



# Containing the Coronavirus

A Review of Economic & Market Implications

February 2020



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Essential Market  
Insights for the  
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# Countries More Vulnerable to Coronavirus Contagion



Source: Moody's Investors Service.



I. Containing the Coronavirus

II. Economic Implications

III. Market Implications



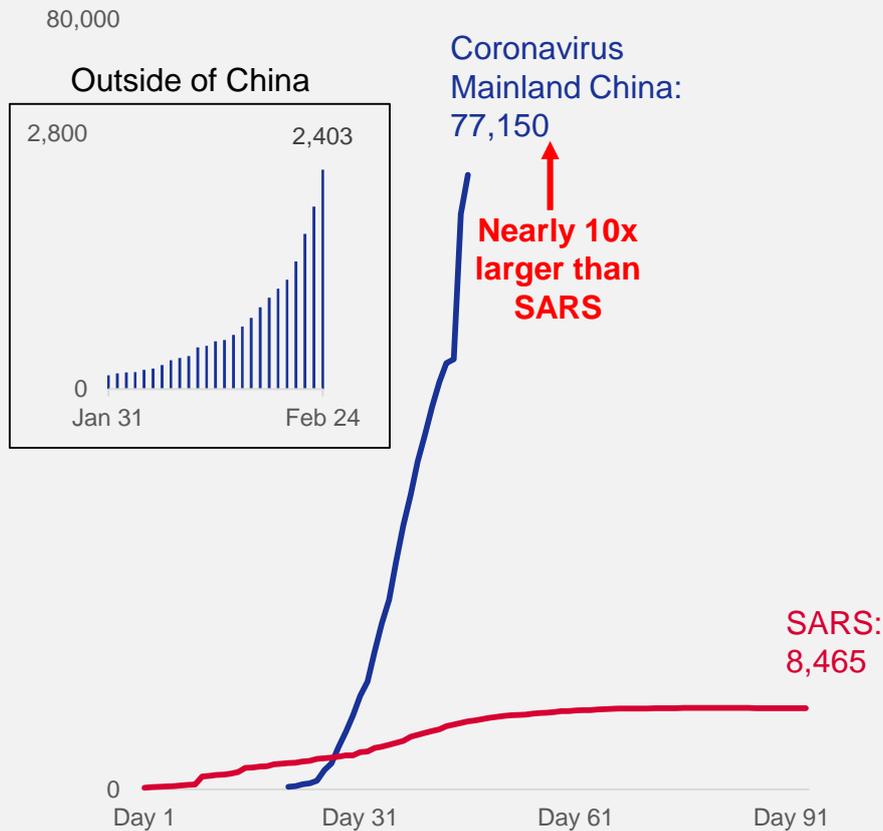
# I. Containing the Coronavirus



# Coronavirus Transmission More Rapid Than SARS

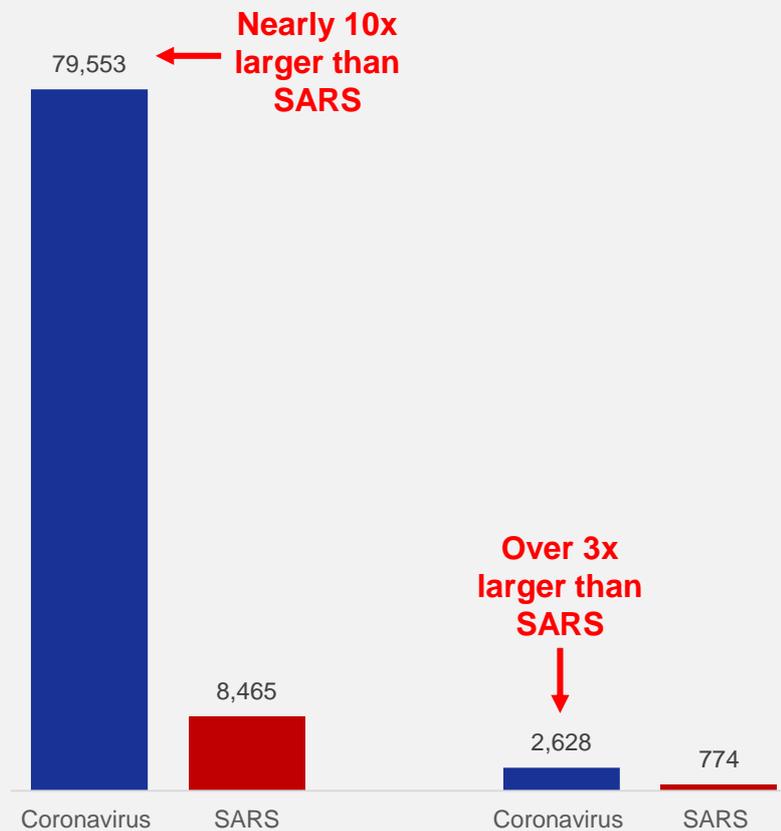
While the mortality rate on the 2020 Coronavirus (2-3%) is lower than SARS in 2003 (9%), the speed of transmission has been higher. Further, markets are struggling with the recent escalation of cases outside of China, and the notion that the “peak transmission” narrative of March-April, followed by a v-shaped recovery, appears less certain

Wuhan Coronavirus and SARS comparison: number of patients globally (in first 56 days)



# infected

# of fatalities



Source: (1) Johns Hopkins University. Enodo Economics (Diana Choyleva). WHO. CEIC. Day 1 for SARS is March 27, 2003 and Day 1 for Coronavirus is December 31, 2019. Day 56 for Coronavirus is February 24, 2020. (2) China National Health Commission. Johns Hopkins University. WHO.

# Confirmed Cases Within China



While China accounts for > 95% of cases globally, Hubei province (includes Wuhan) accounts for > 80% of the cases within China



Source: (1) DB Global Markets Research "China Macro – Coronavirus update (9): activities start to recover, downside risk remains" (Xiong).

# Geographic Breakdown of Coronavirus Impact



The sharp rise in transmissions outside of China in late February has been concerning, and has caught the market by surprise

Country	# of confirmed cases	# of deaths
Mainland China	77,150	2,593
South Korea	833	8
Italy	215	6
Japan	154	1
Singapore	89	0
Hong Kong	79	2
Iran	61	12
Thailand	35	0
US	35	0
Malaysia	22	0
Australia	22	0
Taiwan	20	1
Vietnam	16	0
Germany	16	0
France	12	1

Country	# of confirmed cases	# of deaths
UK	13	0
UAE	13	0
Macau	10	0
Canada	9	0
India	3	0
Philippines	3	1
Russia	2	0
Spain	2	0
Belgium	1	0
Cambodia	1	0
Finland	1	0
Nepal	1	0
Sri Lanka	1	0
Sweden	1	0
Others	691	3

Source: (1) FT "Coronavirus mapped: the latest figures as the outbreak spreads." Data from Johns Hopkins University Center for Systems Science Engineering dashboard. Data as of February 19, 2020.



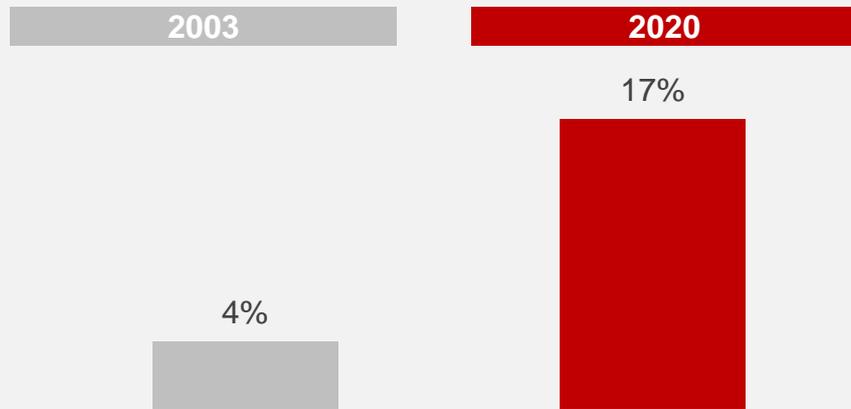
## II. Economic Implications

# China in 2003 vs. 2020

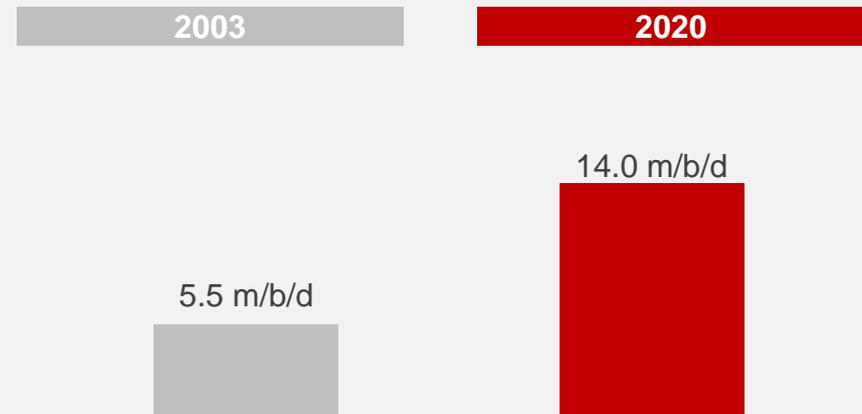


Comparisons to the impact of SARS in 2003 on the global economy and markets are by definition limited given China's much larger size in 2020

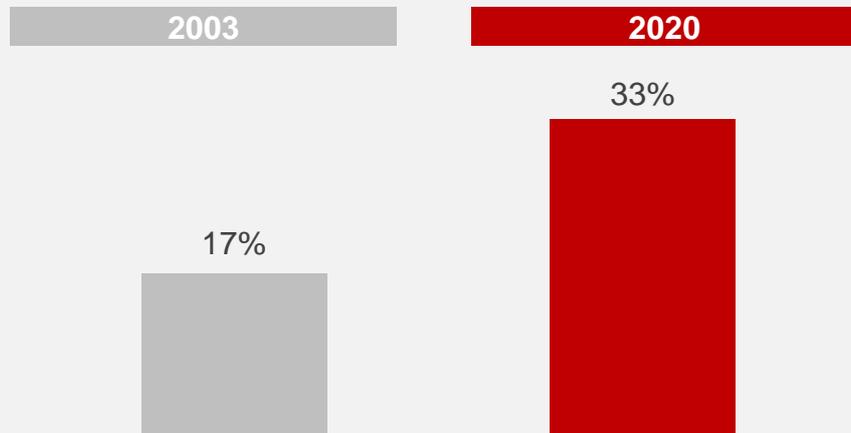
## China as % of global economy



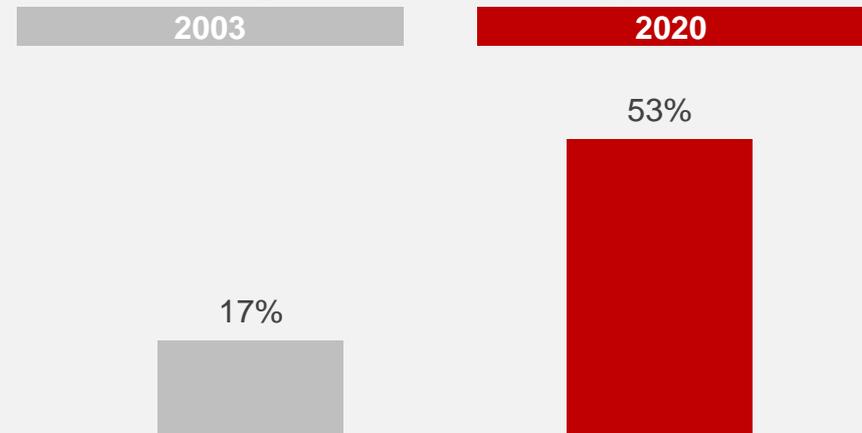
## China's oil consumption



## China as % of global auto sales



## China as % of global demand for copper



Source: DB Capital Markets Strategy. (1-4) EIA. IEA.

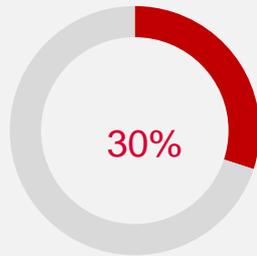
# China's Outsized Impact on Global Growth



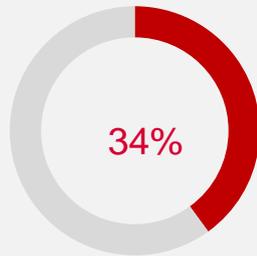
A slowdown in China growth poses outsized risk for global economies and markets. While China represents approximately 15% of global GDP and total global oil demand, China accounts for over 30% of global GDP growth and global oil demand growth.

## China's % of total demand growth

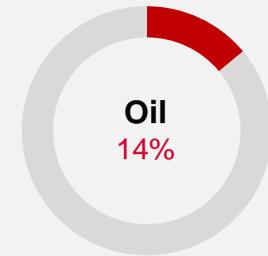
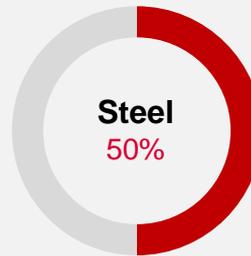
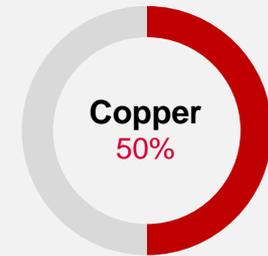
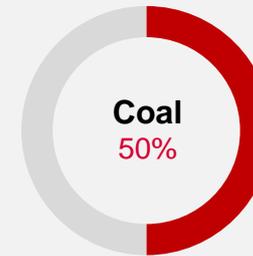
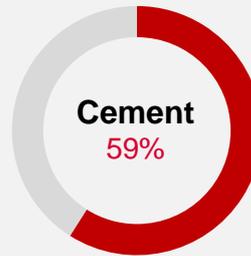
Global GDP growth



Global oil demand growth



## China's % of total global demand for:



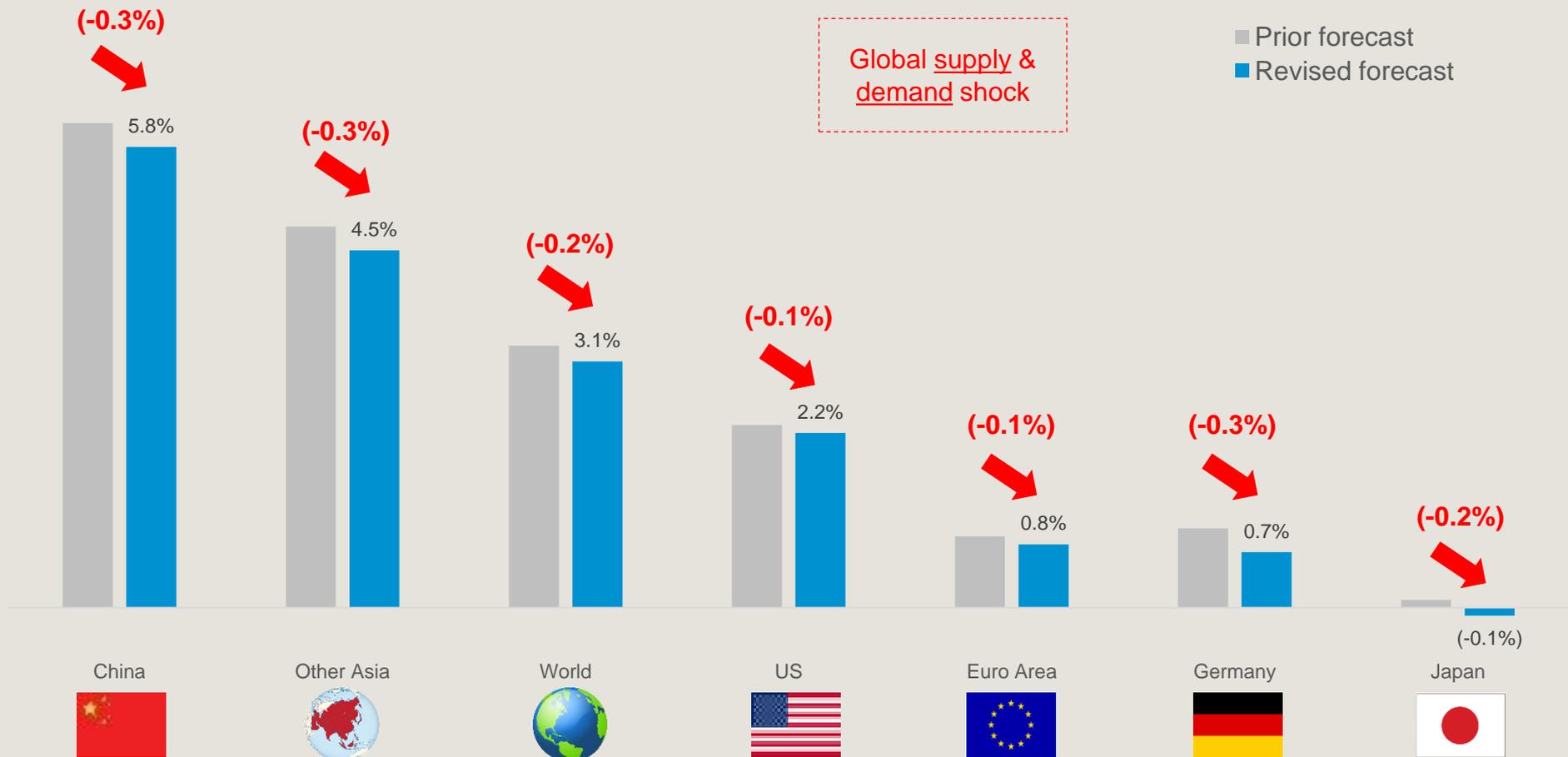
Source: (1) Bloomberg. Data as of December 5, 2019. National Bureau of Statistics. (2-9) Visual Capitalist. Statista (2017). NAB (2017). Global X Funds (2016). World Steel Association (2017). MC Group (2017). OECD (2016). China Gold Association, WGC (2017). USDA (2017). Enerdata (2016). WSJ.

# Revised 2020 Global GDP Forecasts



Following the 2018-19 escalation of US-China trade war, the Coronavirus “economic shock” has been ill-timed for a vulnerable global economy. Accordingly, DB has already revised lower numerous 2020 GDP growth forecasts for major economies, with larger downward revisions in the greater China and Asia region. Risk of additional revisions remains high to the downside.

2020 full year GDP growth forecast revision, y/y



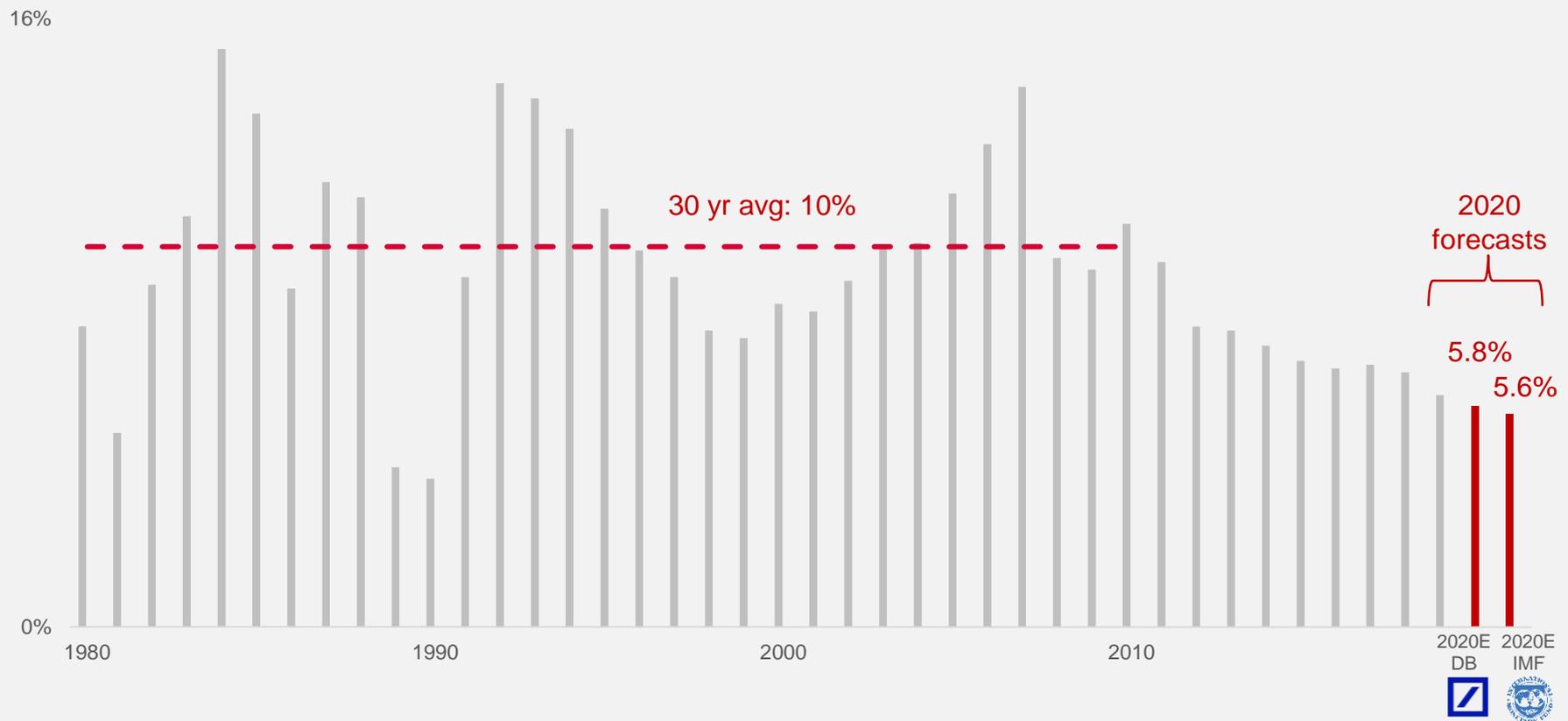
Source: (1) DB Global Markets Research “Impact of the novel coronavirus on global GDP growth” (Hooper, Slok, Spencer).

# Economic “Tail Risk” Event for China Growth



The IMF has just revised China’s 2020 GDP growth rate sharply lower to 5.6%, a new 30 year low. The post-crisis bounce back in 2020 could be slower than it was after SARS in 2003 due to China’s larger services sector (54% of GDP vs. 42% in 2003). In addition, the strength of the v-shaped recovery has also been increasingly questioned.

China GDP growth, y/y



Source: (1) Bloomberg. Data as of February 24, 2020. DB Global Markets Research (Economics).

# Renewed US Growth Concerns



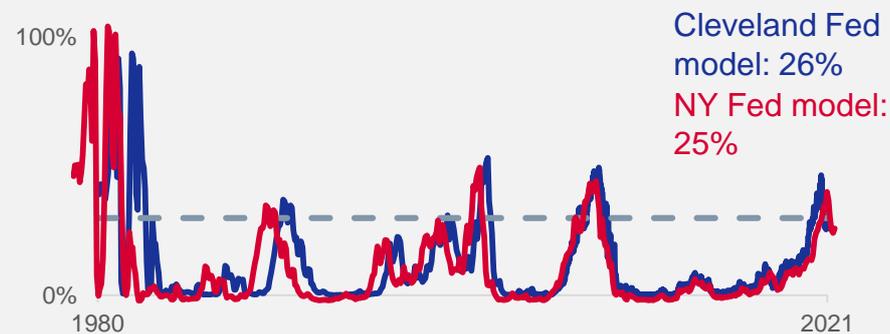
The 3M-10yr yield curve has once again inverted on higher growth concerns

3M-10yr UST yield curve



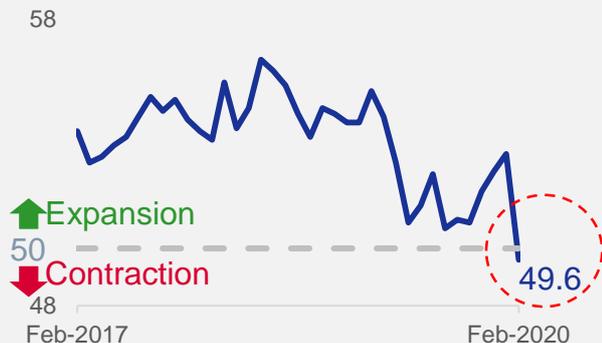
Fed models for the probability of recession in the next 12 months (updated monthly) are hovering around 25%

Probability of US recession in next 12 months



In February, the US composite PMI fell by 3.7 points to its lowest level since 2013, and the larger services sector dipped into contraction territory

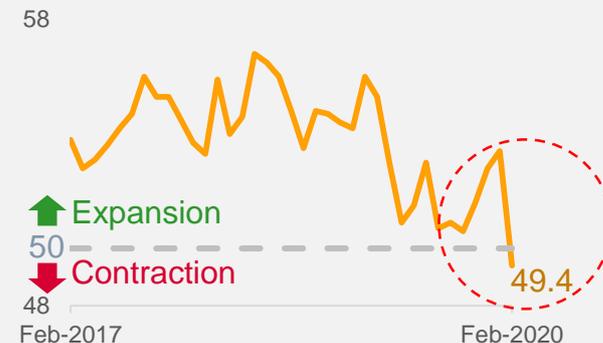
IHS Markit composite PMI



IHS Markit manufacturing PMI



IHS Markit services PMI



Source: (1-3) Bloomberg. Data as of February 24, 2020.

# Japan's Economy Likely in Recession

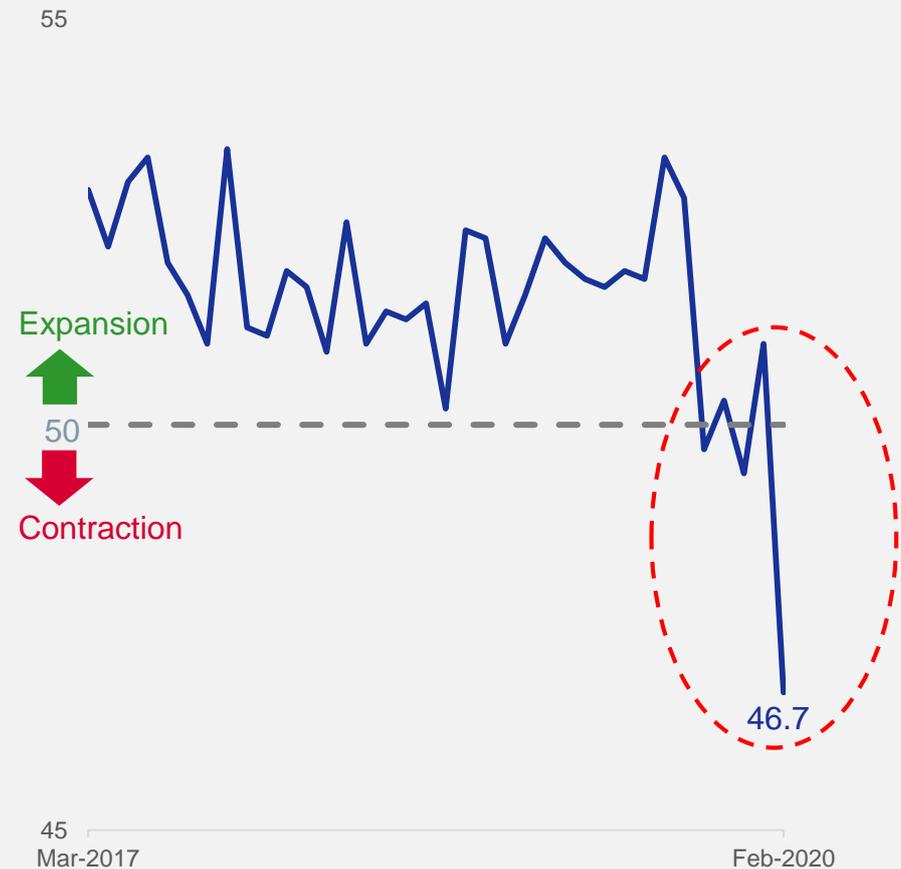


The world's 3<sup>rd</sup> largest economy, Japan, may already be in recession on the back of Coronavirus economic contagion

### Japan manufacturing PMI



### Japan services PMI



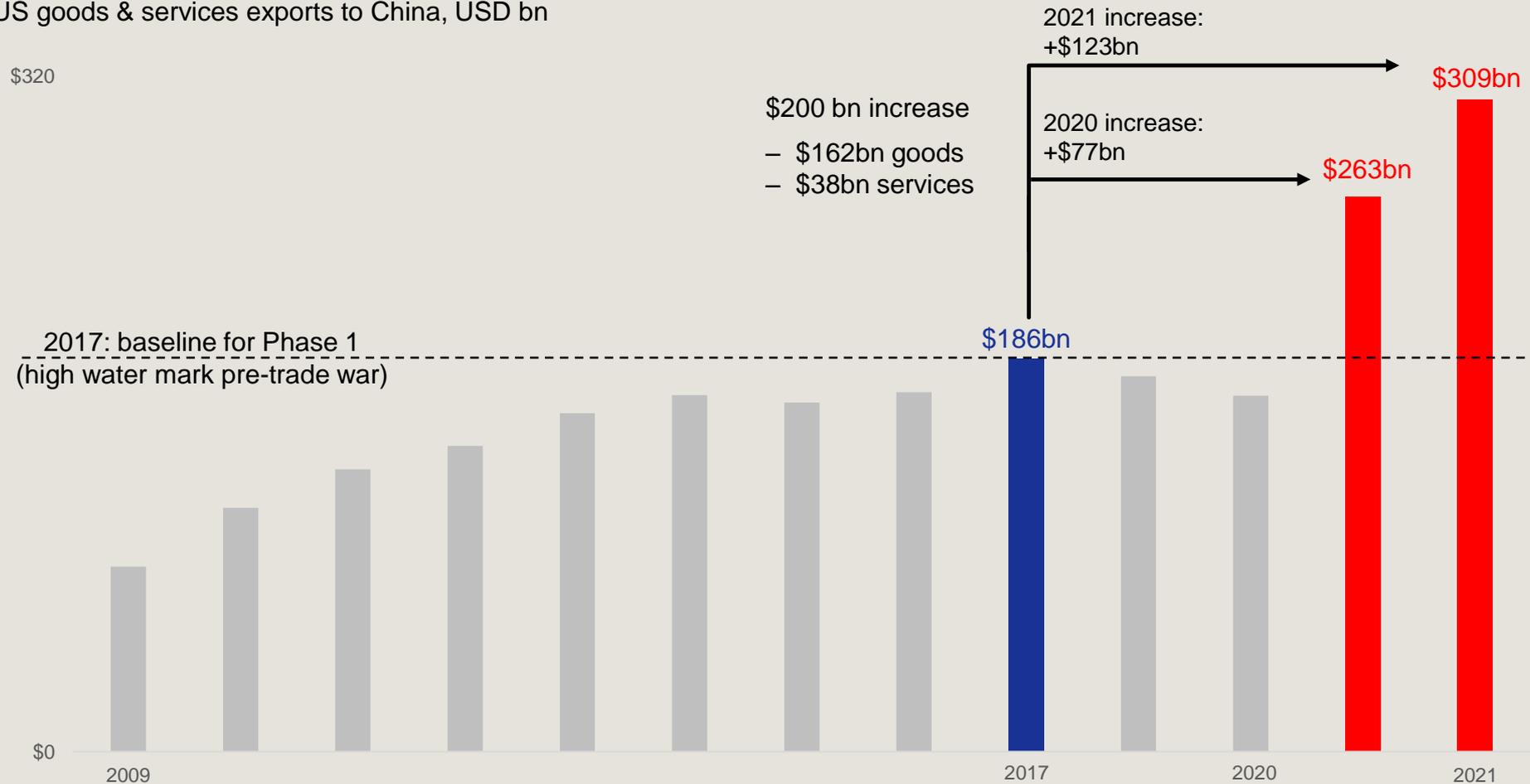
Source: (1-2) Bloomberg. Data as of February 24, 2020.



# \$200 bn of Chinese Purchases in Phase 1 Deal Could Become Challenging

While certainly a secondary concern, the ambitious size of Phase 1 US-China proposed purchases will become more challenging under the current circumstances

US goods & services exports to China, USD bn



Source: (1-2) USTR. US Department of the Treasury. DB Global Markets Research "China Macro – The Phase One Deal" & "The \$200bn purchase agreement: how realistic is it?" (Xiong). Peck Madigan Jones. Scowcroft Group. Peck Madigan Jones. Scowcroft Group.

# Formidable Global Policy Response



While fiscal and monetary stimulus provides support for a demand shock, the benefits are less direct for a global crisis that also includes a substantive supply shock

## 1 Global bond markets easing for the Central Banks

## 2 Potential OPEC production cut to address 1 m/b/d global surplus

## 3 Coordinated G20 response likely, if needed

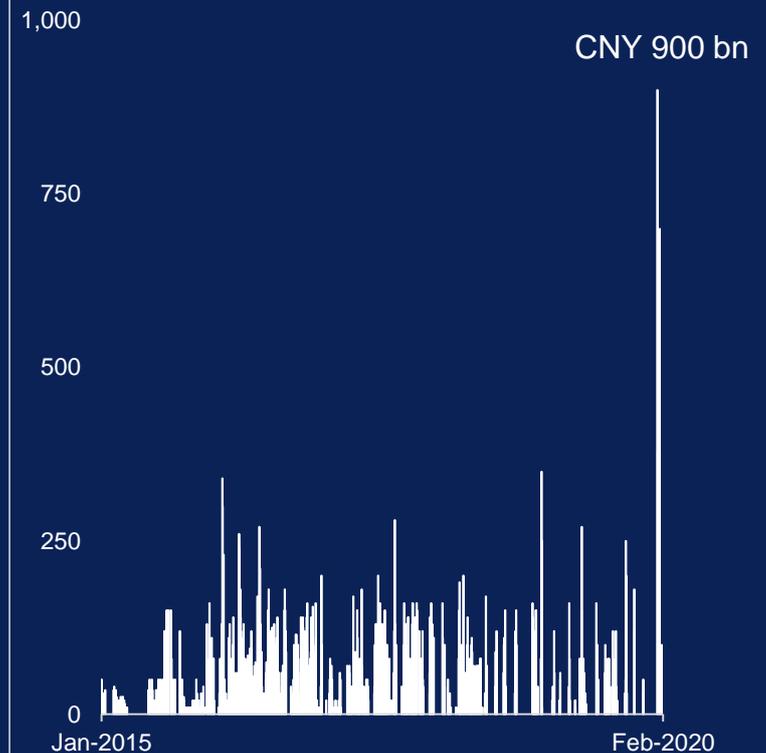
## 4 SARS precedent suggests impact temporary (rebound in subsequent quarters)

## 5 Significant Chinese monetary and fiscal easing

- 10 bps PBOC rate cut (earlier than expected)
- RMB 150 bn of bank sector liquidity
- RMB 350 bn of PBOC credit for companies combatting the virus
- Banks ordered to not reduce lending to crisis-hit areas
- 0.2% additional fiscal stimulus expected (corporate lending, healthcare spend, tax cuts)
- RMB 1.8 tn quota increase for special local government bonds (expected to reach RMB 3.3 tn this year, up 50% y/y)

In an effort to stabilize markets in the wake of the Coronavirus spread, the PBoC has injected hundreds of billions of USD equivalent liquidity into the Chinese banking and financial systems

PBoC 7-day reverse repo transactions (CNY bn)



Source: DB Capital Markets Strategy. (1) Bloomberg. Data as of February 24, 2020.



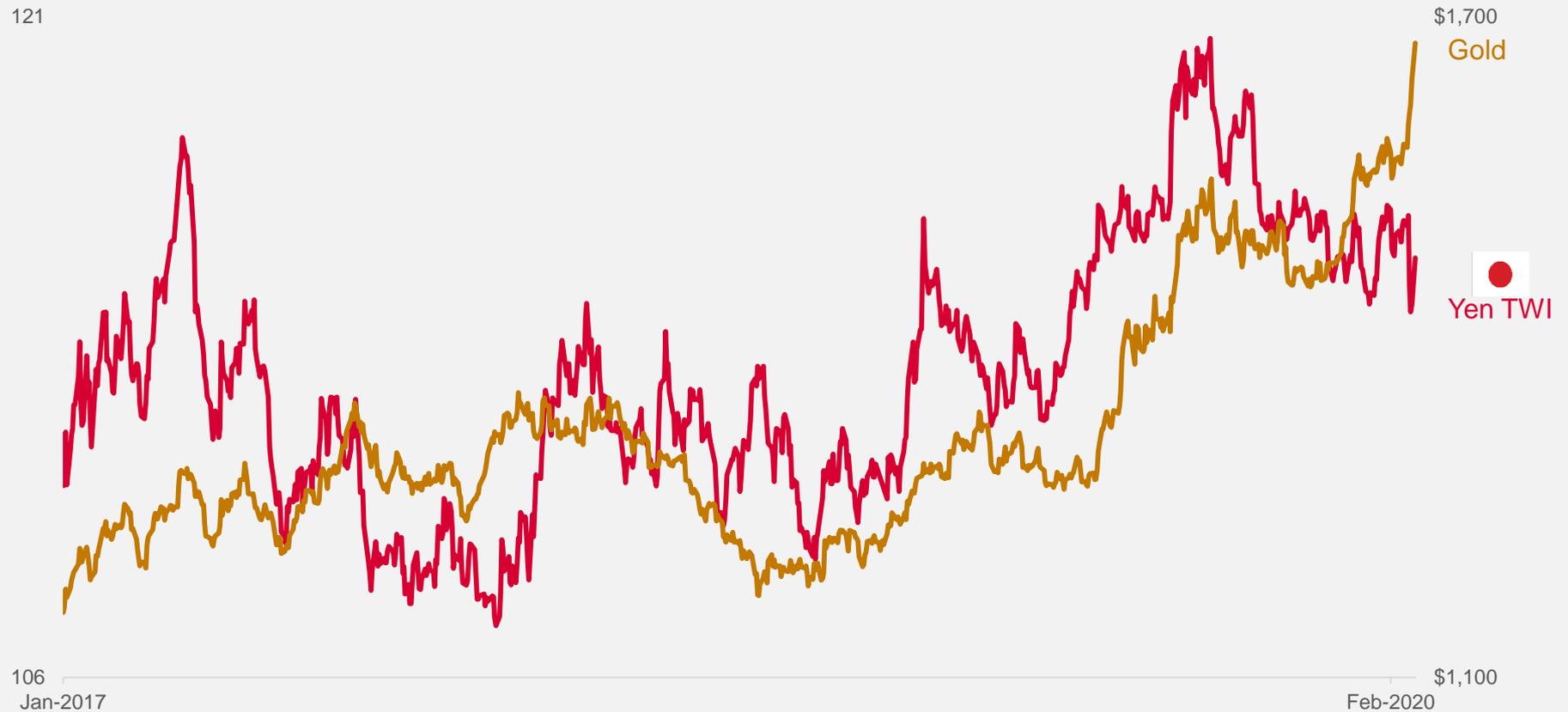
### III. Market Implications

# Safe Haven Flows & Divergences



While Gold is trading at a seven year high on safe haven flows (breaking a new \$1,700 threshold), Japanese Yen has begun to diverge as a safe haven, trading lower on the economic contagion concerns of the Coronavirus

Gold and Yen



Source: (1) Bloomberg. Data as of February 24, 2020. Yen is DB TWI.

# “Rates Shock” Fanning Growth Slowdown Concerns



The Coronavirus pandemic in 2020 has precipitated the 3<sup>rd</sup> major global rates shock of recent years (Brexit in 2016, trade war in 2019), with numerous sovereign rates markets negative out the entire curve (and nearly \$14 trillion of negative yielding securities globally, up from \$11 trillion in early January).

	Benchmark policy rate	1 yr	2 yr	5 yr	10 yr	15 yr	20 yr	30 yr
Switzerland	(-0.75%)							
Germany	(-0.50%)							
Denmark	(-0.65%)							
Netherlands	(-0.50%)							
Austria	(-0.50%)							
Finland	(-0.50%)							
Belgium	(-0.50%)							
France	(-0.50%)							
Ireland	(-0.50%)							
Sweden	0.00%							
Japan	(-0.10%)							
Spain	(-0.50%)							
UK	0.75%							
Italy	(-0.50%)							
US	1.75%							

**11 major economies negative out 10 years, with 3. negative across the entire curve**

Source: (1) Bloomberg. Data as of February 24, 2020. US benchmark is the upper bound. ECB is the deposit facility rate. Switzerland is sight deposit rate. Denmark's longest duration government bond is 20 years.

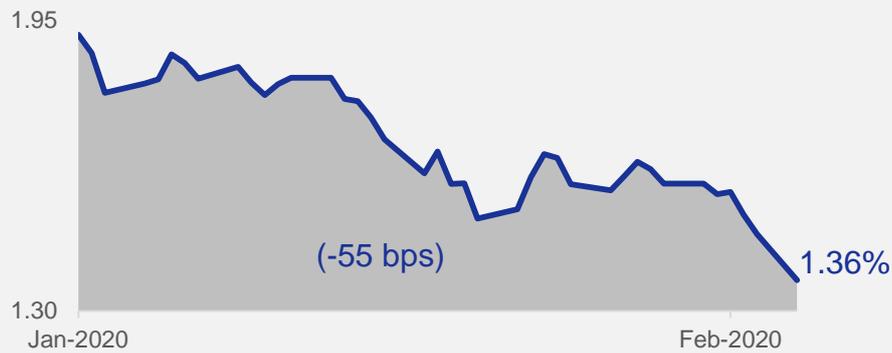
  Negative   Positive

# US Bond Markets Signaling Growth Risks

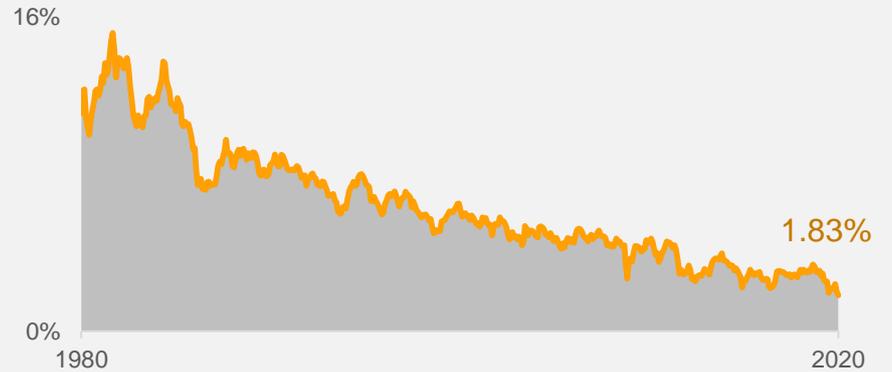


10 and 30 year USTs have rallied to all time historic lows on growth concerns and safe haven flows

10 year UST

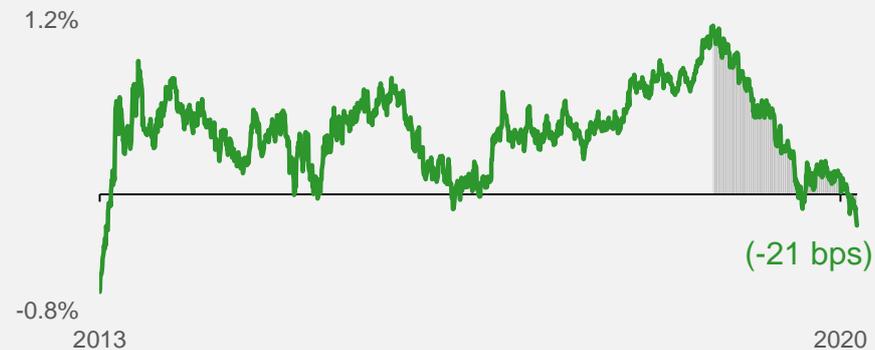


30 year UST



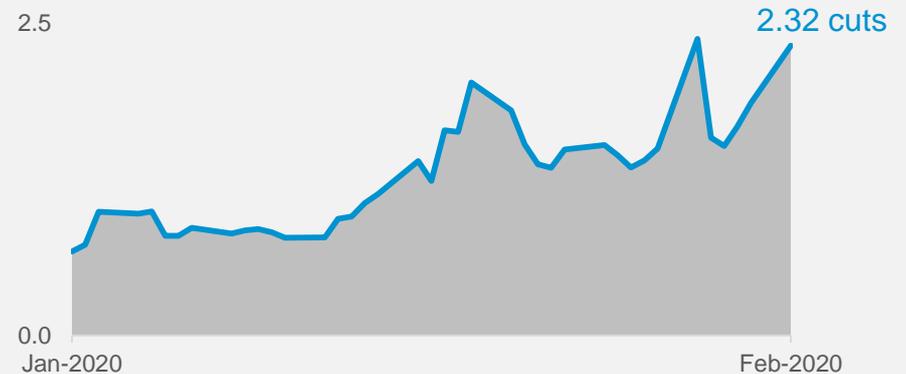
Real yields have dropped sharply to 2013 levels

Real yields: 10 year UST – 10 year breakeven UST



The market is currently pricing more than 2 full Fed rate cuts by the end of 2020

Number of cumulative cuts expected by Dec 2020

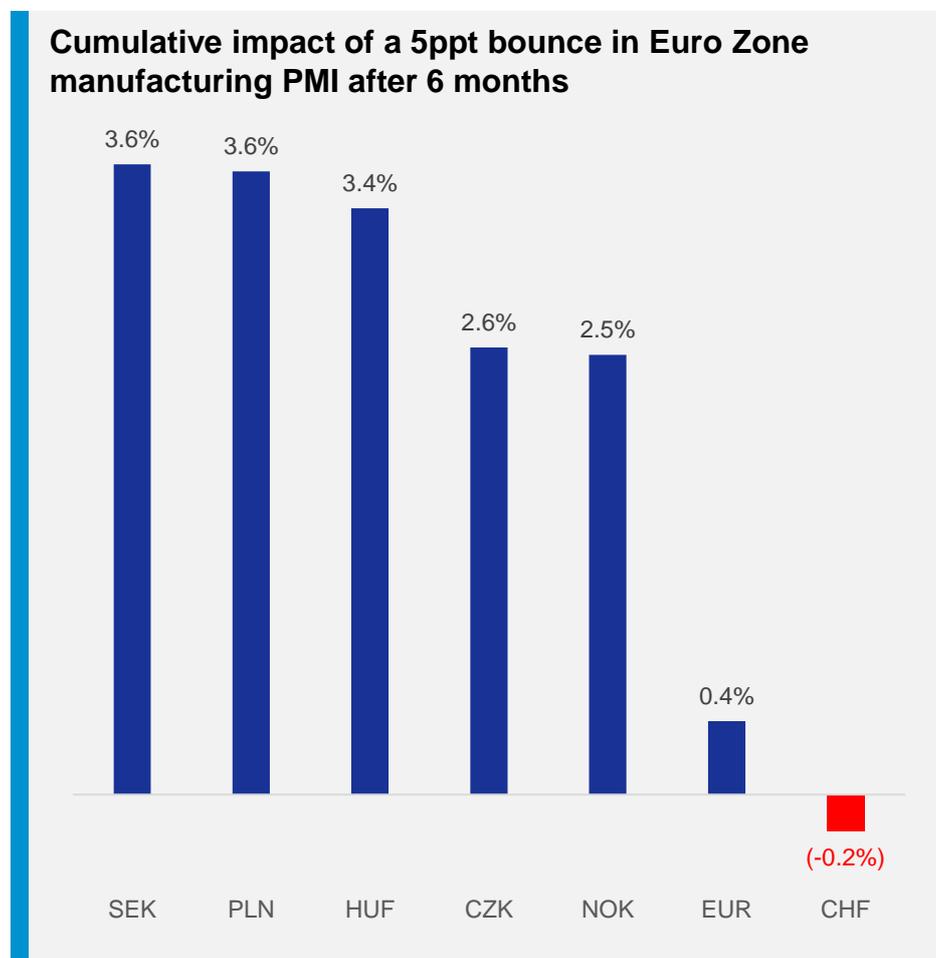
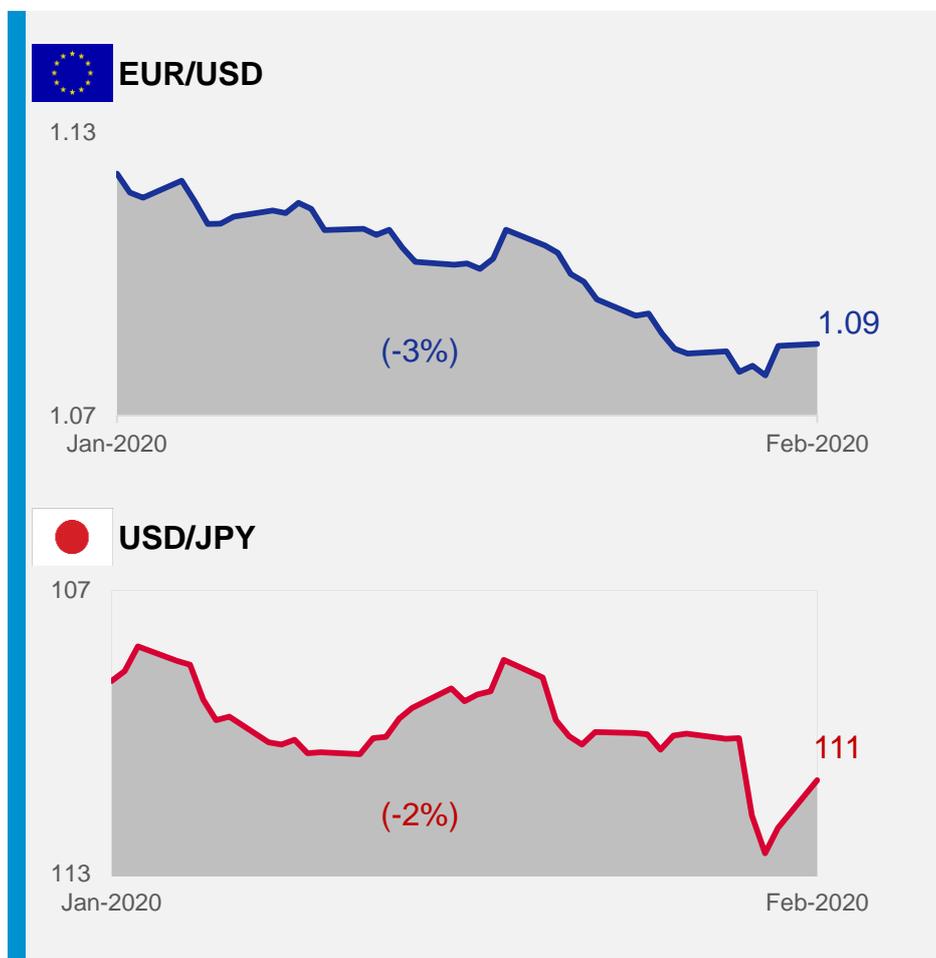


Source: (1-4) Bloomberg. Data as of February 24, 2020.

# Currency Market Implications

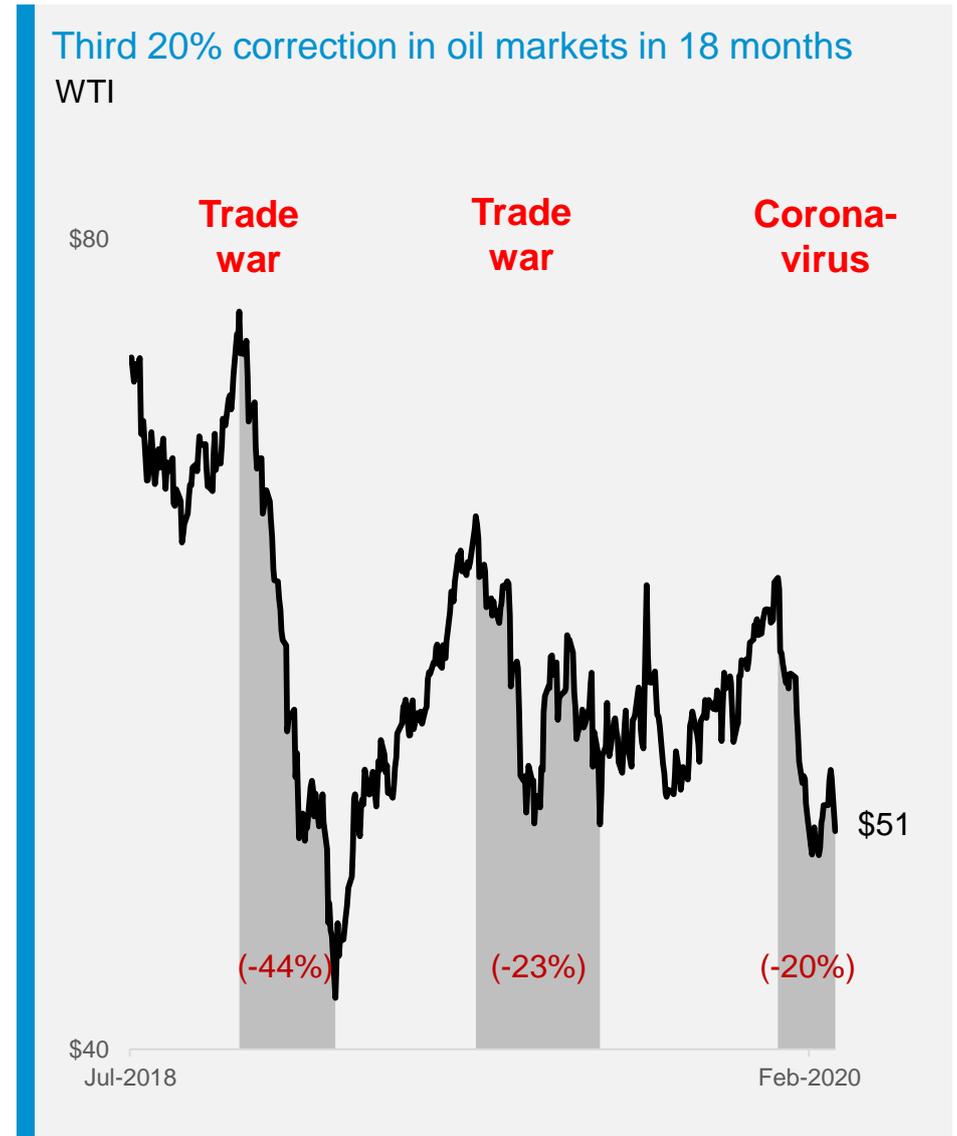
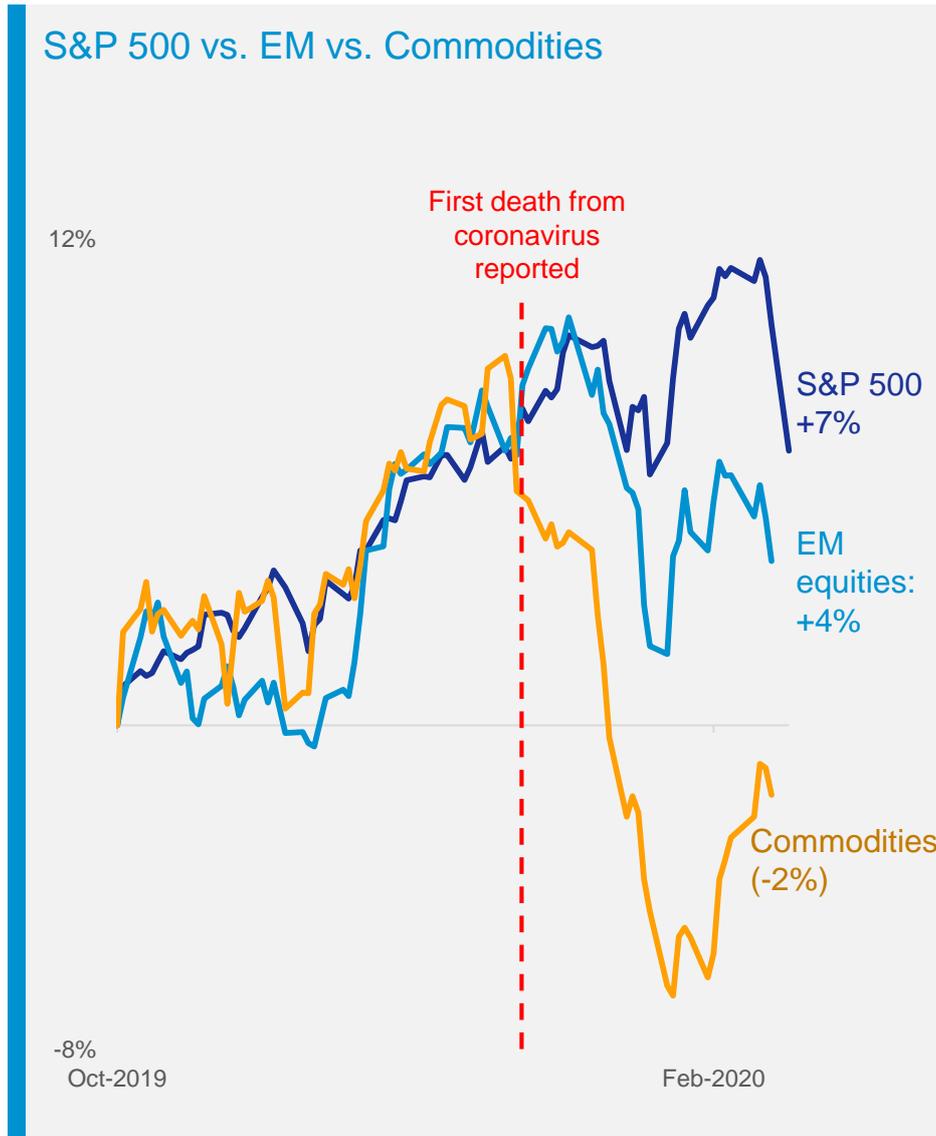


DB's FX research team expects peripheral European currencies (such as in Scandinavian and Eastern European countries) to be most vulnerable to sell-off as these currencies have a higher correlation with the European manufacturing cycle (even more so than the Euro). While Swiss Franc has proven a reliable safe haven (negative beta to growth), the Yen has weakened given its geographic and economic proximity to China.



Source: (1-2) Bloomberg. Data as of February 24, 2020. USD/JPY axis inverted to show depreciation. (3) DB Global Markets Research "FX Special Report – The virus arrives in Europe – sell Scandi and CE3" (Winkler, Petitcolon, Saravelos).

# Commodities & Oil Market Correction

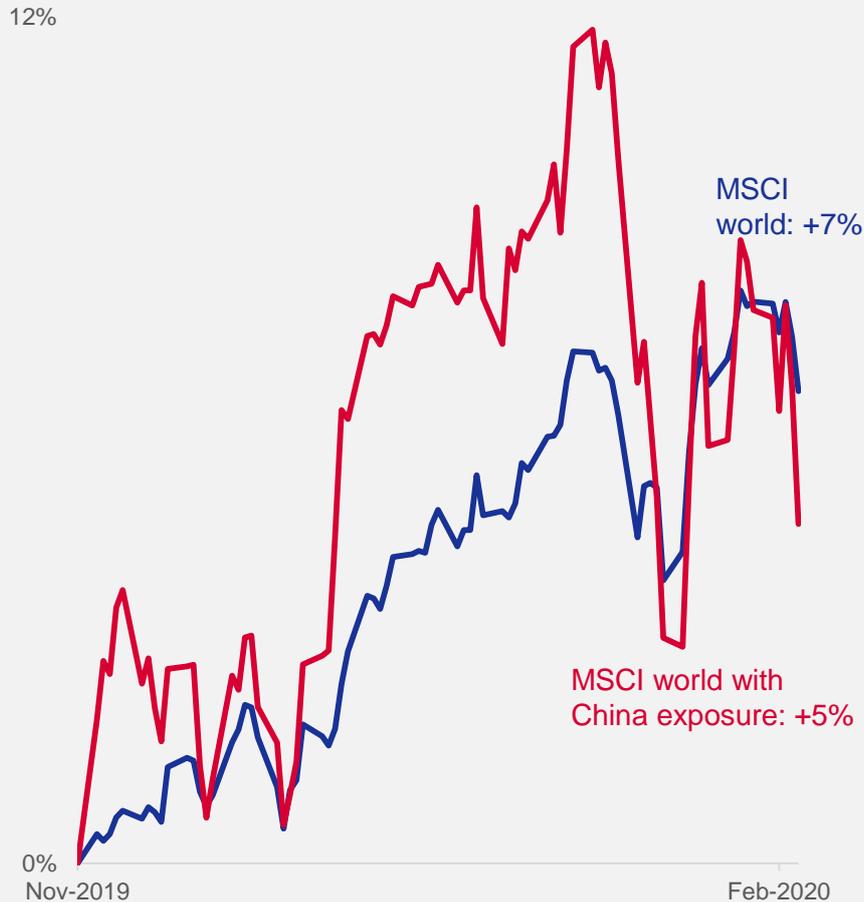


Source: (1-2) Bloomberg. Data as of February 24, 2020. EM equities is MSCI EM equity index. Commodities is SPGSI Index.

# Global Equities Repricing

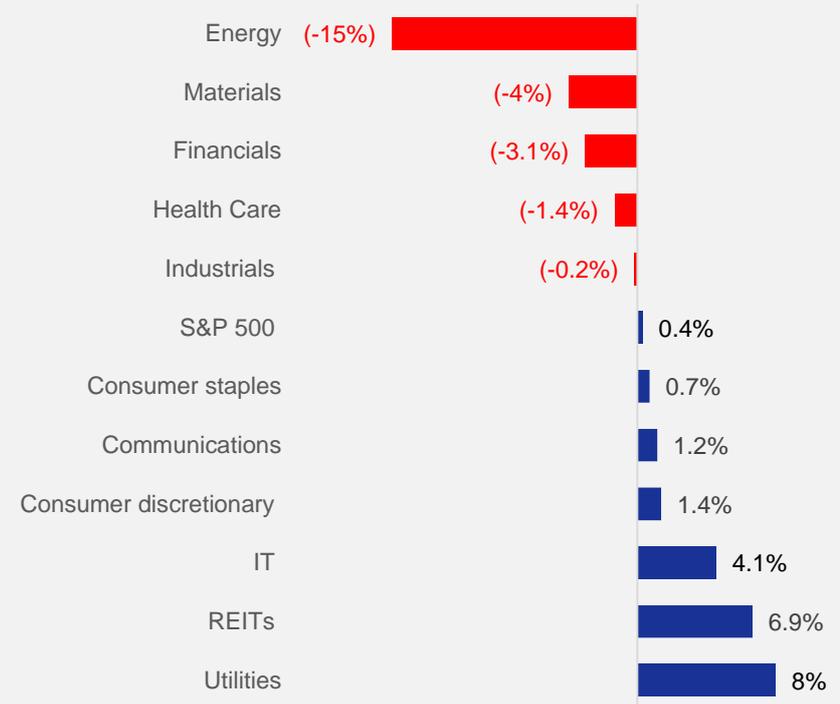


## MSCI World vs. MSCI World with China exposure



S&P 500 sector performance has diverged sharply in 2020 with oil and growth sensitive sectors (energy, financials) sharply underperforming the more defensive, non-cyclical sectors (REITs, IT, utilities)

S&P 500 and sectors, % change, YTD



Source: (1-2) Bloomberg. Data as of February 24, 2020.

# For the C-Suite



# Past Reports



**Feb 2020**  
The Road to 270



**Jan 2020**  
This Time is Different



**Nov 2019**  
Superpowers with Structural Issues



**Oct 2019**  
Mixed Signals



**Aug 2019**  
Accommodation, Escalation & Retaliation



**Jun 2019**  
US Recession Watch



**Apr 2019**  
Pervasive Forces



**Mar 2019**  
The Watchman



**Nov 2018**  
Reflections



**Nov 2018**  
Perspectives on Markets &  
the 2018 US Midterms



**Sep 2018**  
Thinking Differently About Trade Risk



**Jul 2018**  
Delicate Balancing Act

# Past Reports



**May 2018**  
Underestimating US Tax Reform



**Mar 2018**  
Regime Change



**Dec 2017**  
The US Tax Cuts & Jobs Act



**Nov 2017**  
A November to Remember



**Nov 2017**  
Here Comes the Senate



**Nov 2017**  
The House Moves First



**Sep 2017**  
Power, Politics & Markets



**Jul 2017**  
Bond Market Signals



**May 2017**  
Tax Reform Lite



**Apr 2017**  
Dovish Fed Liftoff



**Feb 2017**  
The US Tax Code



**Jan 2017**  
The First 100 Days

# About the Authors



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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 multi-national 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.

Tom has over 20 years of Investment Banking experience at Lehman Brothers (10 years) and Deutsche Bank (14 years) in New York, London, Hong Kong, and San Francisco. Over the last 12 years, Tom created and built the Capital Markets Strategy role within Deutsche Bank's Investment Bank, the only position of its kind on Wall Street. He has previously served as the host of the Corporate Finance Monday morning meeting (4 years) and the Managing Director Promotion Committee (2 years).

Tom's educational background includes a year of study at Oxford University from 1991 - 1992, a Bachelor of Arts in Political Science from Holy Cross College in 1993, and a MBA from Kellogg Business School, Northwestern University in 2000.

Tom resides in New Canaan, CT with his wife and four sons, where he serves on the Board of Trustees of the New Canaan Library, and the Board of the New Canaan Football (Soccer) Club. He also coaches youth soccer, basketball and lacrosse.



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Hailey Orr is a Director in Deutsche Bank's Capital Markets Strategy group, within the Corporate Finance division. The team provides market based content for corporate clients to assist in strategic decision making. Focus areas include the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets. Hailey is also on the steering committee of the Americas Women's Network and helps lead the University of Michigan Global Markets recruiting team.

Prior to joining Capital Markets Strategy, Hailey spent nearly three years in Deutsche Bank's Consumer Equity Specialty Sales group. As part of the Global Markets division, her team focused on providing insights, opinions, and flow updates on the consumer equity space to the bank's largest institutional investor clients.

Hailey graduated with honors from the University of Michigan's Ross School of Business with a BBA and a minor in International Studies.



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