

C-SPACE

Essential Market Insights for the C-Suite

January 2019

Global Growth & Markets in 2019

The Rise & Slowdown of China

US-China Imbalances& Implications

Navigating Policy Risk and Late Cycle Dynamics



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In December, 1978, just over 40 years ago, Deng Xiaoping initiated a shift in China policy that would change the course of economic history, and become the defining event of the new world order. Called 改革开放 (Gǎigé kāifàng), which translates to "reform and opening up", China embarked on a production and export driven economic model that has vaulted it toward the top of the world's largest economies. The path chosen, however, has entailed the creation of unsustainable imbalances and inextricable linkages with the United States. Today, the US and China are at a crossroads in what has become the most important bilateral relationship of the 21st Century. To this end, the decisions made by both countries in the weeks and months ahead will have an outsized impact on the global economic and market outlook for 2019, and for many years beyond.

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Global Policy Shifting



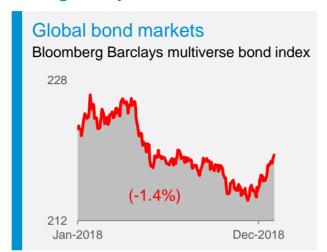
Global Markets Re-Pricing

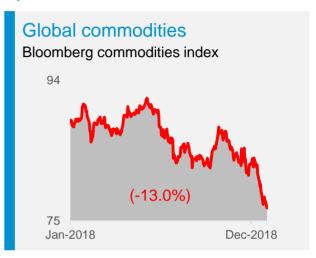




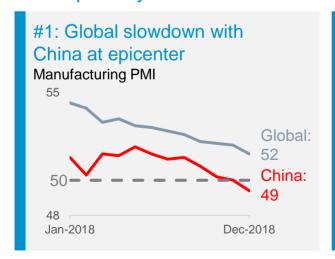
2018 witnessed a rare synchronized downturn in three major global markets that are not typically correlated (with Q4 bearing many similarities to Q1 2016)

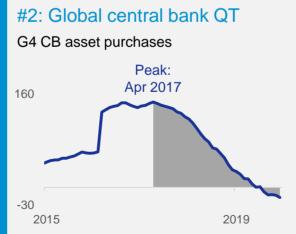


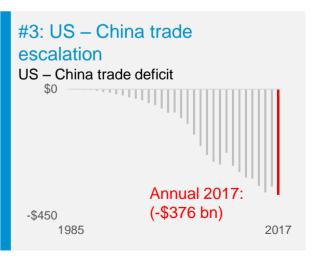




Three primary factors stand out as drivers of the Q4 2018 market sell-off:



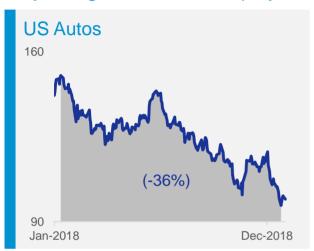


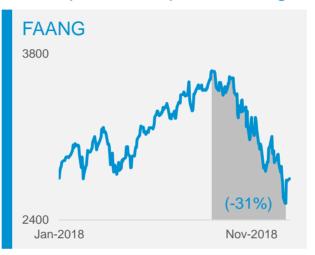


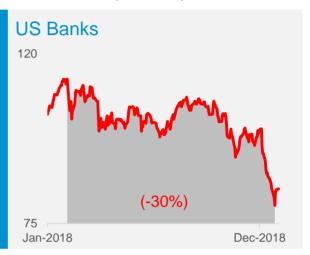
Source: (1-4) Bloomberg. Data as of December 31, 2018. (5) DB Global Markets Research (Slok). 12 month trailing average flow of G4 central bank asset purchases. Fed, ECB, BoJ, BoE. (6) US Census Bureau.

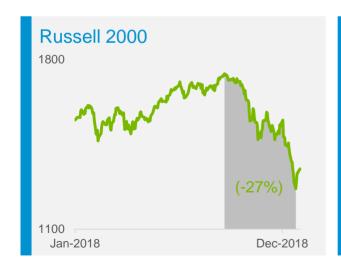


Major segments of US equity markets experienced peak – trough bear markets (>-20%) in 2018

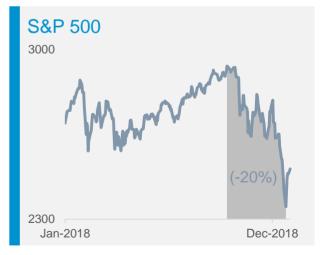






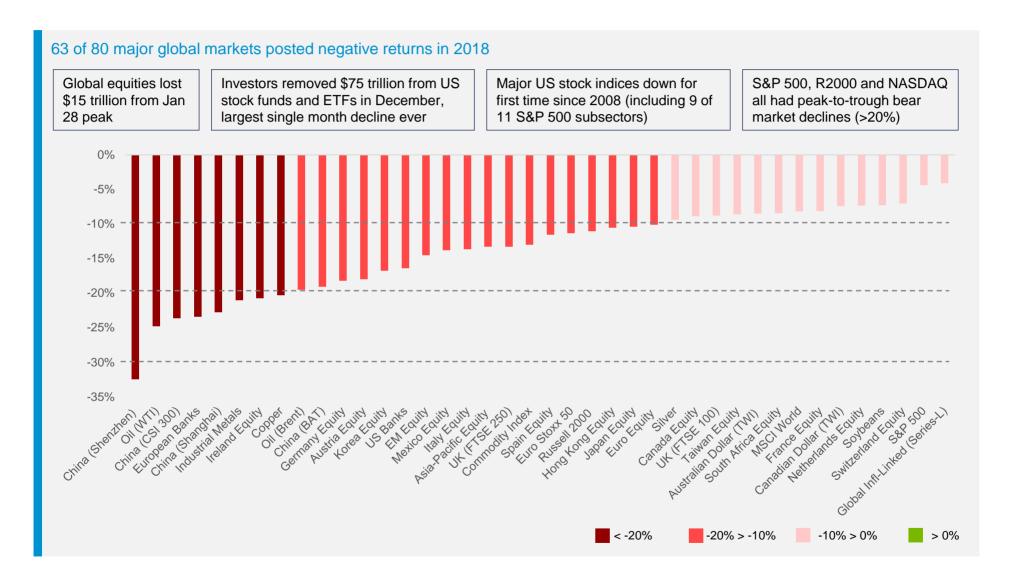






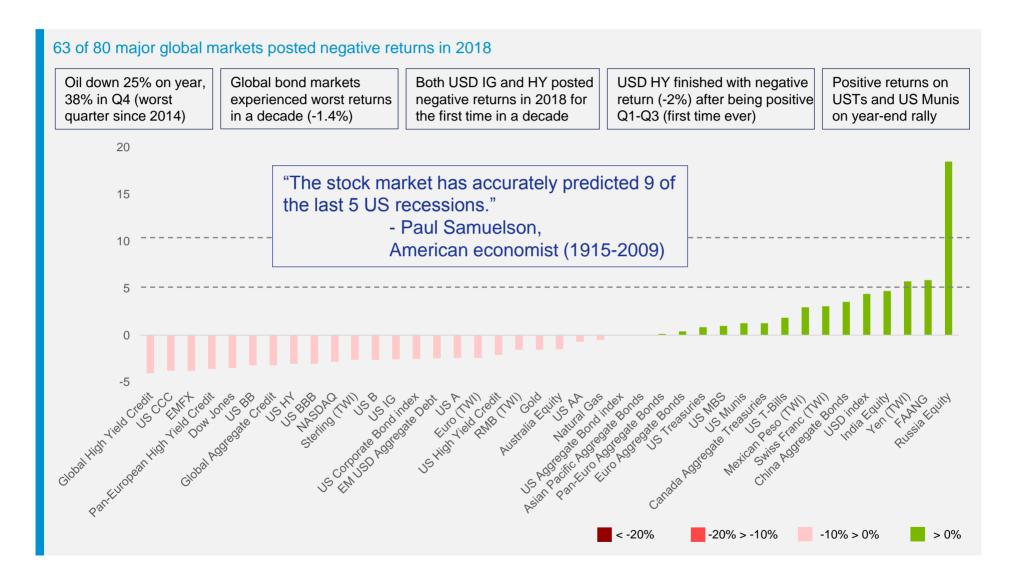
Source: (1-6) Statista. Bloomberg. Data as of December 31, 2018.



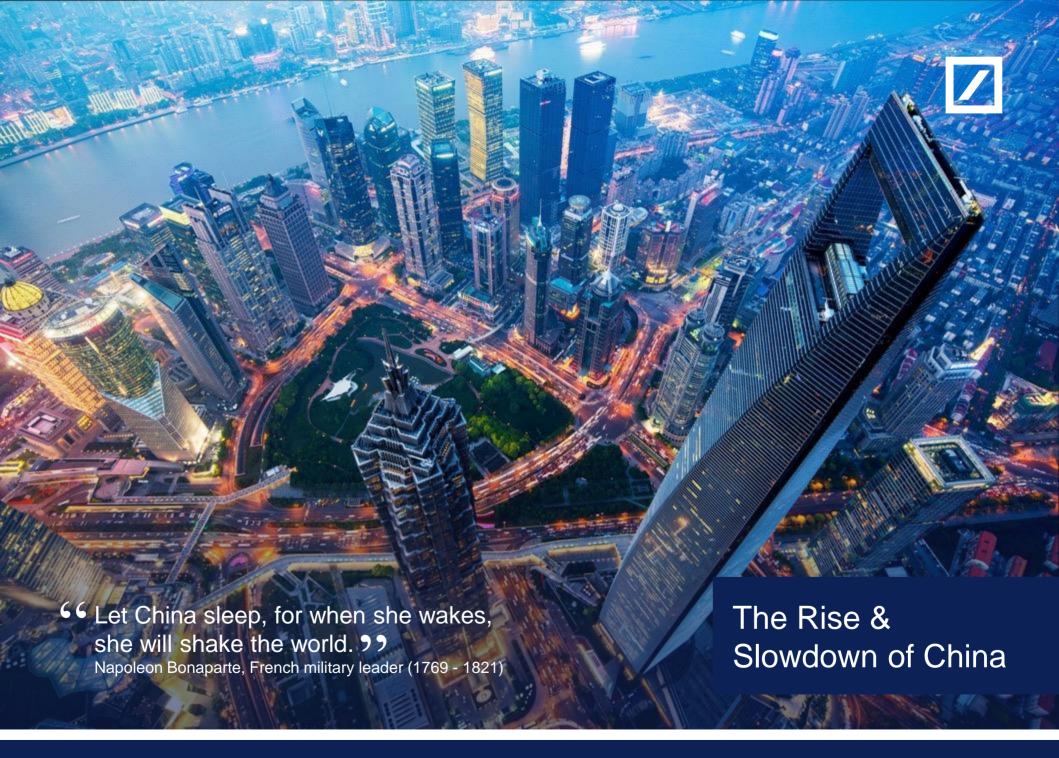


Source: (1) Bloomberg. Data as of December 31, 2018. Total returns where applicable. TWI is trade weighted index.



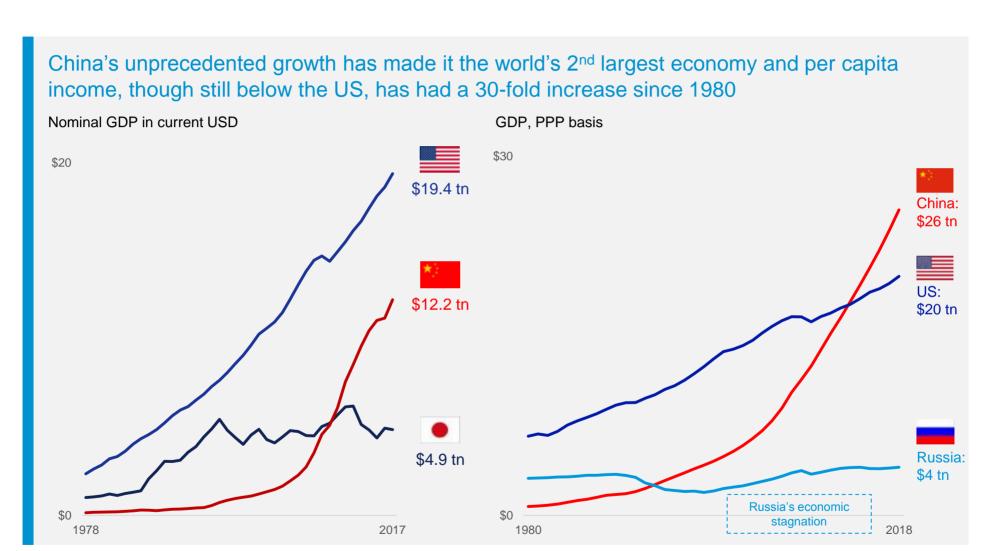


Source: (1) Bloomberg. Data as of December 31, 2018. Total returns where applicable. TWI is trade weighted index.



The Rise of China

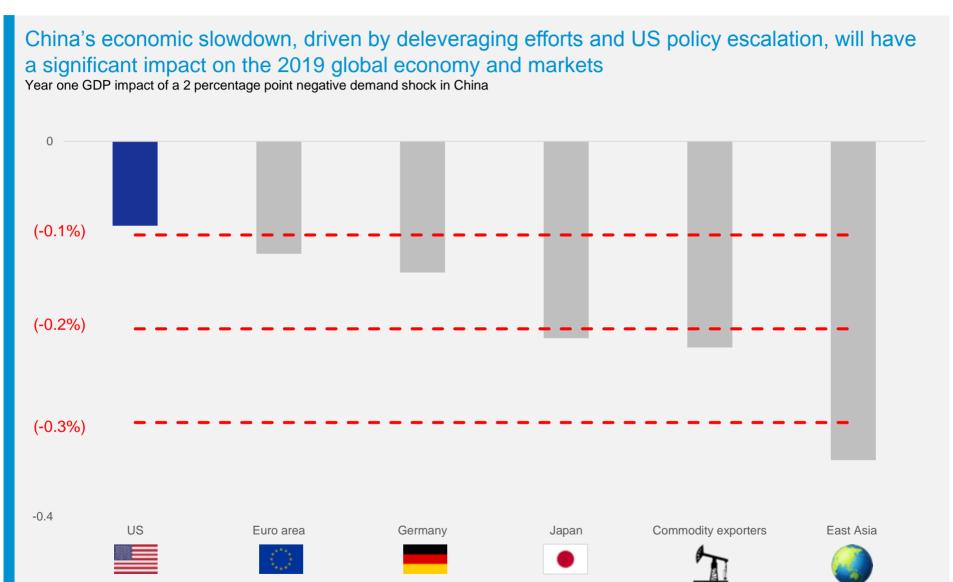




Source: (1) World Bank. IMF. (2) FT "The US must avoid a new cold war with China" (Martin Wolf). Conference Board. GDP converted to 2017 price level with updated 2011 purchasing power parities.

Impact of China Slowdown



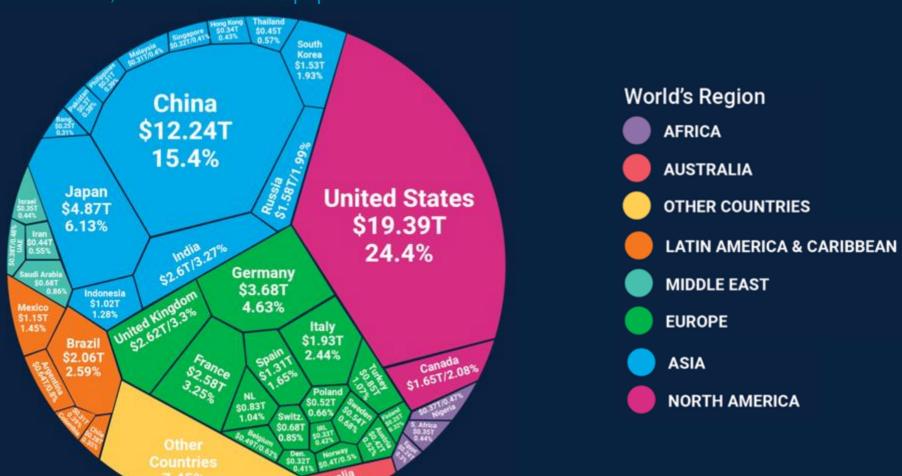


Source: (1) DB Global Markets Research (Slok).

China: 2nd Largest Global Economy



India will pass the UK to become the world's 5th largest economy in 2019 More than 1/3 of the world's 7.7 bn people will have elections in 2019 For first time, half of the world's population will access the internet in 2019



Source: https://howmuch.net/articles/the-world-economy-2017







US – China Rivalry, Imbalances & Implications

China and America - or is it China versus America? That distinction lies at the core of the most important bilateral relationship of the 21st Century.

The relationship between the US and China may hold the key to a global economy that is now in great flux. Yet that relationship is afflicted by a unique pathology. Both nations are trapped in a web of codependency. 9 9

Stephen Roach, Yale University's Jackson Institute, China expert and former Morgan Stanley Chief Economist

US-China Imbalances



United States

- Consumption dependent growth model (demand driven)
- 2. Savings rate too low
- 3. High government debt
- Reliance on China for low cost capital (UST purchases)
- Asset based wealth creation (stocks, housing)
- Dollar dominant global financial system
- Washington gridlock ("ability to get things done")
- Income inequality
- 9. Aging infrastructure
- 10. Underinvestment in education and skills training



China

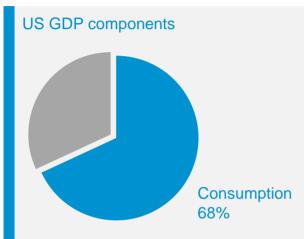
- Investment-production driven growth model (supply driven)
- 2. Savings rate too high
- 3. High local government and corporate debt
- 4. Reliance on US and European export markets
- 5. Insufficient social safety net (healthcare, retirement) reduces consumption
- 6. Managed RMB currency policy
- Asymmetry between economic development and political reform
- 8. Income inequality
- 9. Environmental degradation
- 10. Dependence on MNCs and FDI

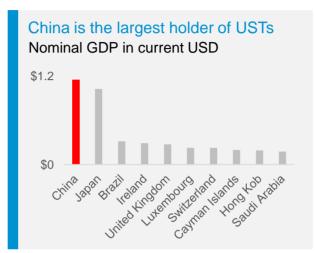
Source: Stephen Roach, "Unbalanced, The Codependency of America and China" (2014). Council of Foreign Relations. Brookings Institute. Kissinger Institute for US and China. IMF. World Bank.

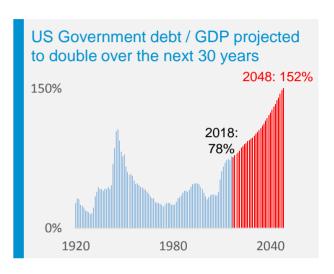
US-China Imbalances



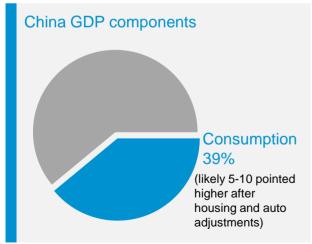
US consumption-driven growth model

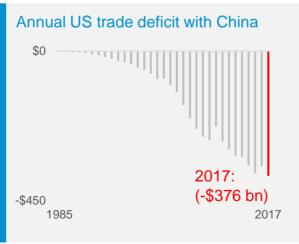


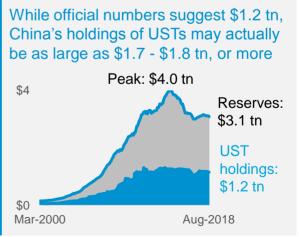




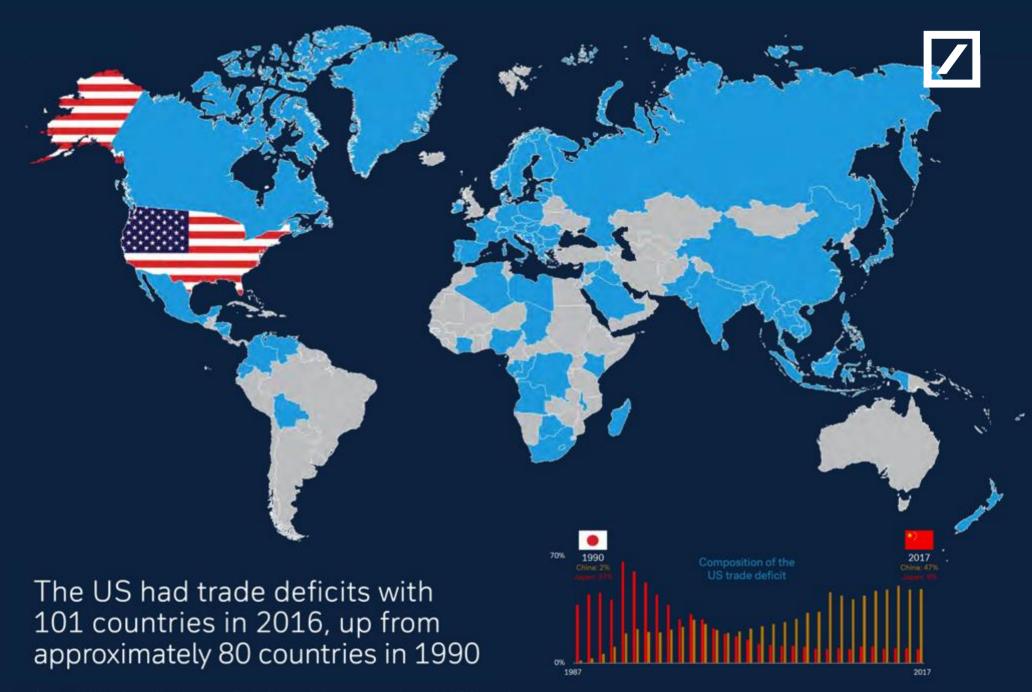
China's production-driven growth model







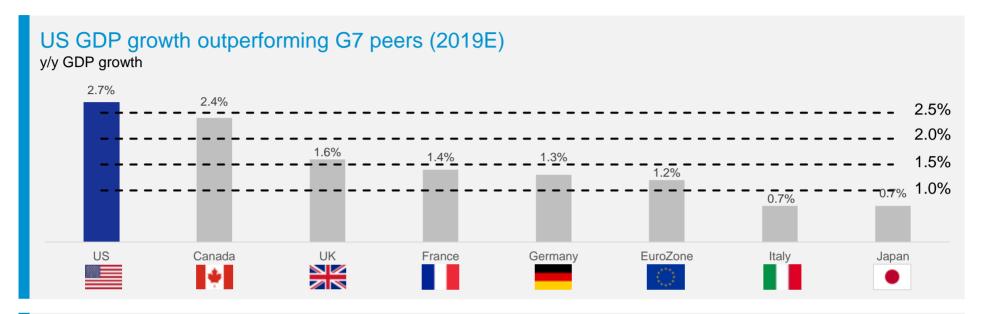
Source: (1-2) Bloomberg. China National Bureau of Statistics. Household consumption only. (3) US Treasury Department. Amount of top foreign holders is data as of September 2018. (4) US Census Bureau. (5) CBO. (6) Bloomberg. 2018 reserve data through November.

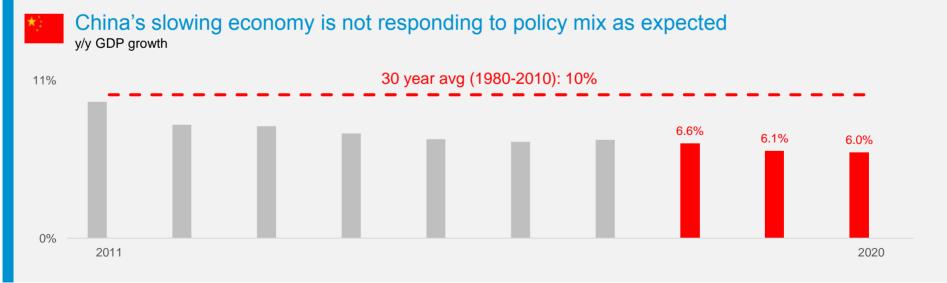


Source: (1) World Bank. World Integrated Trade Solution. Full year data as of 2016. (2) US Census Bureau.

US Business Cycle Favoring Maximalist Strategy







Source: (1) DB Global Markets Research (Economics). (2) World Bank. IMF.

President Xi Jinping "under pressure"

Extending term limit beyond two terms

GDP growth slowdown (response to policy mix limited)

Speed bumps on signature foreign policy initiative (BRI)

Breakdown in US – China relations

Private sector / entrepreneur backlash on SOE driven economic model

More assertive use of military in South China Sea

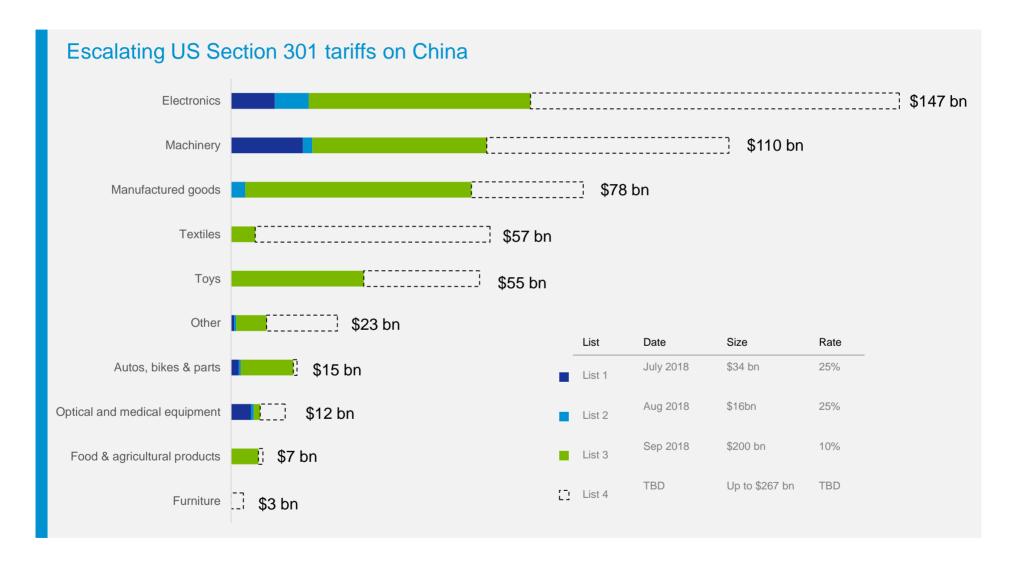
Limited progress on structural reform

Policy toward minority populations in Western regions

Source: (1) Bloomberg. Data as of December 31, 2018.

Escalating US Policy Response





Source: (1) DB Global Markets Research "China Macro: Q&A on the \$200bn trade war" (Zhang, Xiong). Total tariffs by sector may not match total announced amount as sector data based on prior year (latest available) sector information and announced based on current year expectations. Data as of August 2018. The US-China Business Council. USTR. PRC Ministry of Finance. PRC Ministry of Commerce

Escalating US Policy Response



With the Chinese economy and US markets under stress, the probability of a US – China "mini-deal" in Jan-Feb, with the optics of something longer, has become quite high

Navigation Area	Less More difficult		Considerations		
lore likely focus areas for Q	1 US-China	a mini-deal			
Selected tariff reduction	ed tariff reduction		China has signaled willingness for selected industries (i.e., autos)		
Market access	V		 China has already signaled concessions in this area Varies significantly by industry 		
Increased China purchases			 Potential commitments >USD \$1 trillion Other macroeconomic variables, including currency offsets, make deficit reduction difficult 		
ome concessions likely (lim	its on sub	stance & er	nforcement)		
IP protection	ection		Limited legal infrastructure to enforceA challenge for Chinese companies as well		
Technology transfer	logy transfer		 Focus of Nov 20 USTR update to Sec 301 report Recent proposed Chinese law banning forced tech transfer ("negotiated" only) 		
nlikely to be substantive part	of mini-deal				
Market structure — Subsidies — SOE reform — Made in China 2025		Ø	 China structural reform on US terms unlikely Commitment to SOEs & Made in China 2025 is very strong China's State Council recently endorsed "competitive neutrality" between SOEs, private companies and foreign firms 		
Overseas investment in sensitive areas			Role of CFIUS and the US CongressChina has declared certain areas "off limits" as well		

Source: (1) DB Global Markets Research "China Macro: Q&A on the \$200bn trade war" (Zhang, Xiong). Total tariffs by sector may not match total announced amount as sector data based on prior year (latest available) sector information and announced based on current year expectations. Data as of August 2018. The US-China Business Council. USTR. PRC Ministry of Finance. PRC Ministry of Commerce



The scope of potential US-China escalation in 2019 extends well beyond trade, and includes dozens of major US Government agencies and departments focused on a myriad of complex US-China issues

- Vocal opposition to Made in China 2025
- President Trump citing national security when blocking Broadcom / Qualcomm
- Vice President Pence aggressive October 4 China speech
- US potential withdrawal from Intermediate-Range Nuclear Forces (INF) treaty is more about China
- Potential limitations on Chinese work and study visas
- Newly announced Africa trade, commerce and anti-terrorism strategy to counter China & Russia activities in Africa

The entire US Government is reevaluating the US – China relationship, both economically and geopolitically

Source: Wilson Center (Daly). Peck, Madigan, Jones. US Department of Justice. Office of the Vice President. Office of the US Trade Representative. US Department of Commerce.

China-related hearings in the US Senate and House of Representatives

Hearings since September 2018



September 5 The Senate Foreign Relations Subcommittee on East Asia, the Pacific, and International Cybersecurity Policy hearing on "The China Challenge, Part 2: Security and Military Developments" September 6 The House Committee on Foreign Affairs Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations hearing on "Tackling Fentanyl: Holding China Accountable" The House Committee on Foreign Affairs Subcommittee on Asia and the Pacific hearing on "China's September 26 Repression and Internment of Uyghurs: U.S. Policy Responses" September 27 The House Committee on Foreign Affairs Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations hearing on "China's War on Christianity and Other Religious Faiths" December 4 The Senate Foreign Relations Subcommittee on East Asia, the Pacific, and International Cybersecurity Policy hearing on "The China Challenge, Part 3: Democracy, Human Rights, and the Rule of Law" December 12 The Senate Armed Services Subcommittee on Emerging Threats and Capabilities hearing on "Implications of China's Presence and Investment in Africa" December 12 The Senate Judiciary Committee hearing on "China's Non-Traditional Espionage Against the United States: The Threat and Potential Policy Responses"

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Source: Peck, Madigan, Jones

US Trade Representative Section 301 Report

On November 20, the office of the USTR released an update to its section 301 report on China: "Update Concerning China's Acts, Policies and Practices Related to Technology Transfer, Intellectual Property, and Innovation"



"China uses foreign ownership restrictions, such as joint venture (JV) requirements and foreign equity limitations, and various administrative review and licensing processes, to require or pressure technology transfer from U.S. companies."

"China's regime of technology regulations forces U.S. companies seeking to license technologies to Chinese entities to do so on non-market based terms that favor Chinese recipients."

"China directs and unfairly facilitates the systematic investment in, and acquisition of, U.S. companies and assets by Chinese companies to obtain cutting-edge technologies and intellectual property and generate the transfer of technology to Chinese companies."

"China conducts and supports unauthorized intrusions into, and theft from, the computer networks of U.S. companies to access their sensitive commercial information and trade secrets."

"China continues its policy and practice of conducting and supporting cyberenabled theft and intrusions into the commercial networks of U.S. companies and those of other countries, as well as other means by which China attempts illegally to obtain information. This conduct provides the Chinese government with unauthorized access to intellectual property, including trade secrets, or confidential business information, as well as technical data, negotiating positions, and sensitive and proprietary internal business communications."

"Despite the relaxation of some foreign ownership restrictions and certain other incremental changes in 2018, the Chinese government has persisted in using foreign investment restrictions to require or pressure the transfer of technology from U.S. companies to Chinese entities. Numerous foreign companies and other trading partners share U.S. concerns regarding China's technology transfer regime."

Source: (1) Visual Capitalist. The UK Domain. Data back to 1977 when available. Data for 2016-2018 may be incomplete due to 18 month lag between patent registration and when the patent becomes public

US Trade Representative Announced, Implemented & Potential Tariffs



List 1 Tariffs: May 15-17, 2018: 3 day Section 301 hearing on proposed tariffs

\$34 bn May 15-17, 2018: 3 day witness testimony days

Jul 6, 2018: US implemented 25% tariffs on \$34bn of Chinese imports

List 2 Tariffs: Jul 24-25, 2018: 2 day Section 301 hearing on proposed tariffs

\$16 bn Jul 24-25, 2018: 2 day witness testimony days

Aug 23, 2018: US implemented 25% tariffs on \$16bn of Chinese imports

List 3 Tariffs: Aug 20-27, 2018: 6 day Section 301 hearing on proposed tariffs

\$200 bn Sep 24, 2018: US implemented 10% tariffs on \$200bn of Chinese imports

Jan 1, 2019: Initially scheduled step up to 25% tariffs delayed after G20 meeting

After Mar 2, 2019: Scheduled step up from 10% to 25%

List 4 Tariffs: Sep 17, 2018: Trump suggested tariffs on remaining \$267bn if China retaliates on List 3

\$267 bn After Mar 2, 2019: Possible tariffs on remaining \$267bn of imports following end of 90 day détente

Source: (1) Visual Capitalist. The UK Domain. Data back to 1977 when available. Data for 2016-2018 may be incomplete due to 18 month lag between patent registration and when the patent becomes public.

The Committee on Foreign Investment in the US (CFIUS)

August 2018



In August 2018, the Foreign Investment Risk Review Modernization Act (FIRRMA) was signed into law by President Trump. This gave the Committee on Foreign Investment in the US (CFIUS) expanded scope of transactions subject to review, beyond those in which a foreign company gains control of a US business. CFIUS is an intergovernmental agency that involves 14 US departments and offices.

Real Estate

Review purchases by foreign companies in sensitive areas (i.e., military or strategic intelligence locations)

Tech Developments

Review non-controlling transactions by a foreign person in a US business that owns or develops critical infrastructure, technologies or maintains sensitive data

National Security

Allow for greater information sharing with allies and other US partners to help incentivize partner countries to strengthen their own investment review process

Private Equity

Clarifies that an indirect investment by a foreign person in certain investment funds will not trigger CFIUS review

Streamlined Review Process

In response to increased filing volumes, changed timelines for more efficient review process

Export Controls

Regulation of exports of emerging non-critical technologies moved from CFIUS to Department of Commerce jurisdiction. Department of Commerce given expanded regulatory control of emerging and foundational technologies

Source: (1) Davis Polk "New CFIUS Legislation Enacted." White & Case "CFIUS Reform Becomes Law: What FIRRMA Means for Industry." Gibson Dunn "CFIUS Reform." August 2018.

Potential US Technology Transfer Restrictions

14 emerging technologies have been proposed by the Department of Commerce as potentially essential to US national security; if confirmed, after public comment, they could be subject to export and transfer restrictions



- Biotechnology: nanobiology; synthetic biology; genomic & genetic engineering; neurotech
- Artificial intelligence & machine learning technology: neural networks & deep learning; evolution & genetic computation; reinforcement learning; computer vision; expert systems; speech & audio processing; natural language processing; planning; audio & video manipulation; Al cloud technology; Al chipsets
- 3 Position, navigation & timing technology
- 4 Microprocessor technology: systems-on-chip; stacked memory on chip
- 5 Advanced computing technology: memory-centric logic
- Data analytics: visualization; automated analysis algorithms; context-aware computing
- Quantum information & sensing technology: quantum computing; quantum encryption; quantum sensing

- Logistics technology: mobile electric power; modeling & simulation; total asset visibility; distribution-based logistics systems
- Additive manufacturing: 3D printing
- Robotics: micro-drone & micro-robotic systems; swarming technology; self-assembling robots; molecular robotics; robot compliers; Smart Dust
- 11 Brain-computer interfaces: neural-controlled interfaces; mind-machine interfaces; direct neural interfaces; brain-machine interfaces
- Hypersonics: flight control algorithms; propulsion technologies; thermal protection systems; specialized materials
- Advanced materials: adaptive camouflage; functional textiles; biomaterials
- 14 Advanced surveillance technologies: faceprint & voiceprint

Source: Department of Commerce, Bureau of Industry & Security. Review of Controls for Certain Emerging Technologies. November 19, 2018.

In 2018 alone, the Department of Justice has pursued numerous investigations and, in come cases, has filed indictments against Chinese nationals, state-owned enterprises (SOEs) and companies suspected to be involved in cyber attacks and other infringements of US industries



Commercial aviation security

Charges against three Chinese intelligence officers for hacking and obtaining confidential business information regarding intellectual property on commercial airliners' turbofan engines

Communications networks

Numerous restrictions on Huawei's operations in the US given concerns the Chinese company could tap it's hardware or disrupt communications networks

Consumer data

FBI led investigation into hack of Marriott reservation system being attributed to China

Advanced technology

Federal grand jury charged a Chinese SOE, in a conspiracy to steal trade secrets from American semiconductor company, Micron

Charges by US and UK authorities against two Chinese nationals for conducting cyber espionage against at least 45 American technology companies (among other targets) Sanctions enforcement

Canada's arrest (on behalf of the US government) of Huawei's CFO, Meng Wanzhou, for alleged violations of US sanctions policy

Nuclear proliferation

FBI participation in a National Security Council led US policy review in response to concerns over China's efforts to obtain nuclear equipment from US companies

US military personnel

Joint UK investigation and charges against APT-10 led two year effort to hack data from western allies including over 100,000 US Navy personnel

"Our prosperity and place in the world are at risk. I believe [Chinese cyber espionage] is the most severe counterintelligence threat facing our country today. Every rock we turn over, every time we looked for it, it's not only there, it's worse than we anticipated."

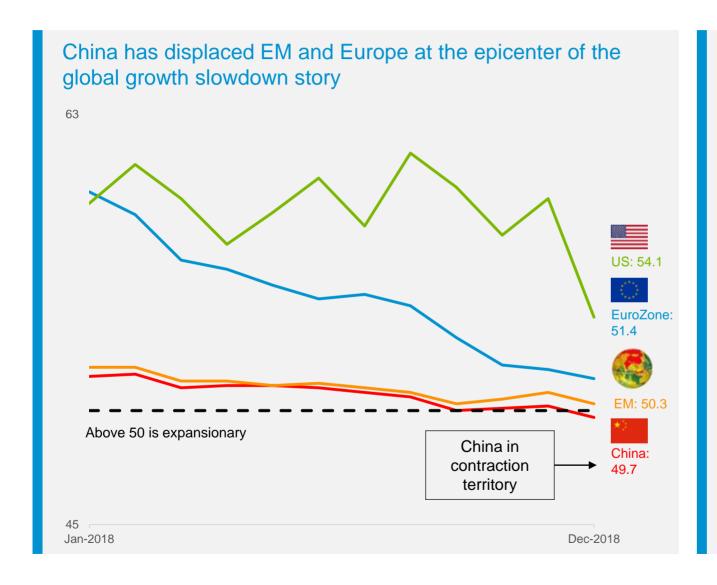
Bill Priestap, assistant director of the FBI's counterintelligence division at a Senate Judiciary Committee hearing in December 2018

Source: WSJ. NYT. Financial Times. US Department of Justice.



Global Growth Slowing Down





Key concerns

- + China economy responding slowly to policy stimulus
- + EM's high exposure to China and trade
- European growth structurally lower
 (Germany & Italy in contraction territory)
- US past peak, trending toward normalized growth
- Global financial conditions tightening on central bank QT and USD strength

Source: (1) Bloomberg. Data as of December 31, 2018.

Global Growth Slowing Down



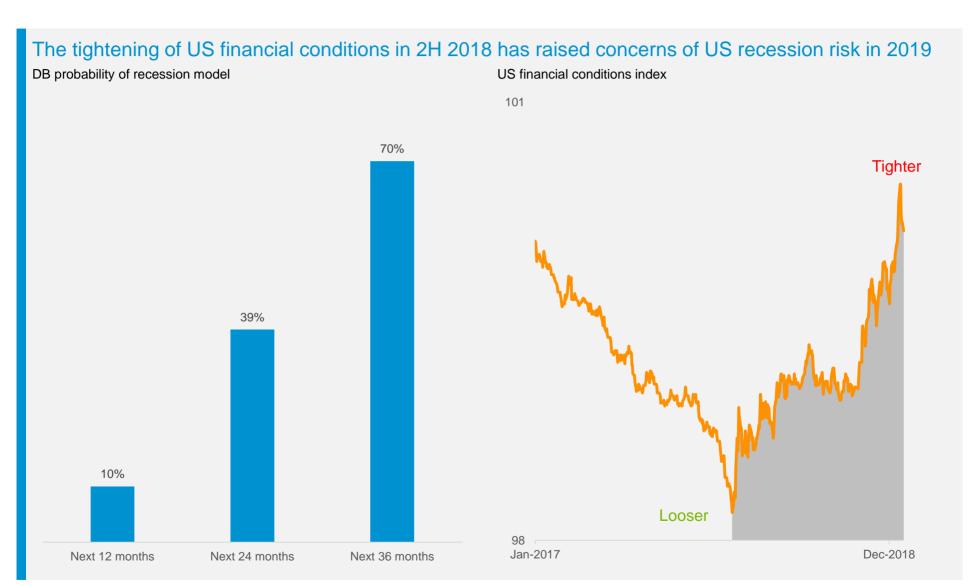
Most major global economies are expected to grow at a slower rate in 2019

Advanced Economies				Emerging Economies			
	2018	2019E	Change		2018	2019E	Change
Developed Markets				Asia			
United States	2.9%	2.7%	-	China	6.6%	6.1%	-
Japan	0.7%	0.7%		India	7.5%	7.0%	-
Eurozone	1.9%	1.2%	-	Indonesia	5.2%	4.8%	
Europe				South Korea	2.6%	2.3%	•
Germany	1.6%	1.3%	-	Singapore	3.3%	2.4%	-
France	1.6%	1.4%	-	СЕЕМЕА			
Italy	0.9%	0.7%	-	Czech Republic	3.0%	2.9%	
Spain	2.5%	2.4%		Hungary	4.7%	3.6%	
Netherlands	2.5%	1.9%		Poland	4.8%	3.5%	
Greece	2.0%	1.9%	,	Russia	1.7%	1.4%	
Ireland	6.4%	3.4%	•	Saudi Arabia	1.8%	2.7%	
United Kingdom	1.3%	1.6%		South Africa	0.7%	2.1%	
Sweden	2.4%	2.0%		Turkey	3.1%	1.5%	-
Switzerland	2.4%	1.4%	•	Latin America			
				Argentina	(-2.5%)	(-1.7%)	
Canada	2.1%	2.4%		Brazil	1.2%	3.0%	
Australia	3.0%	3.0%		Mexico	2.1%	1.9%	

Source: (1) DB Global Markets Research (Economics).

US Recession Risk Assessment





Source: (1) DB Global Markets Research. (2) Bloomberg. Data as of December 31, 2018. Goldman Sachs financial conditions index.

US Recession Risk Assessment



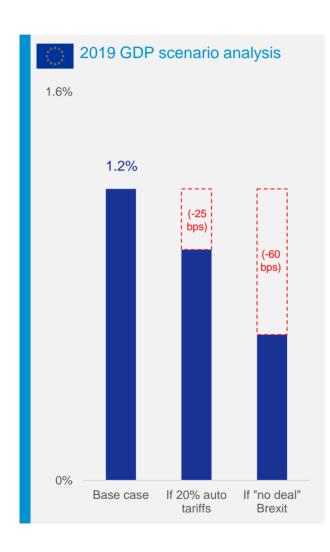
Tightening US financial conditions, term premium suppression from a decade of CB easing, and the subsequent unwind of the Fed's crisis era policy have all contributed to an inversion of US yield curves



Source: (1-6) Bloomberg. Data as of December 31, 2018.

Euro Area Treading Narrow Path





Key considerations in 2019 Euro Area outlook from DB Chief Economist Mark Wall

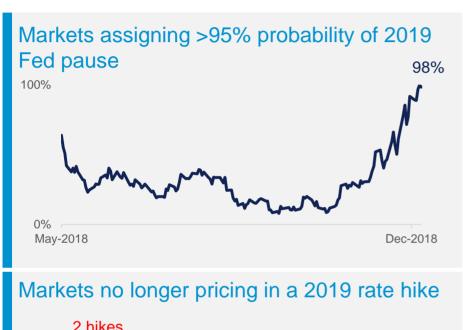
- No-deal Brexit, Italy crisis and trade war not in baseline
- Euro Area GDP growth downgraded from 1.7% to 1.2% in 2019
- External demand the main source of drag, domestic demand more resilient
- Core inflation slower than assumed, rising to 1.2% in 2019, 0.3 percentage points less than thought
- ECB to end QE but maintain ample accommodation and delay first hike until Q1 2020 and replace TLTRO2
- Modest easy stance on fiscal policy to continue
- New meaningful federal 'risk sharing' initiatives unlikely
- EU political consensus increasingly stuck as populist challenge grows
- Italy unlikely to get through next downturn without ESM
- PM May to get a Brexit deal through parliament on second attempt in the new year

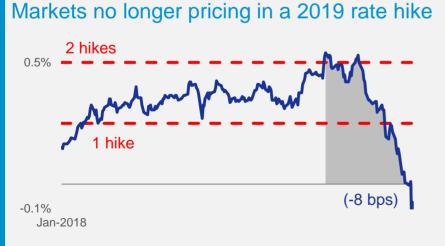
Source: (1,3) DB Global Markets Research "Focus Europe 2019 Outlook: Alternative realities" (Wall). (2) Eurostat. 2018 numbers through October. DB Global Markets Research "Focus Europe 2019 Outlook: Alternative realities" (Wall).



Mature Fed Tightening Cycle







Observations

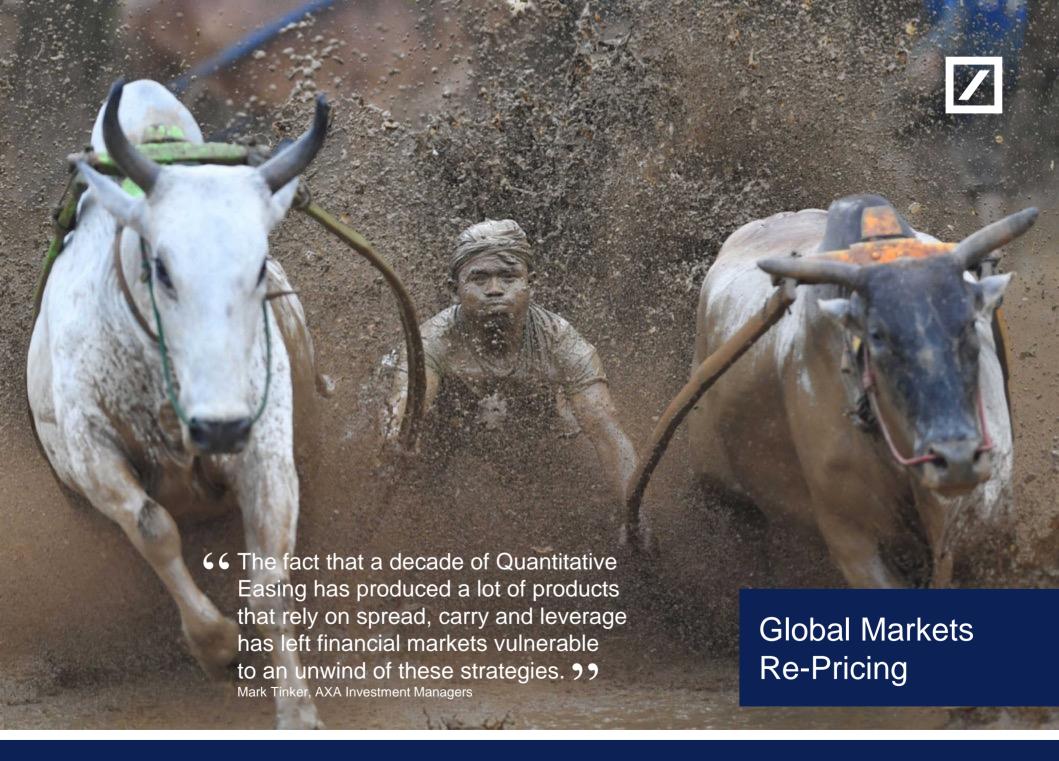
 Monetary policy tightening and credit cycle turns have accounted for nearly half of G7 recessions since 1960

 10 of the last 13 Fed tightening cycles have accelerated recession timing

 Instances of Fed-induced US recession have historically occurred when Fed Funds reach 75-100 bps over "neutral"

Source: (1-4) Bloomberg. Data as of December 31, 2018.



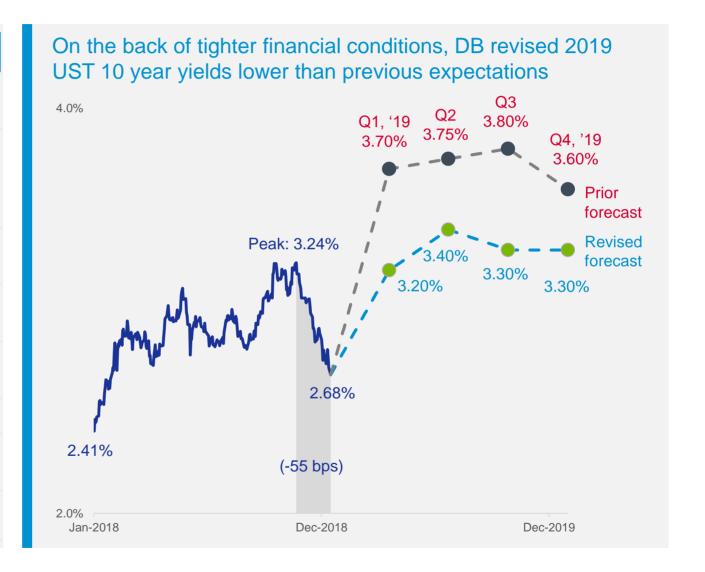


Lower Ceiling for US Rates



Key drivers of 2019 US rates

- Tighter US financial conditions (back to 2016 levels)
- + Mature Fed tightening cycle
 - Policy rates approaching neutral
 - Balance sheet unwind complete by late 2019
- Late cycle US economy returning to trend growth
- Fading fiscal stimulus; small infrastructure spending upside
- Structurally vulnerable US credit markets
- Global growth slowing (China, Europe)
- Dampening inflation expectations (late cycle, structural, lower oil)
- Less pension fund demand than 2017-18



Source: Bloomberg. Data as of December 31, 2018. DB Global Markets Research "Global Fixed Income Outlook 2019 Outlook: Entering the last inning" (Sparks, Yared).

The new rotating FOMC voting members in 2019 are generally more hawkish than their Fed peers

	Member	Role	Dove	Hawk
Permanent voting members	Jerome Powell	Chair	• •	• 0 0
	Richard Clarida	Vice Chair	• •	• 0 0
	Randal Quarles	Vice Chair for Supervision		0 0 0
	Michelle Bowman	Board of Governors	• •	• 0 0
	Lael Brainard	Board of Governors	• •	• 0 0
	John Williams*	New York	• •	• 0 0
	Vacant URALL URALL	Board of Governors		N/A
	Vacant	Board of Governors		N/A
Rotating members	Esther George	Kansas City	• •	• • •
	Eric Rosengren	Boston	•	• • 0
	Charles Evans	Chicago	• •	• 0 0
	James Bullard	St. Louis	• 0	000

Source: US Federal Reserve. DB Global Markets Research (Luzzetti, Ryan, Weidner, Chattopadhyay). Hawk-Dove calculation based on DB calculations. *The New York Fed Governor is responsible for the SOMA portfolio and thus has a permanent voting seat on the FOMC, though is not a member of the Board of Governors.

Credit Cycle Re-Pricing, Not Turning



While the re-pricing has been sharp, USD IG and HY spreads are not far off from their historical averages, with IG spreads still well below historical recession levels of 300 bps+





Source: (1-2) Bloomberg. Data as of December 31, 2018. (3-4) Lipper Fund Flows. Data as of December 31, 2018.

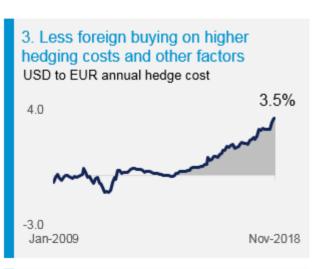
Credit Cycle Re-Pricing, Not Turning

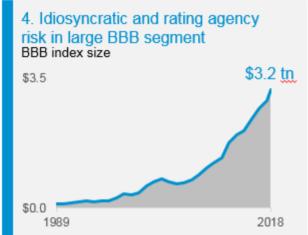


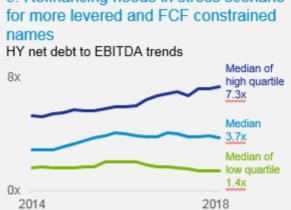
Key things to watch in 2019

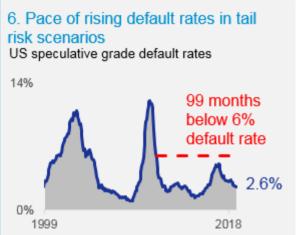








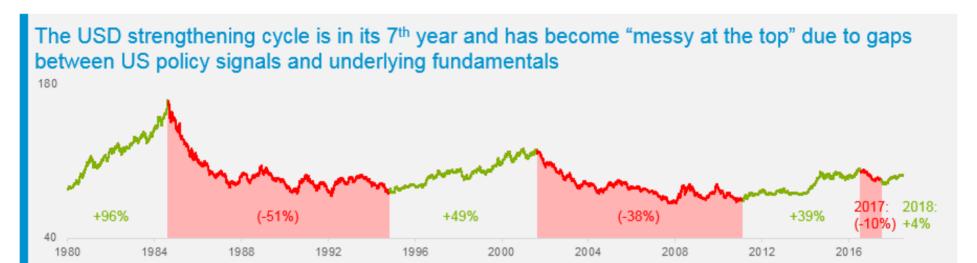


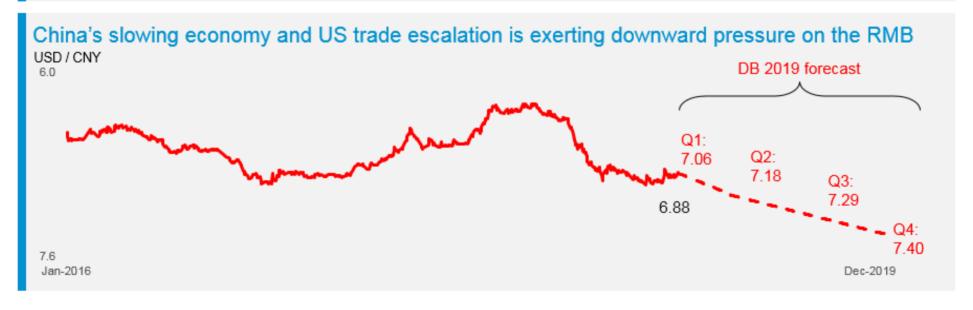


Source: (1) DB Global Markets Research (Reid). New York Federal Reserve. Primary dealer inventories in IG and HY corporate bonds. The federal reserve periodically updates it methodology of reporting primary dealer inventories. Prior to April 2013, inventories included positions, fransactions, financing and fails. After Aprils, the methodology including "specific issues" and in January 2015 the methodology also incorporated MBS settlement fails and transactions. Data through December 19, 2018. (2-5) CreditSights (Revnolds), ICE BAML indicies, 90 of 1.149 tickers in total IG index. (6) S&P Capital IQ. Trailing 12 month default rate. Data through November 2108.

Grappling with Dollar Strength







Source: (1-2) Bloomberg. Data as of December 31, 2018. Axis inverted to show depreciation.

Grappling with Dollar Strength



Key variables to watch in 2019

- Relative slowdown in US and global economies
- US-China policy escalation or reconciliation
- China economic slowdown risk
- Maturity of Fed tightening cycle
- US twin deficits
- + Fading US fiscal stimulus (+0.3% impact to 2019 US GDP)
- Converging rate differentials
- Rising political risk globally
- + Relative valuations (Dollar rich; Euro, STG and EMFX cheap)

Grappling with Dollar Strength



DB research forecasts in line with consensus 2019 USD structural downside

FX pair	Jan 7 spot	Mid 2019	YE 2019	YE 2020
EUR / USD	1.15	1.18	1.25	1.40
USD / JPY	109	108	100	100
GBP / USD	1.28	1.48	1.49	1.56
USD / CHF	0.98	0.96	0.92	0.86
AUD / USD	0.71	0.75	0.76	0.76
USD / CAD	1.33	1.36	1.40	1.34

Source: (1) DB Global Markets Research "FX Forecasts & Valuations: A framework for thinking about FX in 2019" (Ruskin, Saravelos).

Key Risks to Monitor in 2019



Economic

- Slowing global economy (Europe, China)
- 2. China risk (economy, markets, currency)
- US economic or earnings recession (sooner than anticipated)
- 4. US corporate capex deceleration
- Corporate operating margin declines

Policy

- US-China trade and policy escalation
- Fed tightening / global central bank QT
- 3. Hard or "no deal" Brexit
- Rising European political risk (Italy, France, EU integration)
- Rising geopolitical risk (elections, cyber-attacks, failed states, Mueller investigation)

Markets

- 1. Financial conditions tightening
- Confidence impact if 2s 10s
 UST curve inverts
- 3. Turn in the US credit cycle
- Lower foreign demand for US credit (hedging costs, policy shifts)
- Automated trading at times of heightened stress

Source: DB Capital Markets Strategy.

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Tom Joyce is a Managing Director and Capital Markets Strategist within Deutsche Bank's Corporate Finance division. Based in New York, Tom heads a team that creates customized analytical content for multinational US corporates and Fortune 500 companies. His team provides in depth analysis on the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

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Eric Chewning, US Deputy Assistant Secretary of Defense for Industrial Policy







