Optimal capital structure theory

Bank of America Merrill Lynch

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Credit Strategy
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See Team Page for List of Analysts

- **We published the latest Credit Market Strategist on Friday. Please click Jobs to the rescue 04 October 2019 or see inside for the key bullets.**

- **Optimal capital structure theory**. A fact receiving considerable attention – and today we got another question on it - is that US corporate debt is now at a record 47% share of GDP. It is important to analyze implications - especially for certain segments of the corporate debt market, and on the investor side in light of the risk of outflows. As we have argued, GDP is not an ideal scale for corporate debt. In one dimension it does appear appropriate, though, as corporate profits are part of GDP, which allows corporate debt to benefit from the fact the share of corporate profits in GDP is currently high. However, one of the defining aspects of the past couple of decades is a secular decline in interest rates, which has allowed the equity market multiple to expand. In other words there is currently high equity value per unit of earnings, and it is only natural with a similar situation on the debt side.

- We think companies set optimal capital structures by maximizing shareholder value (and other objectives) while minimizing the weighted average cost of capital (WACC), which probably naturally translates into a certain leverage ratio - best defined as financial debt/equity market value. Currently debt/equity for US companies is 33%, which is just off the 28% all time low and well below the 57% average for the past 50 years. We see similar a pattern in our universe of US IG companies. In other words, compared to equity companies rely relatively less on debt these days than historically. However, obviously the increase in corporate profits, decline in interest rates and expansion of equity market multiples have allowed companies to use tremendous absolute amounts of debt and equity. But in both cases GDP is not an apples-to-apples denominator as even though it scales with earnings, there is no accounting for the secular shift lower in interest rates.

- What happened on the debt side appears straightforward – declining interest rates incentivized companies to use more debt in order to lower WACC. The trade-off is higher expected bankruptcy costs, as with more debt default probabilities are higher. Optimal capital structures nowadays lead to record high corporate-debt-to-GDP ratios. The flip side of the coin in saying corporate-debt-to-GDP is high is saying corporate-equity-to-GDP is also high. – *Hans Mikkelsen*

- **Daily supply update**. US IG new issuance totaled $4.4bn across 6 deals at an average concession of 6.4bps and average break performance of 4.5bps tighter today. Equities declined by 0.45%, CDX IG widened 1.08bps and CDX HY dropped $0.18pts. Liquid secondaries performed in line with US banks mostly unchanged, TMT 4bps tighter to 2bps wider, retail flat to 2bps wider, healthcare 3bps tighter to 1bps wider, and industrials 1bps tighter to 1bps wider on the day. – *Yunyi Zhang*

- **Daily foreign demand tracker**. – *Yuri Seliger, Yunyi Zhang*

- **Other reports include:** 1) Asian Credit Market Primer, 2) 3Q Earnings Preview: get ready for negative EPS growth, 3) Consumer credit higher in August.

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Research Overview — The Situation

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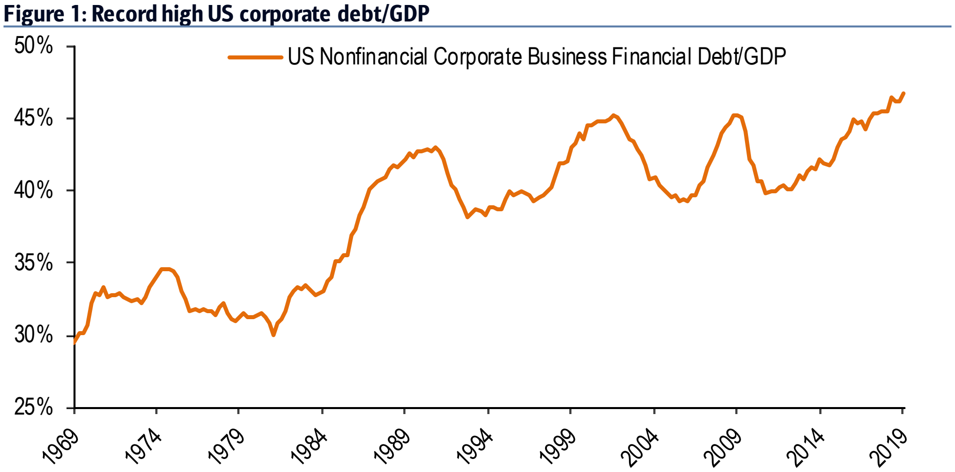
Optimal capital structure theory

A fact receiving considerable attention – and today we got another question on it - is that US corporate debt is now at a record 47% share of GDP (Figure 1). Obviously it is important to analyze implications - especially for certain segments of the corporate debt market, and on the investor side in light of the risk of outflows. However, as we have argued, GDP is not an ideal scale for corporate debt. In one dimension it does appear appropriate, though, as corporate profits are part of GDP, which allows corporate debt to benefit from the fact the share of corporate profits in GDP is currently high (Figure 2). However, one of the defining aspects of the past couple of decades is a secular decline in interest rates, which has allowed the equity market multiple to expand (Figure 3). In other words there is currently high equity value per unit of earnings, and it is only natural with a similar situation on the debt side.

Figure 1: Record high US corporate debt/GDP

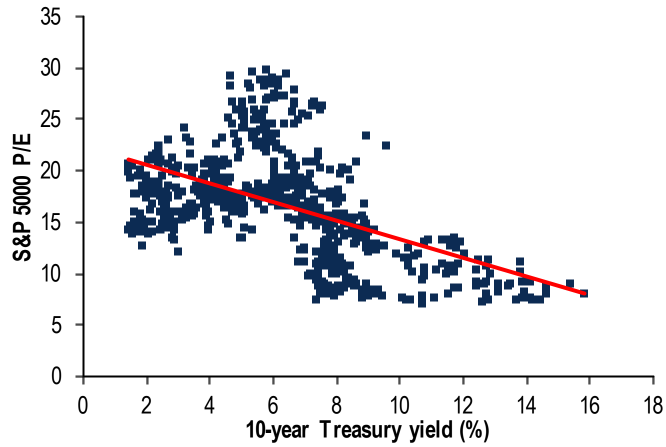


Source: Bureau of Economic Analysis, Federal Reserve, BofA Merrill Lynch Global Research

Figure 2: High US corporate profits as share of GDP

Source: Bureau of Economic Analysis, BofA Merrill Lynch Global Research

Figure 3: Equity market multiple expansion as interest rates declined

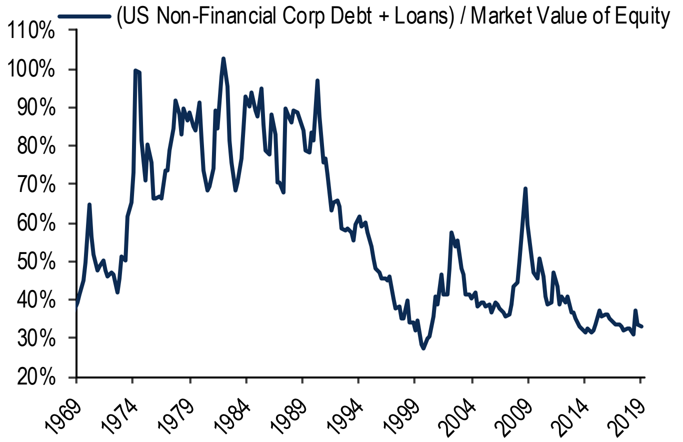


Source: Bloomberg, BofA Merrill Lynch Global Research

We think companies set optimal capital structures by maximizing shareholder value (and other objectives) while minimizing the weighted average cost of capital (WACC), which probably naturally translates into a certain leverage ratio - best defined as financial debt/equity market value. Currently debt/equity for US companies is 33%, which is just off the 28% all time low and well below the 57% average for the past 50 years (Figure 4). We see similar a pattern in our universe of US IG companies (Figure 5). In other words, compared to equity companies rely relatively less on debt these days than historically. However, obviously the increase in corporate profits, decline in interest rates and expansion of equity market multiples have allowed companies to use tremendous absolute amounts of debt and equity. But in both cases GDP is not an apples-to-apples denominator as even though it scales with earnings, there is no accounting for the secular shift lower in interest rates. .

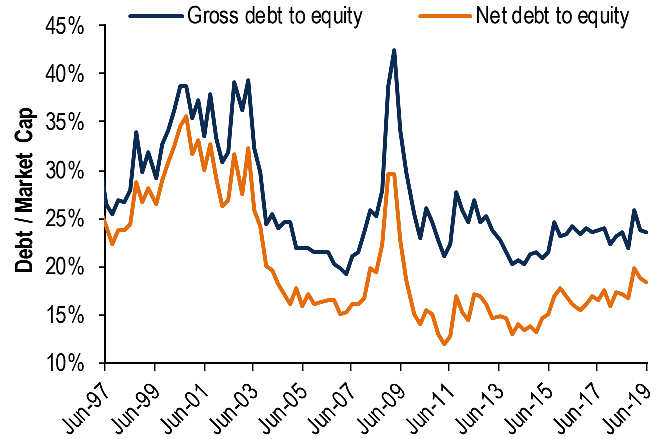
What happened on the debt side appears straightforward – declining interest rates incentivized companies to use more debt in order to lower WACC. The trade-off is higher expected bankruptcy costs, as with more debt default probabilities are higher. Optimal capital structures nowadays lead to record high corporate-debt-to-GDP ratios. The flip side of the coin in saying corporate-debt-to-GDP is high is saying corporate-equity-to-GDP is also high.

Figure 4: US corporate debt to equity is currently very low



Source: Federal Reserve, BofA Merrill Lynch Global Research

Figure 5: US IG Debt/Equity (Ex. Finance, Utilities)



Note: Excludes leases that were capitalized in 1Q19 and 2Q19. Medians for US IG companies. Net debt is gross debt minus cash and marketable securities.
Source: BofA Merrill Lynch Global Research

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Daily supply update

US IG new issuance totaled $4.4bn across 6 deals today. The average new issue concession increased to 6.4bps today from 4.5bps last week, while the average break performance improved to 4.5bps tighter today from 2.6bps tighter last week. Equities declined by 0.45% while the Treasury curve bear-flattened with 2-year and 10-year yields up 6bps and 3bps and 0.5bps, respectively. CDX IG widened 1.08bps and CDX HY dropped $0.18pts. Liquid secondaries performed in line with US banks 1bps tighter to 1bps wider, TMT 4bps tighter to 2bps wider, consumer retail flat to 2bps wider, healthcare 3bps tighter to 1bps wider, and industrials 1bps tighter to 1bps wider on the day.

Figure 6: Recent new issue pricing and new issue concessions

Date	Ticker	Name	Tenor	Size ($mm)	Moody's/S&P Rating	Coupon (%)	Px Spread (bps)	New Issue Conc. (bps)	* Break performance	Current spread (bps)
2019-10-07	DHI	DR Horton Inc	5	$500	Baa3/BBB	2.5	113	6	n.a.	n.a.
2019-10-07	ESS	Essex Portfolio LP	10	$150	Baa1/BBB+	3	125	5	n.a.	n.a.
2019-10-07	KEYS	Keysight Technologies Inc	10	$500	Baa2/BBB	3	145	n.a.	-5	140
2019-10-07	PEP	PepsiCo Inc	30	$1,000	A1/A+	2.875	92	5	n.a.	n.a.
2019-10-07	TD	Toronto-Dominion Bank/The	3	$350	Aa3/A	FRN	3mL+53	n.a.	n.a.	n.a.
2019-10-07	TD	Toronto-Dominion Bank/The	3	$1,150	Aa3/A	1.9	53	10	n.a.	n.a.
2019-10-07	ULFP	WEA Finance LLC	7	$750	A2/A	2.875	143	n.a.	n.a.	n.a.

Note: We calculate new issue concessions by estimating the difference between new issue bond spread and interpolated G spread from comparable liquid secondary bonds of the same issuer prior to the new issue deal announcement, adjusted for the spread impact of dollar prices deviating from par. Break performance is computed as the difference between new issue pricing and secondary closing spread on the first day of trading.
Source: BofA Merrill Lynch Global Research

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Credit Market Strategist: Jobs to the rescue 04 October 2019

Credit Market Strategist: Jobs to the rescue

- **Jobs to the rescue**. Coming in close to expectations on headline Nonfarm payrolls, as a slight miss was more than offset by upward revisions, and no wage inflation today's jobs report for September really is close to goldilocks for IG credit. This kind of data supports the notion that the US economy is strong and not going into recession, while at the same time the lack of inflation provides the Fed cover to deliver rate cuts investors expect. Looking at the details not surprisingly manufacturing was weak shedding 2K jobs in September. However private services grew 109K jobs, which is a bit below the 130K average this year but decent.

- One particularly disturbing aspect about yesterday's disappointing reading on ISM Non-Manufacturing was the large decline in the employment component from 53.1 to 50.4, the lowest in more than five years. However, the lack of a large decline in the actual count of jobs in the services sector for payrolls supports a more natural gradual decline in employment instead of a jump to recession. We think this week's widening in IG credit spreads presents investors with yet another buying opportunity as the ISM-infused increase in recession fears fades. Of course next week could be volatile given high level trade negotiations between the US and China in Washington, DC.

- **You're my large Angel**. We find that the median Fallen Angel (FA) underperforms the cross-over (BBB+BB) space by 42% of cross-over benchmark spreads over the year leading to the downgrade date - 23% of which occurs during the last three months - and then outperforms 15% during the year after the downgrade. However, for larger FAs accounting for more than 0.6% of the HY index (currently >$7.2bn) the one-year pre-downgrade underperformance is much higher at 106% of cross-over spreads - especially during the last few months leading up to the downgrade - but once they hit HY outperformance is stronger at 35% the first year than for median sized companies. For FAs less than 0.6% of the of the HY market, size does not appear to be a further differentiator for performance. Long maturities (>10 years) underperform in line with shorter maturities (<10 years) leading up to the downgrade and, but then struggle and outperform only 9% of the benchmark once in HY compared with 20% for shorter maturities.

- **EUR / USD cross currency relative value**. On a fully currency hedged basis EUR-denominated spreads are currently rich vs. USD for European issuers. On the other hand US-issuer EUR-denominated spreads are cheap for bonds 5-year or shorter and rich for 7-10yr bonds. When hedging with 3M FX forwards EUR-denominated yields are more attractive, partially due to a seasonal spike in hedging costs prior to year-end. Based on 12M forward 3M hedging costs EUR yields are cheap for US-issuer bonds and USD spreads are cheap for European-issuer bonds.

- M&A **announcement volume declined in September**. North American M&A announcement volume declined notably to $106bn in September from $189bn.
- **Accelerating high grade inflows**. $4.89bn US IG fund/ETF inflow.
- **Light supply during earning blackouts**. $12.2bn this week. $10-15bn next week.

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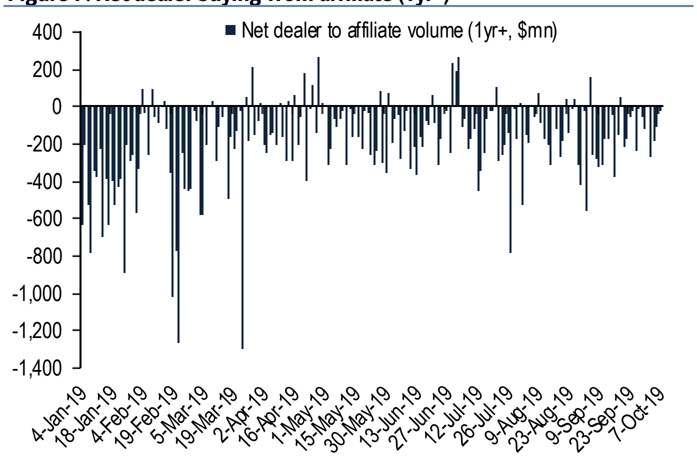
Daily foreign demand tracker

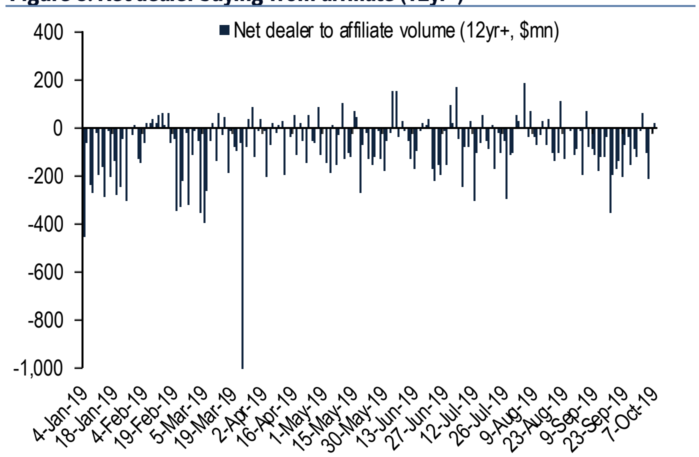
We believe net dealer-to-affiliate volumes from Trace are correlated with foreign buying of US HG corporate bonds - i.e., negative numbers mean foreign investor buying (US dealers taking down inventory in favor of foreign affiliates). For supporting material see our "primer" on tracking foreign inflows (See: Credit Market Strategist: One year round-trip in spreads 15 July 2016). Figure 7 shows the overall daily dealer-to-affiliate volumes while Figure 8, Figure 9 and Figure 10 show subsets of this data. In particular Figure 8 shows net dealer-to-affiliate volumes for longer maturity (12+ years) bonds, Figure 9 displays volumes reported to Trace before 8am NY time (biased toward Asian buying) and Figure 10shows the subset of net trades reported between 8am and noon (biased toward European buying). Figure 7 and Figure 8 include data from today, whereas Figure 9 and Figure 10 run through the previous business day.

Figure 7: Net dealer buying from affiliate (1yr+)



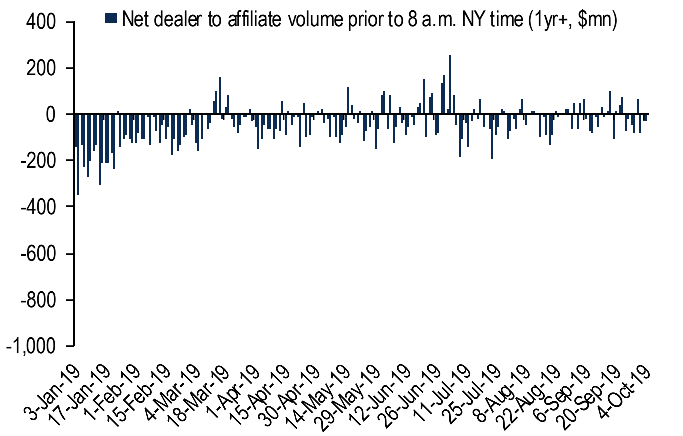
Note: Net dealer-to-affiliate volumes are correlated with foreign buying/selling. Negative numbers indicate foreign buying.
Source: Bloomberg, TRACE

Figure 8: Net dealer buying from affiliate (12yr+)



Note: Net dealer-to-affiliate volumes are correlated with foreign buying/selling. Negative numbers indicate foreign buying.
Source: Bloomberg, TRACE

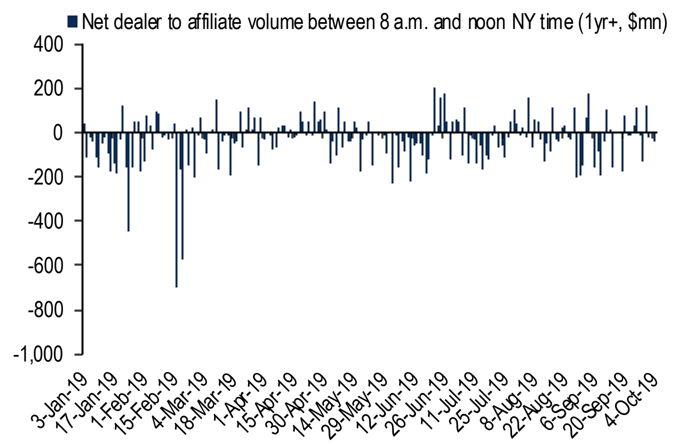
Figure 9: Net dealer-to-affiliate trading volumes before 8 a.m. NY time



Note: Morning share of daily trading volume is correlated with secondary market activity of foreign investors due to different time zones.

Source: BofA Merrill Lynch Global Research, TRACE

Figure 10: Net dealer-to-affiliate trading volumes 8 a.m. - noon NY time



Note: Morning share of daily trading volume is correlated with secondary market activity of foreign investors due to different time zones.

Source: BofA Merrill Lynch Global Research, TRACE

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Asian Credit Strategy: Asian Credit Market Primer 07 October 2019

Asian Credit Market Primer

We look at growth & changes across Asian credit markets

For the past 10 years since the global financial crisis, the Asian credit market has experienced extensive growth on the back of quantitative easing, falling interest rates and plentiful liquidity which reduced funding costs, while in the past three years, we have started to see global central banks and policy makers seeking balance between containing credit risks and supporting economic growth. On this update, we look at what changes this has brought to the markets. Overall, we have seen the Asian (ex-Japan) credit market grow by 194% since the end of 2009 to reach an outstanding size of US$49.2trn in July 2019. There have been a few key changes of note: (1) we've seen a shift towards corporates borrowing in bond markets, and domestic corporate bonds have showed strong growth in the past 10 years, increasing from 9% to 14% of the total credit market, (2) despite the growth in absolute amount, the share of international bonds and international loans has remained largely unchanged at around 7-8% in the past 10 years, (3) China has become a driving force in the region, and (4) we see diverging trends in market developments in the region.

International bonds: China showed the fastest growth

The total outstanding size of the Asian bond market (G3 currencies) as at end July 2019 was US$1.49tn, according to Dealogic. The size of the outstanding market has grown by 87% since end 2014 (US$798bn) and the issuance trend has been driven by high yield corporates and financials. Today, high grade corporate credit accounts for about 58% of the market, sovereigns/quasi-sovereigns about 23% and HY corporate credit about 18%. China has been by far the fastest growing issuer country and today accounts for 52% of the outstanding market (up from 31% in 2014).

International loan markets

The size of the outstanding syndicated loan market stood at US$2.4trn as at 1H19. The proportion of local currency loans has increased to 65% as Asian lenders now account for 81% of total syndicated loans issued. China was the largest borrower, accounting for 39% of new loans in 2018 despite political developments which raised concern amongst lenders about lending to Chinese exporters in the manufacturing and technology sectors. Given the weak economic outlook, refinancing also became the top loan purpose as Asian companies took advantage of the lending appetite to amend existing deals.

Domestic bonds: Korea & Malaysia with highest % to GDP

The domestic bond market in Asia was US$16.9trn as of July 2019, expanding 177% from the end of 2009. Unlike international bond markets, government bonds accounted for the majority of outstanding size (61%). China accounts for a dominating 69% of the Asian domestic bond market, while Korea, Malaysia, Singapore and Hong Kong are relatively small but considered highly developed. This is illustrated in (1) their outstanding corporate bonds as a percentage of GDP being close to or over 30% (vs 15% average for the rest of the countries), and (2) domestic corporate bonds accounting for more than 40% of the total local currency bond market size (vs 26% average for the rest of the countries).

Domestic loan markets: the largest source of funding

Local loans remain the largest of Asia's credit markets with US$28.3trn in aggregated outstanding domestic loans as of July 2019. China has been the fastest growing market with an average growth rate of 14%, while Hong Kong, Philippines, India and Indonesia have also grown at an above average rate.

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Previously published here
[Earnings Tracker: 3Q Preview: get ready for negative EPS growth 07 October 2019]

3Q Earnings Preview: get ready for negative EPS growth

2Q recap: Buybacks came to the rescue

The S&P 500 once again avoided an EPS decline in 2Q, growing +1% YoY vs. consensus expectations of a 2% decline heading into the quarter. But this was the weakest EPS growth since the 2015-16 earnings recession, and excluding buyback benefits, earnings were -0.6% YoY, marking the first decline since 2Q16. Health Care posted the highest proportion of EPS and sales beats (66%) for the third straight quarter, while only 7% of Materials' earnings topped estimates, the lowest for the sector since 4Q15.

3Q19: Third time's the charm - EPS decline in the cards

We forecast $41.75 for 3Q EPS, a 1% beat vs. analysts' $41.29 estimate, and a 2% YoY EPS decline. Analysts expected declines for the past two quarters that failed to materialize, but the further slowdown in macro data could lead to the first EPS decline since the 2015-16 EPS recession. Analysts have trimmed consensus EPS by 4% since July (above the typical 3% pre-season cut), with the biggest cuts in commodity sectors (Energy -17%, Materials -10%). Discretionary (-6%) was hit by softness in recent data, while Industrials (-4%) also saw bigger estimate cuts than the overall S&P 500.

Brace for weak guidance

4Q-2020 consensus numbers still look too high to us: consensus currently expects +3% YoY EPS growth for 4Q and +10% EPS growth for 2020, which we think are overly optimistic given macro data. Another risk: EPS declines are like cockroaches: rarely a one-quarter event. Consensus expectations imply that 3Q will be the sole YoY EPS decline before bouncing back in 4Q. But this is unlikely: only one quarter in the history of the S&P 500 saw EPS decline without subsequent quarterly declines (4Q 1953).

...or for no guidance at all

3Q19 saw the fewest instances of 3Q guidance since 2000 (Chart 22). The information vacuum may continue. Historically, 7% of S&P companies have provided FY2 guidance during the 3Q earnings season (Chart 23), but we think that number could be significantly lower as trade and macro uncertainty continues. Companies' lack of visibility into next year, with just three months left in 2019, will likely create more uncertainty among investors and may result in lower 2020 estimates, in our view.

Business spending is swing factor for EPS: -20% to +7%

Capex has been and is likely to remain anemic (S&P 500 capex grew just +2% YoY in 2Q). Macro surveys imply trailing 12m capex growth could slow to +3% YoY on average over the next 6-12 months from the current rate of +8%. Capex has been a big driver of earnings growth since 2011 (58% R-sq) and matters far more than consumption. If capex decelerates to 2015-16 manufacturing recession levels, 2020 earnings could dip as low as $164 (-10% vs. consensus) based on the historical relationship. If we see an '08-09 decline in capex, '20 earnings could drop as much as 20% vs. consensus. But if we see a capex recovery similar to '18, upside risk is significant: +7% vs. consensus.

Same story: large, domestic/defensive sectors screen best

Growth / guidance have remained better up the cap spectrum, supporting large over small caps; small caps are already in, and should remain in, an earnings recession. Within the S&P 500, Health Care & Real Estate screen as most likely to beat, while Energy screens weakest, like last quarter. We include screens of stocks most likely to beat/miss, and those neglected / crowded by active funds which could have further room to move.

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Consumer credit higher in August

Consumer credit increased by $17.9b in August, which was less than the $23.0b increase in July but better than consensus expectations for a $15.0b advance. Looking at the details, the growth in consumer credit was driven by a 7.8% mom saar increase in nonrevolving credit. Revolving credit declined by 2.2% mom saar.

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