Regina Chi, CFA
VP & Portfolio Manager
Global Equity Team
AGF Investments Inc.

AGF INSIGHTS

FALL 2018

Deglobalization, Technology and Implications for Emerging Markets Investing

Deglobalization, Technology and Implications

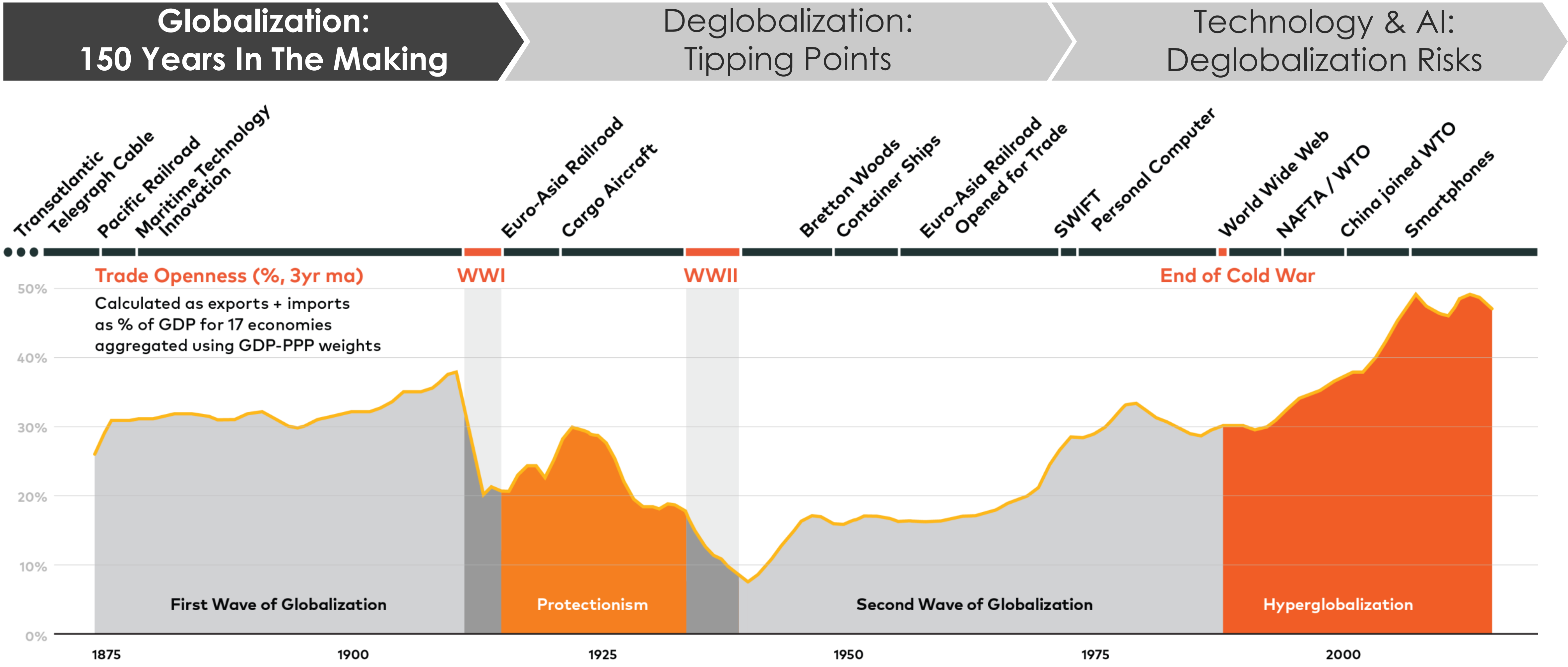
Globalization: 150 Years In The Making	Deglobalization: Tipping Points	Technology & AI: Deglobalization Risks

Our view:

- Emerging markets have been major beneficiaries of globalization. We believe a plateauing and even potential reversal of trade openness will create winners and losers within EM, but not necessarily the usual suspects.
- Technology is more likely to drive some deglobalization and result in a change in trade patterns and who participates in the global value chain. **Risks here are underappreciated.**
- Technology will also form new growth opportunities for companies to relocate production, not only because of cost but numerous other benefits, which will help boost returns over time.

Deglobalization, Technology and Implications

Two main drivers: Policy (tax & trade) and technology

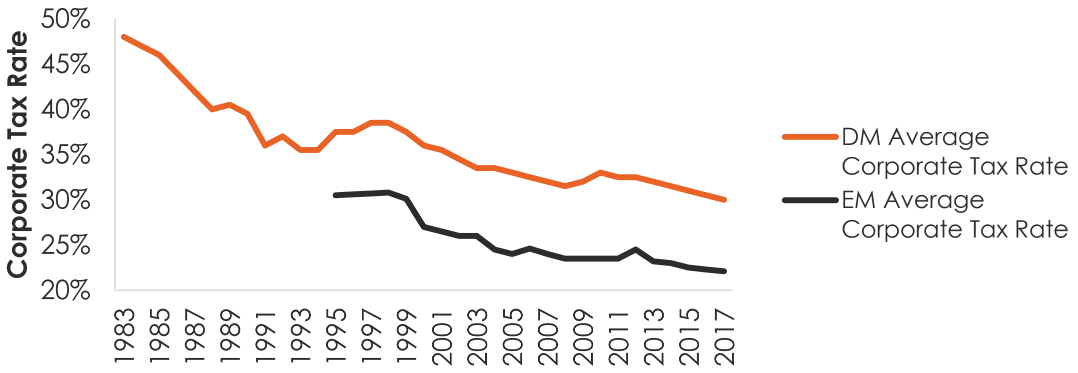


Source: NBER Macrohistory Database

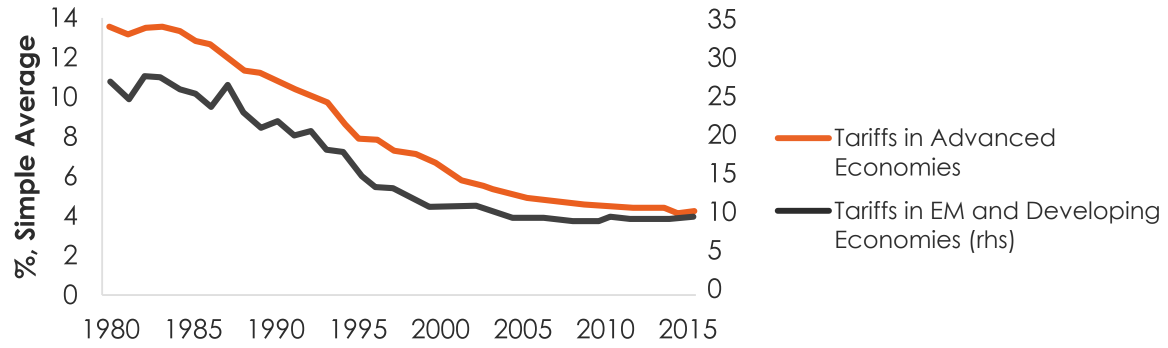
Deglobalization, Technology and Implications

Driving Forces: Lower Taxes, Tariffs, Tech and Credit

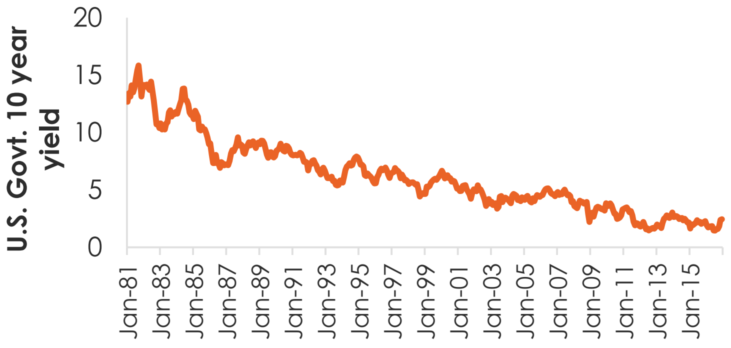
Globalization: 150 Years In The Making | Deglobalization: Tipping Points | Technology & AI: Deglobalization Risks



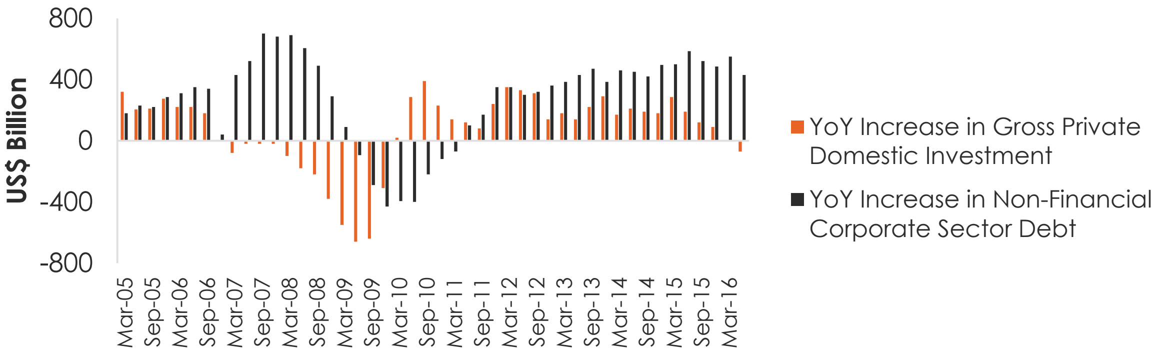
Source: KPMG, Barclays Research as of March 2017.



Source: IMF, Barclays Research as of March 2017.



Source: Bloomberg as of December 31, 2016, 4Q16.

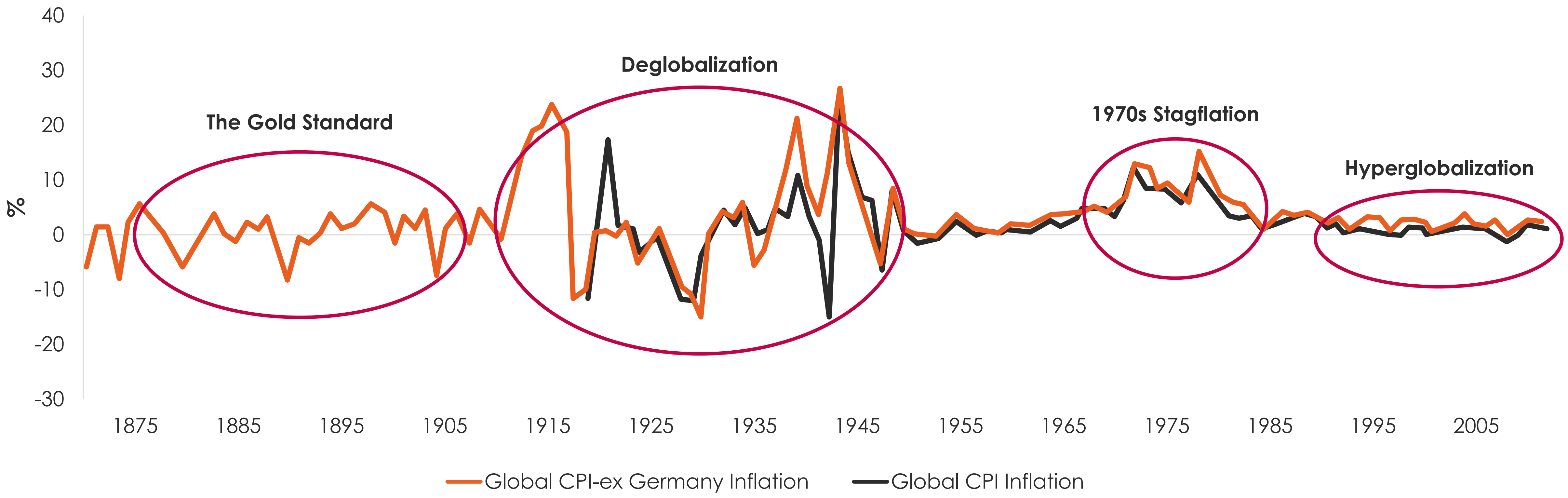


Source: ILO based on AMECO database and ILO database. March 31, 2016.

Deglobalization, Technology and Implications

Resulting in Low and Less Volatile Inflation…

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | Technology & AI: Deglobalization Risks



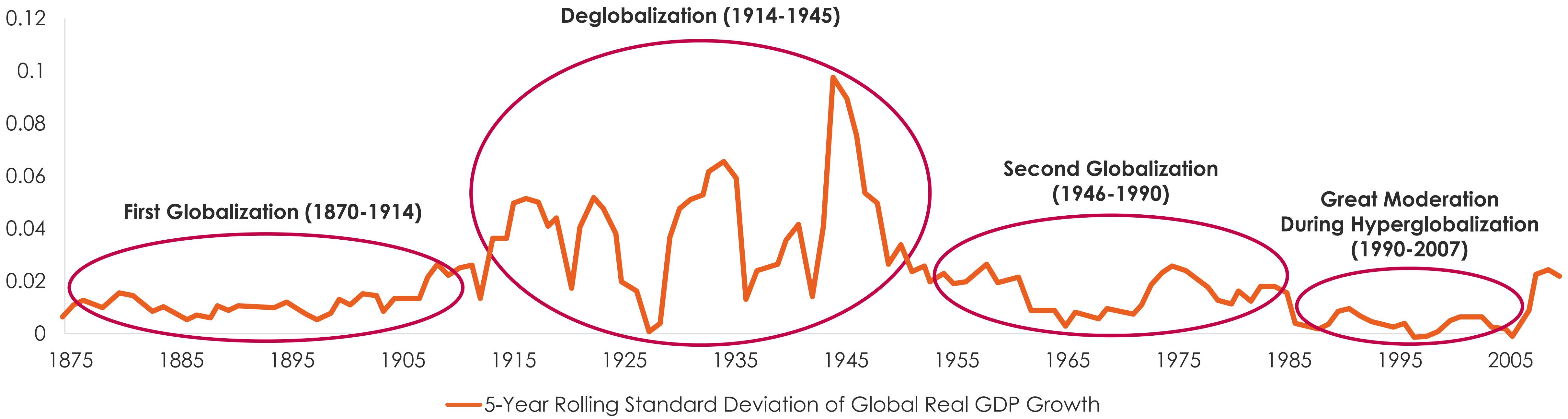
Source: Macrohistory Database, Barclays Research as of March 2017.

Deglobalization, Technology and Implications

...and Low Volatility in Growth

Globalization: 150 Years In The Making	Deglobalization: Tipping Points	Technology & AI: Deglobalization Risks

Accelerated globalization brought the Great Moderation: A period of historically low volatility in global growth

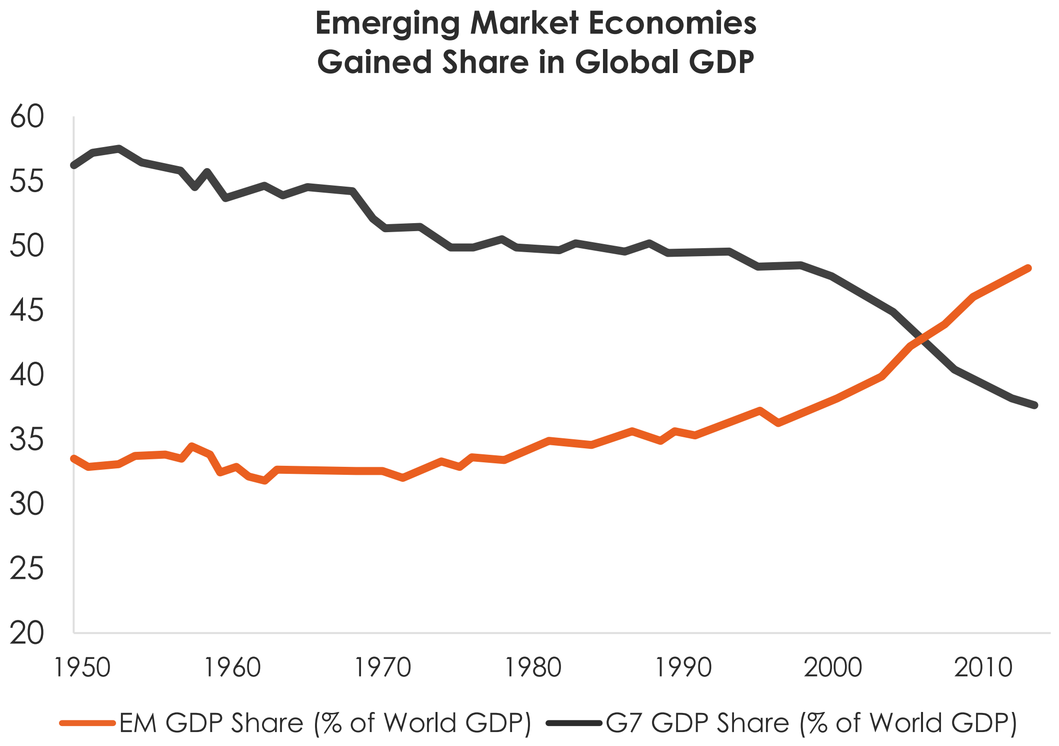


Source: Macrohistory Database, Barclays Research as of March 2017.

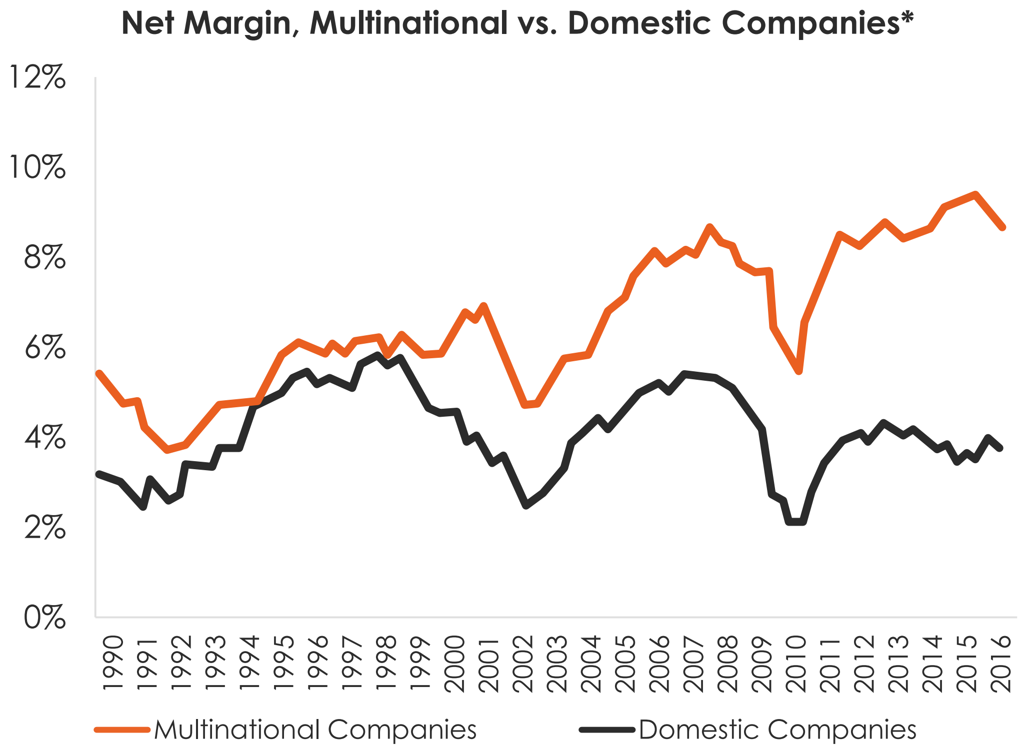
Deglobalization, Technology and Implications

Globalization Winners: EM Economies & Multinationals

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | Technology & AI: Deglobalization Risks



Source: World Economics, Barclays Research as of March 2017.



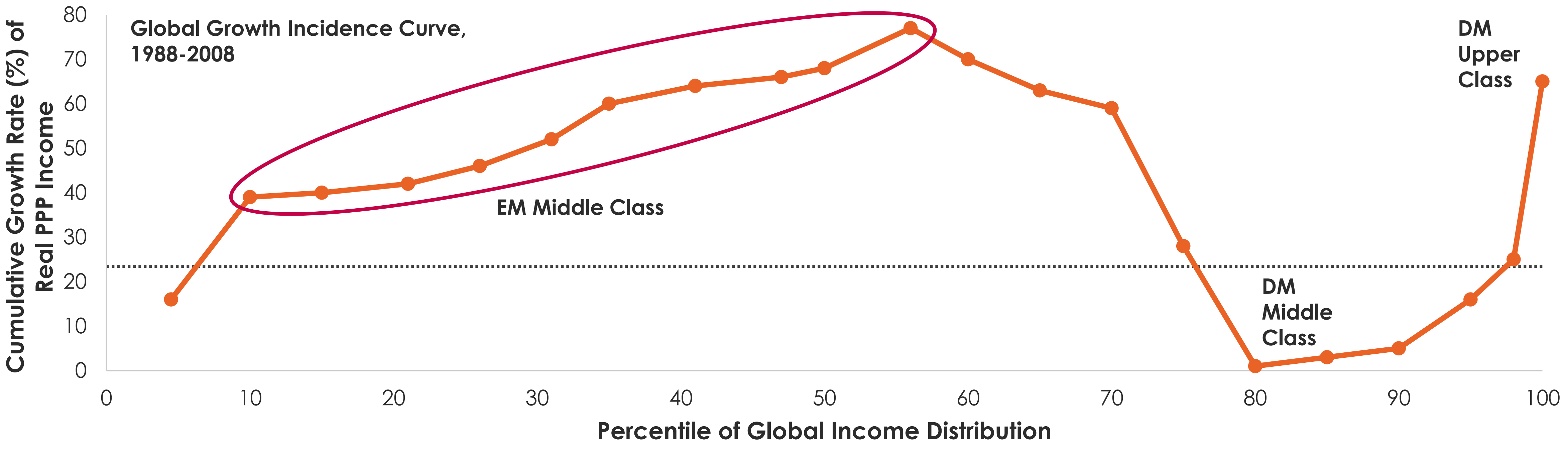
*Representative of US, S&P 500 and Russel 2000 companies. Source: Bloomberg, AGF Est as of June 2017.

Deglobalization, Technology and Implications

Globalization – Benefited EM Middle Class and Upper, with DM Middle Class Incomes Stagnating

Globalization: 150 Years In The Making | **Deglobalization: Tipping Points** | Technology & AI: Deglobalization Risks

Real incomes over 20 years, cumulative change



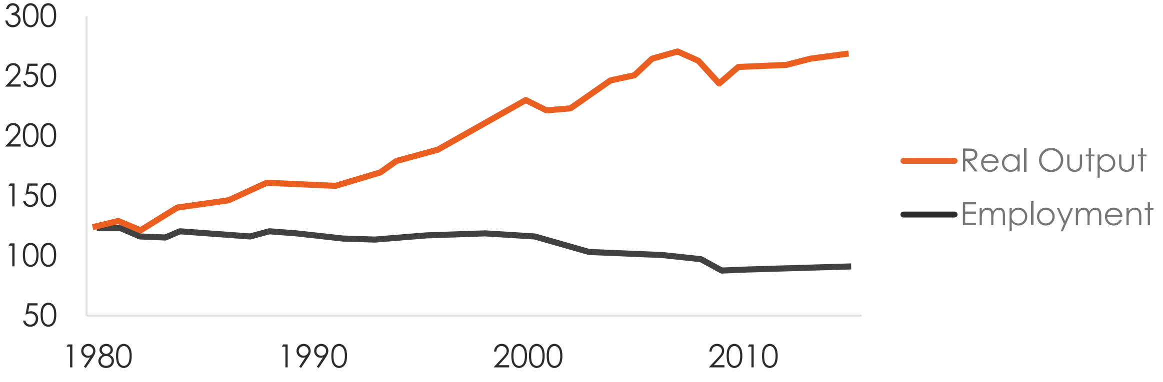
Source: Lakner and Milanovic. Data available at: http://go.worldbank.org/nwbukI3.JP0. BCA Research, December 9, 2016.

Deglobalization, Technology and Implications

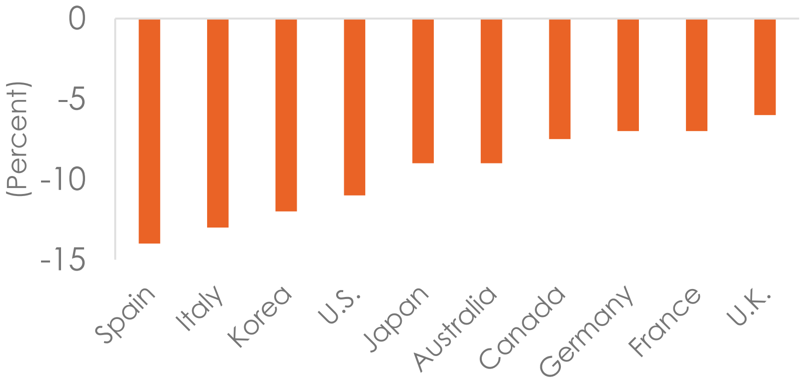
Technology & Offshoring = DM Growth Without Employment

Globalization: 150 Years In The Making	**Deglobalization: Tipping Points**	Technology & AI: Deglobalization Risks

DM Growth without employment



Labour share in DM economies fell (1970-2014)



Source Left Chart: Financial Times, March 2017. Source Right Chart: ILO based on AMECO database and ILO database, March 2017.

Deglobalization, Technology and Implications

Globalization: 150 Years In The Making	Deglobalization: Tipping Points	**Technology & AI: Deglobalization Risks**

We believe there are risks as the main winners from hyper-globalization could see a counter movement:

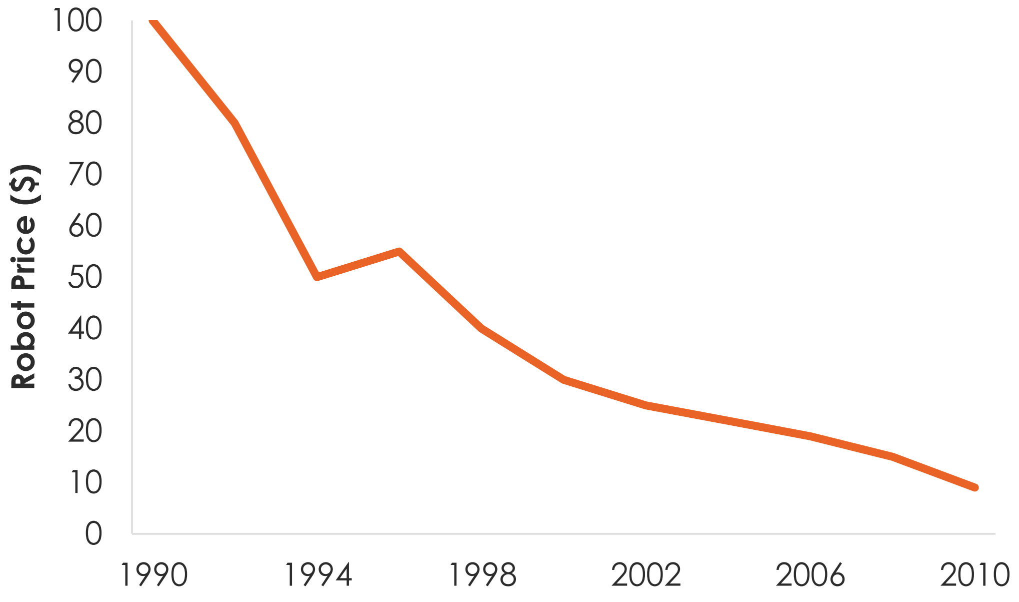
- Demographic tailwind, access to cheap labour and high exports could become a headwind
- EM economies most exposed to the global value chain are at risk of being disrupted
- Multinationals who were able to leverage Global Value Chain and wage & tax differences between regions see their advantage diminish

Deglobalization, Technology and Implications

Automation & Robotics, Still Early Stages with Plenty of Room for Growth

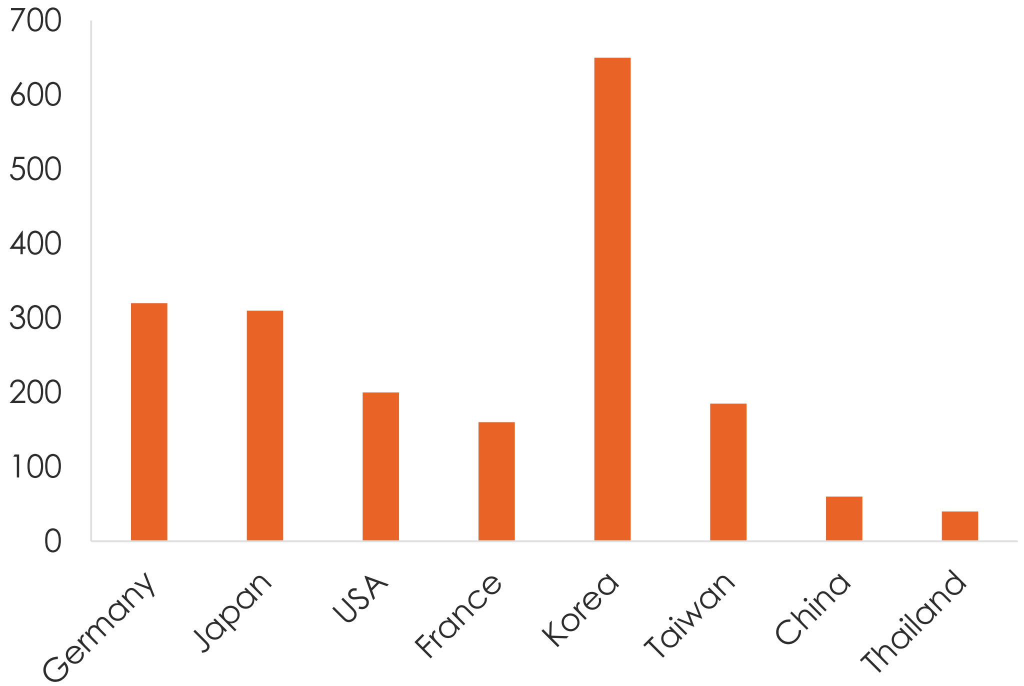
Globalization: 150 Years In The Making	Deglobalization: Tipping Points	**Technology & AI: Deglobalization Risks**

Robot Price, Quality Adjusted*



Source: BCA, Intl federation of Robotics. Jan 2018 *Log =100, Avg price in US & Europe

Density of Manufacturing Robots**



Source: BCA, Intl federation of Robotics, OECD. Jan 2018 **Number of manufacturing robots per 100k employees

Deglobalization, Technology and Implications

Technology & AI: Lowering Cost & Disrupting the Value Chain

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | **Technology & AI: Deglobalization Risks**

Factory, 500k capacity	Employees	Development time	Restocking
Adidas Speedfactory	160	2-3 months (est)	<1 week
China Avg.	1,200+	12-18 months	2-3 months

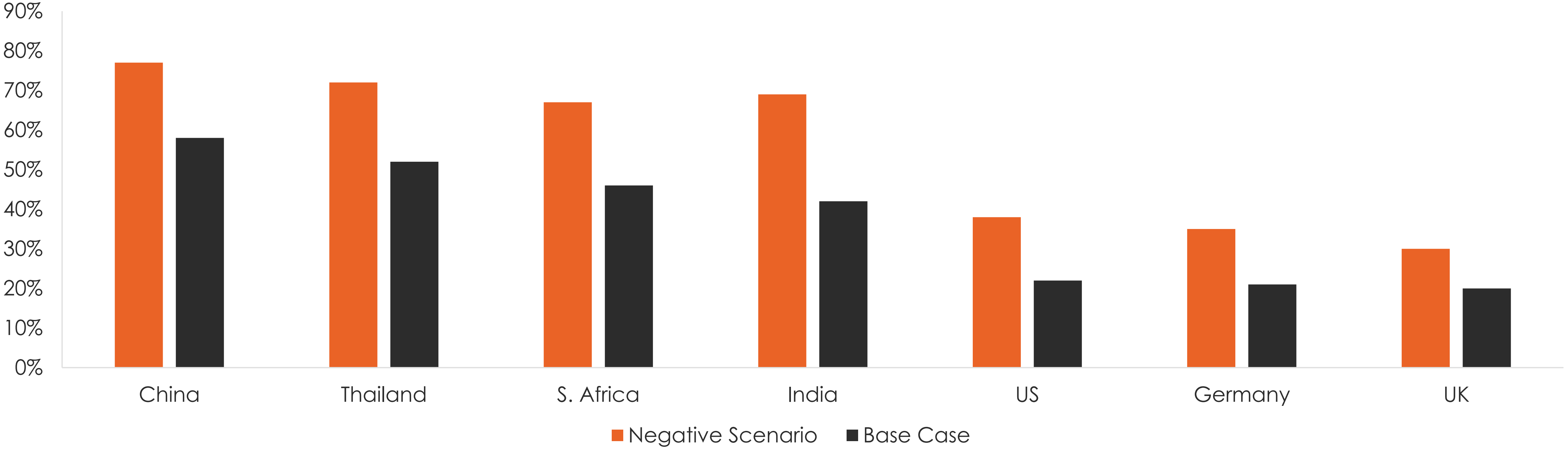
Source: Siemens, Adidas, AGF est. as at March 2017.

Deglobalization, Technology and Implications

Automation & AI: Disproportionate Impact on EM, DM Losses May be Offset by Repatriation

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | **Technology & AI: Deglobalization Risks**

% of jobs at risk of automation*



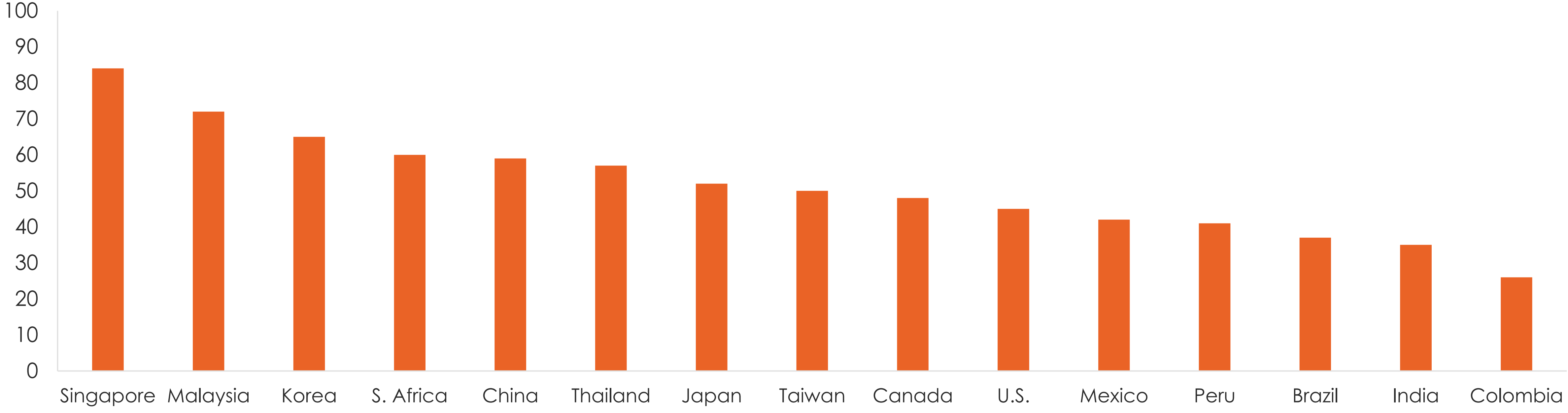
*Adjusted for wage rates and slower pace of tech adaptation. Data are gross numbers and do not include new job adds from automation. Source: World Bank as at March 2017.

Deglobalization, Technology and Implications

Most at Risk: Global Value Chain could be Disrupted

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | **Technology & AI: Deglobalization Risks**

Participation in global value chain*
EM Asia appears most exposed



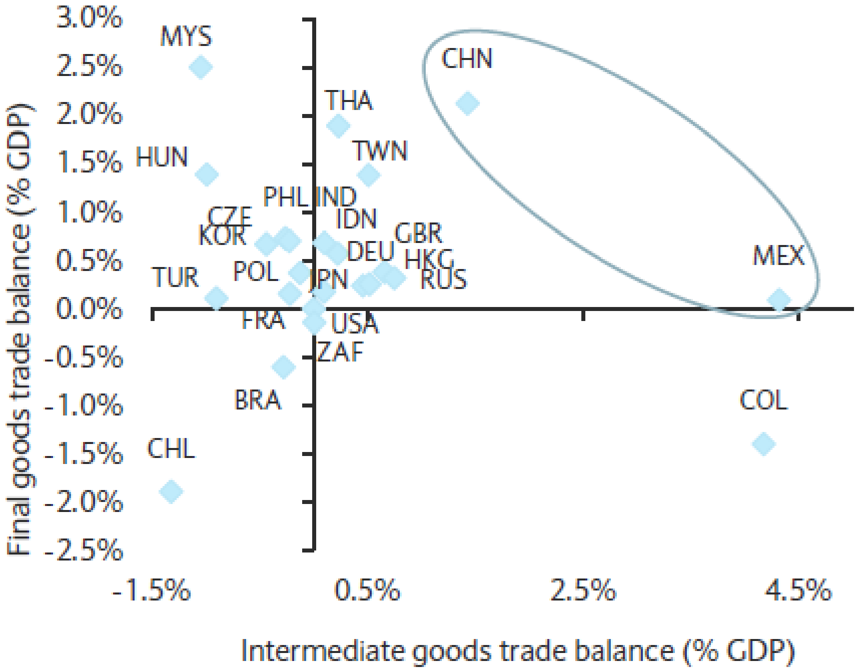
*Foreign value added used in country's exports (upstream) plus value added supplied to other exports (downstream) divided by total exports. Source: Unctad, Barclays, AGF as of March 2017.

Deglobalization, Technology and Implications

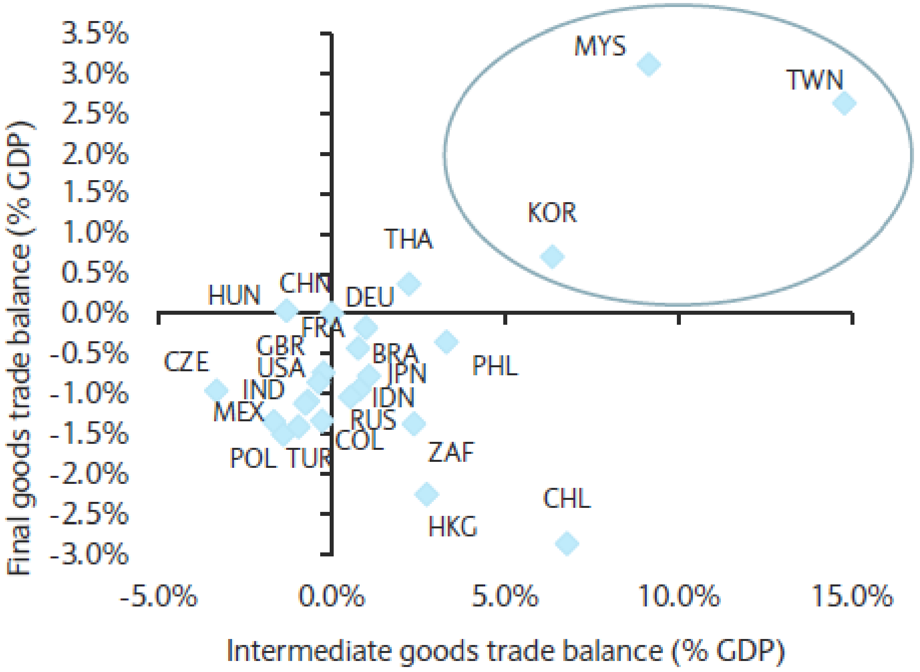
Most Exposed to the U.S. Deglobalizing, Directly & Indirectly

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | **Technology & AI: Deglobalization Risks**

Bilateral Trade with U.S. in Final and Intermediate Goods



Bilateral Trade with China in Final and Intermediate Goods



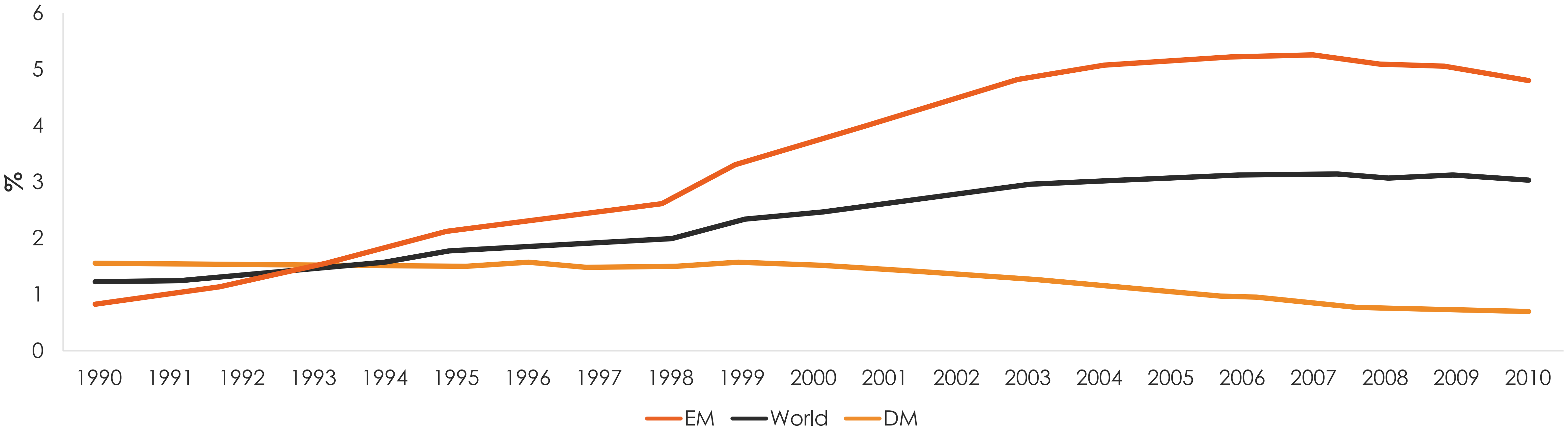
Source: OECD, Barclays Research as of March 2017.

Deglobalization, Technology and Implications

In its Favour, EM Leads in Productivity Gains and There's Still Plenty of Upside

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | **Technology & AI: Deglobalization Risks**

Labour Productivity Gains EM vs. DM*

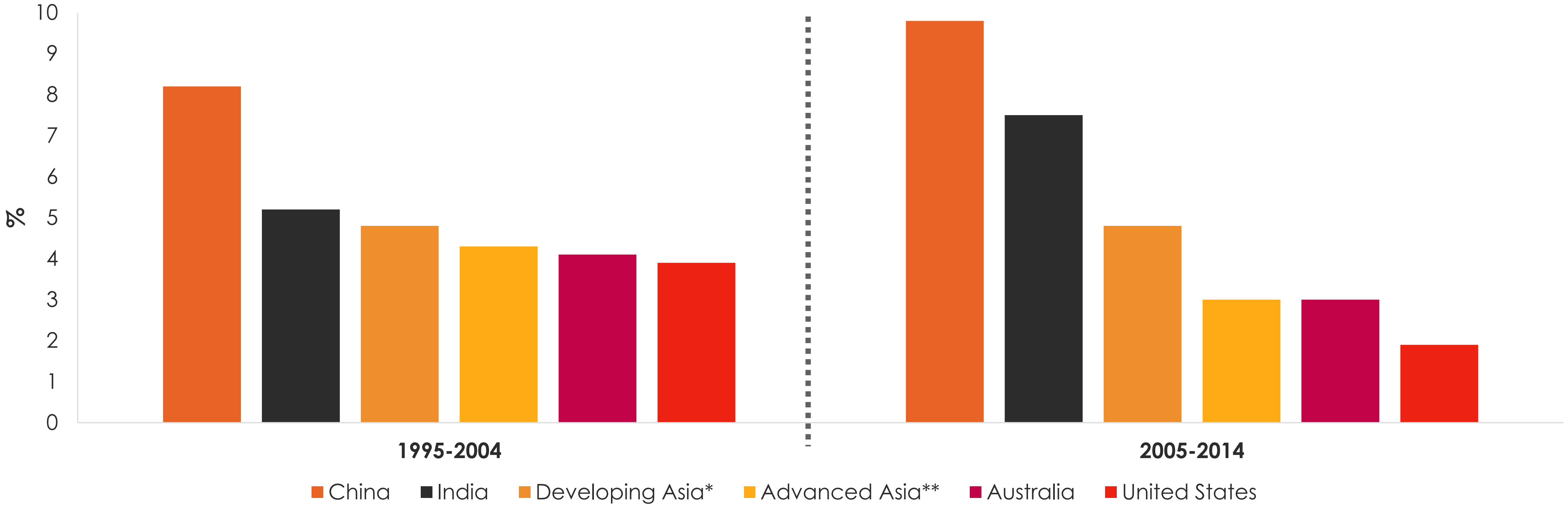


*Data is real PPP adjusted GDP per person employed, data is smoothed. Source: Conference Board Total Economy Database, Econ Weekly as at March 2015.

Deglobalization, Technology and Implications

EM Rate of Domestic Consumption Growth Expanding vs. DM

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | **Technology & AI: Deglobalization Risks**



Data is real household consumption annual growth. *Indonesia, Malaysia, Philippines, Thailand. **HK, Singapore, Korea, Taiwan. Source: IMF, Thompson Reuters as at March 2016.

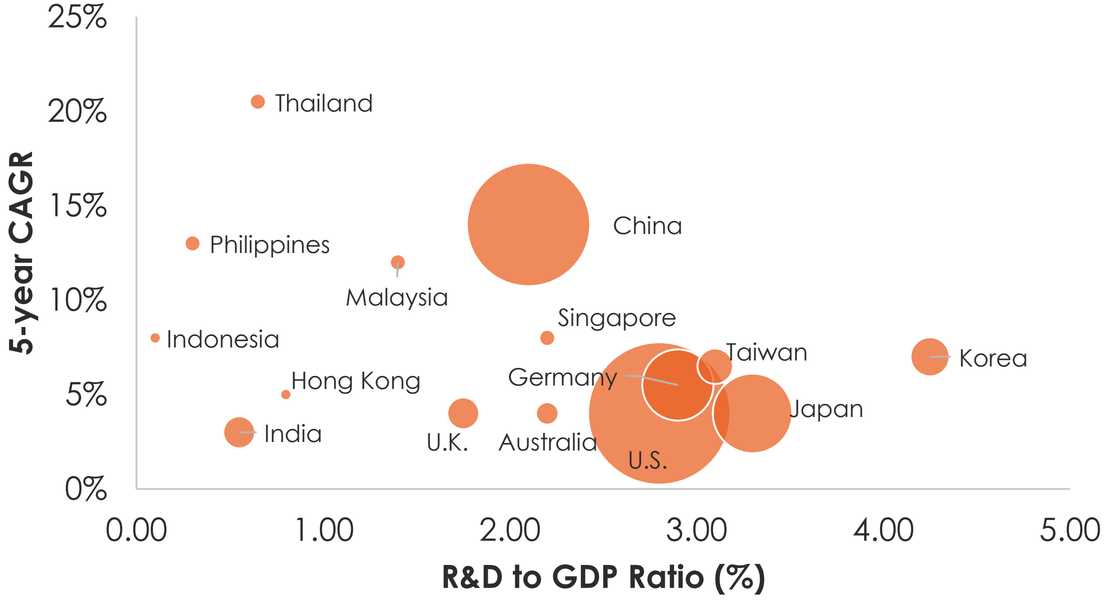
Deglobalization, Technology and Implications

Certain EM Countries are Quickly Catching up in Technology & Innovation

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | **Technology & AI: Deglobalization Risks**

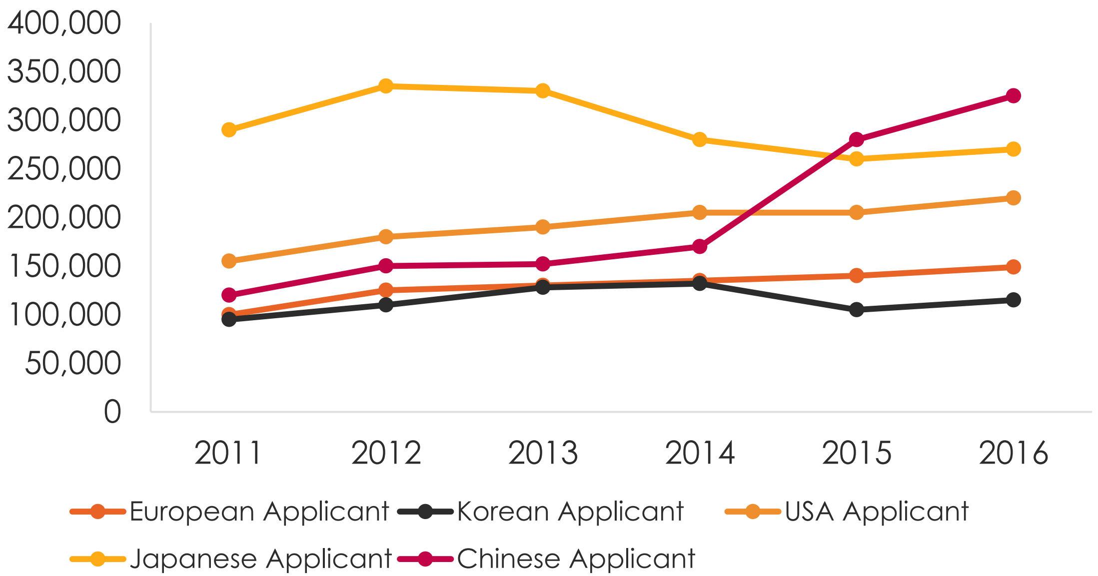
R&D Spend to GDP

Bubble Size: R&D Volume US$B PPP



Patents Granted*

CAGR During 2011-2016
EU: +8%; JP: -1%; KR: +4%; CN: +22%; US: +7%



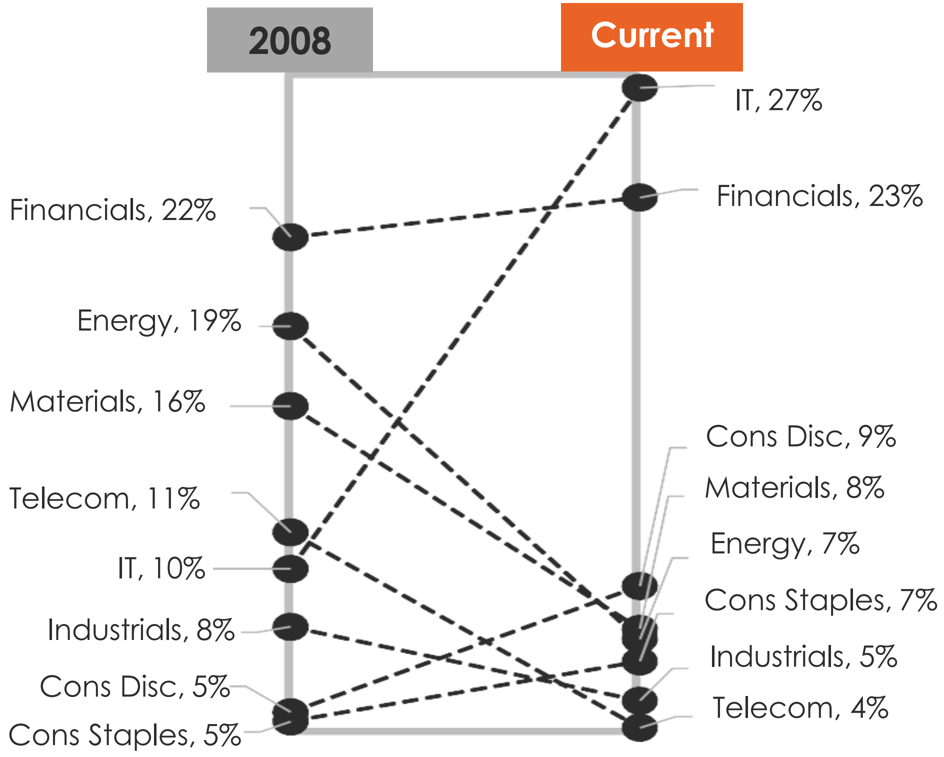
Source Left Chart: OECD, UBS as of Sept 2017. Source Right Chart: IP5 Offices, UBS as of Sept 2017. *Includes only IP5 Office patents granted data.

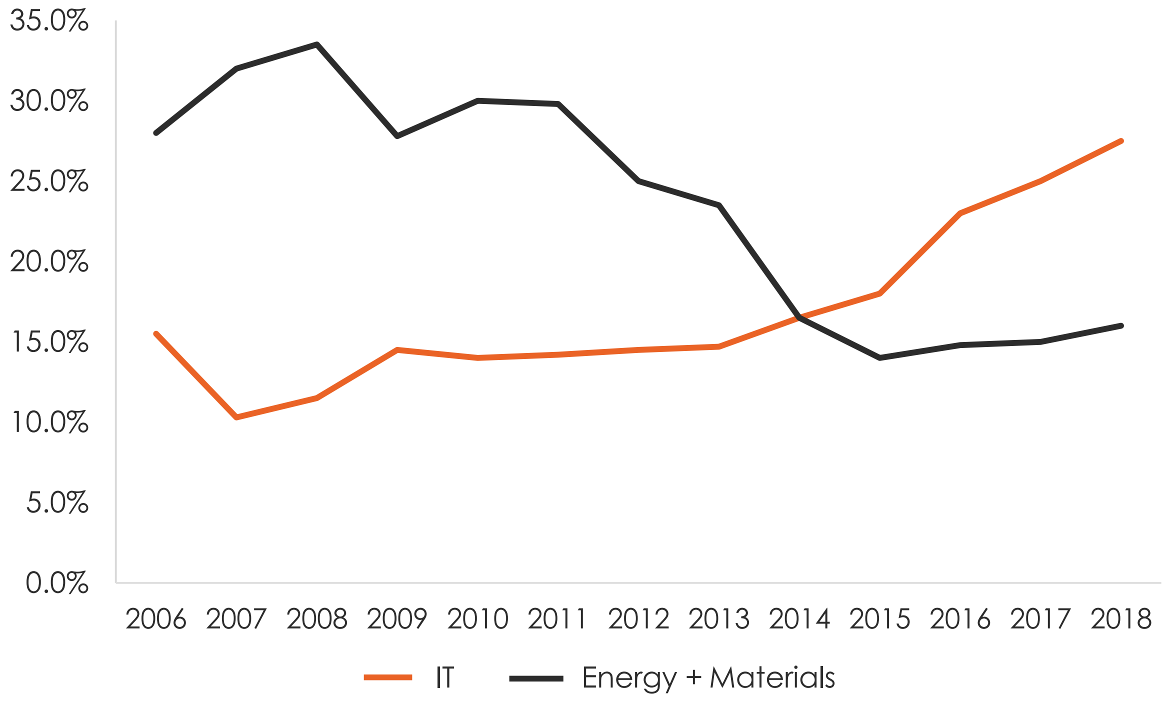
Deglobalization, Technology and Implications

Driven by Innovation, IT is Now a Bigger Weighting in EM at the Expense of Energy and Materials.

Globalization: 150 Years In The Making | Deglobalization: Tipping Points | **Technology & AI: Deglobalization Risks**

MSCI Emerging Markets Index – Sector Weighting





Source: MSCI, Thomson Reuters Datastream, HSBC, August 2018.

Conclusion

Reversal of globalization may not mean return to previous norms of winners and losers, and tech may upend historical precedent.

Potential Winners / Less Impacted:

- Countries with strong domestic consumption and highly-educated labour force
- Companies with strong IP / Patents (Tech, Pharma & Industrial)
- Services or strong brands with limited substitutes (Health Care)
- Basic materials and agriculture

At Risk:

- Global Value Chain countries and companies, especially low-tech manufacturing
- Multinationals, especially those dependent on Global Value Chain, tax, and labour arbitrage
- Companies with weak brands dependent on scale
- Shipping and global distribution companies

Company Attributes We Look For:

High R&D spend, continue to invest in IP and patents

Balance sheet strength, ability to quickly invest in **new technologies**

Upside to asset turnover and ROIC, **ability to consistently earn** an EVA of CFROI > WACC

Avoid companies with **disruption risk** either to new tech or Global Value Chain disintermediation

Disclaimers

Commissions, trailing commissions, management fees and expenses all may be associated with mutual fund investments. Please read the prospectus before investing. Mutual funds are not guaranteed, their values change frequently and past performance may not be repeated.
The commentaries contained herein are provided as a general source of information based on information available as of August 31, 2018 and should not be considered as personal investment advice or an offer or solicitation to buy and / or sell securities. Every effort has been made to ensure accuracy in these commentaries at the time of publication, however accuracy cannot be guaranteed. Market conditions may change and the manager accepts no responsibility for individual investment decisions arising from the use or reliance on the information contained herein. Investors are expected to obtain professional investment advice

References to specific securities are presented to illustrate the application of our investment philosophy only and are not to be considered recommendations by AGF Investments Inc. The specific securities identified and described in this presentation do not represent all of the securities purchased, sold or recommended for the portfolio, and it should not be assumed that investments in the securities identified were or will be profitable.
‡The All World Tax Advantage Group is a mutual fund corporation that currently offers approximately 20 different classes of securities. In addition to fund diversification by investment style, geography and market capitalization, a key benefit of investing in any of the classes within the group is the possibility of sharing incurred expenses (and losses) of the combined structure potentially offsetting income earnings to minimize chance of a dividend declaration. While the articles of AGF All World Tax Advantage Group Limited provide authority to make distributions out of capital and AGF All World Tax Advantage Group Limited intends both to calculate capital in the manner contemplated by the corporate statute for corporations that are not mutual fund corporations and only to declare distributions out of capital if there is sufficient capital attributable to a series, no definitive case law exists to confirm that a mutual fund corporation may make distributions of capital and how it is to be calculated. Further, no advance income tax ruling has been requested or obtained from Canada Revenue Agency, nor is AGF aware of any published advance income tax ruling or the possibility of obtaining such a ruling, regarding the characterization of such distributions or the calculation of capital for such purposes.

 The information, data, analyses and opinions contained herein (1) include the confidential and proprietary information of Morningstar, (2) may include, or be derived from, account information provided by your financial advisor which cannot be verified by Morningstar, (3) may not be copied or redistributed, (4) do not constitute investment advice offered by Morningstar, (5) are provided solely for informational purposes and therefore are not an offer to buy or sell a security, and (6) are not warranted to be correct, complete or accurate. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, this information, data, analyses or opinions or their use. This report is supplemental sales literature. If applicable it must be preceded or accompanied by a prospectus, or equivalent, and disclosure statement.
†AGFiQ Asset Management (AGFiQ) is a collaboration of investment professionals from Highstreet Asset Management Inc. (a Canadian registered portfolio manager) and FFCM, LLC (a U.S. registered adviser). This collaboration makes-up the quantitative investment team. AGFiQ ETFs are ETFs offered by AGF Investments Inc. and managed by Highstreet Asset Management Inc. AGFiQ ETFs are listed and traded on organized Canadian exchanges and may only be bought and sold through licensed dealers. Commissions, management fees and expenses all may be associated with investing in AGFiQ ETFs. Please read the relevant prospectus or relevant ETF Facts before investing. Exchange-traded Funds are not guaranteed, their values change frequently and past performance may not be repeated. Tax, investment and all other decisions should be made, as appropriate, only with guidance from a qualified professional. There is no guarantee that AGFiQ ETFs will achieve their stated objectives and there is risk involved in investing in the ETFs. The risks associated with each AGFiQ ETF are detailed in the prospectus. Before investing you should carefully consider each ETF's investment objectives, risks, charges and expenses. This and other information is in the ETF's prospectus. Please read the prospectus carefully before you invest. A copy is available on AGFiQ.com

The MSCI information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used as a basis for or a component of any financial instruments or products or indices. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each other person involved in or related to compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties (including, without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including, without limitation, lost profits) or any other damages. (www.msci.com)

Disclaimers

AGF Investments is a group of wholly owned subsidiaries of AGF Management Limited, a Canadian reporting issuer. The subsidiaries included in AGF Investments are AGF Investments Inc. (AGFI), AGF Investments America Inc. (AGFA), Highstreet Asset Management Inc. (Highstreet) AGF Asset Management (Asia) Limited (AGF AM Asia) and AGF International Advisors Company Limited (AGFIA). AGFA is a registered advisor in the U.S. AGFI and Highstreet are registered as portfolio managers across Canadian securities commissions. AGFIA is regulated by the Central Bank of Ireland and registered with the Australian Securities & Investments Commission. AGF AM Asia is registered as a portfolio manager in Singapore. The subsidiaries that form AGF Investments manage a variety of mandates comprised of equity, fixed income and balanced assets.

Publication Date: September 17, 2018.

Invested in Discipline

AGF.com/Global