NEPC 2021 INVESTMENT OUTLOOK

2021 MARKET OUTLOOK AND KEY MARKET THEMES

February 2021

NEPC Research

BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

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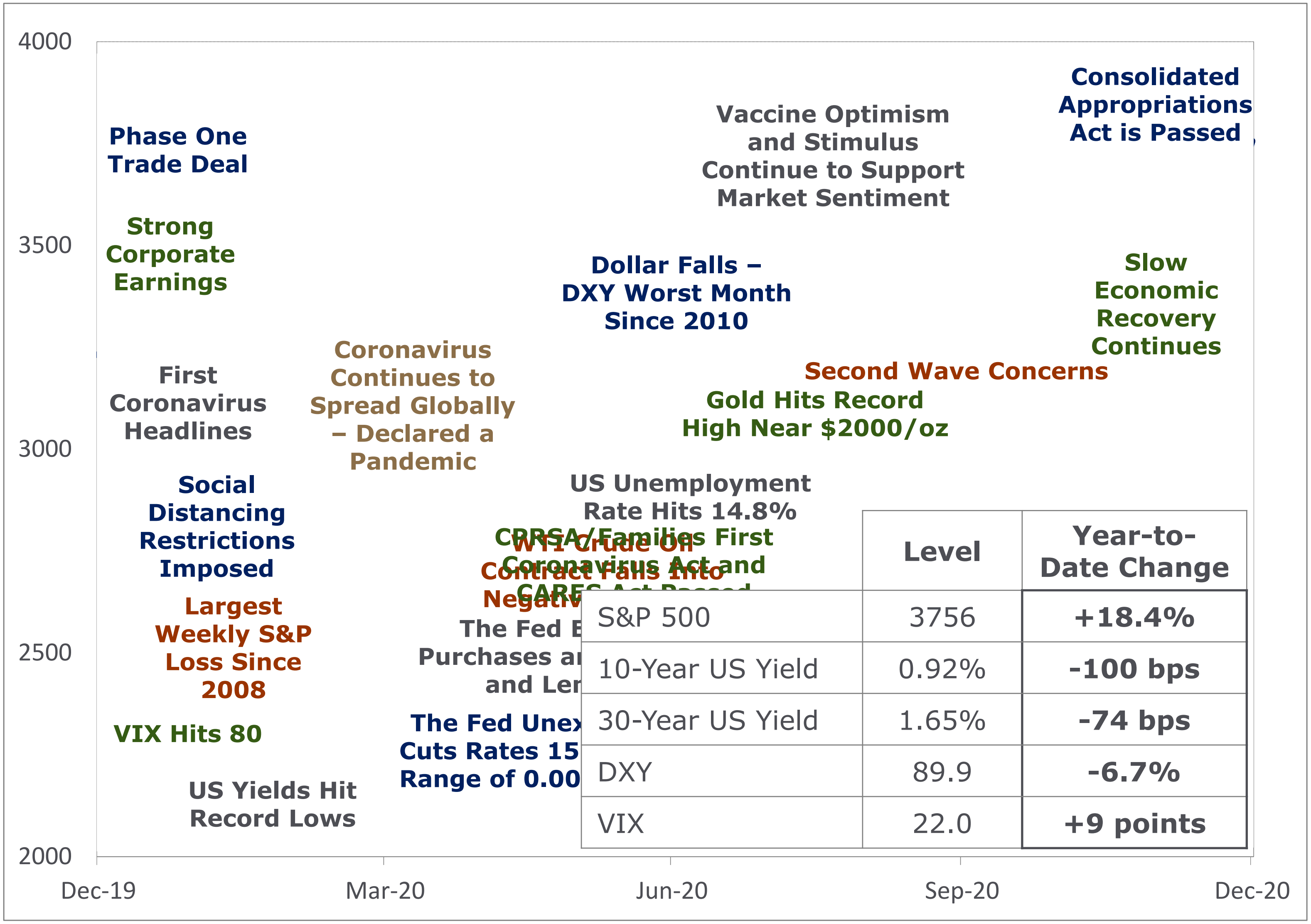
MARKET OUTLOOK

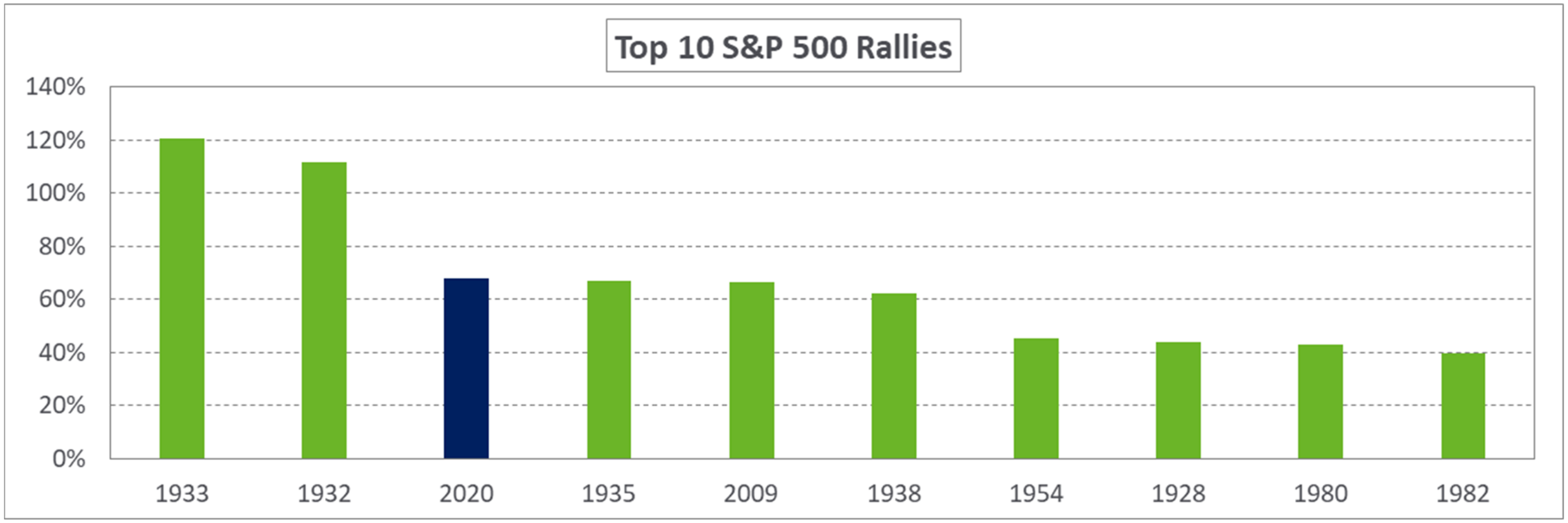
NEPC, LLC

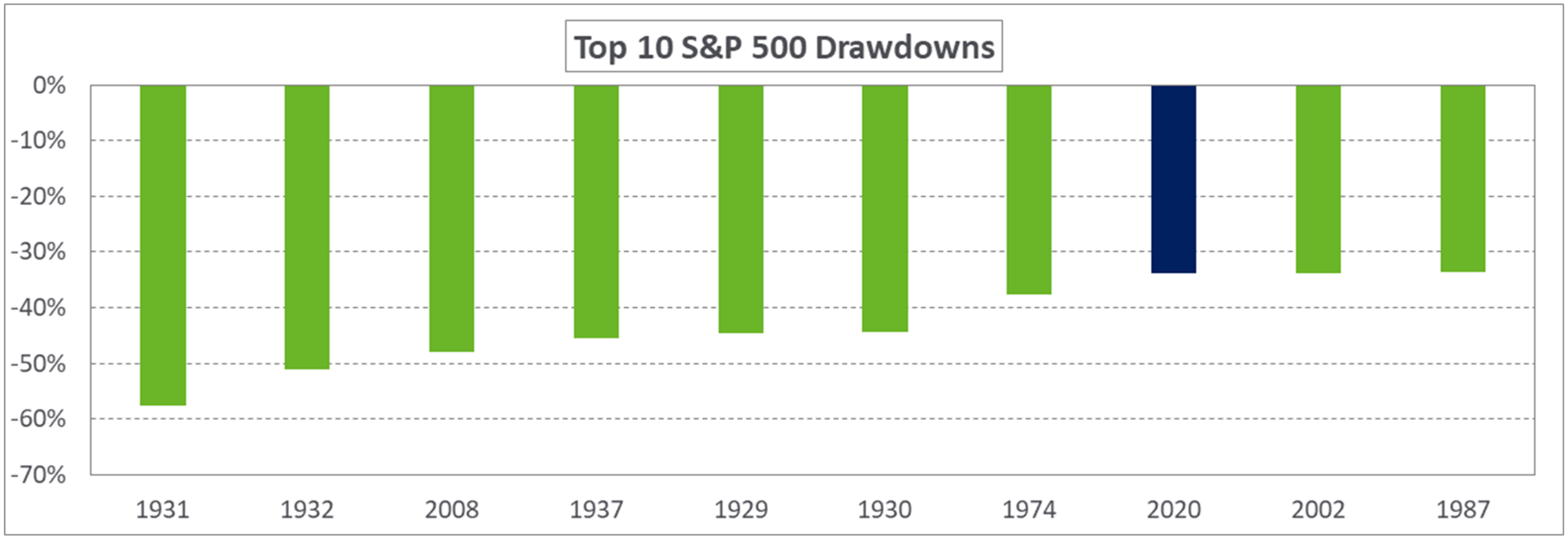
A WILD RIDE FOR INVESTORS



	Level	Year-to-Date Change
S&P 500	3756	**+18.4%**
10-Year US Yield	0.92%	**-100 bps**
30-Year US Yield	1.65%	**-74 bps**
DXY	89.9	**-6.7%**
VIX	22.0	**+9 points**

2020 WAS A MOMENTOUS YEAR

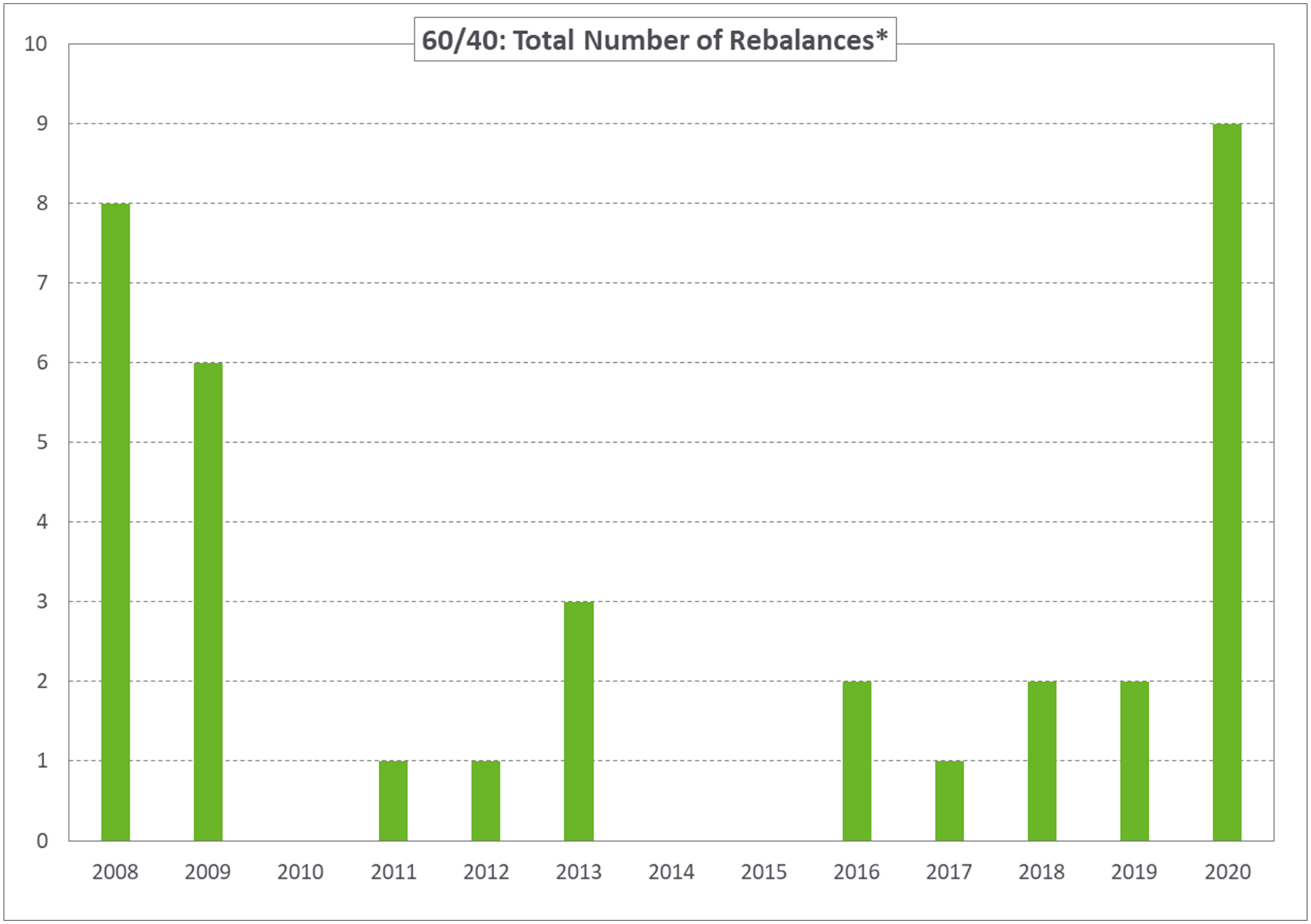




Source: S&P, FactSet

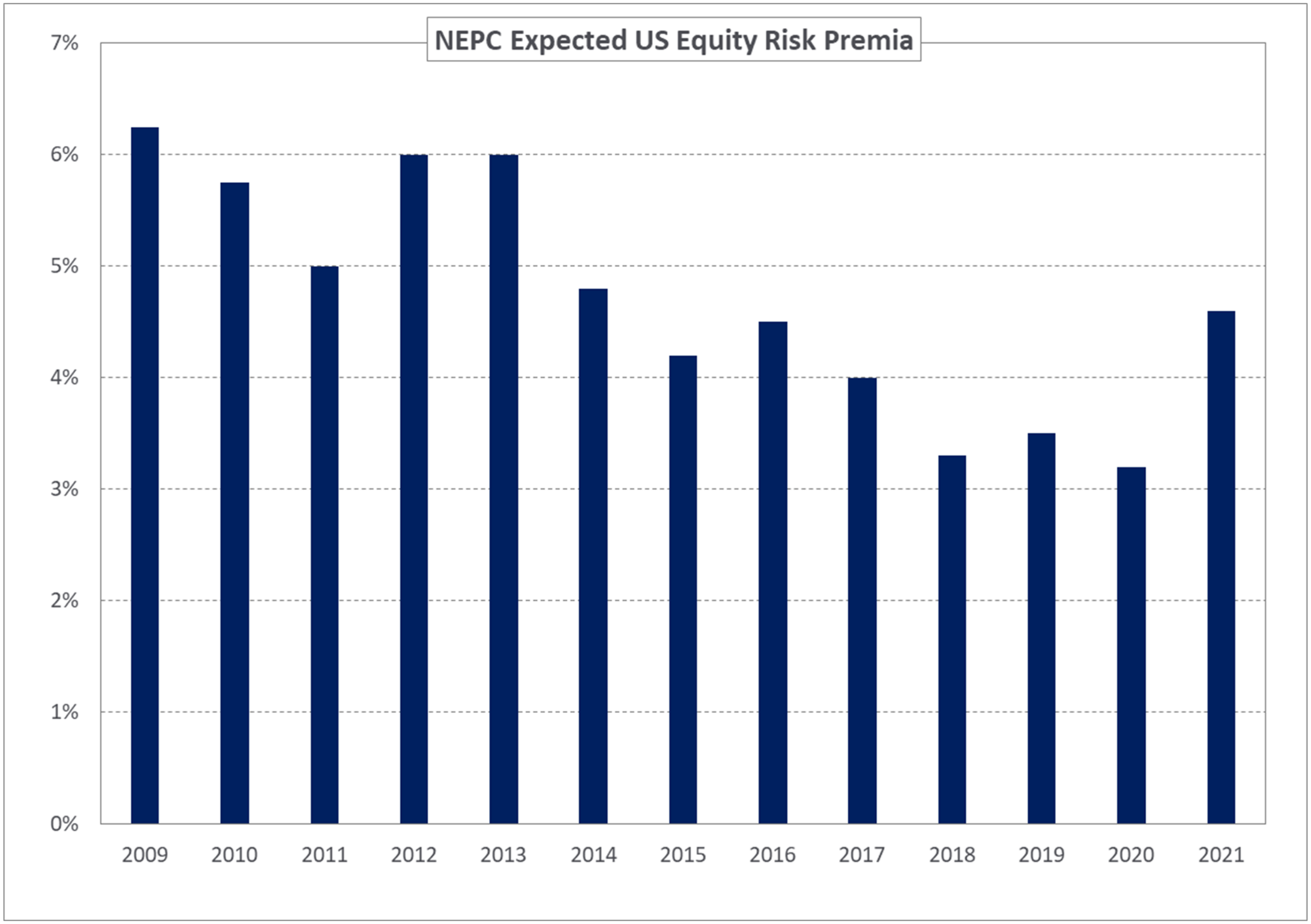
Rallies and drawdowns represent the largest trough-to-peak and peak-to-trough, respectively, within a calendar year

BE PREPARED TO ACT IN 2021



Source: S&P, FactSet
*Reflects number of rebalance actions with a 5% rebalance threshold and assumes rebalance halfway back to target

CONSIDER HIGHER STRATEGIC EQUITY TARGETS



Source: NEPC
Represents the difference between 10-Year NEPC US Large-Cap and Cash Assumptions
*Prior to 2019, return assumption reflected a 5-7 year time horizon

ASSET ALLOCATION THOUGHTS AND ACTIONS

Permanent Interventions sustains positive risk asset sentiment and boosts our return outlook

Consider higher strategic equity targets as the long-term return differential relative to fixed income is wide

Maintain adequate portfolio liquidity levels as market stress can inject bouts of illiquidity across public assets

The wide range of outcomes associated with COVID-19 place a greater focus on strategic beliefs

Maintain a strategic allocation to Treasuries to serve as a source of liquidity and to provide downside protection

KEY MARKET THEMES

NEPC KEY MARKET THEMES

Key Market Themes are factors that influence global markets and remain relevant for an extended period

Themes may be disrupted and incite market volatility

The conclusion of a theme may alter market dynamics and NEPC's long-term market outlook

Our intent is for clients to be aware of these themes and understand their implications for the capital markets

NEPC currently has four Key Market Themes:

Virus Trajectory	Permanent Interventions	Globalization Backlash	China Transitions

ASSESSING THE KEY MARKET THEMES

AS OF 12/31/20

Theme	Dormant	Faded	Neutral	Prevalent	Dominant
Virus Trajectory *No Change in Status*					**Dominant**
Permanent Interventions *No Change in Status*					**Dominant**
Globalization Backlash *No Change in Status*				**Prevalent**	
China Transitions *No Change in Status*			**Neutral**		

Virus Trajectory

No Change in Status

- Virus Trajectory continues to be the dominant force driving global economic outcomes
- Market sentiment improved with successful vaccine candidates, though concerns remain around distribution, logistics, and supply of the vaccine
- Uncertainty remains as worsening COVID-19 trends and a potential new strain of the virus may impact the timing of an economic recovery

Permanent Interventions

No Change in Status

- Permanent Interventions continues to be the dominant force driving global markets upward
- In the US, a fifth coronavirus relief package worth about $900 billion was passed. In Europe, the Central Bank expanded its emergency bond-buying program by €500B and extended the program

Globalization Backlash

No Change in Status

- The importance of the theme may increase in coming years as the lasting impact from the pandemic is seen
- The world will likely be faced with an amplified wealth divide given economic and labor market disruptions, which historically has driven more volatile political outcomes

China Transitions

No Change in Status

- US-China tensions escalated as President Trump signed two executive orders that prohibited US investors from owning a select number of corporate securities from China and banned transactions with some Chinese software applications
- President-elect Biden has promised a policy review in 2021 regarding the US policy posture with China

VIRUS TRAJECTORY

DEFINING THE THEME

KEY MARKET THEME: *VIRUS TRAJECTORY*

The Virus Trajectory theme reflects the uncertain path of how the pandemic and global economic activity interact

The scope and duration of virus containment efforts severely disrupted the global economy

Successful distribution of COVID-19 vaccines shortens the timeline of the theme

A significant increase in the pace of vaccinations will be needed to aid a rapid recovery for the global economy

The lasting influence of the pandemic is uncertain as the extent of the economic scars have yet to be fully realized

Despite relative improvement in economic data, recent data points highlight lingering disruptions in businesses and the labor market

Plausible economic paths range from a rapid economic recovery, to a K-shaped recovery, to a depression

The Virus Trajectory theme began in 2020 and could conclude in 2021, but broad socio-economic effects will be felt for years

INVESTMENT CONSIDERATIONS
KEY MARKET THEME: *VIRUS TRAJECTORY*

The wide range of scenarios pulls investor focus from the extremes of vaccine optimism to a renewed outbreak

The pandemic has amplified our PI theme, fueling fiscal and monetary expansion to the benefit of equity markets

For risky investments, it raises the question “do valuations matter?”

A rapid vaccine rollout can unleash economic exuberance and benefit highly cyclical assets and value stocks

However, the risk of an extended economic downturn and prolonged deflationary environment remain

In such an environment, nominal government bonds offer relief

Continuum of Virus and Economic Paths		
Health Risk	Calibration Between Health Risks and Economic Costs	Economic Cost

THEMATIC MACROECONOMIC RISKS

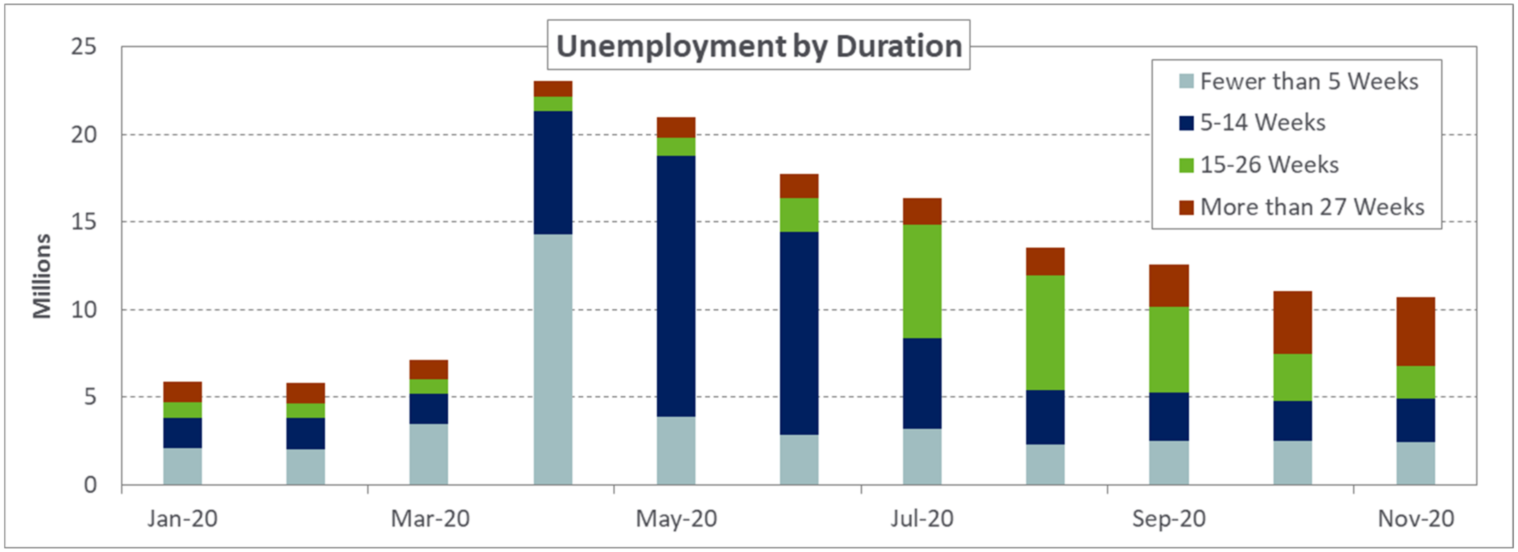
KEY MARKET THEME: *VIRUS TRAJECTORY*

Economic dislocation from the pandemic is widespread

The negative consequences vary across the globe but can be found in labor markets, consumer spending, productivity, and imbalances

The lingering damage from the pandemic is unclear and represents the largest economic disruption of our time

Labor markets are generally slow to recover and the pandemic may leave a lasting impact on the long-term unemployed



Source: Department of Labor, FactSet

POTENTIAL OUTCOMES AND IMPLICATIONS
KEY MARKET THEME: *VIRUS TRAJECTORY*

	Description	Market Implications
Base Case	Virus containment efforts aimed at slowing the spread of COVID-19 will shape the trajectory of a recovery. Increased monetary and fiscal stimulus offset some of the economic disruption, but economic growth and labor markets are likely to take longer to normalize than historical recessions suggest.	Market volatility remains at elevated levels. Low interest rates are here to stay but there is increased volatility around the path of inflation. Large deflationary pressures remain and are paired with a stimulative fiscal response. Opportunities may be available for investors willing to take on greater strategic equity exposure. Impact of Virus Trajectory looks to recede within 12 months.
Economic Depression	Period of extreme economic disruption characterized by unemployment levels greater than 10% and falling consumer spending levels. Waves of changing containment rules damage consumer confidence, limiting economic activity even during less restrictive times. Massive government fiscal relief measures look to plug holes in GDP but the lack of economic dynamism reduces productivity.	Combined fiscal and monetary policies are MMT-like with outsized volatility in global currency regimes. Relative benefits to the yuan and dollar. Extreme deflationary pressures offer value in nominal local government debt (e.g. US Treasuries). An unprecedented economic disruption across industries and countries. Patience is required as equity markets reprice and the credit default cycle is elevated. Maintaining liquidity is a first order priority, but look to allocate surplus liquidity to distressed investments.
Rapid Vaccine Roll-Out	Combination of dynamic containment and expansive distribution of vaccines lead to a rapid path of economic recovery in 2021. Fiscal policy relief and stimulus fill the economic gap to restore economic normalization.	Strongly positive for all cyclical assets and a potential catalyst for value-oriented equities. Provides path for moderately higher inflation as fiscal policy expansion drives economic growth. Begins a period of post-pandemic economic exuberance with consumer spending growth across all corners of the economy.

PERMANENT INTERVENTIONS

DEFINING THE THEME

KEY MARKET THEME: *PERMANENT INTERVENTIONS*

Global markets are defined by central bank market interventions and permanent fiscal support

The pandemic has supercharged the Permanent Interventions theme with outsized support and fiscal relief

Market sentiment is now a key central bank policy pillar of equal standing to inflation and employment mandates

Low interest rates and a fragile economic environment force central banks to grow balance sheets and liquify the global financial system

Without meaningful inflation pressures, the path of monetary policy does not normalize and an environment of low interest rates persists

We believe permanent fiscal intervention is the baseline

Weak economic growth trends in the developed world underpin political tensions and motivate a significant fiscal debt expansion

Permanent Interventions boosts investor sentiment and enhances our long-term return outlook for risk assets

We believe central banks across the globe will continue to expand balance sheet assets to sustain an environment of excess liquidity

DEFINING THE THEME CONTINUED

KEY MARKET THEME: *PERMANENT INTERVENTIONS*

The removal of central bank measures and fiscal stimulus would reveal the global economy's structural weakness

The dynamics of muted inflation pressures and low economic growth drive a combined monetary and political response

As debt-to-GDP levels rise, the necessity of central bank intervention is reinforced to maintain low interest rates

Nominal economic growth rates must exceed sovereign bond yields to forestall a sovereign debt crisis, as seen in the Eurozone in 2010

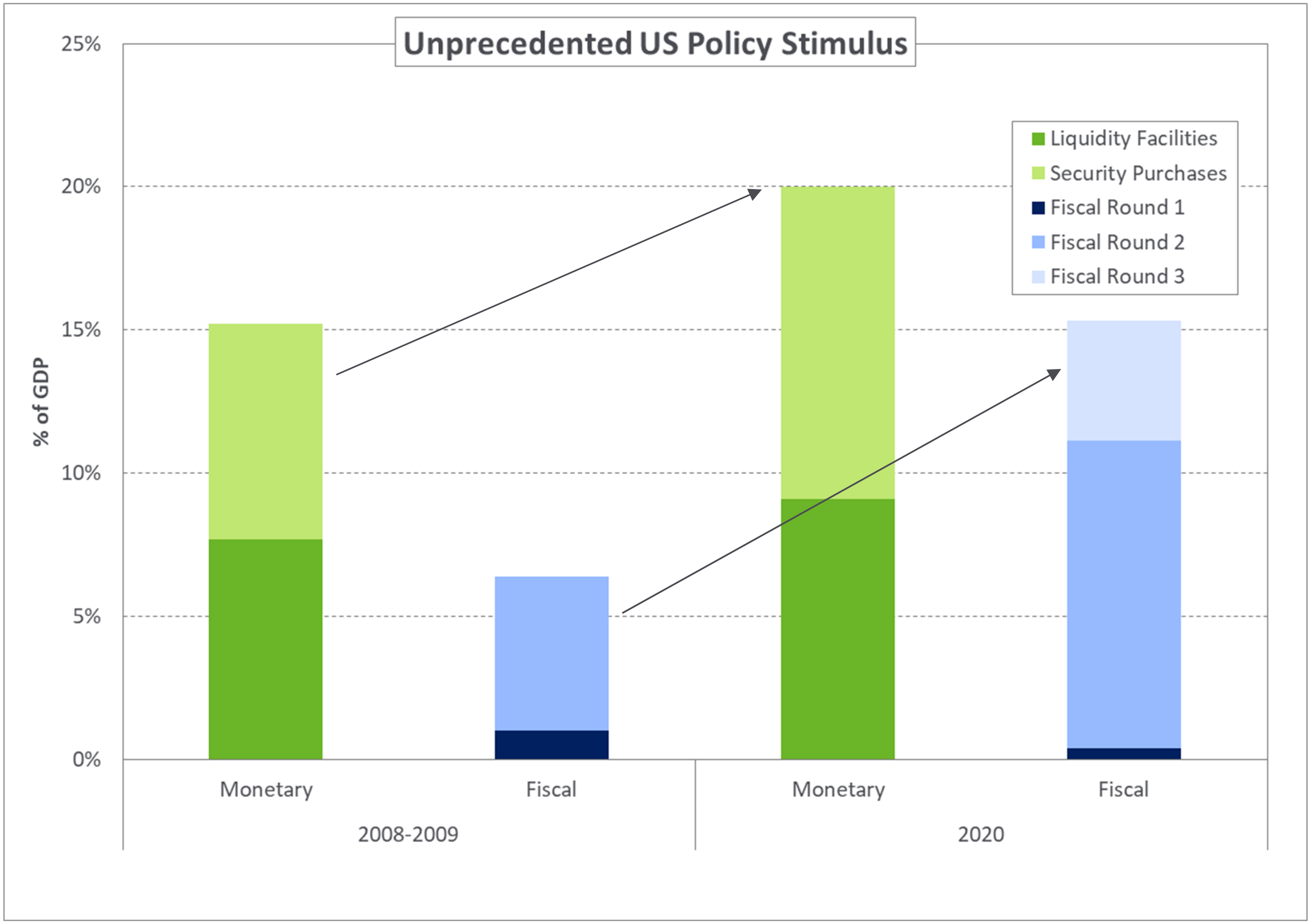
We see the Permanent Interventions theme muting the normal fluctuations of the business cycle

This potentially leaves no safety net in an economic downturn should central bank and fiscal interventions be limited or exhausted

The new regime reflects permanent easy monetary policy, surplus liquidity, and fiscal debt growth

Investors have yet to fully discount the combined favorable equity market conditions and heightened long-term macro tail-risks

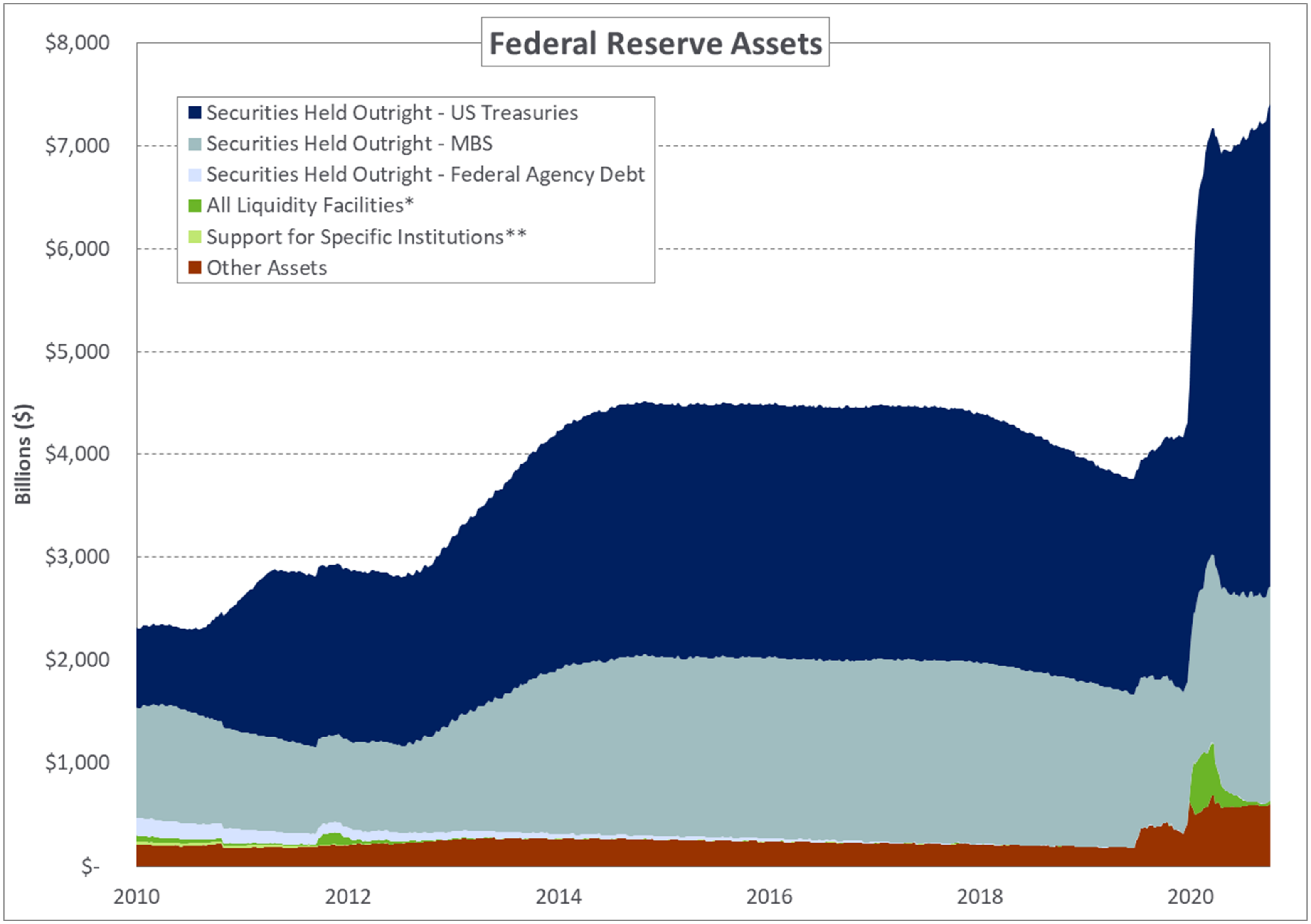
ELEVATED PERMANENT INTERVENTIONS
KEY MARKET THEME: *PERMANENT INTERVENTIONS*



Source: NEPC, Federal Reserve
Fiscal Rd 1: 2008 – Economic Stimulus Act ($152B); 2020 – CPRSA/Families First ($91B); Fiscal Rd 2: 2008 – Am. Recovery & Reinv. Act ($787B); 2020 – CARES Act ($2.3T); Fiscal Rd 3: 2020 – Consolidated Appropriations Act ($900B)

ELEVATED PERMANENT INTERVENTIONS

KEY MARKET THEME: *PERMANENT INTERVENTIONS*



Sources: Federal Reserve, FactSet, NEPC; *All Liquidity Facilities includes term auction credit, primary credit, secondary credit, seasonal credit, Primary Dealer Credit Facility, Asset-Backed Commercial Paper, Money Market Mutual Fund Liquidity Facility, and central bank liquidity swaps; **Support for Specific Institutions includes credit extended to AIG and Maiden Lane LLCs

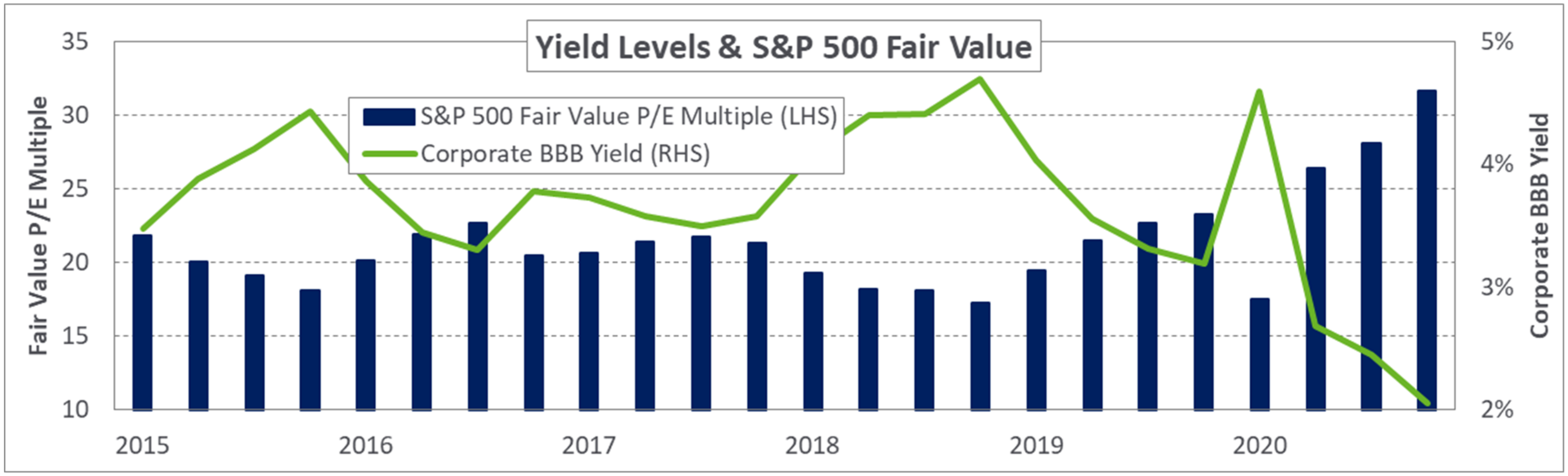
Permanent Interventions sustains high P/E multiples and equity valuations become a less potent market signal

Low interest rates generate higher values when discounting future cash flows and increase valuation levels for equity markets

The supportive policy environment is favorable to equity

Investors enjoy high profit margins relative to history as the surplus of central bank liquidity benefits holders of capital relative to labor

However, proactive tightening of monetary policy damages market sentiment and exposes the fragile nature of market dynamics



Source: FactSet, S&P, Bloomberg

THEMATIC MACROECONOMIC RISKS

KEY MARKET THEME: *PERMANENT INTERVENTIONS*

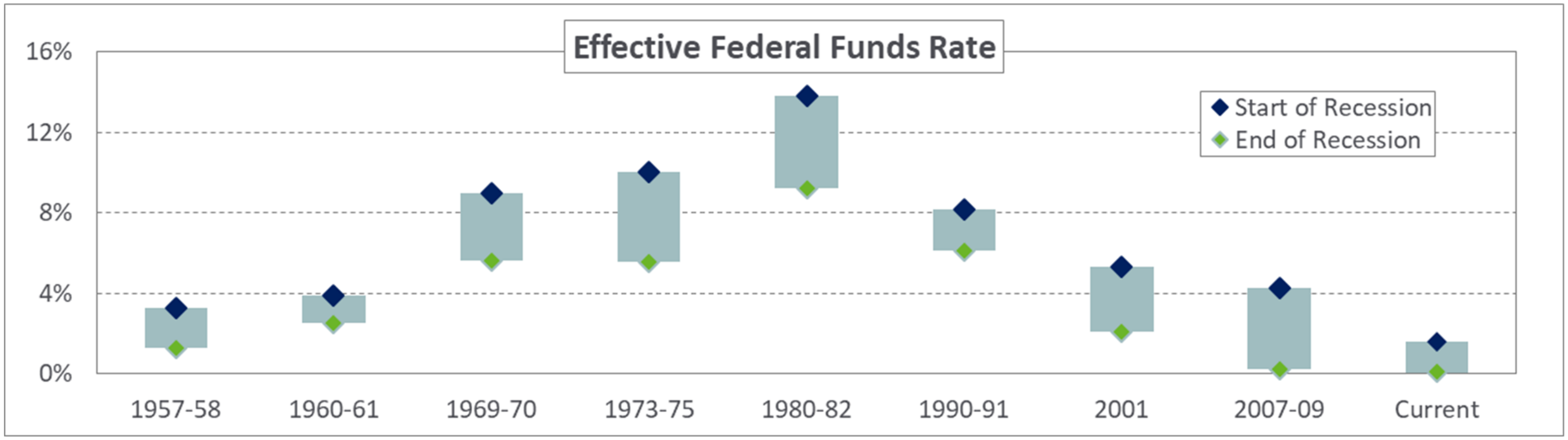
History shows economic weakness can overwhelm the system in the absence of extraordinary policy measures

In such a deflationary environment, nominal government bonds offer one of the few attractive risk-adjusted returns profiles

The withdrawal of central bank intervention and fiscal support displaces traditional macroeconomic risks

Permanent Interventions gradually fuels tail-risks as moral hazard is absorbed into the financial system and markets nationalize losses

Actions by central banks and governments to lessen the economic impact of COVID-19 have increased the dominance of the theme



Source: FactSet, Federal Reserve

POTENTIAL OUTCOMES

KEY MARKET THEME: *PERMANENT INTERVENTIONS*

	Description	Long-Term Market Implications
The New Normal	NEPC base case expectation of a permanent regime of easy monetary policy, surplus market liquidity, and fiscal debt growth paired with muted inflation levels	Favorable to equities relative to safe-haven fixed income, with risk assets benefiting from above average corporate profit margins and low interest rates. The normal fluctuations of a business cycle are subdued but macro tail-risks continue to build
Political Dysfunction	Interconnected with NEPC's Globalization Backlash theme, political conflict disrupts the full intervention of fiscal stimulus	Economic growth rates are lower as fiscal stimulus lacks permanence. Developed economies are at a greater risk of a downturn and central bank intervention has limits to improve economic growth. Favorable to long duration fixed income and tactically favorable to risks assets following frequent bouts of market volatility
Back to Normal	Economic trend growth rates and inflation levels normalize along with market and business cycles	Expected period of low investment returns for all assets classes as real interest rates normalize. Requires a repricing of risk premia to incorporate a neutral fiscal policy and the withdrawal of central bank intervention
Inflation	A material increase in inflation would be a severe tail-risk outcome for investors as the market discounts almost no probability of above average inflation levels	Significant repricing of market expectations and risk premia likely generate permanent losses of capital among some segments of equity and fixed income markets. Potential cause and/or effect is a devaluation of developed market currencies and a breakdown of the US dollar's reserve currency status
Japanification	This outcome is largely driven by a demographic crisis, with Europe being the most severely exposed. China is at risk, but racing to increase per-capita GDP levels before the population ages. The US demographic profile is relatively positive compared to other nations	Favorable to long duration fixed income with severe deflationary pressures and low growth rates. Fiscal and monetary intervention is not a cure, but mitigates the full economic damage. Central banks control bond prices across the yield curve, severely distorting the cost of capital and corporate capital structures. The impacted regions experience a "lost decade" of investment returns

GLOBALIZATION BACKLASH

NEPC, LLC

DEFINING THE THEME

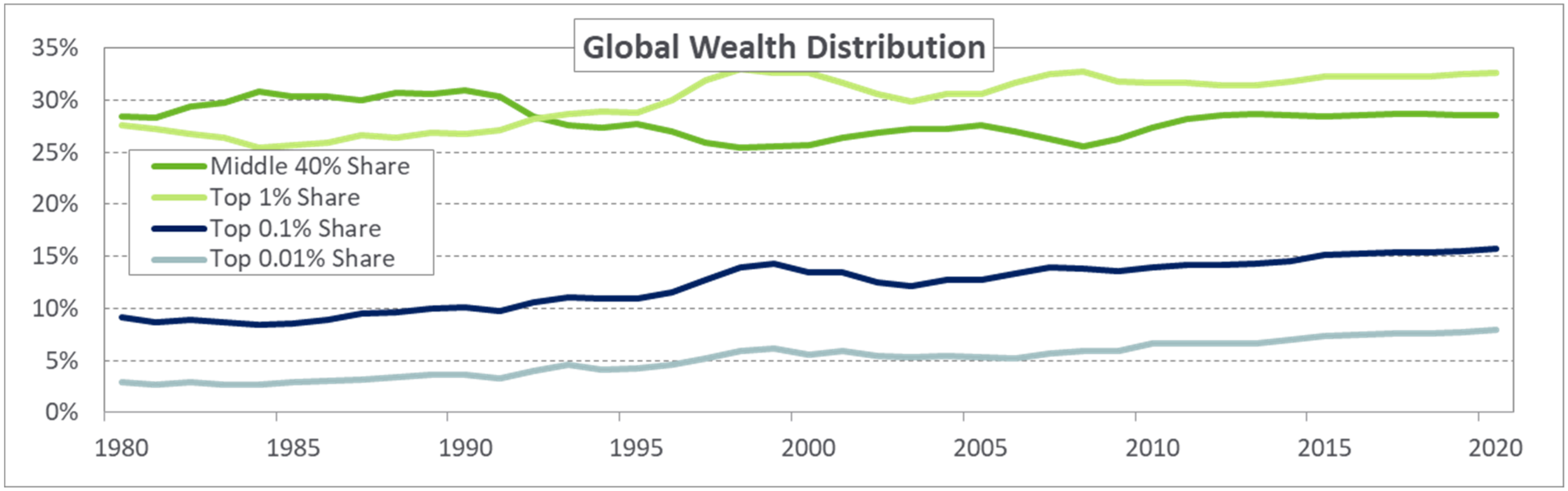
KEY MARKET THEME: *GLOBALIZATION BACKLASH*

Stagnant wage growth and growing wealth inequality are fueling political discontent across the world

Populist movements across the world are shifting away from the political and economic orthodoxy of the last 50 years

The growth of populist movements destabilizes the established political order and materializes as Backlash

Anti-establishment political bias heightens tail-risks in global markets as voting patterns become more volatile with a wider range of outcomes associated with foreign policy, trade policy, and tax rates



Source: World Inequality Lab

EXPECTED EVOLUTION
KEY MARKET THEME: *GLOBALIZATION BACKLASH*

We do not expect wealth inequality to decrease, which reinforces the long-term nature of the Backlash theme

The origin of voters' economic unease remains and the pull of anti-establishment political parties poses a risk to the economic order

The K-shaped recovery associated with the pandemic has exaggerated social and economic disparities

The COVID-19 pandemic has magnified the wealth gap as the labor market disruption acutely impacts part-time jobs and sectors that have experienced decades of stagnant wage growth

An acceleration of climate change risks can place even greater limits on economic mobility across the globe

The extremes of the political spectrum are likely to have a greater role in government as moderation is stretched

The role of government may be muted as parliamentary coalitions have narrow paths of consensus, heightening tail-risks and political instability as reforms are unable to be enacted

INVESTMENT CONSIDERATIONS AND RISKS

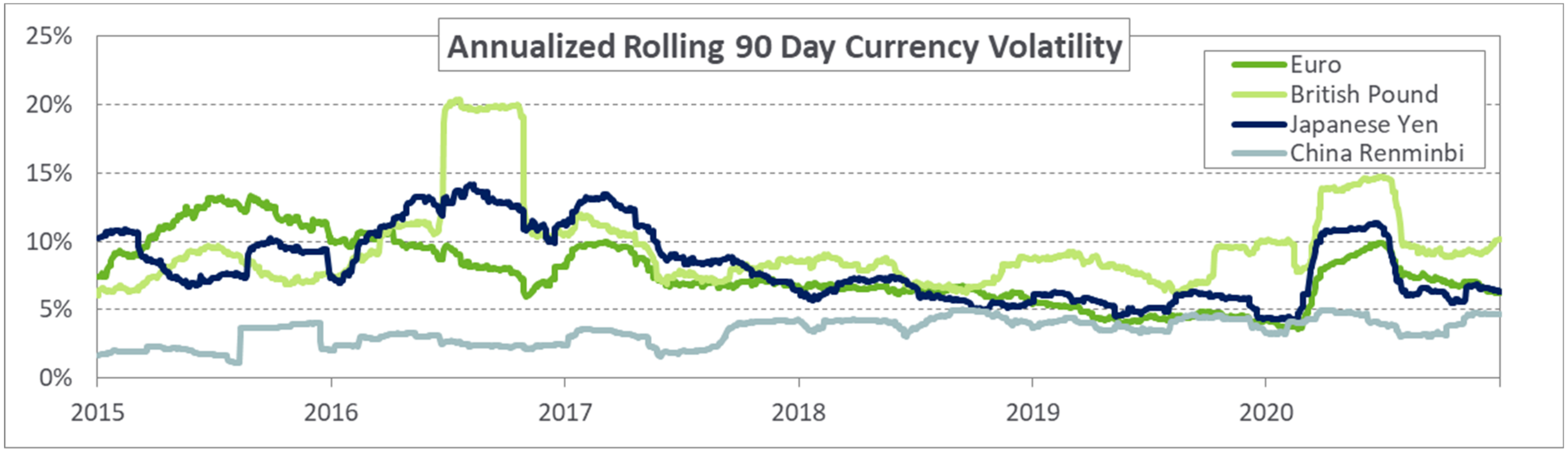
KEY MARKET THEME: *GLOBALIZATION BACKLASH*

The battering of the established world order carries investment risks and opportunities for global markets

Market sentiment is sensitive to disruptions due to Globalization Backlash but lack of political consensus limits regulatory action and can be a positive for equity markets

The drift from political orthodoxy heightens tail-risks and leaves currency markets prone to bouts of volatility

Europe is but one example of a potential flashpoint associated with globalization backlash, which likely incites more frequent volatility shocks across government bond yields, equities, and currencies



Source: FactSet

POTENTIAL OUTCOMES AND IMPLICATIONS

KEY MARKET THEME: *GLOBALIZATION BACKLASH*

	Description	Long-Term Market Implications
Pushback on Established World Order	NEPC base case expectation of rising nationalism and growing populist trends, which strains multilateral relationships and increases geopolitical risks	Does not favor a specific investment action or asset class but includes more volatility for governments as coalitions shift with narrow paths of consensus. Likely leads to greater volatility for capital markets, particularly in currencies across the developed world
A More Balanced Global Wealth Distribution	Economic adjustments lead to long-term improvements in real income for lower income workers in the developed world and emerging market economies	Positive for equities and credit with some aspect of normalization in inflation and real interest rates. With economic productivity gains, role of monetary policy could decrease in importance
Expanding Protectionism	A severe reversal in globalization with a regression in trade and global economic integration	Greater protectionism negatively harms investor sentiment, business investment, geopolitical relations, and global supply chains. Developed nations, such as the US, with domestically available resources and consumers may have a relative structural advantage. This scenario generates lower global growth and higher volatility
Democracy Crumbles	Breakdowns in the social fabric of society and government. Populist movements become the "revolution" as economic structures and policies are refashioned	Holders of capital suffer under this path as investment markets across equity and fixed income experience severe negative outcomes with gold and alternative currencies being one of the few exposures to offer a positive benefit for a portfolio

CHINA TRANSITIONS

NEPC, LLC

DEFINING THE THEME

KEY MARKET THEME: *CHINA TRANSITIONS*

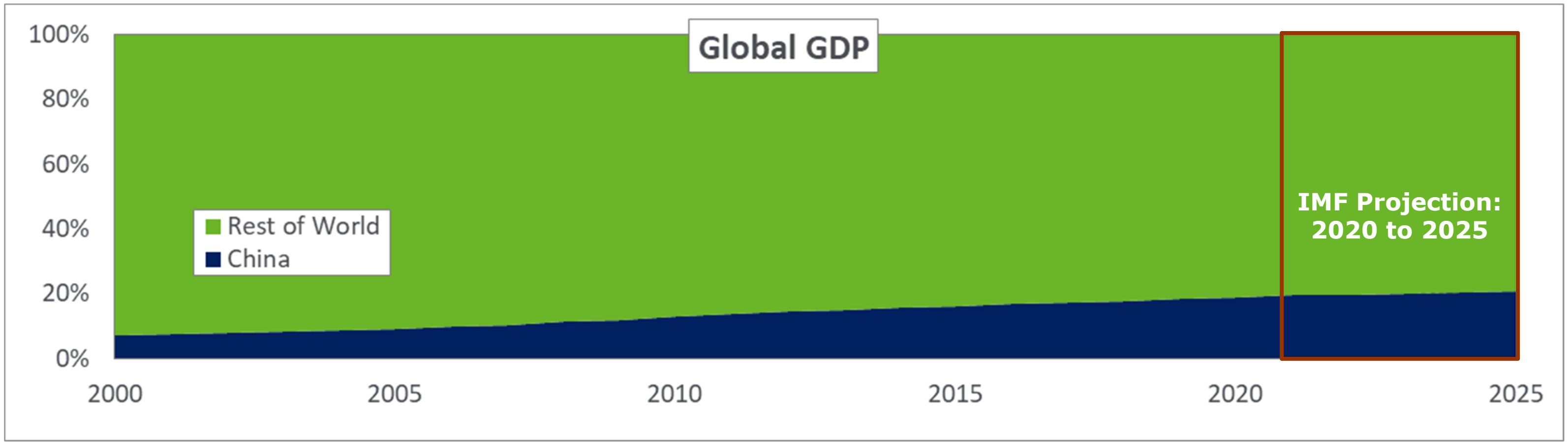
China is undergoing a multi-faceted advancement as the economy transitions to a consumption-oriented model

China's socioeconomic profile is changing with rising income levels, increased urbanization, but also a challenging demographic profile

All the while China's influence on the global stage shifts to reflect its status as an ascending geopolitical power

Disruption of these transitions will be transmitted widely due to China's ever-expanding role in the world economy

China is the global growth engine and is expected to provide 25% of world GDP growth, which is equal to creating a new Canada annually



Source: IMF

EXPECTED EVOLUTION
KEY MARKET THEME: *CHINA TRANSITIONS*

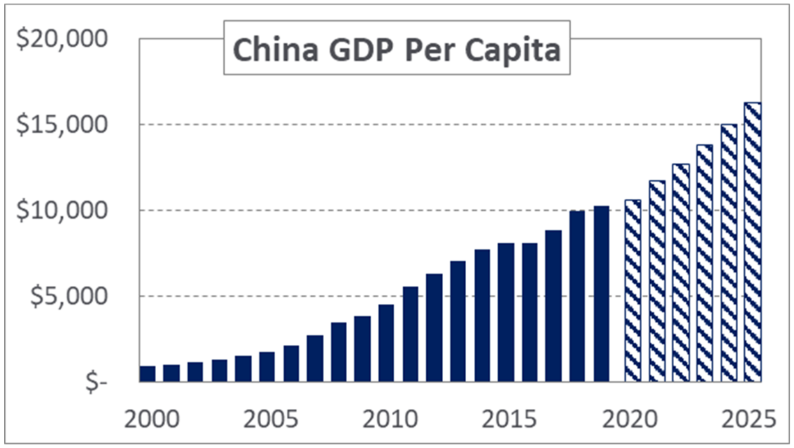
China's growth will slow but its economy is expected to equal the size of the US economy within 15 years

Policymakers must continue to balance the goal of sustaining healthy economic growth rates and moderating credit growth

Recent data points highlight China's restraint but an acceleration of credit growth and real estate development is a systemic risk

Rising income levels and the rural to urban shift expand the demand for a range of consumer-oriented services

Despite the increases in GDP per capita, innovation and productivity advances are required for China to escape the middle income trap



Source: IMF

Source: IMF

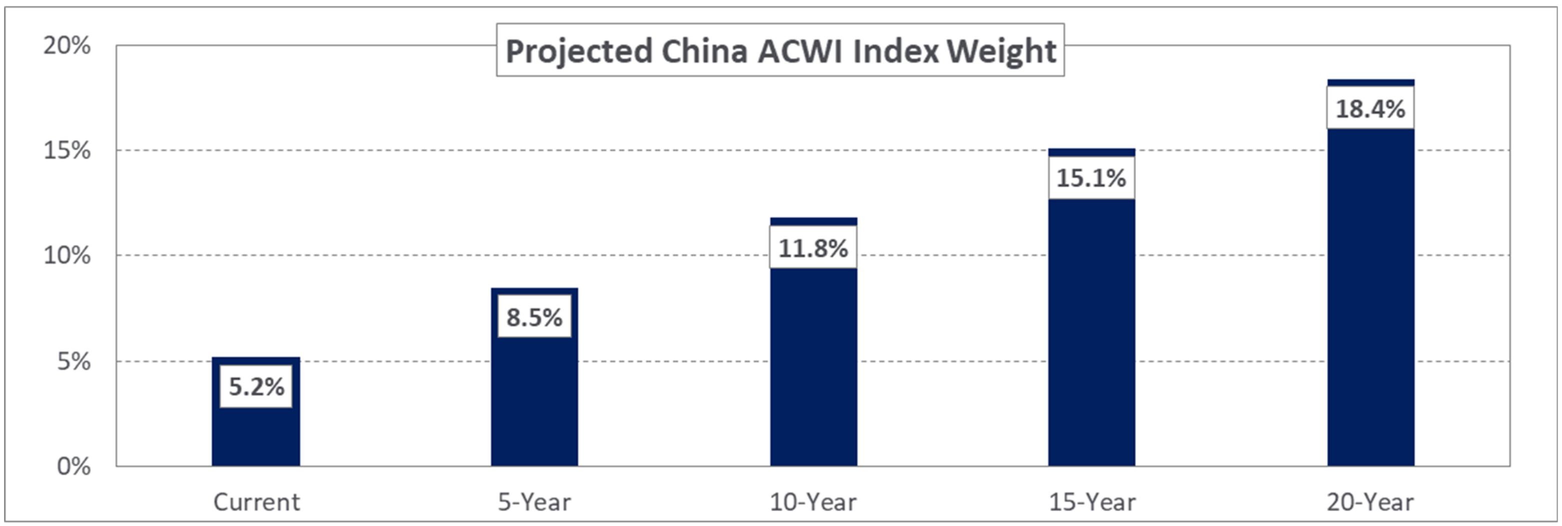
EXPECTED EVOLUTION CONTINUED

KEY MARKET THEME: *CHINA TRANSITIONS*

China's rise as a competitor in key innovative fields, such as AI and 5G, has provoked social and political angst in the US regarding China's transition to a global power

China's economic and geopolitical prominence relative to the US can be viewed as a "Thucydides Trap", where a rising power causes fear in the established power

We believe access to China's local markets will continue to expand but the ability to attract foreign capital may be hindered by US policy that limits the free flow of capital



Source: MSCI, IMF, FactSet, NEPC

INVESTMENT CONSIDERATIONS AND RISKS

KEY MARKET THEME: *CHINA TRANSITIONS*

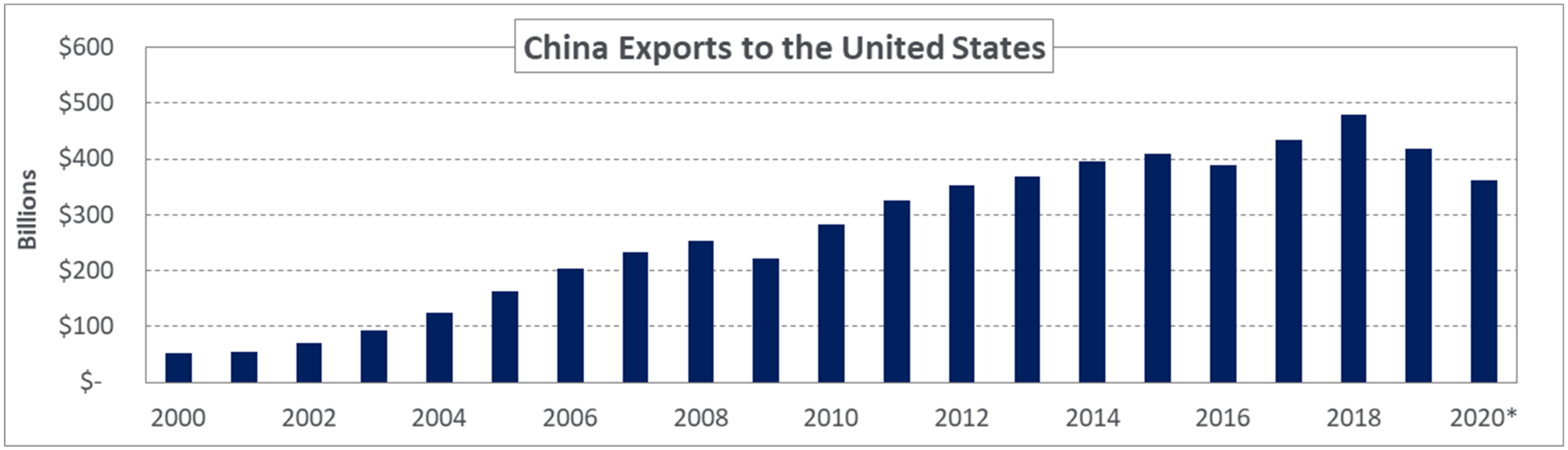
US-China trade tension is an example of our Transitions theme and reflects the competitive economic relationship

Trade policy is a deterrent to China's rising economic status but a dynamic of competition can degrade to economic confrontation

Tariffs and security restrictions are a dangerous game and leave open the risk of a zero-sum economic conflict

US-China tariffs and trade tension are the "new normal" and reflect China's position as a strategic competitor across a range of sectors

Competitive tensions are likely to continue but we do not anticipate US-China disputes escalating to limit the flow of goods and services



Source: China Customs, FactSet; *2020 represents total through 11/30/2020

INVESTMENT CONSIDERATIONS AND RISKS

KEY MARKET THEME: *CHINA TRANSITIONS*

China's transitions will likely evolve for the next decade

Successful management of these trends can benefit global investors especially those with relative overweight exposure to Chinese assets

Access to financial markets is likely to expand with ongoing inclusion efforts by global index providers across both equity and fixed income

China is on a long path to reach developed market status

We anticipate large strategic asset allocation targets to China will be required over time to maintain a neutral market beta exposure

China is leveraging its economic growth to affirm its role on the world stage as an equal to US, specifically in Asia

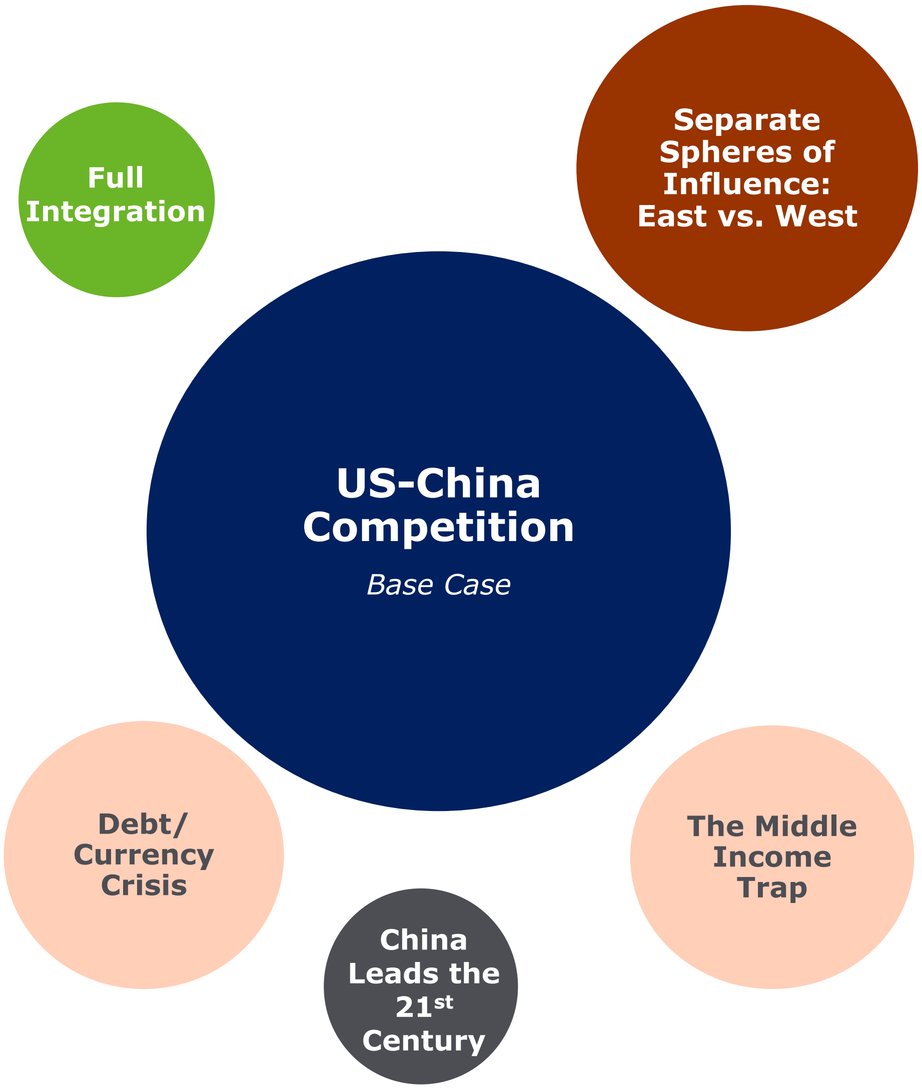
US-China competitive tensions are likely to persist and at times may incite volatility in global markets and impact investor sentiment

We believe the risk of a US-China economic conflict is low

Should an economic conflict arise, the disruption will have a sever impact on the global economy as the breaking of US-China economic links imposes outsized social and economic costs on both nations

POTENTIAL OUTCOMES AND IMPLICATIONS

KEY MARKET THEME: *CHINA TRANSITIONS*



Size of bubble denotes expected likelihood of outcome

US-China Competition: Competition not confrontation characterizes the economic and geopolitical relationship for the US and China. China successfully transitions to a consumer-oriented economy with per-capita GDP in line with the developed world. Capital markets continue to liberalize but cycles of volatility reflects the ebb and flow of the competitive US-China relationship

US-China and Separate Spheres of Influence: Two separate economic, geopolitical, and financial systems exist with an ongoing confrontational relationship. This dynamic may impact foreign access to Chinese capital markets, with the potential to directly impact regional blocs aligned with China

The Middle Income Trap: Per-capita income growth stalls as innovation and productivity levels do not improve from current levels. China fails to achieve developed market status, implying an internal shift away from market-friendly reforms or an external force such as US policy pressure curtailing China's growth

Debt and Currency Crisis: Uncontrolled expansion of credit growth to drive short-term economic gain fuels capital misallocation and represents a systematic risk to the financial system and China's currency controls

The 21st Century is Dominated by China: China becomes the dominant global power for this century. China assumes economic leadership and the yuan ascends to become a global reserve currency

Full Integration: Political and economic liberalization within China and complete integration in the established world order and the current geopolitical hierarchy

INFORMATION DISCLAIMER

Past performance is no guarantee of future results.

The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

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