

Quarterly Perspectives

U.S. | 4Q 2019

J.P. Morgan Asset Management is pleased to present the latest edition of *Quarterly Perspectives*. This piece explores key themes from our *Guide to the Markets*, providing timely economic and investment insight.

THIS QUARTER'S THEMES

- 1 U.S. economy: Walking a tightrope
- 2 Fixed income: A turning tide
- 3 U.S. equities: Time to get tactical
- 4 International equities: Looking beyond the clouds



STRATEGY TEAM

Dr. David P. Kelly, CFA
Managing Director
Chief Global Strategist

Samantha M. Azzarello
Executive Director
Global Market Strategist

David M. Lebovitz
Executive Director
Global Market Strategist

Gabriela D. Santos
Executive Director
Global Market Strategist

Alexander W. Dryden, CFA
Vice President
Global Market Strategist

John C. Manley
Vice President
Global Market Strategist

Meera Pandit
Vice President
Market Analyst

Jordan K. Jackson
Associate
Market Analyst

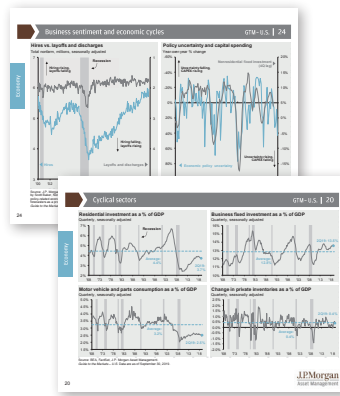
Tyler J. Voigt, CFA
Associate
Market Analyst

Jennie Li
Associate
Market Analyst

U.S. economy: Walking a tightrope

RISKY BUSINESS
page 3

CAN'T HAVE A BUST WITHOUT A BOOM
page 4



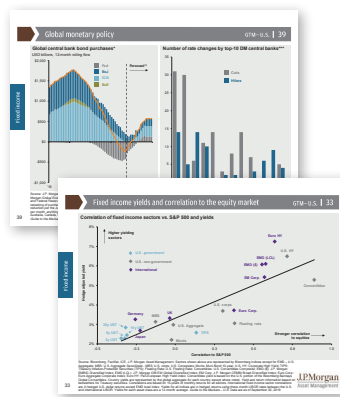
OVERVIEW

- Slowing economic growth is no longer a forecast, it is a fact. Growth in the second quarter slowed to 2.3% year-over-year after averaging 2.9% in 2018. Moreover, recent data suggest growth will decelerate further in the third quarter to a more trend-like 2% pace.
- The U.S. economy is walking a tightrope. On one end, rising political uncertainty has caused business confidence to weaken, which may in turn slow hiring decisions; on the other, the cyclical sectors of the economy are relatively stable.
- These two offsetting factors lead us down a precarious course on which we may skillfully avoid a recession in the near term, but are more susceptible to risks that may knock us off course in the medium to long term.

Fixed income: A turning tide

GLOBAL CENTRAL BANKS ARE ACCOMMODATIVE ONCE AGAIN
page 5

INVESTING IN FIXED INCOME IN AN EVEN LOWER YIELD ENVIRONMENT
page 6



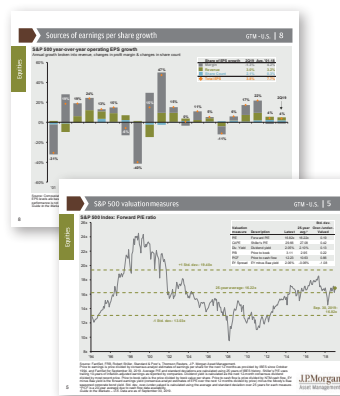
OVERVIEW

- Global central banks have changed tack, moving away from tightening and toward easing monetary policy.
- The Federal Reserve (Fed) cut interest rates for the first time in a decade and appears to be on a path of easing.
- Yields have collapsed in recent months, as recession risks rise and fear about the global economy grows. This has made the hunt for yield even more challenging.

U.S. equities: Time to get tactical

LOFTY EXPECTATIONS AND SINGLE DIGIT GROWTH
page 7

VALUATIONS WILL RELY ON SENTIMENT
page 8



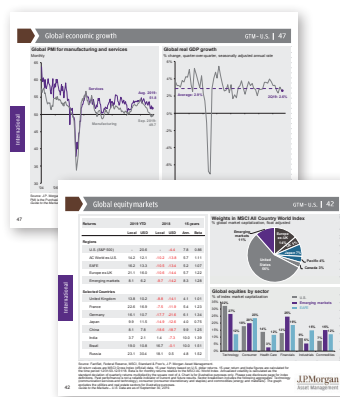
OVERVIEW

- Continued trade tensions have weighed on sentiment and should lead to further volatility in equity markets.
- With pressure on sentiment, equity valuations are likely capped, leaving earnings growth as the main driver for any further appreciation in equity markets.
- Late cycle dynamics combined with elevated geopolitical and policy uncertainty increase the need for investors to dampen volatility by striking a more balanced total return profile between dividends and capital appreciation.

International equities: Looking beyond the clouds

TRADE UNCERTAINTY CLOUDS CONTINUE TO LINGER
page 9

EVERY CLOUD HAS A SILVER LINING
page 10



OVERVIEW

- In the third quarter of 2019, trade tensions continued to weigh on business and investor sentiment with further escalation of trade tensions between the U.S. and China.
- In August, the U.S. announced a new round of tariffs and China followed through with retaliation measures. This series of events has put further pressure on business confidence, depressing business investment and raising concerns over global economic growth.
- Thinking beyond short-term effects of trade uncertainty, we believe that international equities continue to serve a role in portfolios.

1 U.S. economy: Walking a tightrope

RISKY BUSINESS

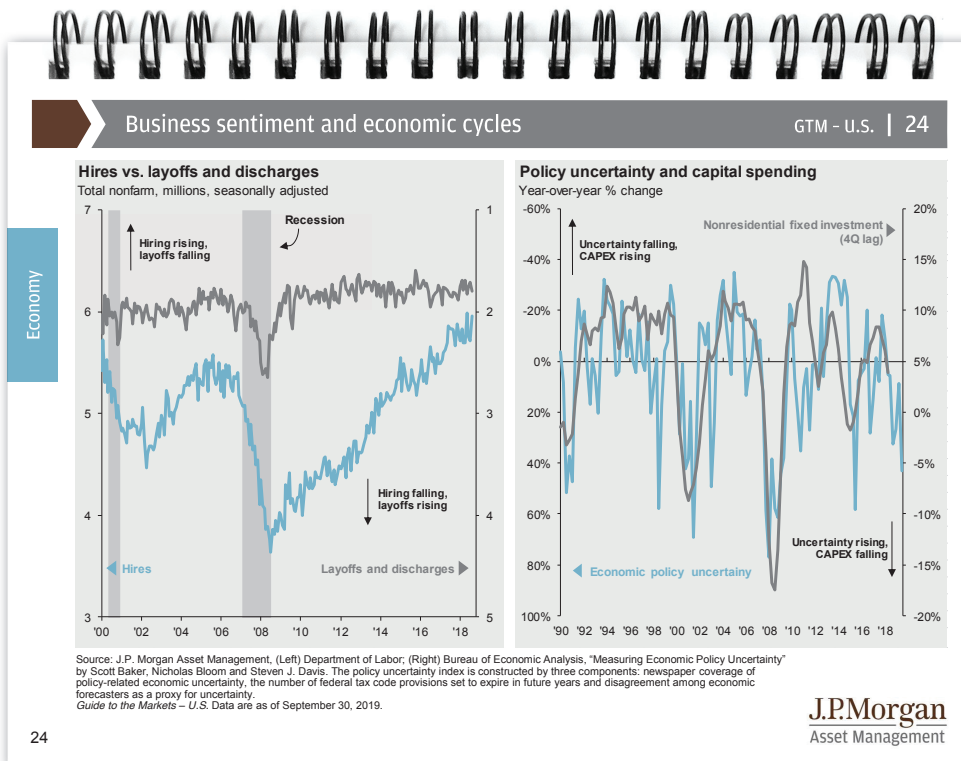
Consumer confidence and business confidence are inextricably linked. When business leaders are confident in the economy and growth prospects, they hire employees and invest more into their companies to meet future demand. This, in turn, leads to more people who are employed, receiving wages and have general confidence in their personal state of affairs.

Elevated political uncertainty, however, has cast doubts over the business outlook. As a result, business investment spending has rolled over in recent quarters. While this has yet to affect current hiring dynamics given the high demand for labor, any slowing in hiring decisions in coming months could be a cause for concern for consumer confidence and the broader economy.

- Political uncertainty remains elevated and has caused businesses to slow investment spending given the unclear outlook. Even amidst the strong likelihood of further interest rate cuts from the Fed, companies will look more toward a resolution on trade, rather than cheaper financing, to reconsider spending plans.
- Further softening in business spending may lead to a weakening in hires. Importantly, hiring declines tend to precede recessions, while a surge in layoffs tends to happen after a recession has started, suggesting hiring declines may be a better forward-looking indicator for the economy.

OVERVIEW

- Slowing economic growth is no longer a forecast, it is a fact. Growth in the second quarter slowed to 2.3% year-over-year after averaging 2.9% in 2018. Moreover, recent data suggest growth will decelerate further in the third quarter to a more trend-like 2% pace.
- The U.S. economy is walking a tightrope. On one end, rising political uncertainty has caused business confidence to weaken, which may in turn slow hiring decisions; on the other, the cyclical sectors of the economy are relatively stable.
- These two offsetting factors lead us down a precarious course on which we may skillfully avoid a recession in the near term, but are more susceptible to risks that may knock us off course in the medium to long term.



Business investment spending has slowed amidst rising political uncertainty.

Investors tend to look at layoffs and unemployment claims as signs of a looming recession. However, recent history suggests that hiring freezes, rather than layoffs, should be watched more closely.

While hiring continues to remain robust, softening business confidence could cause this to turn and weaken the economic outlook.

Source: *Guide to the Markets - U.S.* 4Q 2019, page 24

CAN'T HAVE A BUST WITHOUT A BOOM

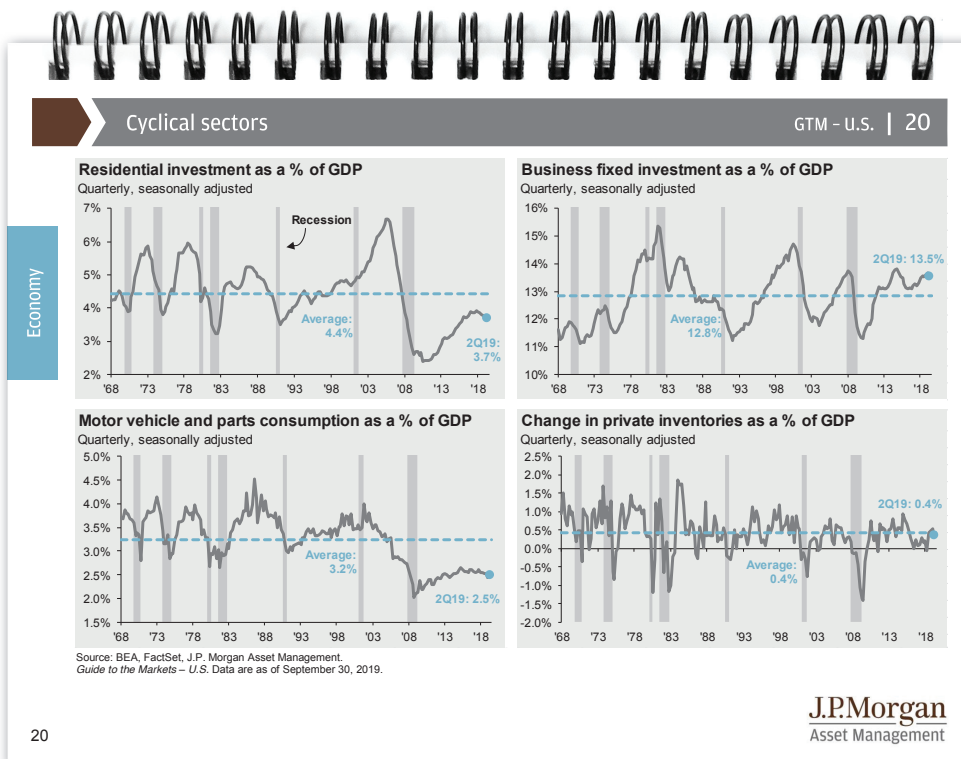
Every recession is different, though there tend to be common warning signs leading up to them. These warning signs are typically excesses in the sectors of the economy that are more sensitive to the overall business cycle. These include residential investment (housing), business investment, motor vehicle consumption and inventories.

When looking across the economy, while there are concerns within the business sector, there are generally few causes of concern elsewhere. Given the lack of cyclical build-ups, it's reasonable to assume that we may be entering a period of more moderate growth, and it may persist for some time.

- The cyclical sectors have been good indicators in the past. Prior to the financial crisis, which was centered on housing, residential investment reached a peak of almost 7% of GDP in 2006-2007 before collapsing. Similarly, prior to the dot com bubble, business investment ramped up as businesses sought to increase research and development spending.
- Up until the 1980s, inventory builds swung wildly and excess motor vehicle consumption contributed to the recessions during those periods as well. None of those dynamics are currently present.

INVESTMENT IMPLICATIONS

- As heightened trade tensions and policy uncertainty begin to negatively impact U.S. businesses and global growth, particularly in manufacturing sectors, investors should proceed with caution.
- While slowing growth means another surge in the stock market is unlikely, moderate valuations, moderate earnings growth and a Fed now in easing mode are enough to support risk assets over the next 12 months. Still, investors should express a degree of balance within portfolios, adding high-quality duration where appropriate, but maintaining some risk in U.S. assets.



The cyclical parts of the economy – housing, durable goods spending, business investment and auto sales – are not extended, in contrast to previous expansions.

This should lead to a less severe decline in economic growth during the next recession given the lack of cyclical excesses in the economy.

Source: Guide to the Markets - U.S. 4Q 2019, page 20

2 Fixed income: A turning tide

GLOBAL CENTRAL BANKS ARE ACCOMMODATIVE ONCE AGAIN

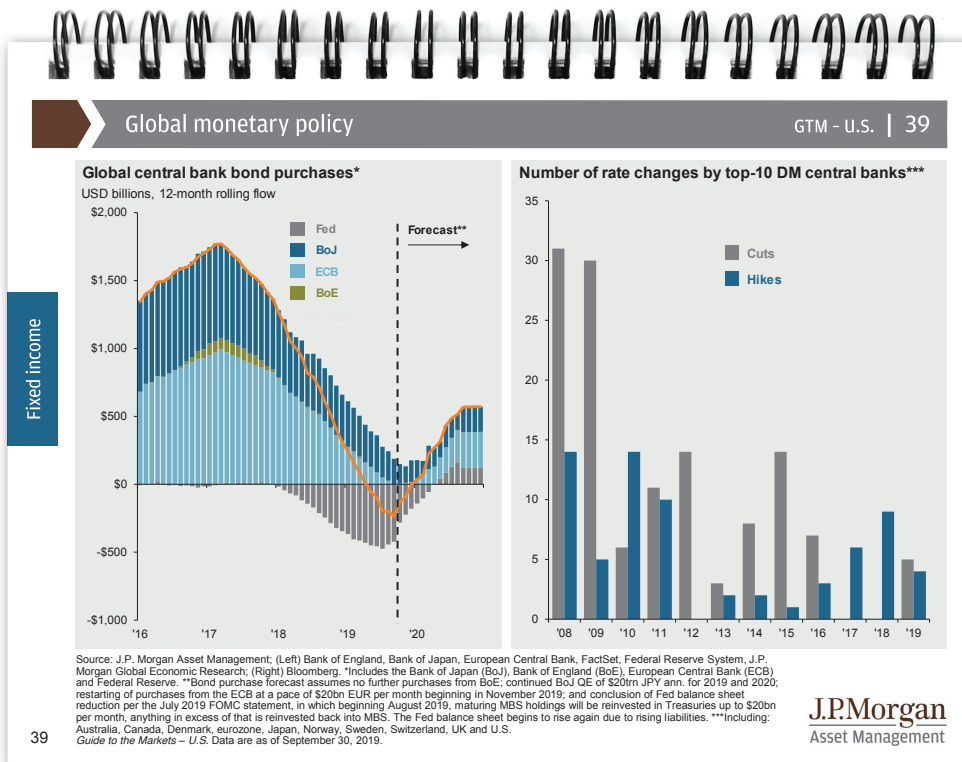
As global growth is called into question and uncertainty from trade tensions persists, many major global central banks have actively shifted from tighter to easier monetary policy, with the Federal Reserve (Fed) being a driving force.

More easing on the horizon, coupled with greater fear in the bond markets, has pushed yields even lower and at a rapid pace this summer.

- The Fed cut rates for the first time in a decade in July, followed by a second cut in September. Balance sheet normalization was concluded two months early at the beginning of August.
- In the developed international markets, the European Central Bank cut rates deeper into negative territory in September and resumed asset purchases, which it had only recently concluded at the end of 2018. The Bank of Japan maintains easy monetary policy.
- In emerging markets, the People's Bank of China further reduced the reserve requirement ratio and introduced the loan prime rate to facilitate bank lending. Many other major EM central banks also cut rates, such as India, Brazil, Mexico and Korea.

OVERVIEW

- Global central banks have changed tack, moving away from tightening and toward easing monetary policy.
- The Federal Reserve (Fed) cut interest rates for the first time in a decade, and appears to be on a path of easing.
- Yields have collapsed in recent months, as recession risks rise and fear about the global economy grows. This has made the hunt for yield even more challenging.



Source: *Guide to the Markets - U.S. 4Q 2019*, page 39

Central bank easing is now occurring across both developed and emerging markets in the form of rate cuts and renewed quantitative easing in select markets such as Europe.

This is a departure from the direction central banks had been heading in for years. In 2017 and 2018, none of the top 10 developed market central banks cut rates; each only hiked rates. However, in 2019, this has switched, with cuts outpacing hikes.

INVESTING IN FIXED INCOME IN AN EVEN LOWER YIELD ENVIRONMENT

An outlook of central bank easing, slowing global growth and continuing trade uncertainty has pushed government yields to record lows, and in some regions, into negative territory.

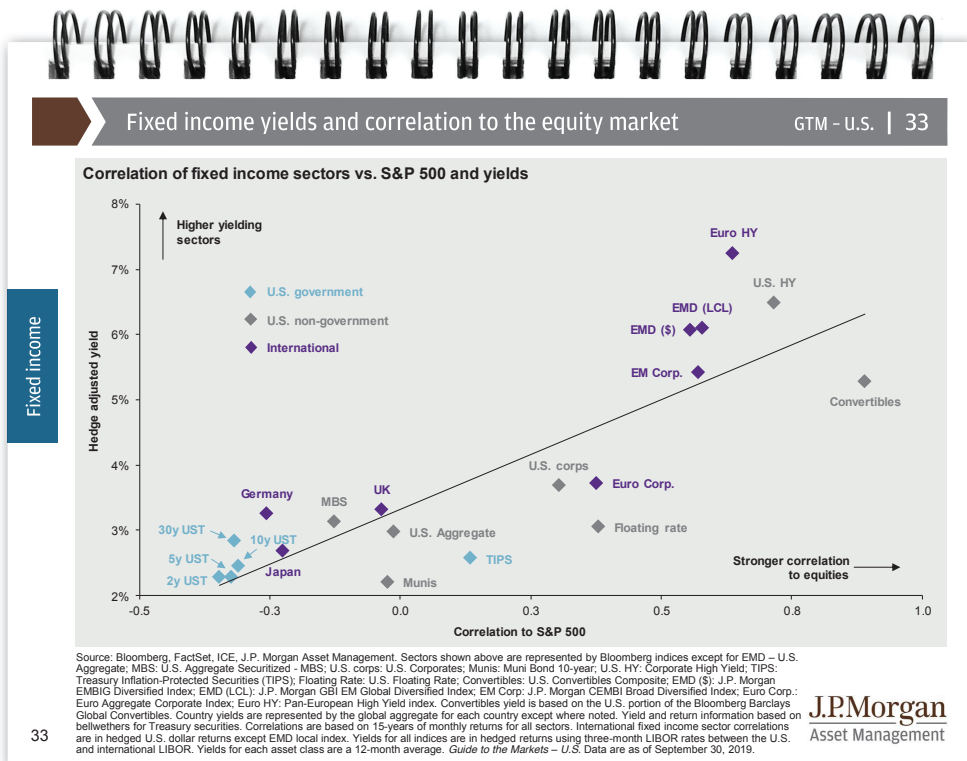
Lower yields and the rise in negative-yielding debt have made the hunt for yield even more challenging.

Investors ought to weigh whether they are being compensated adequately for owning some areas of the market that offer higher yields. Investors should also consider moving up in quality and longer in duration to prepare their portfolios for a future downturn.

- Government bond yields have reached historic lows, which means investors have had to get even more creative about finding yield. Sometimes that has led them to uncharted territory.
- In light of this, investors should fully understand the characteristics of the fixed income investments they own and how they are likely to perform in different environments. Higher yield often means higher risk, so it is important to balance attractive opportunities with core holdings.
- Often higher yielding sectors are also more highly correlated to equities, so investors would be wise to ensure they are not only diversified within fixed income, but also across all asset classes.

INVESTMENT IMPLICATIONS

- Lower yields and negative-yielding debt may make investors more desperate in the hunt for yield. Although there are some attractive yield opportunities in the fixed income markets, investors should remember that higher yield means higher risk, and often a greater correlation to equities. Investors should know what they own and fully understand the characteristics of what they hold.
- In an environment in which recession risks are rising and fear and uncertainty are growing, investors should also consider moving to higher quality, longer duration bonds to provide portfolio protection.



After years in a low-rate environment, investors hunted for yield in potentially unfamiliar territory.

Investors should know what they own: often higher yield means higher risk, and greater correlation to equities. Investors may want to ensure proper fixed income diversification in the context of their overall portfolios.

Source: *Guide to the Markets – U.S.* 4Q 2019, page 33

3 U.S. equities: Time to get tactical

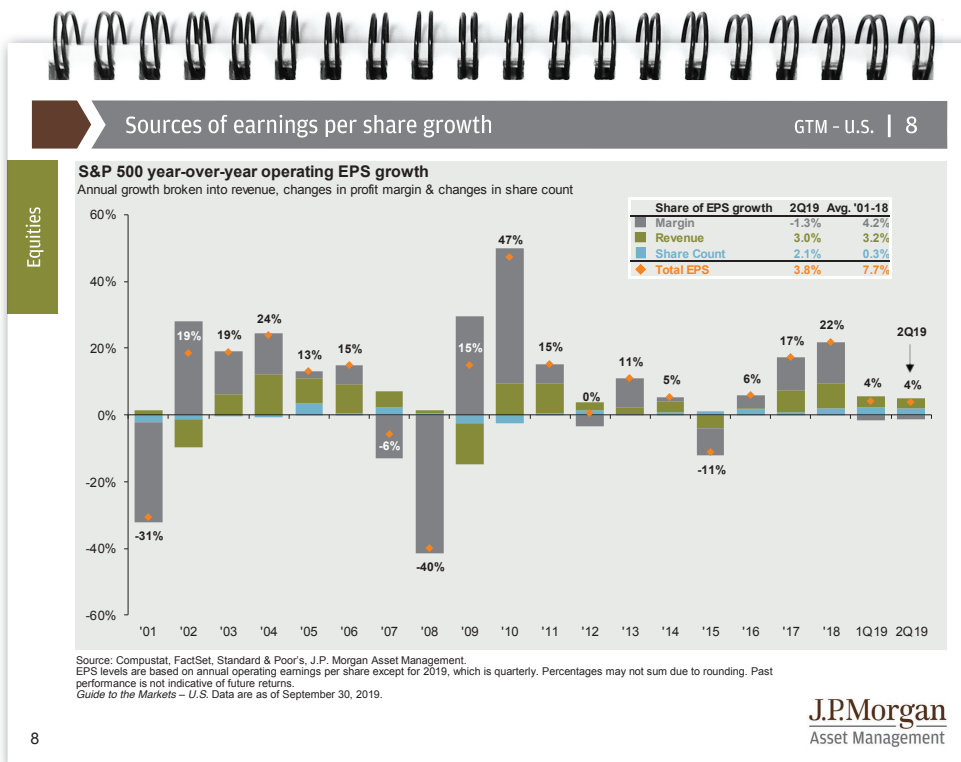
LOFTY EXPECTATIONS AND SINGLE DIGIT GROWTH

Despite initial estimates calling for a contraction, the 2Q19 earnings season was better than feared with second quarter operating earnings rising 3.9% from a year prior. From a sector standpoint, strong growth was seen in the financials, health care and real estate sectors, while most other sectors saw profits flat or contract on a year-over-year basis. Overall, we expect that full year 2019 operating profits should grow at around 4%-6%.

- Margins contracted on a year-over-year basis in 2Q19, but still remain near all-time highs at 11.4%. Strong wage growth, higher input costs and further increases in tariffs will continue to put downward pressure on margins going forward.
- Additionally, buybacks boosted earnings per share growth and contributed nearly half of the growth seen this quarter. As the economy slows and tax reform benefits fade, buybacks should also slow going forward, adding another source of downside pressure to earnings.
- Looking ahead, 2020 estimates, at 12% y/y, are likely still too high and should see downward revisions as the year progresses. We expect low to single digit earnings growth in 2020 with downside risks.

OVERVIEW

- Continued trade tensions have weighed on sentiment and should lead to further volatility in equity markets.
- With pressure on sentiment, equity valuations are likely capped, leaving earnings growth as the main driver for any further appreciation in equity markets.
- Late cycle dynamics combined with elevated geopolitical and policy uncertainty increase the need for investors to dampen volatility by striking a more balanced total return profile between dividends and capital appreciation.



Earnings will grow positively in 2019, but this growth is concentrated in only a few sectors.

2020 earnings estimates are currently too high, with downward risks coming from slower growth, lower margins and slower buyback activity.

Despite downside risks, earnings should remain in positive territory in 2019 and 2020, providing support for the equity market.

Source: Guide to the Markets - U.S. 4Q 2019, page 8

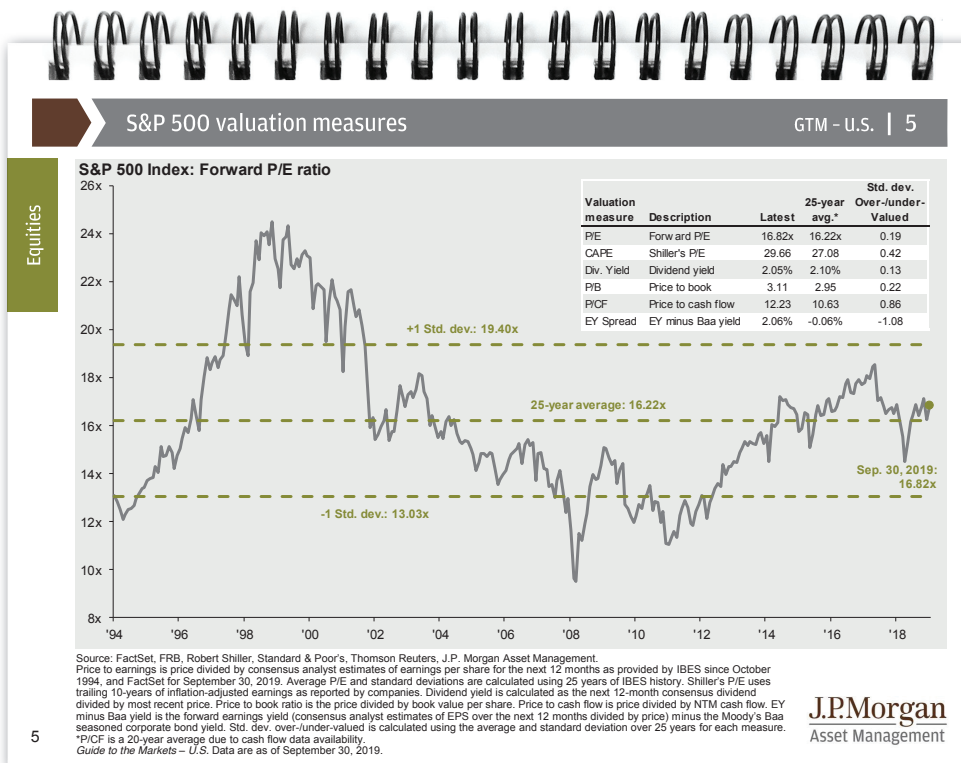
VALUATIONS WILL RELY ON SENTIMENT

A focus on tariff increases, slowing manufacturing activity, an inverted yield curve and trillions of dollars' worth of negative-yielding debt all fueled recession fears and contributed to equity volatility in the third quarter. However, given the large pullback in U.S. long-term interest rates, equity multiples have remained near their long-run average. In theory, lower rates should lead to higher multiples. However, with threatening clouds on the horizon, sentiment will need to meaningfully improve in order for equity valuations to climb meaningfully higher.

- Business confidence has come under pressure due to uncertainty around trade tensions, yet consumer confidence has held up reasonable well. As such, equity valuations remain near their long-term average and consumer confidence will be the driver of equity valuations going forward.
- If consumer confidence begins to fall, equity multiples will likely come under pressure, with any equity market appreciation having to come from earnings growth. On the other hand, if recession fears and geopolitical and policy uncertainty is extinguished, fueling sentiment, multiples could expand, which would support the equity market going forward.

INVESTMENT IMPLICATIONS

- The current policy and economic environment leads us to prefer cyclical and value-oriented equities, but we remain selective across sectors within these areas.
- With broad uncertainty and equity market volatility set to continue, investors should strike a balance between returns from income and capital appreciation in their equity allocation, allowing them to play both offense and defense.
- Likely capped multiples and slower profit growth, combined with continued geopolitical and policy uncertainty, will require a more tactical approach in equities.



Equity markets look fairly valued across a number of different metrics when compared to their long-run averages.

The pullback in interest rates has led equities to look increasingly attractive relative to fixed income.

Source: Guide to the Markets - U.S. 4Q 2019, page 5

4 International equities: Looking beyond the clouds

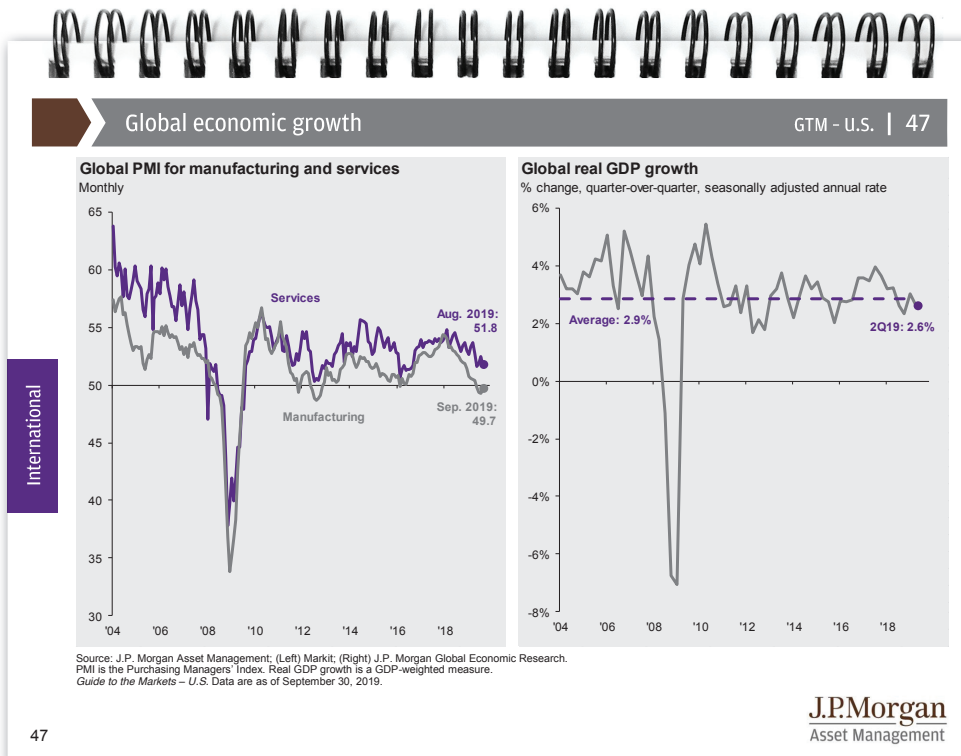
TRADE UNCERTAINTY CLOUDS CONTINUE TO LINGER

Trade tensions between the U.S. and its major partners, particularly China, have continued to be an important factor for investors over the past few months. The trade dispute between the two largest economies in the world took many twists and turns in the last quarter, which has added further pressure on business confidence and raised concerns over global economic growth.

- After the G20 meeting in June, where both presidents agreed to restart negotiations, the U.S. announced a new round of tariffs on all remaining Chinese exports. China retaliated by allowing the depreciation of the Chinese yuan and imposing tariffs on additional U.S. exports. In response, the U.S. further increased tariff rates on products coming from China. This means that by December, all goods traded between the U.S. and China could be tariffed.
- While the tariffs themselves are worrisome, they haven't caused major direct impacts in either economy yet in terms of inflation or growth. Instead, our main source of concern is the uncertainty that they have brought to businesses. Global companies are unsure about the rules of the game, leading them to pause on investment decisions on new projects.
- The negative effects of the trade dispute have been mainly felt in the manufacturing sector. Global manufacturing PMI is below 50, pointing that the sector is sinking. On the other hand, the services sector is still in expansionary territory, remaining afloat by the life vest that is the consumer.

OVERVIEW

- In the third quarter of 2019, trade tensions continued to weigh on business and investor sentiment with further escalation of trade tensions between the U.S. and China.
- In August, the U.S. announced a new round of tariffs and China followed through with retaliation measures. This series of events has put further pressure on business confidence, depressing business investment and raising concerns over global economic growth.
- Thinking beyond short-term effects of trade uncertainty, we believe that international equities continue to serve a role in portfolios.



The manufacturing sector has been in the eye of the storm of the global slowdown, as trade uncertainty continues to weigh on business confidence.

In contrast, the services sector has continued to show resiliency with the help of the consumer, which has been the life vest of the global economy.

EVERY CLOUD HAS A SILVER LINING

While international equities have lagged relative to the U.S. this year, there are reasons why investors should look beyond the near-term effects of trade. Foreign assets represent about 45% of the equity universe, but the average investor has about one-fifth of their portfolio invested abroad - not sufficient to be even considered underweight. This may be a good time for investors to ensure they have adequate exposure beyond their borders and prepare for what might come in the next few years or decades.

- International exposure will be crucial for long-term investors, but they should not look at them as a whole. They should focus on sectors and geographies that are likely to benefit in the long run, especially the ones that could tap into the consumer growth story abroad.
- International stocks are currently at a greater discount to their long-term average levels than U.S. stocks. This makes them more attractively priced and offers the opportunity to accumulate a more representative allocation. Moreover, recent dollar strength should reverse in the long run and add to investors' returns.
- Lastly, sentiment for foreign assets can change very quickly, driving significant short-term swings in returns through valuations and currency movements. However, fundamentals (earnings and dividends) tend to remain positive and are the main drivers of returns over a long time horizon.

INVESTMENT IMPLICATIONS

- Given the likelihood that trade uncertainty will linger for the remainder of 2019, international equities should continue to see volatility ahead.
- However, thinking beyond the next few months, the reality is that U.S. investors may actually not have enough exposure to assets outside their borders.
- Attractive valuations and the outlook for a weakening dollar make a strong case for international equities for the long term. Investors should take this opportunity to look further ahead to see the light at the end of the tunnel.

Global equity markets GTM - U.S. | 42

Returns	2019 YTD		2018		15-years	
	Local	USD	Local	USD	Ann.	Beta
Regions						
U.S. (S&P 500)	-	20.6	-	-4.4	7.8	0.86
AC World ex-U.S.	14.2	12.1	-10.2	-13.8	5.7	1.11
EAFE	16.2	13.3	-10.5	-13.4	5.2	1.07
Europe ex-UK	21.1	16.0	-10.6	-14.4	5.7	1.22
Emerging markets	8.1	6.2	-9.7	-14.2	8.3	1.28
Selected Countries						
United Kingdom	13.8	10.2	-8.8	-14.1	4.1	1.01
France	22.6	16.9	-7.5	-11.9	5.4	1.23
Germany	16.1	10.7	-17.7	-21.6	6.1	1.34
Japan	9.9	11.5	-14.9	-12.6	4.0	0.75
China	8.1	7.8	-18.6	-18.7	9.9	1.25
India	3.7	2.1	1.4	-7.3	10.0	1.39
Brazil	19.0	10.8	16.7	-0.1	10.0	1.51
Russia	23.1	30.4	18.1	0.5	4.8	1.52

Weights in MSCI All Country World Index
% global market capitalization, float adjusted

Global equities by sector
% of index market capitalization

Source: FactSet, Federal Reserve, MSCI, Standard & Poor's, J.P. Morgan Asset Management. All return values are MSCI Gross Index (official) data. 15-year history based on U.S. dollar returns. 15-year return and beta figures are calculated for the time period 12/31/03-12/31/18. Beta is for monthly returns relative to the MSCI AC World Index. Annualized volatility is calculated as the standard deviation of quarterly returns multiplied by the square root of 4. Chart is for illustrative purposes only. Please see disclosure page for index definitions. Past performance is not a reliable indicator of current and future results. Sector breakdown includes the following aggregates: Technology (communication services and technology), consumer (consumer discretionary and staples) and commodities (energy and materials). The graph excludes the utilities and real estate sectors for illustrative purposes.

J.P.Morgan
Asset Management

International equities account for almost half of the global equities universe.

However, most investors have too small of an allocation even to be considered underweight in international assets.

While it's important to be invested abroad, it is also essential to have the right exposure, such as the consumer-oriented sectors that are likely to benefit in the long run.

Source: Guide to the Markets - U.S. 4Q 2019, page 42

GLOBAL MARKET INSIGHTS STRATEGY TEAM

Americas

Dr. David P. Kelly, CFA
Managing Director
Chief Global Strategist
New York

Samantha M. Azzarello
Executive Director
Global Market Strategist
New York

David M. Lebovitz
Executive Director
Global Market Strategist
New York

Gabriela D. Santos
Executive Director
Global Market Strategist
New York

Alexander W. Dryden, CFA
Vice President
Global Market Strategist
New York

John C. Manley
Vice President
Global Market Strategist
New York

Meera Pandit
Vice President
Market Analyst
New York

Jordan K. Jackson
Associate
Market Analyst
New York

Tyler J. Voigt, CFA
Associate
Market Analyst
New York

Jennie Li
Associate
Market Analyst
New York

Europe

Karen Ward
Managing Director
Chief Market Strategist for EMEA
London

Manuel Arroyo Ozores, CFA
Managing Director
Global Market Strategist
Madrid

Michael Bell, CFA
Executive Director
Global Market Strategist
London

Tilman Galler, CFA
Executive Director
Global Market Strategist
Frankfurt

Lucia Gutierrez-Mellado
Executive Director
Global Market Strategist
Madrid

Vincent Juvyns
Executive Director
Global Market Strategist
Luxembourg

Maria Paola Toschi
Executive Director
Global Market Strategist
Milan

Hugh Gimber, CFA
Vice President
Global Market Strategist
London

Ambrose Crofton
Associate
Market Analyst
London

Jai Malhi
Associate
Market Analyst
London

Asia

Tai Hui
Managing Director
Chief Market Strategist for Asia Pacific
Hong Kong

Yoshinori Shigemi
Managing Director
Global Market Strategist
Tokyo

Kerry Craig, CFA
Executive Director
Global Market Strategist
Melbourne

Dr. Jasslyn Yeo, CFA
Executive Director
Global Market Strategist
Singapore

Marcella Chow
Vice President
Global Market Strategist
Hong Kong

Ian Hui
Vice President
Global Market Strategist
Hong Kong

Agnes Lin
Vice President
Global Market Strategist
Taipei

Shogo Maekawa
Vice President
Global Market Strategist
Tokyo

Chaoping Zhu
Vice President
Global Market Strategist
Shanghai

Hannah J. Anderson
Associate
Global Market Strategist
Hong Kong

The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

For the purposes of MiFID II, the JPM Market Insights and Portfolio Insights programs are marketing communications and are not in scope for any MiFID II / MiFIR requirements specifically related to investment research. Furthermore, the J.P. Morgan Asset Management Market Insights and Portfolio Insights programs, as non-independent research, have not been prepared in accordance with legal requirements designed to promote the independence of investment research, nor are they subject to any prohibition on dealing ahead of the dissemination of investment research.

This document is a general communication being provided for informational purposes only. It is educational in nature and not designed to be as advice or a recommendation for any specific investment product, strategy, plan feature or other purpose in any jurisdiction, nor is it a commitment from J.P. Morgan Asset Management or any of its subsidiaries to participate in any of the transactions mentioned herein. Any examples used are generic, hypothetical and for illustration purposes only. This material does not contain sufficient information to support an investment decision and it should not be relied upon by you in evaluating the merits of investing in any securities or products. In addition, users should make an independent assessment of the legal, regulatory, tax, credit, and accounting implications and determine, together with their own professional advisers, if any investment mentioned herein is believed to be suitable to their personal goals. Investors should ensure that they obtain all available relevant information before making any investment. Any forecasts, figures, opinions or investment techniques and strategies set out are for information purposes only, based on certain assumptions and current market conditions and are subject to change without prior notice. All information presented herein is considered to be accurate at the time of production, but no warranty of accuracy is given and no liability in respect of any error or omission is accepted. It should be noted that investment involves risks, the value of investments and the income from them may fluctuate in accordance with market conditions and taxation agreements and investors may not get back the full amount invested. Both past performance and yields are not reliable indicators of current and future results.

J.P. Morgan Asset Management is the brand for the asset management business of JPMorgan Chase & Co. and its affiliates worldwide.

To the extent permitted by applicable law, we may record telephone calls and monitor electronic communications to comply with our legal and regulatory obligations and internal policies. Personal data will be collected, stored and processed by J.P. Morgan Asset Management in accordance with our Company's Privacy Policy (<https://www.jpmorgan.com/global/privacy>). For further information regarding our local privacy policies, please follow the respective links: Australia (<https://www.jpmorgan.com/country/AU/EN/privacy>), EMEA (<https://am.jpmorgan.com/us/en/asset-management/gim/mod/legal/external-privacy-policy>), Japan (<https://www.jpmorganasset.co.jp/wps/portal/Policy/Privacy>), Hong Kong (<https://am.jpmorgan.com/hk/en/asset-management/per/privacy-statement/>), Singapore (<http://www.jpmorganam.com.sg/privacy>) and Taiwan (<https://www.jpmrich.com.tw/wps/portal/Footer/Privacy>).

This communication is issued by the following entities: in the United Kingdom by JPMorgan Asset Management (UK) Limited, which is authorized and regulated by the Financial Conduct Authority; in other European jurisdictions by JPMorgan Asset Management (Europe) S.à r.l.; in Hong Kong by JPMorgan Asset Management (Asia Pacific) Limited, or JPMorgan Funds (Asia) Limited, or JPMorgan Asset Management Real Assets (Asia) Limited; in Singapore by JPMorgan Asset Management (Singapore) Limited (Co. Reg. No. 197601586K), or JPMorgan Asset Management Real Assets (Singapore) Pte Ltd (Co. Reg. No. 201120355E), this advertisement or publication has not been reviewed by the Monetary Authority of Singapore; in Taiwan by JPMorgan Asset Management (Taiwan) Limited; in Japan by JPMorgan Asset Management (Japan) Limited which is a member of the Investment Trusts Association, Japan, the Japan Investment Advisers Association, Type II Financial Instruments Firms Association and the Japan Securities Dealers Association and is regulated by the Financial Services Agency (registration number "Kanto Local Finance Bureau (Financial Instruments Firm) No. 330"); in Australia to wholesale clients only as defined in section 761A and 761G of the Corporations Act 2001 (Cth) by JPMorgan Asset Management (Australia) Limited (ABN 55143832080) (AFSL 376919); in Brazil by Banco J.P. Morgan S.A.; in Canada for institutional clients' use only by JPMorgan Asset Management (Canada) Inc., and in the United States by J.P. Morgan Institutional Investments, Inc., member of FINRA; J.P. Morgan Investment Management, Inc. or J.P. Morgan Alternative Asset Management, Inc.

In APAC, distribution is for Hong Kong, Taiwan, Japan and Singapore. For all other countries in APAC, to intended recipients only.

Copyright 2019 JPMorgan Chase & Co. All rights reserved

Unless otherwise stated, all data are as of September 30, 2019 or most recently available.

MI-QP_4Q19 | 0903c02a81c17acb