Rogue Nations – Peak, Plateau or Plunge?
Ghosts of Disruption Past, Present and Future:
Industrial Revolution 4.0; Globalization; Geopolitics

Arnab Das
Global Market Strategist, Global Thought Leadership
Agenda

Growth, Inflation and Policy:
This time really is different

Industrial Revolutions 1.0 – 4.0

Trade War & Geo-Economics

Tech War & Geopolitics

The Future of the EU, EZ and EM

Conclusion – Macro & Markets

Appendix

This presentation is solely for the attendees of the CEMLA conference in September 2019. Not for further distribution.
High, Rising and Recurrent Uncertainty
Risk – probabilistic, quantifiable scenarios; manageable outcomes
Uncertainty – unknowable/unquantifiable; cannot be risk-managed

Global Economic Policy Uncertainty index*

Growth: Geopolitical Tensions Drag Down Manufacturing, Trade
Uncertainty weighs on cyclical and potential growth via investment; Industrial sector and surplus/commodity economies are most exposed

Source: Bloomberg and Datastream as at 6 August 2019.
Inflation: Largest Economies have been Below Target
Major central banks expect low inflation – even the BoE, even though UK inflation has exceeded target since the GFC

US Curve Signals Recession Risk Rising, Despite Decent Data

Source: Datastream as at August 2019. *The CLI is the composite average of the following: Average weekly hours, manufacturing; Average weekly initial claims for unemployment insurance; Manufacturers' new orders, consumer goods and materials; Vendor performance, slower deliveries diffusion index; Manufacturers' new orders, nondefense capital goods; Building permits, new private housing units; Stock prices, 500 common stocks; Money supply, M2; Interest rate spread, 10-year Treasury bonds less federal funds; Index of consumer expectations.
US Yield Curve Slope – Best Cyclical Leading Indicator of all?

- Paul Samuelson: “The [US] stock market has predicted nine of the last five [US] recessions”
- The US yield curve inverted before most of the post-War and pre-War/pre-Fed recessions
- Yield curves around the world tend to flatten (steepen) ahead of slowdowns (accelerations) including in EM, but US curve inversion (steepening) tends to be more pronounced and sustained
- Yet this time may be different, given vanishing term premium, ultra-low/negative nominal/real yields

The Yield Curve and the Fed are saying, “This time is different”
Fed hiking cycles end in systemic financial crises and recessions; This time, Fed policy shifts are forestalling crises, yet recession risk is up

- US expansions do not die of old age but are serially murdered by the Fed – in justifiable “cyclicides” – to curb inflation
- This cycle has see less credit growth, less wage growth, smaller supply–demand imbalances, moderate inflation
- Central bank mandates once again include financial stability as well as price stability and employment/growth
- Monetary policy may be able to smooth demand shocks, but is less suited to supply shocks or geopolitical risks

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<td>Industrial Revolutions 1.0 – 4.0</td>
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<td>History suggests transitional macro challenges are already underway</td>
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<td>Trade War &amp; Geo-Economics</td>
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<td>Tech War &amp; Geopolitics</td>
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The Fourth Industrial Revolution in Historical Context: Messages from Ghosts of Disruption – Past, Present and Future

Source: Accenture, Invesco.

1. Economics: The data suggest we are already in a difficult transition.
2. Politics: Domestic and global tensions to stay high during this transition.

First Industrial Revolution
- Late 18th Century
  - Mechanical production powered by water and steam.

Second Industrial Revolution
- Late 19th Century
  - Mass production using division of labor, electricity and internal combustion engine.

Third Industrial Revolution
- Late 20th Century
  - Use of electronics and information technology across many areas of economic activity.

Fourth Industrial Revolution
- Early 21st Century
  - Use of digitization, data, artificial intelligence, cyber-physical systems and automation across economic sectors and regions.
Cycles, Shocks drove Unemployment – until IR 3.0 and 4.0
UK and US unemployment failed to rise in three industrial revolutions
over three centuries – but rose in the mid-1970s, going into IR 4.0

- Changes in unemployment have been associated with economic cycles. Sustained surges in unemployment have accompanied financial crises and economic depressions
- However, average unemployment levels rose in the mid-1970s – when DM labor market liberalization, financial and corporate deregulation, globalization and IR 4.0 all began

Is Technology Flattening the Phillips Curve?
UK Wage Phillips Curve IR 4.0 flat as pre-IR 1.0

BoE dataset for the UK back to 1036 AD; Invesco.
“Engels’s Pause” or an Engel Paradigm? Wages Diverge from Productivity Gains during IR 1.0 and IR 4.0

- Distribution of US labor share of income across income percentiles shows top 1% taking off relative to the rest and relative to productivity gains
- Median and Average Hourly Compensation severely lags productivity gains; effect exacerbated when divergence between producer prices and consumer prices is considered

The Rich Get Richer, and Stay Richer:
The “Great Gatsby Curve”
Challenges to the American Dream?

Compensation of top 1% far outstrips Net Productivity gains; lines up with financial cycles

Great Gatsby Curve: Inequality breeds inequality

The heyday of globalization was associated with declining inequality across countries, and rising inequality within countries (left-hand side chart – the Branko Milanovic “Elephant Chart”) 

- Technology and disruption could dramatically skew the global distribution of income towards the top

Source: Branko Milanovic, 2012; Barclays Research; Invesco.
Whodunit – The Russians or the Robots?
Globalization and automation may be contributing to shifts in voting

Greater regional intensity of exposure to robots associated with a shift from Romney in 2012 to Trump in 2016

Vote shift less pronounced in relatively high-skill, high-education, high-income US states

Are Globalization and IR 4.0 already changing the geo-political economy of the West?
  – Similar shifts in geographic/socio-economic voting patterns in, e.g., Brexit, the Italian elections

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Growth, Inflation and Policy

Industrial Revolutions 1.0 – 4.0

Trade War & Geo-Economics: United States Uniquely Positioned to Extract Concessions

Tech War & Geopolitics

The Future of the EU, EZ and EM

Conclusion – Macro & Markets

Appendix
America First in Barriers to International Trade?

- Of all major economies, the United States has been the most open to trade, and yet also the least dependent upon trade

Source: World Trade Organization; Crowley; OurWorldInData.org; Invesco
America First, China Second, then Europe, Japan. EM Last…
US listed-firm revenues are more domestic than trading partner firms

70% local
- US firms least exposed to global revenue sources across major economies
- US firms least exposed to EM of all major economies
- US economic exposure is also lowest when factoring in that 70% of US GDP is generated by SMEs, many of which are domestic

America First in Extracting Concessions from Trading Partners?
The United States is the world’s only consistent, large importer
Rest of the World needs US to underpin free trade, or everyone loses

- Other deficit economies – UK, Australia, EMs – have far smaller, more variable deficits
- The idea of surplus economies coming together to sustain globalization without the US is a “fallacy of composition” –
  - The world economy simply would no longer add up; there would be a deflationary shortfall in demand

Source: IMF WEO Database, Macrobond, Invesco as of September 2019.
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Tech War & Geopolitics:
The keys to the Middle Kingdom, the Republic or the World?

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Appendix
China is rapidly taking the global lead in robot usage

- China’s use of robots is already taking off, and is expected to continue to lead other major economies

The Keys to the Middle Kingdom, the Republic or the World? 
China’s Belt-and-Road Initiative would re-integrate Eurasia and Africa

- Primacy in Eurasia is a central tenet of geopolitical and geo-economic influence for many US geo-strategists
- US insecurity about China’s rapidly rising economy, technology and global influence are likely to persist
- Such insecurity is likely to be shared by other major economies and would-be great powers

Source: BRI Website; Deloitte and the Lowy Institute; The Grand Chessboard by Zbigniew Brzezinski; Invesco as of January 2018.
Trump Links Trade and Investment to NATO
Germany as a “captive” of Russia

- US, UK only NATO members to exceed 2% of GDP in defense spending and 20% of defense spending on equipment
- Other NATO defense programs smack to Trump of jobs / social security programs, and of an American transfer…
- Hence, calls for more “burden-sharing” – a view expressed by every US president since JFK in the 1960s

Source: NATO, Besch, Invesco as of July 2018.
Geopolitics can change Geo-Economics
Trade shift – from comparative advantage to “You’re with-us-or-against-us”

Share of imports from colonies and spheres of influence, % of total

1.3-2x rise
- Trade war during the Great Depression led to significant trade diversion
- Competitive devaluations, tariffs, non-tariff barriers caused trade to shift along political axes, away from comparative advantage
- Trade diversion along geopolitical fault lines would imply greater home bias and political selectivity than a more fully open world economy enjoying stability in trade barriers

Source: League of Nations; Oxford Economics; Invesco as of September 2018.
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The Future of EU, EZ and EM:
- UK: Brexit calling
- EZ: From convergence, via divergence to diversity and variability
- EM: Threats to the catch-up growth model

Conclusion – Macro & Markets

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Brexit: Managing the Rising Risk of No-Deal
Higher trade barriers; lower human/financial/corporate capital inflows: Weaker growth and a shift in policy focus to (re-)distribution

Brexit options, ranged from negative (left) to positive (right) for growth, sterling and credit and equity

UK import tariffs from the EU27 post No Deal (%)*
- Tariff free: 82%
- Subject to tariff <=10%: 13%
- Subject to tariff >10% or non-ad valorum tariff: 5%

EU27 import tariffs from the UK post No Deal (%)*
- Tariff free: 45%
- Subject to tariff <=10%: 6%
- Subject to tariff >10% or non-ad valorum tariff: 49%

No Deal Brexit Real GDP stress test*

EZ Divergence: From Private-Sector to Public-Sector Imbalances


Note: TARGET 2 is the real time, gross settlement system of the Eurozone.
The Sum of All Fears: Mass Unemployment?
“Premature De-industrialization” in EM countries and high exposure to automation in global labor markets

- IR 4.0 is a challenge to the traditional emerging market “catch-up” model of industrialization
- Automation and computerization poses unprecedented challenges for employment in both developed and emerging markets

Why Limited Catch-Up, Despite Perennial Potential?
EM countries experience mainly boom–bust cycles; DM economies – mainly business cycles

- DM economies spend a supermajority of years clocking up decent GDP growth, and a minority of years in relatively shallow recessions

<table>
<thead>
<tr>
<th>Number of countries</th>
<th>Category</th>
<th>Per Capita GDP (PPP basis)</th>
<th>Proportion of Years</th>
<th>Average Annual Growth</th>
<th>Proportion of Years</th>
<th>Average Annual Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>DM High-Income</td>
<td>US$20,000+</td>
<td>84%</td>
<td>3.9%</td>
<td>16%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>12</td>
<td>EM Upper to</td>
<td>US$15-2000</td>
<td>76%</td>
<td>5.6%</td>
<td>24%</td>
<td>-4.3%</td>
</tr>
<tr>
<td>14</td>
<td>EM Lower-</td>
<td>US$10-15,000</td>
<td>71%</td>
<td>5.3%</td>
<td>29%</td>
<td>-4.1%</td>
</tr>
<tr>
<td>37</td>
<td>EM Middle-</td>
<td>US$5-10,000</td>
<td>73%</td>
<td>5.3%</td>
<td>27%</td>
<td>-4.6%</td>
</tr>
<tr>
<td>46</td>
<td>EM Income</td>
<td>US$2-5,000</td>
<td>66%</td>
<td>5.4%</td>
<td>34%</td>
<td>-4.8%</td>
</tr>
<tr>
<td>44</td>
<td>Frontier Low Income</td>
<td>&lt;US$2,000</td>
<td>56%</td>
<td>5.4%</td>
<td>44%</td>
<td>-5.4%</td>
</tr>
<tr>
<td>Average of EM and Frontier</td>
<td>&lt;US$20,000</td>
<td>5.4%</td>
<td>-4.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- EM and Frontier (FM) growth cycles tend to be 1.5x as fast as DM; but EM and FM spend fewer years in upturns
- EM and FM tend to spend 1.5–2x as long in recessions which are on average about 2x as deep as DM countries
- The lower are per capita incomes, the more years are spent in recession – and the deeper recessions tend to be
- Causes: Macro mismanagement, structural issues, weak institutions; politicized/personalized governance
- Consequences: Most EM countries remain undiversified, far from the technological frontier, and far behind DM countries

Trade War is already causing Economic Divergence
Exposure to US / China trade tensions varies significantly…
Effects likely to show up in both trade and investment diversion

Source: LHC: Source: HSBC as at 27 July 2019. Note that Mexico, Canada and Hong Kong figures have been adjusted to appear in the scatter chart – actual numbers are shown in parentheses). RHC: Source: Datastream as at 1 August 2019.
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   From Convergence to Diversity; from Beta Domination to Alpha

Appendix
2,000 Years of Hindsight:
Three Industrial Revolutions changed the global balance of activity and power
IR 4.0 is already changing the world, all over again

- Pre-IR 1.0, demographics was destiny, population drove potential because productivity was similar everywhere
- During IR 1.0 – 3.0, the United States surged, due to size and productivity, dominating the world economy
- After the Cold War, globalization spread IR 1.0- 3.0, making the world economy multi-polar
- The 21st Century is set to be driven by IR 4.0 and its geo-economic and geopolitical implications

Rogue Nations – Peak, Plateau or Plunge?
The resurgence of (geo-)politics in all walks of policy: Focus is shifting from risk to uncertainty in markets and businesses

- Trade / investment barriers and political shifts in economic policy point to divergent growth models, potential growth rates and economic cycles
- As economic performance becomes more idiosyncratic, beta dominance will likely give way to alpha, calling for greater discrimination in investment portfolios

Source: Eurasia Group, Politics First, Top Risks 2019 (right hand side); Invesco.
Global economic cycle is becoming less synchronized. 2019 slowdown to give way to faster, but less synchronized global growth in 2020.

Country GDP growth performance (number)

Consensus GDP forecasts for 2019 and 2020 (%)*

<table>
<thead>
<tr>
<th>Year</th>
<th>IMF World Real GDP forecasts**</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>3.6%</td>
</tr>
<tr>
<td>2019f</td>
<td>3.2% (3.3%)</td>
</tr>
<tr>
<td>2020f</td>
<td>3.5% (3.6%)</td>
</tr>
</tbody>
</table>

Asynchronous Cycles across Major DM and EM Economies
An interesting world for asset allocation and country selection

Source: Invesco, as of April 2019
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Appendix:
Economic outlook
Summary

US Economy
- Still fastest growing major DM by a significant margin.
- Slowing growth from a high level as fiscal stimulus eases
- Longest modern expansion; few recessionary imbalances
- First rate cut since GFC. QT ended early
- Trump policy unpredictability creates uncertainty

Eurozone Economy
- Growth outlook challenging with Germany and Italy the laggards
- Export rather than domestic led weakness
- Political risks remain elevated
- Inflation struggling to hit target
- ECB pointing to renewed policy easing

UK Economy
- Economy struggling against Brexit uncertainty
- Consumer backdrop remains mixed
- BoE likely to normalise monetary policy slowly
- Brexit by 31 October whether deal or no-deal?

Japan Economy
- Growth remains weak relative to other major economies
- Inflation struggling to hit 2% target
- Stimulative monetary policy remains in place
- Abenomics drives change

China Economy
- Growth slowing under restrained, targeted stimulus
- Trade diversion from the US a drag on net trade, growth
- Investment growth under pressure on trade, tech rivalry
- Rebalancing to services, consumption continues

EM Economies
- Growth performance and potential under pressure
- Idiosyncratic risks weigh on a number of economies
- China stimulus focused on stabilisation – not reflation
- US$ stabilisation and a more dovish Fed helpful

Source: Invesco as at August 2019. Where Invesco has expressed views and opinions these may change.
The global macro backdrop
…and a record period of negative G10 economic newsflow

Citi Economic Surprise Indices

Source: Datastream as at 1 August 2018.
Inflation outlook

...as monetary pressures remain muted...while wage growth is only accelerating slowly...

![Graph showing OECD – Broad money supply and CPI (yoy %) and Wage growth (3mma yoy%)](image)

Source: LHC: Datastream as at 1 August 2019. RHC: Source: Datastream as at 1 August 2019. OECD = Organisation for Economic Co-operation and Development.
US recession risk
A record US recovery…but at much slower growth rates than in previous cycles

Duration of US economic expansions since WW2 (months)

US recoveries – Real GDP (% annualised)

Avg. = 58 months

Source: LHC: NBER (National Bureau of Economic Research) as at 1 August 2019. RHC: NBER and Datastream as at 1 August 2019.
Historically an inversion of the yield curve has been the most consistent lead indicator of a recession with an average 21 month lead (10 – 34m range) over the past 40 years.

Not yet inverted this cycle, but at 12bp back close to flattest it has been (11bp).

The CLI has historically peaked on average 15 month ahead of a recession (9 - 22m range).

Currently the CLI has declined marginally from its recent peak.

Source: Datastream as at 1 August 2019. *The CLI is the composite average of the following: Average weekly hours, manufacturing; Average weekly initial claims for unemployment insurance; Manufacturers’ new orders, consumer goods and materials; Vendor performance, slower deliveries diffusion index; Manufacturers’ new orders, nondefense capital goods; Building permits, new private housing units; Stock prices, 500 common stocks; Money supply, M2; Interest rate spread, 10-year Treasury bonds less federal funds; Index of consumer expectations.
US recession risk
Near-term recession risks appear low currently (2/2)

- Unemployment has historically troughed on average 10 months ahead of a recession (2 - 17m range)
- The latest unemployment figure shows a rise from cyclical low of 3.6% to 3.7%.

- The CCI has historically peaked on average 15 month ahead of a recession (6 - 22m range)
- Currently the index is rising and close to cycle highs

Source: Datastream as at 1 August 2019.
2019 Unlikely to Repeat 2017 Synchronized Rebound, even if 2018 was Reminiscent of 2015-16
Invesco FI NowCasts: Slow growth, inflation; mixed financial conditions

Source: Invesco as of April 2019
Worldwide Slide in Trend growth – Friend or Foe?
Declining & diverging trend growth: especially DM, less EM

US Potential (%)

China Potential (%)

EZ Potential (%)

India Potential (%)

Source: Invesco as of December 2018
Positive developments?
Markets expecting more easing by major Central Banks, especially the Fed, but no balance sheet change is on the agenda – yet

**Source:** LHC: Bloomberg as at 1 August 2019. *US – USD OIS Forward Swap 1y 1m minus US Fed Funds Effective Rate, Japan – JPY Forward Swap 1y 1m minus Bank of Japan Estimate Unsecured Overnight Call Rate, EZ – Eur Eonia Forward Swap 1y 1m minus EMMI Euro Overnight Index. RHC: Source: Datastream as at 1 August 2019. **US, EZ and Japan in US$.**
Inflation risks tilted to the downside
Moderating growth, inflation – with downside risks

Oil Prices a Drag on Headline CPI

OECD money growth, CPI moderate

Wage growth also moderate (Wage growth (3mma yoy%))

Central Banks see low inflation risk

Source: OECD, National Authorities, Bloomberg, Macrobond, Invesco as of February 2018
Three Centuries of Innovation Underpin Productivity Growth
Real Growth ~ Productivity Growth + Demographics

Global Core CPI and (Manufacturing) Wage Growth: Secular Downtrend amid Cyclical Upswings

- Global decline in core inflation precedes GFC and constrained credit growth; coincides with globalization; follows IR 4.0

Source: OECD Main Economic Indicators; Invesco. Left chart as of Q1 2017; right chart as of Q2 2017.
Three centuries, three Industrial Revolutions
Labor Share of Income falls, Real Wages weak

- Since 1980, when IR 4.0 was well underway, the US labor share of national income has been in secular decline even as real wages have been weak, which is line with IR 1.0 UK experience

US labor share of national income has been on a secular downtrend since the mid-1970s. Plus, labor income is actually overstated; includes stock/options – which should more accurately be accounted as return on capital.

US capital intensity has risen in tandem with surges in globalization – e.g., Soviet collapse; India’s economic opening; China WTO.

Hourly compensation has stagnated since 1973, even as productivity gains continued unabated

Median real wages have stagnated compared to average real wages and productivity gains

- US labor share of national income falling; overall real wages rising in line with the UK during the first Industrial Revolution

The Rich Get Richer Still?
IR 4.0 to hit jobs and income of the less educated/well-off

- Job automation likely to depend on education level required across occupations
- Job automation likely to affect low-middle compensation levels much more than low- or high compensation occupations

Changing Composition of the US Labor Market
White collar, blue collar and farming jobs already giving way to service sector

- High quality, high productivity jobs giving way to service sector jobs

Source: Visual Capitalist; Invesco as of September 2018.
Countries with Flexible Labor Markets Tend to be Early Adopters of New Workplace Technologies

- The stronger (European) Employment Protection Legislation (EPL), the less competition that labor faces from new technology/capital

Source: OECD, Invesco.
# The Road from Trade Liberalisation to Trade War

## 1 Issues

**World Trading System**
Overlapping / Interlocking global, regional, multi-lateral and bilateral arrangements – but with serious issues
- DM – low overall barriers but high targeted barriers
- EM – high overall barriers
- Field seen to be tilted to China, away from DM
  - EM self-declaration
  - MNCs worry about protection of assets, IP

## 2 Disruption

**Trump Trade Terror**
From multilateralism via bilateralism to unilateralism!
- US pulls out of TPP
- US threatens tariffs all over – China, EU, etc.
- US challenges WTO
  - Appellate chokehold
- US singles out China
- US re-does NAFTA
  - Canada dairy sector
  - China “poison pill”

## 3 History

**We have seen this before**
Successive globalization episodes started after wars and ended with conflicts
- Raising trade barriers lowers growth
  - Directly via trade
  - Financial conditions
- Closing down the world economy lowers growth
  - Directly via trade
  - Financial conditions
- Reducing trade barriers once raised takes years

## 4 Endgame

**America First?**
US holds trump cards
- Major deficit economy
- Largest, most sustained bilateral trading partner
- Lowest tariff barriers yet most closed economy, closest to self-sufficiency
  - Water
  - Energy
  - Technology
  - Capital – financial, physical, human
  - Only true market for goods, services, labor; even for corporate control

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Source: Crowley; Invesco.
### Table: Trade Protection Rates

<table>
<thead>
<tr>
<th>Country</th>
<th>MFN simple average</th>
<th>WTO binding rate simple average</th>
<th>Products binding coverage</th>
<th>Products with tariffs over 15%</th>
<th>Products binding rates over 15%</th>
<th>Maximum MFN applied rate</th>
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<tbody>
<tr>
<td><strong>G20 High-Income DMs</strong></td>
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<tr>
<td>Australia</td>
<td>2.7</td>
<td>10</td>
<td>97</td>
<td>0.1</td>
<td>13.4</td>
<td>140</td>
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<tr>
<td>Canada</td>
<td>4.2</td>
<td>6.8</td>
<td>99.7</td>
<td>6.8</td>
<td>7.3</td>
<td>484</td>
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<td>EU</td>
<td>5.5</td>
<td>5.2</td>
<td>100</td>
<td>5.1</td>
<td>4.8</td>
<td>511</td>
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<td>Japan</td>
<td>4.9</td>
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<td>99.6</td>
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<td>16.6</td>
<td>94.6</td>
<td>10.4</td>
<td>20.5</td>
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<td>United States</td>
<td>3.4</td>
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<td>100</td>
<td>2.7</td>
<td>2.7</td>
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<td><strong>G20 Middle-Income EMs</strong></td>
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<tr>
<td>Argentina</td>
<td>13.4</td>
<td>31.9</td>
<td>100</td>
<td>36</td>
<td>97.8</td>
<td>35</td>
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<tr>
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<td>31.4</td>
<td>100</td>
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<td>96.4</td>
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<td>China</td>
<td>9.9</td>
<td>10</td>
<td>100</td>
<td>15.6</td>
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<tr>
<td>India</td>
<td>13.5</td>
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<td>19</td>
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<td>Indonesia</td>
<td>6.9</td>
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<td>96.6</td>
<td>1.7</td>
<td>90.7</td>
<td>150</td>
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<td>15.7</td>
<td>98.7</td>
<td>210</td>
</tr>
<tr>
<td>South Africa</td>
<td>7.6</td>
<td>19</td>
<td>96.1</td>
<td>20.7</td>
<td>39.6</td>
<td>1000</td>
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<tr>
<td>Turkey</td>
<td>10.8</td>
<td>28.6</td>
<td>50.3</td>
<td>13.6</td>
<td>28.9</td>
<td>225</td>
</tr>
</tbody>
</table>

Source: Bown & Crowley, 2016; Invesco.

NB: The Bown-Crowley work did not cover Russia. Russia significantly lowered trade barriers after the Soviet collapse and today has the same general structure as the other major EMs, though the effectiveness of Russia’s trade policies has varied widely through the post-Soviet era.
The China Syndrome: US import diversion from other countries
WTO caused substantial trade and investment diversion –
Not simply a US competitiveness problem, as Chinese officials argue

Tenfold

- Globalization 3.0, between the Soviet collapse and the GFC, US imports rose by 5% of GDP
- China’s market share in US imports rose tenfold
- Imports from the Rest of the World and from China followed a similar path through China’s WTO accession and the post-Tech Bubble recession
- Between the 2001-02 recession and the GFC, China gained US market share rapidly

Source: Lyon & Waugh Pro-Market Blog, Stigler Center, University of Chicago Booth School, 2018; Invesco.
The China Syndrome: US Manufacturing Employment Collapsed as China’s Import Penetration Ratio went Ballistic

40% drop

- US manufacturing output has stayed roughly stable at ~20%+ of GDP
- However, manufacturing employment has collapsed to just over 8% of the civilian workforce
- The shift of manufacturing to greater capital-intensity reflect the Fourth Industrial Revolution as well as the China Syndrome…

Ratios: US Manufacturing Employment to Population; China’s Share of Imports

Source: Autor, Dom and Hanson, Local Labor Market Effects of Import Competition in the United States, American Economic Review 2013; Bown & Crowley, 2016; Invesco.
Comparing Three Waves of Globalization
Trade more important than migration or finance today; and much more than in the late-19th or mid-20th Centuries

- Three major waves of globalization, bounded by geopolitical conflict: US Civil War – World War I; after World War II; after the Cold War
- It used to be more efficient to move labor and funding; now it’s more efficient to move goods and services, and corporate capex

Source: OurWorldInData.Org; Oxford Economics; Penn World Tables/Macrobond; Klasing and Milionis, 2014; Ortiz-Ospina & Beltekian; Broadberry & O’Rourke The Cambridge History of Modern Europe, Volume 2; Invesco.
The China Syndrome: The most open continental economy ever

China export ratio has been in line with small, open Germany…

Russia had comparably high trade ratios only during economic crisis

- Export Shares of GDP have been volatile over time but have trended up in recent decades around the world
- US exports are a relatively low share of GDP
- China is the only large, continental economy with sustained X/GDP > 20%

Source: CEPII Two Centuries of Bilateral Trade and Gravity Data 1827-2014; OurWorldinData.org; Invesco.
Globalization 3.0 Benefitted Asia and Europe more than others

Liberalizing trade has been the single most effective economic reform

China has been the standout beneficiary of Globalization 3.0

- Asia, especially China, and Europe have been the main beneficiaries of trade liberalization since WWII
- China is the only major economy with rapid growth in pc GDP and X/GDP
- China’s trade liberalization and other economic reform began in 1978; India, 1991
- US, LatAm and Africa benefitted far less
- Has lack of other reforms held back other regions – or do Europe, Asia enjoy unfair trade advantage?

Real per capita growth aligned with trade liberalization in Globalization 3.0, 1945-2014


NB: Bubbles represent relative population, reflecting the relationship between trade opening and productivity growth (rather than sheer economic size or growth)
Road Map: Skirmishes to Trade War; Allies to Rivals/Adversaries

Trump tough trade talk disguises chicken-feed impact on allies; The bulls eye of tariffs is clearly China – unless Trump hits the EU too

South-South Trade in line with North-North Trade during Globalization 3.0

Proportion of trade across per-capita national income categories, % of total trade

30%, 2012

- 30% of global trade was between high-income DM economies and between low-/middle-income EM and frontier economies
- “South-South” trade now exceeds “North-South” and “South-North” trade
- These data reflect trends in 2012 and have likely shifted since then:
  - The EZ crisis boosted North-North trade, as intra-EZ imbalances collapsed
  - China’s rapid growth and rebalancing has boosted both South-South and North-South trade

Source: Fouquin and Hugot, CEPII 2016.

NB: The “North” or Rich Countries comprise the United States, Canada; Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Switzerland, the United Kingdom; Japan and Australia
Globalization 3.0 – Boosting Two-Way Trade across Countries
Economic integration has both increased and widened

50%; 20%

- Half of all possible country trading pairs are bilateral
- Non-trading pairs have fallen significantly
- Unilateral – one-way trade pairs are roughly stable at about one-fifth
- These shifts reflect both an open world economy and the spread and shift of cross-border supply chains
- Widening trade and investment reflect dynamic comparative advantage – and international trade preferences under WTO; and domestic structural and industrial policies

Source: Fouquin and Hugot, CEPII 2016.
Non-Tariff Barriers Add Significantly to Low Explicit Tariffs

Source: Bown & Crowley, 2016; Oxford Economics; Invesco.

15-20%

- Economies to which US exports are significant – the EU and Mexico – have high non-tariff barriers that increase low tariff rates to the 15-20% area
- US would argue that its NTBs represent offsets to high effected protection by its major trading partners, especially NAFTA, Japan and China
- China has lower non-tariff barriers as well as lower proportions of its imports subject to NTBs

Non-Tariff Barriers of Selected Major Trading Nations, %

- Import coverage of temporary trade barriers, cumulative 1995-2013
- Core non-tariff barriers, tariff equivalent
Robot Usage Largely a Function of Wages
South Korea is an outlier; China taking off

- Real manufacturing wages in China have taken off; so has robot usage
- China’s national development goals include plans to attain the technological frontier

Trade Diversion: Collateral Damage or (Un-)Friendly Fire – If the trade war persists, investment diversion is very likely

Supply chain contribution to value added in exports from China, % of GDP

- Taiwan
- Malaysia
- Korea
- Singapore
- HK
- Philippines
- Thailand
- Vietnam
- Australia
- Japan
- Indonesia
- Germany
- NZ
- India
- Brazil
- Italy
- UK
- France
- US

2-8% of GDP

- China’s Asia supply chain, long a source of strength within EM, now a risk
- Commodity price, terms of trade, financial conditions shocks matter hugely
- Japan most exposed then Germany, within DM
- Other EMs much less exposed – at least directly


NB: Trade Ratios can introduce red-herring analysis – comparing apple and origin: X and M are gross revenue numbers reported by firms to their national customs and tax authorities. GDP is a value added number derived by statistical agencies using national accounts methods.
Tariffs could rise much further in a traditional Trade War
Trump tariffs and coverage take the world back to 2010 levels…

**Trump Tariffs in Context: Barely Scratching the Surface, %**

- Tariffs have been reduced since their highs in the interwar period through successive rounds of multilateral trade talks
- Tariffs have generally gone up or down for many years at a time
- Even if Trump threats are implemented, tariffs would be about 1/8th of their historic, interwar peak

3% v 23%

Source: Coatsworth-Williamson; World Bank World Development Indicators; Oxford Economics; Macrobond; Invesco as of September 2018.
History Lessons from the [Last] Great Depression: Global financial conditions tightened in a sustained manner; Trade wars begat currency wars, which begat a big shooting war...

Successive legs in stock markets reacted to shifts in trade policy in the 1930s

- Global stock markets in the late 1920s were driven by trade policy and politics
- Hope rallies accompanied hints that Smoot-Hawley might be restricted to agriculture or be vetoed
- Correlations across risky and growth-geared asset markets were high
- There were successive, large legs down while Great Britain held to the gold standard; the United States the Gold Clause

Challenges - record levels of negative yielding bonds

Source: LHC: Bloomberg as at 1 August 2019. RHC: Bloomberg as at 1 August 2019.
Challenges – unless yields keep falling, returns will be negative

Global yield curves continue to converge towards zero

Source: Bloomberg, as at 20 August 2019.
Broad indices provide broad – and often unintended exposures.

JP Morgan EMBI Global Diversified Index - Regional

- Latin America: 33.46%
- Middle East: 16.64%
- Europe: 17.93%
- Africa: 20.95%
- Dollar: 10.44%
- Oceanic: 0.09%
- Asia: 0.49%

Lebanon vs. Mexico 10yr USD Yield to Maturity (%)

- Lebanon International Bond
  - Coupon: 7%
  - Expiry: 3/23/32
  - Yield to Worst: 11.3%

- Mexico International Bond
  - Coupon: 4.5%
  - Expiry: 4/24/29
  - Yield to Worst: 3.4%

Source: Bloomberg as at 22 August 2019.
Executive Summary

Growth: Lower than expectations

- US growth data has slowed, particularly out of industrial sector. Expect manufacturing PMIs to bounce unless trade tensions persist. Consumer remains well positioned.
- EU growth still softening and should continue while Brexit, auto-tariffs and Italy loom.
- Chinese growth is slowing but consumer showing signs of stability in retail sales and credit growth. Tariffs could negatively impact growth by 1-1.2% if implemented.
- Trade developments will threaten wobbly growth picture, watch closely.

Inflation: At Expectations

- US inflation will firm somewhat (from slowing). Tariffs will add noise in 2019. Expect housing component to stabilize from slowing trend. Wages are building but not expected to hit in 2019.
- Continue to see little evidence of global inflationary pressures but Chinese policy will likely encourage higher inflation. Need to see further demand in EU for core inflation to change structurally.
- What’s next? Tariffs will cause prices to be more volatile over the next year. The trend will be harder to determine but the long-term range is not expected to breakout in a major way.

Policy: Easier than Expectations

- Fed has shown commitment to extending the cycle, expect 1 more cut in 2019. Data does not support a full cutting cycle but we could see 2 more if trade tensions persist.
- China is easing actively and expected to focus more on fiscal policy into the end of the year.
- ECB to launch QE in 2019 and cut in Q3 2019. Extensive fiscal policy is a long way off given domestic sector solid.
# Investment Themes – Q3 2019

## Rationale

### High Conviction Views

#### H1 Goldilocks - compatible but not sustainable

- Renewed central bank easing supporting new highs in risk assets and ever lower bond yields. But current pricing is unsustainable and volatility is likely to rise.

#### Global hunt for yield

- The reality of negative yielding debt is here to stay. As markets further adjust to this norm, supply/demand dynamics will create valuation distortions.

#### Brexit - the uncertainty has caught up with the economy.

- No deal risks are clearly rising. The uncertainty is increasingly weighing on the economy and a sharp slowdown could unfold. The MPC have abandoned their tightening bias and are now more likely to ease policy.

#### EM - it’s all idiosyncratic

- Global easing will support EM, and money has poured into EM assets. However, valuations have become far less compelling and structural vulnerabilities remain - our favoured idiosyncratic stories continue to offer value.

## Implementation

<table>
<thead>
<tr>
<th>Implementation</th>
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<tbody>
<tr>
<td>Low credit beta</td>
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<tr>
<td>Relative value within credit - Corporate hybrids, legacy sub debt vs broad beta</td>
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<tr>
<td>Overweight financials v non-fins</td>
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<tr>
<td>Long Credit payers</td>
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<tr>
<td>Long US inflation breakevens</td>
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<td>Long FX volatility</td>
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<td>Long AUD vs NZD/CAD</td>
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<td>Long JPY</td>
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<td>Long 30yr EUR vs 5yr</td>
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<tr>
<td>EUR SSA vs 10yr bunds</td>
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<td>Long EUR Credit vs USD Credit</td>
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<td>Long Spain and Italy vs Germany</td>
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<tr>
<td>Long Gilts vs bunds</td>
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<tr>
<td>Short UK Inflation</td>
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<tr>
<td>UK steepener</td>
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<tr>
<td>Retain select UK financial/industrial credits</td>
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<tr>
<td>Best pick hard currency EM sovereign/corporates (Ukraine, Brazil, Russia)</td>
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<tr>
<td>Favoured local rates (INDOGB, OFZ)</td>
</tr>
<tr>
<td>Long CE4 carry (-EURPLN)</td>
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</table>

Source: Invesco, July 2019. For illustrative purposes only.
Thank you
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