LINIAM | CAPITAL

ROADMAP FOR THE ECONOMY AND FINANCIAL MARKETS IN THE COMING YEARS

An Era of Higher Volatility and Lower Returns Lies Ahead

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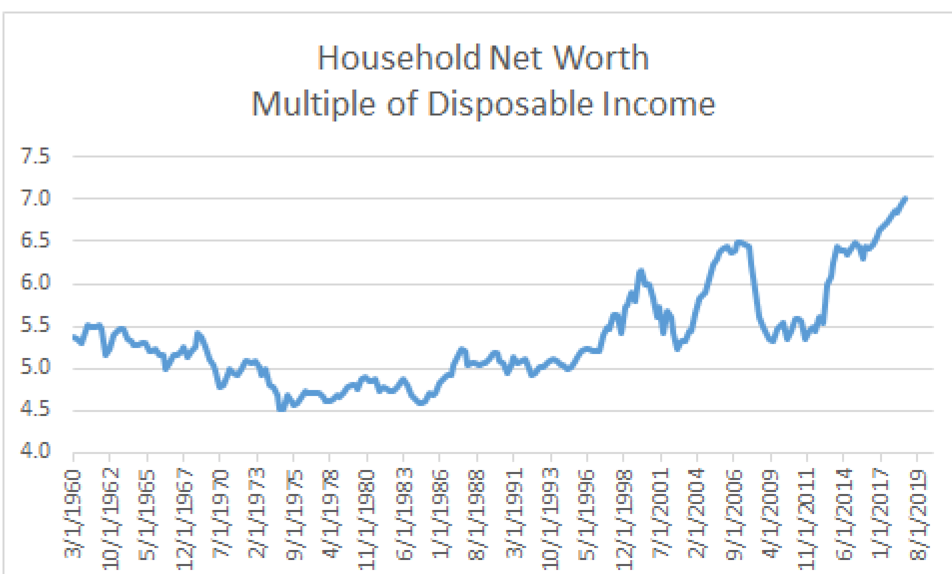
Overview

To best understand the outlook for the economy and the financial markets in the years ahead, we highlight forces that have driven the economy and financial markets to their current state. This is not a near term forecast, but an analysis of the current state of the economy and financial markets and the longer term drivers for each. It is an assessment of the likelihood and magnitude of changes in the years ahead in light of the perceived economic and/or financial imbalances identified in this paper. To stay up to date with our near term forecasts, analysis and investment strategy, visit www.Liniam.com for our *Weekly Strategy Report* and *Interim Updates*.

Historical Perspective

The past 35 years have generated extremely favorable performance for financial markets, despite the notable declines that occurred in equity markets following the dotcom bubble and during the financial crisis in 2008. Overall financial market returns have slowed from the dotcom era given the low level of interest rates during the past several years and peak equity valuations reached at the turn of the century. Nevertheless, cumulative performance over the entire period remains extraordinary as can been seen in the chart below showing the value of household net worth relative to disposable income.[i] We see the more challenging market conditions in the latter portion of 2018 as likely marking the transition to more volatile performance and lower average returns in the years ahead.



In part, the strength in performance over the past 35 years reflects the poor financial market and cyclical economic conditions that prevailed at the beginning of this period. Back in the early 1980s, the markets featured record high interest rates and inflation, low P/E values for stocks, a low profit share of national income (profit margins), and in the wake of the 1981 - 1982 recession unemployment stood at its highest point in the post-war era. These extremes have largely flipped during the past 35 years, with interest rates and inflation now near record or generational lows, profits near a record share of national income, and a number of equity valuation measures near record high levels.[ii]

Historical Economic and Financial Market Metrics	**1982**	**2018**
Real GDP (Avg Prior 2 Cycles)	3.80%	2.60%
CPI Y/Y (3 Yr Avg)	8.80%	1.60%
Fed Funds (3 YR Avg)	9.60%	0.50%
10 Year Treasury Yield (3 YR Avg)	12.80%	2.30%
Corp Profit % GDP (3 YR Avg)	5.30%	9.20%
SPX P/E Multiple (3 Yr Avg)	8.3X	20.0X

Cyclically, the unemployment rate also sits at its lowest level since the 1960s in late 2018, indicting little unutilized economic capacity for continued economic growth above the economy's long term potential growth rate from this point of the cycle forward.[iii] At the same time that these cyclical economic measures and market valuation measures have reached historically favorable levels, the underlying secular trends in labor force growth and productivity gains have declined. Thus, the potential growth rate of the real economy has slowed dramatically while at the same time the distribution of income sits near an extreme historical reading. We see this set of circumstances, coupled with the normally disruptive effects of tightening Fed policy, as the basis for heightened volatility and low average returns for the broad domestic markets in the years ahead.

The focus of this report is primarily related to the domestic economy and financial markets, but many of these factors transcend the global economy and global financial markets. This set of conditions globally - slow growth, skewed income distributions and accompanying high debt levels - is arguably a key force behind many of the geopolitical tensions and much of the political polarization seen in the world's leading nations today.

Real Economic Growth

The two determinants of economic growth potential are growth in the labor force and growth in the productivity of the labor force when the economy is in a condition of full employment as is the case today in the U.S. The trend in US real economic growth has measurably slowed since the turn of the century. This development has been predictable in part due to the aging population structure and slowing growth in the working age population over this period. Other factors are also at work, such as lower labor force participation rates amongst the working age population, but demographic trends remain the major determinant in this slowing trend. The demographic trends in most major economies abroad are even larger headwinds to potential economic growth than is the case in the U.S., but even here the labor force is projected to grow by only about 0.5 percent per year over the next decade compared to growth that averaged 1.4% per year from 1950 through 2017.[iv] Labor force growth since the financial crisis has only averaged 0.5 percent, coincident with the trend in slower economic growth this cycle.

Unless productivity growth trends can accelerate, labor force participation increases materially, or labor force growth is supplemented by increased immigration, the slower trend of labor force growth will translate into a continuation of the slower trend in economic growth in the years ahead. Immigration policies are unlikely to be loosened over at least the next couple of years, and labor force participation shows little sign of improving amidst the tightest labor market in a generation. Thus, the current demographic situation is likely to be the primary determinant of labor force growth in the coming years.

The deregulatory actions taken by the current administration are likely having a positive effect on productivity in the short term, but longer term productivity trends are likely to be more reflective of business investment trends and productive capital accumulation across industries. Tax law changes allowing for accelerated depreciation have likely helped to lift investment spending in recent periods, but overall capital goods investment has been essentially stagnant since the 2012- 2014 period in the U.S. Therefore, there is little in business investment spending trends during the past several years to suggest that a sustained increase in economy wide productivity growth is likely in the coming years.

The Federal Reserve Board and Congressional Budget Office both forecast that trend growth will remain a bit below 2 percent in the coming decade.[v] We see these forecasts as reasonable baseline estimates of average long term growth, but anticipate the slow and steady environment associated with zero percent interest rates and steady quantitative easing during the past decade will give way to a period of greater economic and financial market volatility in the years ahead.

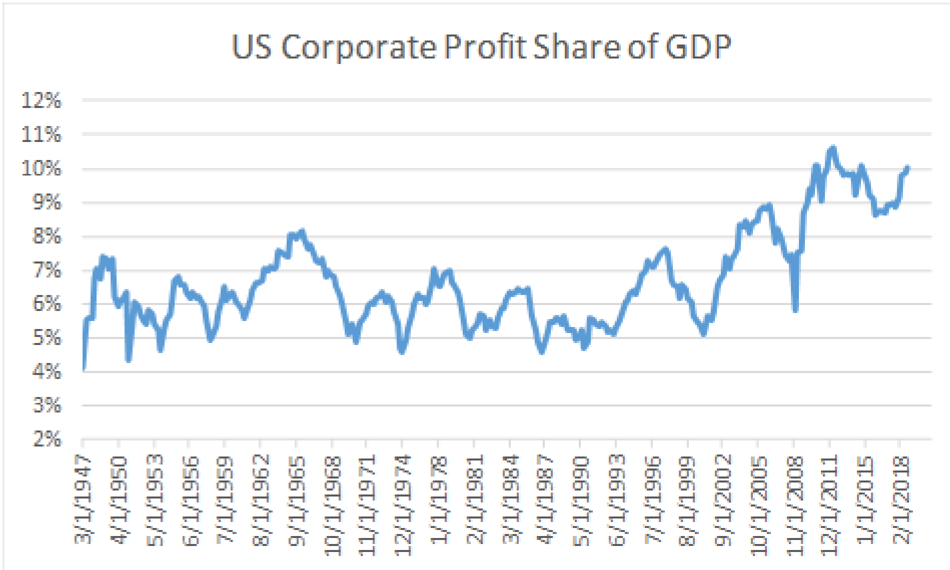
Inflation

Given the extreme monetary policy actions taken by the Federal Reserve and other major central banks over the course of the past decade, many expected inflation to accelerate much more dramatically than has been the case. While the growth rates in money supply initially accelerated with these policy actions, and this worked to reverse the deflationary pressures associated with the financial crisis and prevent a disorderly deleveraging, the rate of money turnover (velocity) slowed steadily. The inflationary effects of increased money supply never materialized as a result. The curtailment of quantitative easing, the initial increases in policy rates and the progression to quantitative tightening over the past three years have all worked to slow the pace of money growth to well below the average pace of the past 20 years, a period during which inflation rates have mildly declined. We view the secular trend in inflation as continuing to be to the downside due to both domestic and global demographic trends and the persistence of heightened leverage across both domestic and global economies. This is reflected in the modest growth trend in monetary aggregates despite the extreme actions taken by both domestic and foreign monetary officials over the course of the past decade.

Market based inflation compensation measures have generally remained range bound over the past 20 years between 1.5 and 2.5 percent as measured by 10 year TIPs breakeven rates, with the exception of a sharp decline to zero during the fall of 2008.[vi] Breakeven rates have recently moved toward the lower end of that range despite the cyclical upward pressure on inflation originating from the extremely low level of unemployment and employment compensation reaching a cyclical high point. This likely reflects the slowing pace of money growth associated the ongoing Fed tightening cycle and its manifestation in widening credit spreads, a flattening yield curve and the growing risk of recession associated with the Fed's tightening cycle. Inflation typically falls materially and in a sustained manner in response to a recessionary environment, so to the extent the market is pricing an increased probability of recession in the coming years, inflation expectations should commensurately decline.

Corporate Profits

When putting real economic growth and inflation into the context of the corporate sector's income statement, this implies the trend of modest volume growth and limited pricing power will persist in the years ahead. Profit growth in recent years has significantly outperformed the soft trend in overall corporate revenue growth, leading profits to historical heights as a share of GDP during the current cycle. The very subdued pace of labor cost increases this cycle is a significant factor behind this trend, as labor costs are the largest individual cost item across the corporate sector. Additionally, the very low level of corporate borrowing costs has allowed the corporate sector to increase leverage without a commensurate increase in borrowing costs relative to past cycles. With both of these trends now appearing largely exhausted as employment costs and interest rates have risen to cyclical high points, margin expansion from this point of the cycle forward will likely prove to be difficult. Finally, after tax corporate profits received a material one time benefit in 2018 from the reduction in statutory corporate tax rates. We should expect that profit growth for the duration of this economic expansion will closely match the pace of corporate revenue growth, but profit margins could experience significant mean reversion pressure from current historical levels in the event of an economic downturn in the years ahead, particularly given the heightened leverage employed across the corporate sector and limited policy options available to combat a downturn with federal deficits at already high levels and the current low level of interest rates.[vii]



While nominal returns in the S&P 500 have slowed commensurately with real GDP growth since the economic expansion ended in early 2001, valuation levels remain high relative to longer term normal levels and the share of national income captured by corporate profits has reached a post-war high. This presents a challenging position for forward looking equity returns and creates more than normal downside risk in the event of an economic contraction and mean reversion with regard to profit margins and earnings valuations. For example, if profits mean reverted to 6.7% of GDP today from the current level of 10.1% and we hold all other factors constant, corporate profits would be 33.6% lower. But, when profit margins come under sustained pressure it will likely be in an environment of revenue pressures (recession) that is also likely to exert downward pressure on today's above normal market multiples. Significant downside skew exists for the domestic equity market.

Fed Policy and the Current Economic Cycle

From a cyclical perspective, we begin 2019 with the current economic expansion 115 months old and counting, just 5 months short of the record economic expansion that occurred between 1991 and 2001. Consensus forecasts suggest that we will achieve a new record long economic expansion in 2019, but at the same time the tightening monetary policy environment and the rate hiking cycle by the Fed suggest the expansion is becoming increasingly at risk as the year proceeds. Cumulative tightening so far this cycle is approaching the average magnitude of the past 6 Fed tightening cycles, especially when considering the quantitative tightening process that is complementing the increases in interest rate policy.[viii]

Federal Reserve Interest Rate Policy - Last 6 Rate Hiking Cycles of 100bps or More						
First Hike	**Start Level**	**Last Hike**	**End Level**	**Magnitude**	**Duration**	**Result**
May-83	8.50	Aug-84	11.75	3.25	16	No Recession
Dec-86	5.88	Sep-87	7.25	1.37	10	No Recession
Mar-88	6.50	Feb-89	9.75	3.25	12	Recession
Feb-94	3.00	Feb-95	6.00	3.00	13	No Recession
Jun-99	4.75	May-00	6.50	1.75	12	Recession
Jun-04	1.00	Jun-06	5.25	4.25	24	Recession
Dec-18	0.25	Dec-18	2.50	2.25	36	?
Avg Past 6 Cycles				2.81	14.5	

Following the December increase in the Fed Funds rate, the Fed has now lifted rates by a cumulative 225 basis points since the cycle began in late 2015. This is at the low end of the range of prior Fed tightening cycles, but that doesn't account for the $600 billion dollar annual pace of quantitative tightening (reduction in Treasury and MBS holdings in the Fed's portfolio) that is occurring alongside rising policy rates. The Fed had previously estimated security holdings changes of this amount were the equivalent of an additional 50 to 75 basis points worth of interest rate changes. When viewed in light of the historical experience, this is a troubling development as every Fed tightening cycle of this magnitude has created, at a minimum, a meaningful financial disruption and more often than not has landed the economy in a recession when looking beyond just the last 6 cycles.

Regardless of whether the economic expansion continues for the next 3 months or the next 3 years, we believe the economy remains subject to cyclicality and that a recession is likely to occur at some point as we look out over the intermediate term. The timing of such an occurrence will mean a lot with regard to tactical opportunities to avoid losses or profit from the likely downside in the financial markets associated with an economic downturn, but the timing of a potential downturn probably doesn't have a great deal of impact on the expected average return over the next 10 to 15 year period. For equities, these returns will be driven by the pace of real economic growth, the rate of inflation, changes in the profit share of GDP (profit margins) and changes in valuation. Based on the current state of the economy and markets, these returns are likely to be well below historical average levels.

Interest Rates and Fixed Income Markets

For the fixed income markets, there are reasons to be skeptical that the secular decline in long term interest rates has been exhausted. The recent multi-year highs in Treasury yields reflect cyclical upward pressures on interest rates arising from cyclical inflation pressures, increases in the Fed's policy rate and a fiscal policy driven acceleration in economic growth earlier in 2018 which now appears to be fading. As we get closer to the cyclical peak in the Fed's policy rate, this upward pressure on the broader yield curve should begin to abate.

We are inclined to view the high points reached in longer term Treasury yields in November as cyclical peaks. Economic momentum and inflation expectations have moderated as have leading growth indicators. The Fed may not be justified in further lifting rates under these conditions. The Fed's rate guidance, while tempered at the December FOMC meeting, nevertheless appears to be lagging these developments.

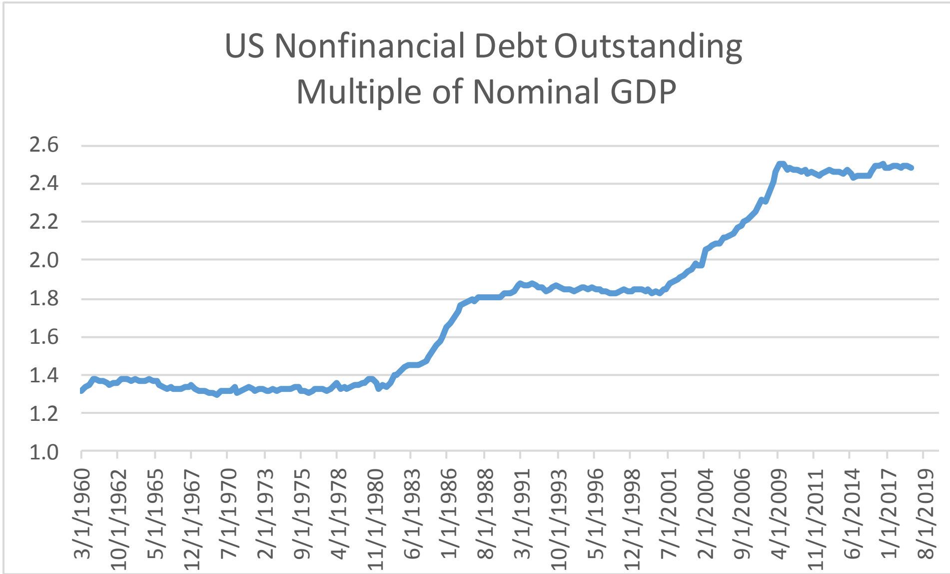
Historically, the gap in time between the Fed's last increase in policy rates and the first reduction in policy rates tends to be relatively short – rates do not tend to plateau for an extended period of time. Longer term Treasury yields will begin to anticipate eventual rate cuts following the final upward movement in policy rates, which is why the yield curve tends to flatten and invert toward the end of hiking cycles. These dynamics are likely to play out in the coming year.

From a secular perspective, we see the forces that have driven interest rates to historical lows during the past cycle - slower trend growth and high outstanding levels of debt at ever lower interest rates - as remaining in place.

Credit Conditions

Low inflation and low interest rates have supported credit conditions over the past decade. While credit growth has been relatively slow from a historical perspective during the current cycle, the rate environment has supported credit demand and supply has been readily available and supported by quantitative easing efforts. The codependence between credit conditions and interest rates suggests that interest rates are likely to be capped as even this historically low level of rates generated only modest credit growth. But under these conditions the economy has remained highly levered in the wake of the financial crisis. While financial sector leverage has been reduced since the financial crisis, nonfinancial debt as a share of GDP has essentially held steady and remains at record high levels when compared to the level of economic activity. These conditions are pervasive on a global basis and are reflected in the near zero interest rate environment amongst most of the world's developed economies.

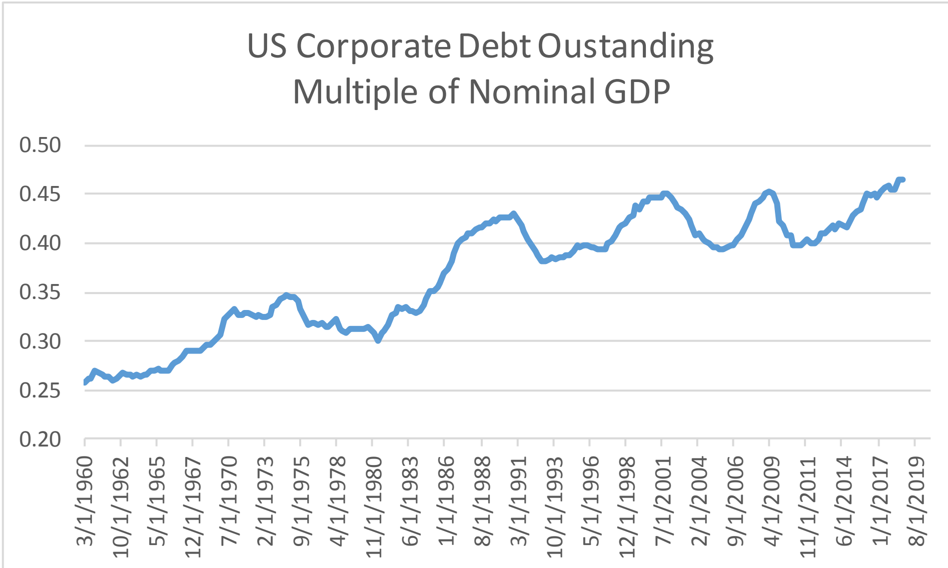
The extreme monetary policy actions of the past decade – domestically and abroad – were designed to keep a disorderly deleveraging from occurring but have acted to prevent any real deleveraging from occurring as well. In the wake of this, high levels of debt outstanding are likely to act as a restraint on future demand growth. They represent, in a sense, spending that has been pulled forward. It also indicates a likely heightened sensitivity of economic activity to rising interest rates.



Domestically, households have delevered moderately in the wake of the financial crisis and there is much better supply and demand balance in the housing market. But the bulk of this deleveraging occurred in the mortgage credit markets, and was accomplished in large part through the defaults that occurred in that space.

Over the past decade, the primary drivers of debt growth have been the increases in federal government borrowing reflecting large federal deficits and increased corporate borrowing, a significant portion of which was used for balance sheet management purposes. With very high levels of debt outstanding, the economy is going to be very sensitive to changes in interest rates. But the economy reacts to changes in interest rates with lags that are sometimes long. While the credit ratings of the U.S. government remain stable, overall credit quality on a global basis and amongst the US corporate sector has deteriorated. Financial problems are likely to occur where leverage has been employed to the greatest degree.

As such, the corporate sector is our top candidate to experience problems associated with debt outstanding in the coming years. A significant portion of corporate debt outstanding will mature in the coming 3 years. This debt will need to be refinanced at new higher interest rate levels, or will require balance sheet deleveraging, with corresponding effects on profitability metrics from either choice. The leveraging of the corporate sector over the past cycle has also eroded credit quality and solvency measures, trends that were highlighted in the IMF's ***Global Financial Stability Report*** most recently updated in October, 2018 .



For these reasons – a sustained slower trend rate in economic growth, the high levels of debt outstanding and the likely sensitivity of both cyclical economic growth and solvency trends to higher interest rates, we see the prospects of further increases in interest rates as limited as we look out over the coming years. Deleveraging will likely need to occur before we can return to a higher or more normalized interest rate environment. We should expect to see interest rates return to, or exceed, their prior lows in the event of a cyclical downturn, particularly in light of the large gap between domestic interest rates and those in other developed economies today. The secular trends in the world's other major economies are similar to those domestically, which suggests there is limited potential for external forces to lift domestic conditions.

Portfolio Strategy

Under the macroeconomic environment foreseen following the analysis in this paper, we see a standard balanced portfolio of stocks, bonds and a limited amount of alternatives investments and alternatives strategies as likely producing unsatisfactory returns in the years ahead, particularly where return assumptions remain elevated compared to present day fundamentals. According to Vanguard data, a 50 percent equity and 50 percent fixed income portfolio has returned 8.4 percent per year from 1926 through 2017.[ix] If profits can maintain the current share of national income, the economy grows at its potential rate and inflation meets the Fed's 2 percent objective, overall profit growth will be limited to about 4 percent annually through the remainder of the cycle – ignoring the influence of swings in the dollar and oil prices on overall corporate profits. With recent volatility, there is likely some modest scope for multiple expansion under this ideal scenario. Bonds will likely provide returns roughly equivalent to current yields, which in late December, 2018 stand at about 3.4 percent for the aggregate US bond market. Thus, under an ideal scenario of an indefinite continuation of the current cycle, we see a balanced portfolio likely returning in the neighborhood of 4.5 percent after including dividend income. We see the options market providing a compelling source of income in this environment, especially as implied volatility has begun to normalize following the extended period of suppressed volatility associated with global central bank actions in recent years.

In the absence of an indefinite continuation of the economic cycle, the outlook for portfolio returns become much more challenging. Equity markets likely have more than average downside for the reasons highlighted earlier, while the diversification benefits of high quality fixed income portfolios is likely to be much more limited as yields will have much less room to fall in the event risk aversion returns to the marketplace.

A tactical multi-asset approach to absolute return generation has the potential to provide a superior level of portfolio diversification than a traditional fixed income portfolio in the current circumstances, a situation that is likely to persist in the coming years as high quality global yields remain very low.

Endnotes:

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[i] Federal Reserve and US Department of Commerce

[ii] Data in the table compiled from original sources including US Department of Commerce (real GDP); US Department of Labor (CPI); Federal Reserve (fed funds); Bloomberg (Treasury yields); US Department of Commerce (after tax profits with adjustments and nominal GDP) and Bloomberg (SPX P/E multiple)

[iii] US Department of Labor, November, 2018 Employment Report

[iv] Congressional Budget Office, CBO Budget and Economic Outlook Update, August, 2018.

[v] FOMC Summary Economic Projections December, 2018 and CBO Budget and Economic Outlook Update August, 2019

[vi] Bloomberg

[vii] US Department of Commerce, Q3 2018, after tax corporate profits with inventory valuation and capital consumption adjustments

[viii] Federal Reserve policy rates

[ix] Vanguard portfolio allocation models