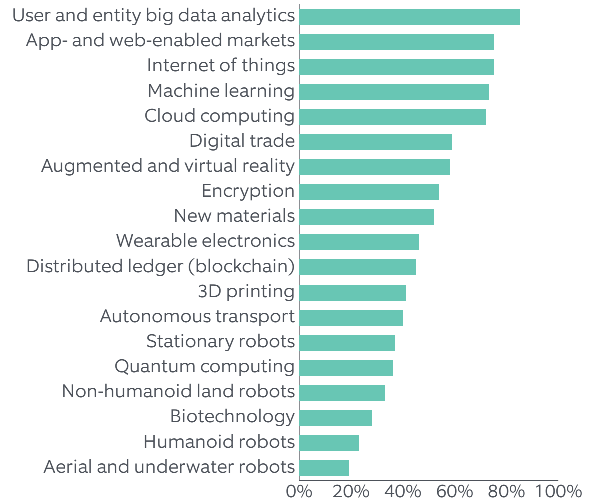
Media: The media sector continues to face rapid disruption as consumers seek more flexible and economical ways to discover and consume entertainment. At the same time, large digital players have invested aggressively in content to provide more entertainment choices. Many media companies have turned to M&A as a remedy – exit, diversify, or increase scale. We expect transaction announcements to continue in 2019.

Cable: The cable television sector remains a relatively safe haven within communications and technology for 2019.

Internet traffic: Cisco forecasts Internet usage growing at a 26% CAGR for the five years through 2022. Smartphones are expected to account for the largest portion of Internet traffic, rising from 18% in 2017 to 44% in 2022.

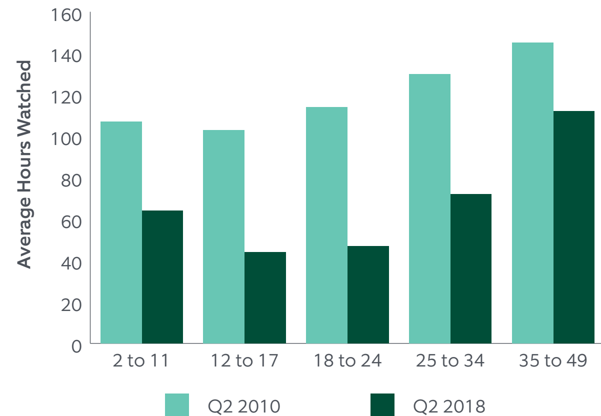
Telecommunications: Upgrading wireless networks to handle the explosive growth in traffic remains essential for the four largest wireless carriers in the U.S. All are focused on 5G network upgrades to accommodate growing usage. The coming year will see continued high capital investment, but revenues from 5G services are not expected to be material until 2020 and beyond.

TECHNOLOGIES BY PROPORTION OF COMPANIES LIKELY TO ADOPT THEM BY 2022 (PROJECTED)



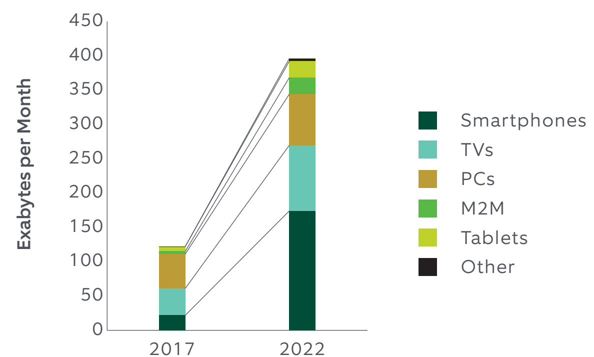
As of 9/17/2018
Source: Future of Jobs Survey 2018, World Economic Forum

AVG. HOURS OF PAY TV WATCHED PER MONTH BY AGE BRACKET (U.S. Only, Live + DVR+ VOD + Broadcast, Excludes SVOD)



As of 12/11/2018
Source: MediaREDEF, Nielsen, @BallMatthew

EXABYTE USAGE PER MONTH



As of 11/29/18
Source: Cisco Visual Networking Index: Forecast and Trends, 2017_2011 (published November 2018)

*Editorial by Marc Andreessen in The Wall Street Journal, 8/20/11, "Why Software Is Eating the World"

UTILITIES

We have a neutral outlook for regulated utilities. Capital investment is expected to remain robust and firms will need to rely on external financing due to a lack of sufficient free cash flow. Our outlook for independent power producers (IPPs) is more positive due to improving business profiles and more conservative financial policies.

Regulated Utility Drivers

Forced Passthroughs (-): Regulated utilities were required to pass on their tax cut savings to ratepayers in 2017. This led to reduced cash flows and increased leverage in the regulated utility space.

Heightened Spending Needs (-): Capital investment continues to outpace internally generated cash flows across regulated utilities. We expect the majority of capital investment to be funded with additional debt.

Favorable Regulatory Support (+): These concerns are partially offset by the consistency of regulated utility cash flows and improvements in timely cost recovery through new, innovative regulatory mechanisms.

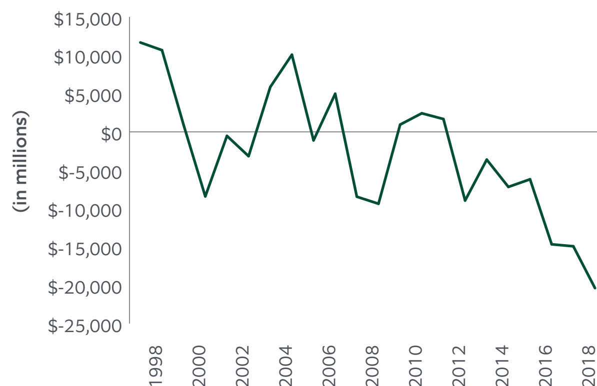
Independent Power Producer (unregulated utility) Drivers:

Diversification (+): Many producers are adding retail operations to reduce commodity exposure and stabilize cash flows.

Financial Discipline (+): More conservative financial policies should increase credit quality, as companies work towards new, lower leverage targets.

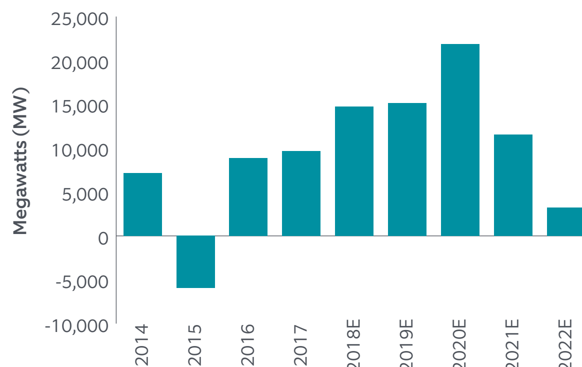
New Generation Supply (-): With new generation capacity expected to outpace retirements, we see minimal upside to wholesale power prices.

UTILITY SECTOR FREE CASH FLOW



As of 12/31/18
Source: Company Filings, Bloomberg, Northern Trust Asset Management Fixed Income Research

EIA NET EXPECTED GENERATION CAPACITY ADDITIONS AND RETIREMENTS (MW)



As of 11/1/2018
Source: U.S. Energy Information Administration (EIA)

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