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AT CLIFF'S EDGE

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- * Business Spending / Investment Decelerating Last Four Quarters
- * Multiple Global & Political Issues Continue Damaging Business Confidence ... Must Reverse or Diminish to Avoid an Economic Slowdown / Recession
- * Overuse of Monetary Accommodation Facing Limits
- * Broad Market Highs Primarily from Abnormally Low Interest Rates
- * A Shaky 2020
- * Four KEY Defense Strategies Neutralizing Rate Sensitivity
 - Hard Credit Discipline
 - Technology Applications
 - Accelerating Consolidation VERY KEY

This Fall the market narrative has been gradually changing. Some conclude we may have already past the cyclical low point without requiring a recession. Others have begun characterizing the cycle as more in the midpoint phase. Many indices are at records, arguably due more to record monetary ease than fundamental earnings outperformance. And monetary over-accommodation is largely due to puzzling inflation behavior or perhaps its faulty measurement and/or benchmarking.

Underneath this scenario improvement is a disturbing and contrary trend in business investment, which ultimately restrains employment growth, which ultimately reins in consumer spending.

This trend can reverse, but if it doesn't economic momentum will die. Only significant fiscal stimulus will be able to offset this. Furthermore, we remain restrained by labor force growth, which is as much to do with record low unemployment as anything else. Only immigration modification can change this. Politically, neither seem probable at this juncture.

We conclude the outlook for financial stocks and the market in general is at an uncomfortable, either-or juncture of going over the cliff or not; Either further succumb to flagging confidence, or alternatively backtrack to safer ground with meaningful resolution or progress on multiple geopolitical issues responsible for waning confidence. It is too close to call, but we fear the former.

Trade issues with China may not be the most damaging in terms of direct drag on the U.S. economy but they are obviously the most visible, dramatic and influential to confidence. Any further decline in Europe's minimal economic momentum in the face of Brexit would probably be more impactful, as it is a far larger import market than China. Europe is at risk and that can affect the U.S. much more than generally

thought. National populism has infected many countries and globalization may well continue to reverse. Income inequality is largely driving this and has worsened in money countries. Riots in Hong Kong are separately explained but riots elsewhere, particularly Latin America and particularly noteworthy in Chile are all in some measure a tipping point in inequality.

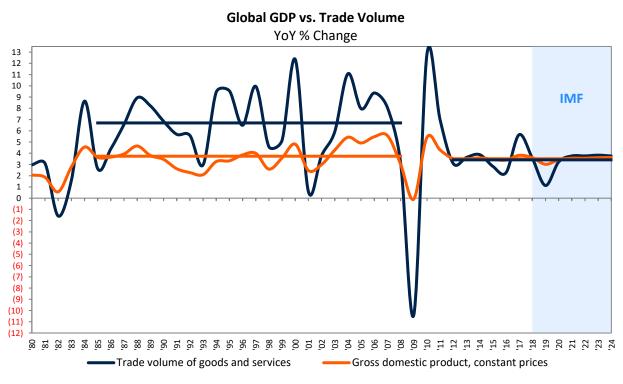
Oscillating outlooks: This is the best way to capture multiple, global uncertainties impinging on confidence – first business confidence and eventually migrating to consumer confidence. By Friday, December 13th it appeared two major uncertainties were at least partially resolved. We would argue they were not fully resolved; they are both just moving on to their next, more challenging phase of uncertainty. The muted response in markets also aligns with this.

Brexit will now happen, with Boris Johnson's decisive victory. The uncertainty over "whether or not" is gone, along with an almost completely reduced chance of stumbling out with no deal. The next two steps will be getting it done by January end and rebuilding trade deals with an EU now of 27 countries along with other, critical global markets, including the U.S. and Asia. This will take years and will certainly be noisy and distressing. Remaining in the EU would have been preferable except it likely would have been with elements of an extreme left in power.

The Prime Minister is the proverbial dog that caught the bus. What will he do with it? A new risk has surfaced with the heightened odds that Scotland could ultimately leave the UK following the Scottish National Party landslide. Another, imponderable risk is that other EU members might eventually follow an exit path after the EU's second largest economy departs. For the moment the reverse is true, but the EU has been weakened. The reasons to leave are still there. Johnson's EU negotiations over the next year or two will better define that risk. If he is reasonably successful for Britain "me too" sentiments and actions will reheat. The EU is a bit under siege, including threats to NATO.

Readers may well discount Britain and EU problems. But remember, the EU is the world's largest buyer of exports. EU weakness has more potential to damage the US economy than China.

Global Trade has already sustained remarkable damage since the recession. The following graphic illustrates this, showing trade growth had, on average, consistently exceeded GDP growth by almost 300 basis points prior to the crisis. Ever since, and with IMF projections, global trade no longer exceeds global economic growth, its positive influence on demand largely gone. Hopefully a negative influence will not materialize, but the risks are clearly rising.



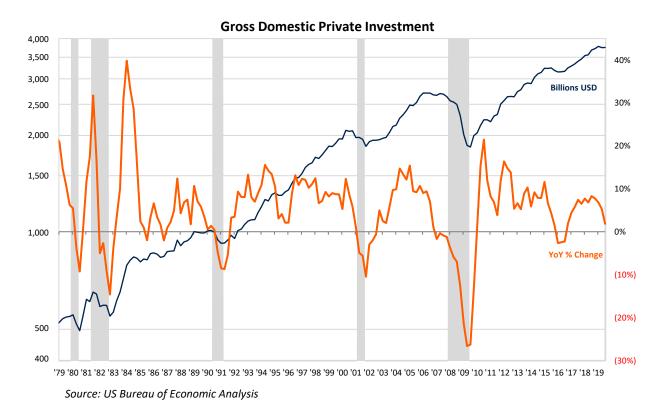
Source: IMF

China has naturally been a top-of-mind concern. Over the past two months prospective resolution of trade probabilities with China has constantly oscillated. A recently announced "phase one" agreement may well signal progress, but major ongoing, more challenging issues will certainly carry through 2020 and beyond. Many tariffs on China trade continue for now.

In **U.S. election** politics we may have already gone over the cliff's edge in the sense that the extreme left has gained credible support mostly by vilifying the right. The right is arguably uncertain as a cohesive block. A lot can happen in eleven months, but an erratic, unnerving scenario looks likely to continue before the vote. This is not good for business confidence.

While uncertainties are a fact of economic life, the scale of ongoing uncertainties against a U.S. economy struggling to sustain 2% growth is our primary point and concern. A pot of multiple countries is now being stirred as never before in decades. The depressant is already visible in our economy.

Damaged Business Spending: These geopolitical uncertainties, dramatic as they are, are certainly hard to quantify and equally difficult to assess outcomes and probabilities. But their overall footprint on business confidence and investment is becoming unmistakable. The encompassing metric for business investment and CAPEX is Gross Domestic Private Investment (GDPI), a highly volatile quarterly series. Following its collapse during the 1989-90 and 2008-09 recessions, GDPI recovered dramatically, and did likewise after the oil price collapse in 2014-16. However, over the last four quarters GDPI has consecutively declined from an 8.3% late-2018 (year-over-year) peak to only 1.3% in the third quarter. A more-or-less equivalent pattern has emerged in exports (see Appendix) from a 10% peak to negative growth. It is fair to say this is concerning deterioration.

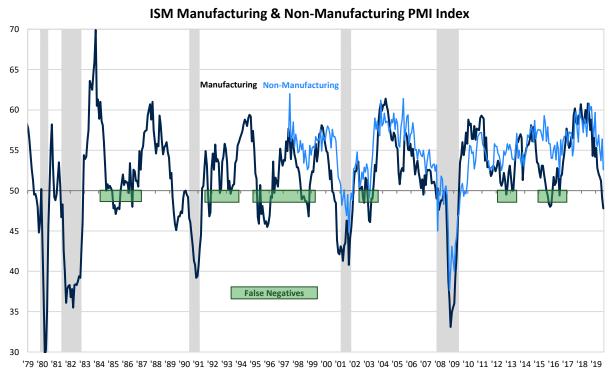


Private Investment is essentially all business spending but reflects investment and capital spending. While GDPI is only 17.4% of GDP compared to 68.1% for consumer spending, its influence over time is much larger as it drives jobs and, therefore, future consumer expenditures. Exports are another 11.6% but are more than offset by imports in the U.S. Until the deceleration in GDPI reverses, GDP growth is set to decline even more, possibly into recession.

Aside from a business investment recovery there is little else available to thwart a U.S. downturn at this stage of the cycle. Monetary tools to offset further weakness are spent and ineffective. Fiscal actions, far more powerful stimulants, are neither visible nor, in all probability, available despite the pleas of central banks across the globe. This is a daunting concoction.

The domestic U.S. economy has continued its extended expansion, albeit returning to slower core growth. Some short-term reasons for optimism have appeared as periodic tweets that could well evaporate. Financial stocks have paralleled the general market's light-hearted, recent reaction since mid-October to a potential global trade resolution as the S&P500 broke through its previous two peaks of the year. We have long argued and demonstrated in earlier reports that extended cyclical timeline and contained growth can continue.

Perhaps it will. But an external shock(s) is likely to derail this momentum. Unfortunately, global factors and domestic politics are now uncomfortably close to providing such shocks. While none are particularly new, they have steadily deepened or worsened. Alone or in combination they can infect and overcome domestic momentum if business spending succumbs to a greater confidence crisis. This appears more likely almost every week.



Source: Institute for Supply Management

Financials suffer doubly in these conditions. Loss of economic momentum clearly damages cyclicals in general, and more so financials as revenues suffer from both decelerating loan growth and the effects of interest rate softening. Additionally, financials are historically more susceptible to political uncertainty. This is a perfect storm for financials' outlook.

A ceiling on Job Growth: Everyone frets the monthly jobs number, which nevertheless rebounded encouragingly for November. But labor force expansion remains a ceiling on job growth. Post- recession job growth has for years remained in the 1.6% (year-over-year) growth range, but the labor force has plateaued in the 1.0% range, which suggests 2020 job gains must decline and wage growth will continue.

Counterproductive Monetary Accommodation: The U.S. yield curve is stubbornly anchored by low longterm interest rates. The prevailing consensus is that this stems from an unusually reduced "term premium" and not a premature rise in short rates. This, in our analysis, stems from monetary extremes globally. This is very important to recognize and understand because a normal yield curve is hostage to global monetary philosophies. In early 2018 the consensus chorus among central banks globally was, encouragingly, that monetary ease had gone too far, was no longer effective and could easily prove counter to goals and carry unintended consequences. Their uniform plea was for fiscal stimulus.

Virtually no governments answered their plea and monetary authorities virtually worldwide have capitulated to more QE and negative interest rates. The latter is completely bizarre and truly counterproductive. Simply put, central banks keep pushing the only button they have. They won't stimulate growth and will only further inflate various financial bubbles and undesired outcomes such as

pension funding. Globally it has become a race to the proverbial bottom. Only Sweden recently abandoned negative rates. Hopefully this will become a trend, but not for a while at best.

This is a high stack of evidence against CAPEX and job growth. Too many genies out of too many bottles.

Financials' Defense: As said before, this combination of risks can go either way. Strategically, we argue that financials must now take more defensive actions. We see at least four important lines of defense:

First is **Neutral Asset/Liability Management**. Interest rates and yield curve shapes could still go either way. Therefore, interest sensitivity in either direction should be further reduced. The dominant expectation is for more of the same; low rates and a flat or inverted yield curve. However, should inflation rise, the long end of the curve will ultimately react. Inflation is hardly dead. It is simply contained and expanding slowly – mimicking the entire economic cycle since the recession. One way to observe this is in wage growth, shown below. Over the last eight years hourly earnings expanded from 2% to 3%, both low numbers but a 50% expansion, nevertheless. And the different trajectories in jobs versus labor force are likely to continue driving these gains, moderate as they are.

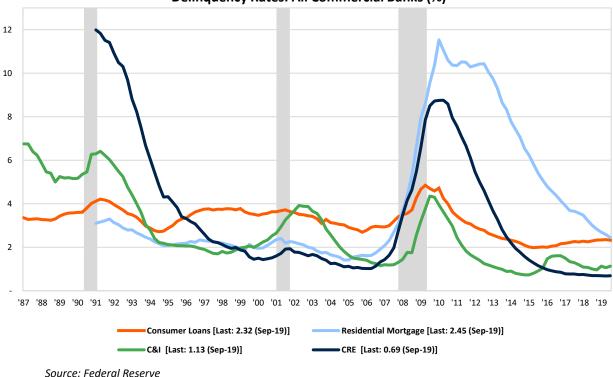
| | Jobs YoY | Jobs to LF Ratio | Labor Force YoY | Hourly Earnings YoY |
|---------------------|-------------|---------------------|--------------------|------------------------|
| Period | (%) | (x) | (%) | (%) |
| 2005 | 1.7% | 1.3 | 1.3% | |
| 2006 | 1.8% | 1.3 | 1.4% | |
| 2007 | 1.1% | 1.0 | 1.1% | 3.2% |
| 2008 | (0.5%) | | 0.8% | 3.1% |
| 2009 | (4.3%) | | (0.1%) | 2.8% |
| 2010 | (0.7%) | | (0.2%) | 1.9% |
| 2011 | 1.2% | | (0.2%) | 2.0% |
| 2012 | 1.7% | 1.9 | 0.9% | 1.9% |
| 2013 | 1.6% | 6.0 | 0.3% | 2.1% |
| 2014 | 1.9% | 5.6 | 0.3% | 2.1% |
| 2015 | 2.1% | 2.7 | 0.8% | 2.3% |
| 2016 | 1.8% | 1.4 | 1.3% | 2.6% |
| 2017 | 1.6% | 2.2 | 0.7% | 2.5% |
| 2018 | 1.7% | 1.5 | 1.1% | 3.0% |
| Last 12 Mos | 1.6% | 1.7 | 1.0% | 3.2% |
| Last 6 Mos | 1.5% | 1.5 | 1.0% | 3.2% |
| November '19 | 1.5% | 1.5 | 1.0% | 3.1% |
| LIC Duranu of Labor | C1 | | | |

Source: US Bureau of Labor Statistics

A 2% inflation target is not only arbitrary, it does not account for secular forces such as globalization's benefit to costs, technology and demographics – specifically ageing. One can almost see the arbitrary nature of these targets with both Europe and the U.S. picking the same number. This is not to criticize the need for targets, but slavishly adhering to a number that may well be incorrect is not great central banking methodology. These targets need some modification, and, at the same time, we should see incremental inflation expansion. It may not be stark but should be clear.

Second, while **Credit Tightening** might seem counterproductive to economic growth, there is ample evidence that non-bank sources have gone to extremes in pricing and structure. Banks should not follow this path, and for the most part have not. It is time to strictly enforce discipline, willingly sacrificing earning asset growth instead. The banking system has experienced significant losses during past downturns and

recessions. While it is not possible to currently predict this outcome, the low level of nonperforming assets across all major categories suggests that the next loss cycle can be much smaller than in most previous recessions, such as it was two recessions ago, but it will happen. Strict underwriting and reasonable pricing is not something to give up now.



Delinquency Rates: All Commercial Banks (%)

Third, we believe more **FinTech applications** are credible, deeply developed and prepared for implementation than ever. They can achieve higher P&L efficiencies and revenue enhancements regardless of size. These should be reviewed closely as their acceptance and adoption are expanding. The benefits in many cases can be immediate and compelling.

We take exception to a common presumption that the largest handful of banks can and have outspent regionals and community banks on technology and therefore cannot be matched competitively. While their tech spend is much larger, so are the far more complex operational hurdles they must address based on their size, product and business line expanse and geographic reach.

In general, banking has been on an efficiency pilgrimage for well over a decade. Traditional areas and methods of savings are becoming less impactful for many. Technology can revitalize expense efficiencies as well as revenues.

We list three examples here that cannot possibly span the FinTech universe but provide a sense of potential benefit that banks can immediately bring in house to competitively advance and possibly defend against any macro threats in the future. We argue there are many new tools that have entered prime time in terms of scalability and reliability without the glitches often associated with new technology.

In large part these new FinTech tools are not really new technology at all, but the application of technology on changes that have been in existence for many years or longer. Resistance to such tools as potentially risky or yet to be fully developed is foolhardy at this point, although selection is still critical as it always is in investment and integration. The one, valid concern is the risk that the new developer and provider is acquired by a larger, even legacy entity, that becomes less attentive to its customers. However, this is a potential headache, not a fundamental risk, as tech support is still indispensable.

Our first example is the most encompassing. **An API/cloud-based core systems replacement**. There aren't many yet, but those that are have been required, with deep banking industry backgrounds, to literally spend years in their "garage" creating comprehensive replacements to existing "legacy" systems. A few have been running in parallel and the results are more than encouraging. They are compelling. No CIO is particularly comfortable suggesting a core system transformation to the CEO. But the gain trumps the pain dramatically and at least a few dozen banks in the US have already contracted prospective installation.

The value enhancement for developing new marketing product and services and the ability to deploy them effectively should be a given for those struggling on legacy systems. And the cost benefit alone is quantifiable. Three realities make the case for urgent transition. Legacy systems architecture is between 40 and 60 years old, were designed around branch-only models and were built in a time of very expensive data, relative to today. We have heard many complaints that remediations have become the dominant cost item in systems expense, as much as 80% of the total! That can be dramatically reduced, if not virtually eliminated, upon transition out of a legacy operating system. However calculated we believe it can immediately impact EPS. It will move the needle.

A tech-enabled change and deployment in **online/mobile deposit acquisition** is our second example. While a majority of banks now offer some kind of online banking, using deposit platform technology that incorporates all technology now has to offer is another dimension. Such platforms have taken volatile rate shoppers into a viable and comparative sticky new channel for bank funding. And as more banks offer or build this channel the more retail "liquidity" will return to bank deposits.

The aggregate pool will simply grow, reducing – if not eliminating – the funding challenge banks have faced in recent years. It is also propitious timing. After a decade of grossly unattractive rates, traditional customers that have abandoned banks will return. A 2%+ rate on deposits, unfettered with restrictions, is something individuals deserve, and banks can offer them utilizing minimal overhead, being comparable in cost to the all-in cost of branch deposits. There may initially be branding challenges and segregated market issues, but we believe it is the future and will ultimately shrink branch networks.

Drilling down for our final example, we highlight FinTech providing dramatic improvements in **account opening**. These providers offer benefit to digital as well as physical branch outreach for new customers. By tapping into more powerful and faster capabilities that exist for satisfying KYC needs, compliance and basic background necessities the acquisition of customers can be a new, rewarding and cost reducing experience. Typically, such technology can more fully automate and digitize the new account function

that measurably improves both customer experience and customer acquisition costs. Timewise, weeks become minutes – literally.

There are also multiple examples of FinTech enhancement to areas such as wealth management, business banking, security, etc. Whether we go over an economic cliff or not, utilizing new technology is a must.

Finally, **Consolidation is now a critical defense** against both organic weakness and maturing credit risk. Not everyone will think of consolidation as particularly defensive, but we believe it is. Expanded size can address some of the challenges in economic uncertainty, potentially from diversification of credit, diversification of geography as well as more fortress-like balance sheets and larger pools of funds to embrace new technologies.

In particular, low premium transactions have become an effective model well received by investors. Low premiums should define, and so far mostly do, the MOE (merger-of-equals) model. Lower premium deals have already generally resulted in better post-announcement market performance. This trend has already become visible in 2019. For transactions involving targets of \$3billion in assets and above, relative to the NASDQ bank index, the average stock price performance one-month post announcement creeped into positive territory, an historic rarity. Perhaps more indicative and impressive, seven out of ten deals (soon to be eight) this year in this category produced meaningful relative outperformance, an unmatched ratio for the past 15 years and probably longer!

| Relative Performance to CBNK (%) | | | | | |
|----------------------------------|-------|---------|---------|--------|--|
| Year | 1 Day | 1 Month | 3 Month | 1 Year | |
| 2004 | (1.4) | (2.6) | (3.6) | (3.7) | |
| 2005 | (0.7) | (2.6) | (1.5) | (0.5) | |
| 2006 | 0.4 | (3.0) | (1.3) | (1.8) | |
| 2007 | (1.7) | (2.1) | (3.8) | (8.5) | |
| 2008 | (0.1) | (4.3) | (9.4) | 5.0 | |
| 2009 | 4.2 | 4.7 | 10.2 | 4.0 | |
| 2010 | (2.6) | (7.1) | (4.2) | 1.2 | |
| 2011 | (2.7) | (1.7) | 2.7 | (0.9) | |
| 2012 | (0.3) | (1.7) | 0.4 | 13.7 | |
| 2013 | (0.5) | 2.6 | 5.5 | 4.5 | |
| 2014 | (1.7) | (0.2) | (1.8) | (3.4) | |
| 2015 | (2.1) | (1.1) | (3.4) | (14.9) | |
| 2016 | (5.0) | (2.8) | (1.7) | (13.1) | |
| 2017 | (0.4) | (2.3) | (5.5) | (8.9) | |
| 2018 | (2.7) | (4.6) | (4.8) | (9.3) | |
| 2019 | 0.2 | 0.1 | 0.1 | NA | |

Source: SNL Financial

The MOE model is a departure from past consolidation. Most consolidation transactions have been based on branch overlap that offer both cost saves sufficient to add shareholder value, and larger market share. But the relevance of branches has changed as has market share.

Market prominence was generally considered to be brand enhancing and the path to pricing power. We now believe the latter is a figment of hope. The top handful of national banks, present in almost all markets, may have some pricing influence but relationship trumps price and regional and community bank

players have rarely, if ever, sought or expected pricing power or claimed that advantage. More importantly, market share at some point becomes a growth headwind. For example, doubling size in a concentric market can clearly limit incremental, future share upside.

Branches are obviously losing value in an age of mobile banking. Of course, there will always be a need for branches, but thinner branch networks can more efficiently support the same bank's customer base. Banks don't need a merger to close branches or rationalize a branch network, which many are already doing. Therefore, merger savings from overlapping branches with in-market transactions increasingly will rely on other, back office efficiencies.

Importantly, transactions with minimal branch overlap have also shown considerable efficiencies simply from back office, operations and administrative duplication. But they also offer diversification in geography and greater combined, organic revenue opportunity with incremental market share. We would further argue they carry less execution risk as they do not stir up customer issues and other dislocations. For these two reasons geographic overlap often is now affording less value creation than geographic extensions, which we have begun to see in recent MOEs.

Attaining greater scale in mergers is better distributed over new or broader geography. This was not particularly valued when everyone went on recession-watch in 2017/18, convinced merger partners could not see what was in their target's portfolio. The truth is that proper and extensive due diligence amounts to defensive cleansing. One bank credit team thoroughly reviewing another bank's portfolio can quite clearly show relevant issues and has a mark to make it even. And it is not the exceptions found but rather having two sets of credit eyes looking both ways that likely adds defense to economic risks rather than a travel in darkness. Recession watching has also receded.

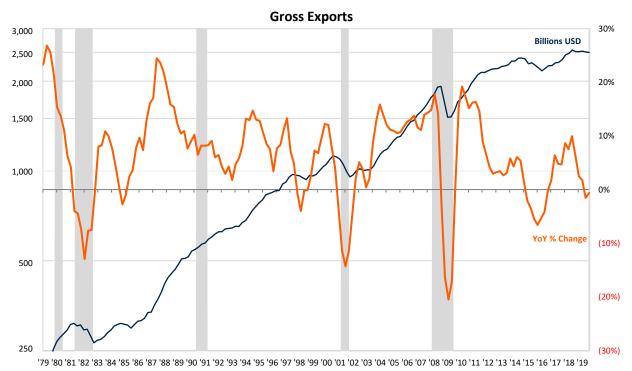
We would further argue that geographic extension need not be contiguous if the managerial prowess, culture and performance measures of both partners match. Those are rigid restrictions and sometimes hard to evaluate initially, but investors are getting over so-called "state-skipping" where the combination adheres to the principles of success for MOEs. Historically, MOEs were viewed cynically, as they should have been.

The true MOE has three mandatory and two important characteristics. Mandatory: 1) Low or no premiums. 2) No muddled management structures, such as a Noah's ark in the c-suite. Leadership must be sharply defined with the hard choices taken before any final agreement. 3) Clearly strong and comparable performance metrics. An MOE is not the best forum for needed repairs. Important: 4) Relative size equivalence. 5) Some complimentary horizontals among business lines and balance sheet structures (funding, rate posture, commercial versus retail competence, etc.)

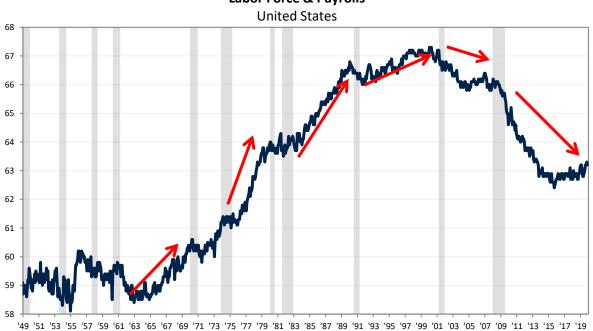
The reasons for consolidation have only increased in the face of uncertainty, not the other way around. Consequently, we recommend and expect to see consolidation accelerate in 2020 and beyond. There continue to be many, workable merger models to get there, but the MOE will gain more presence. Unexpected combinations will surface as a result.

Summary: We are clearly concerned about the economy in 2020 and beyond, primarily in the face of declining business investment. In the holiday spirit we will invoke Scrooge's plea: "You are about to show me shadows of the things that have not happened, but will happen in the time before us?" We clearly do not know where business investment will go. But we also argue the above four defenses are now more appropriate than ever, considering the risks.

Appendix



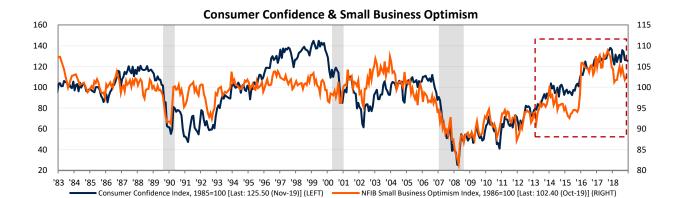
Source: US Bureau of Economic Analysis

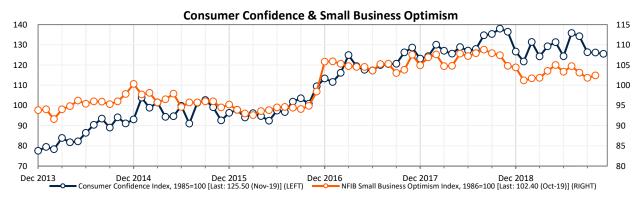


Labor Force & Payrolls

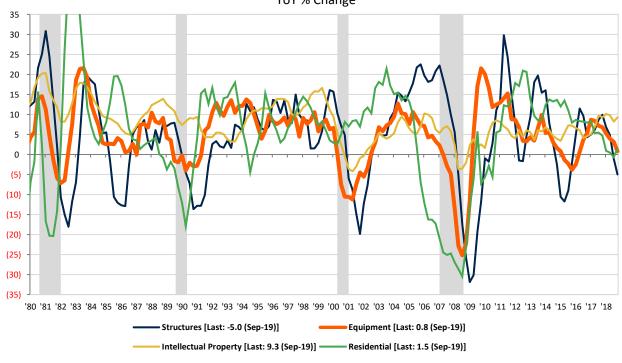
Civilian Labor Force Participation Rate - Percent, SA [Last: 63.20 (Nov '19)]

Source: US Bureau of Economic Analysis



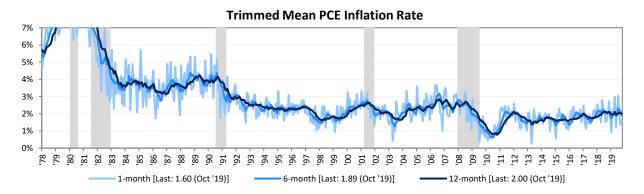


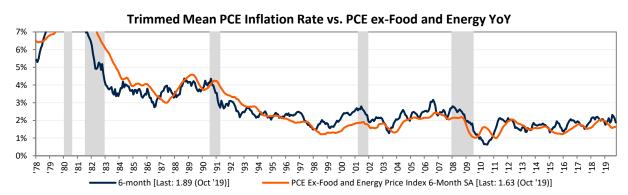
Source: National Federation of Independent Business, Conference Board



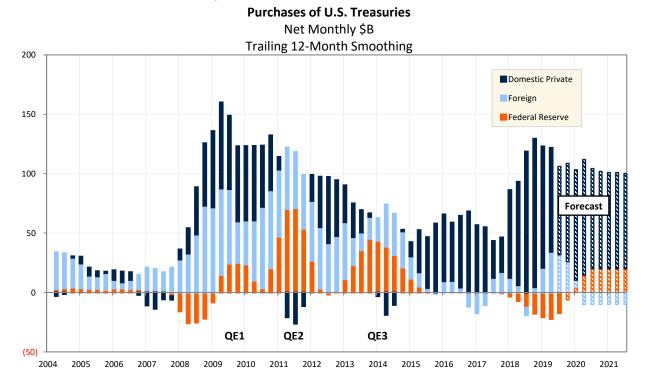
Private Fixed Investment YoY % Change

Source: US Bureau of Economic Analysis

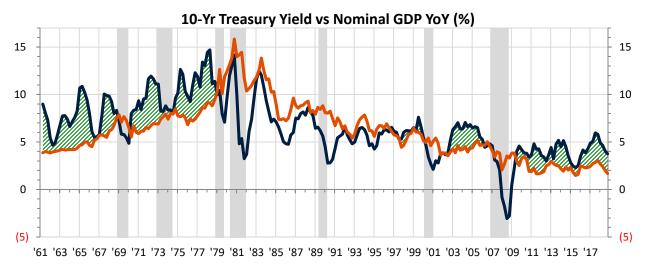




Source: Federal Reserve Bank of Dallas, US BEA

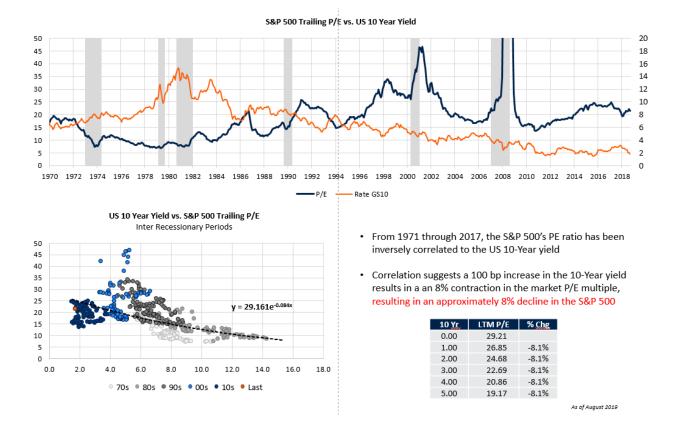


Source: net supply history and projections: CBO & UST; demand projections: SOP



Source: US Bureau of Economic Analysis, Federal Reserve System

- Ten-Year Average: 2.51% 10-Yr US Treasury rate ... 109 bps below nominal GDP
- Twenty-Year Average: 3.56% 10-Yr US Treasury rate ... 62 bps below nominal GDP
- **10-Yr UST Current "Normal":** 1.8% Real GDP growth plus 2% inflation less 20bps = 3.6%



Source: Robert Shiller Online Data

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