2016 Khazanah Megatrends Forum

Geography and Demography as Destiny:

Maximizing Malaysia's strategic advantages

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Geography as Destiny

1. Human fate is determined by time, space/geography, and governance
2. New Economic Geography is about Location, Location, Location – where human economic activity is located, determines prosperity or isolation (work of Krugman, Richard Baldwin et al on mapping).
3. Impact of geography on development, pioneered by Jeffrey Sachs, Ravi Kanbur, Homi Kharas etc.
4. Geography of Innovation – how clusters of research and development push growth
5. What are implications for Malaysia?

Inequality and Capitalism in the Long-run

– Piketty (2013)

1. History of wealth distribution is deeply political – up to 1950, reduction of inequality due to war, but since then, tax and finance policies caused widening of inequality:
2. With post-1980s high r-g (r = net-of-tax rate of return, g = growth rate), inequality might reach or surpass 19th century record levels
3. There is no natural, spontaneous process to prevent destabilizing, inegalitarian forces

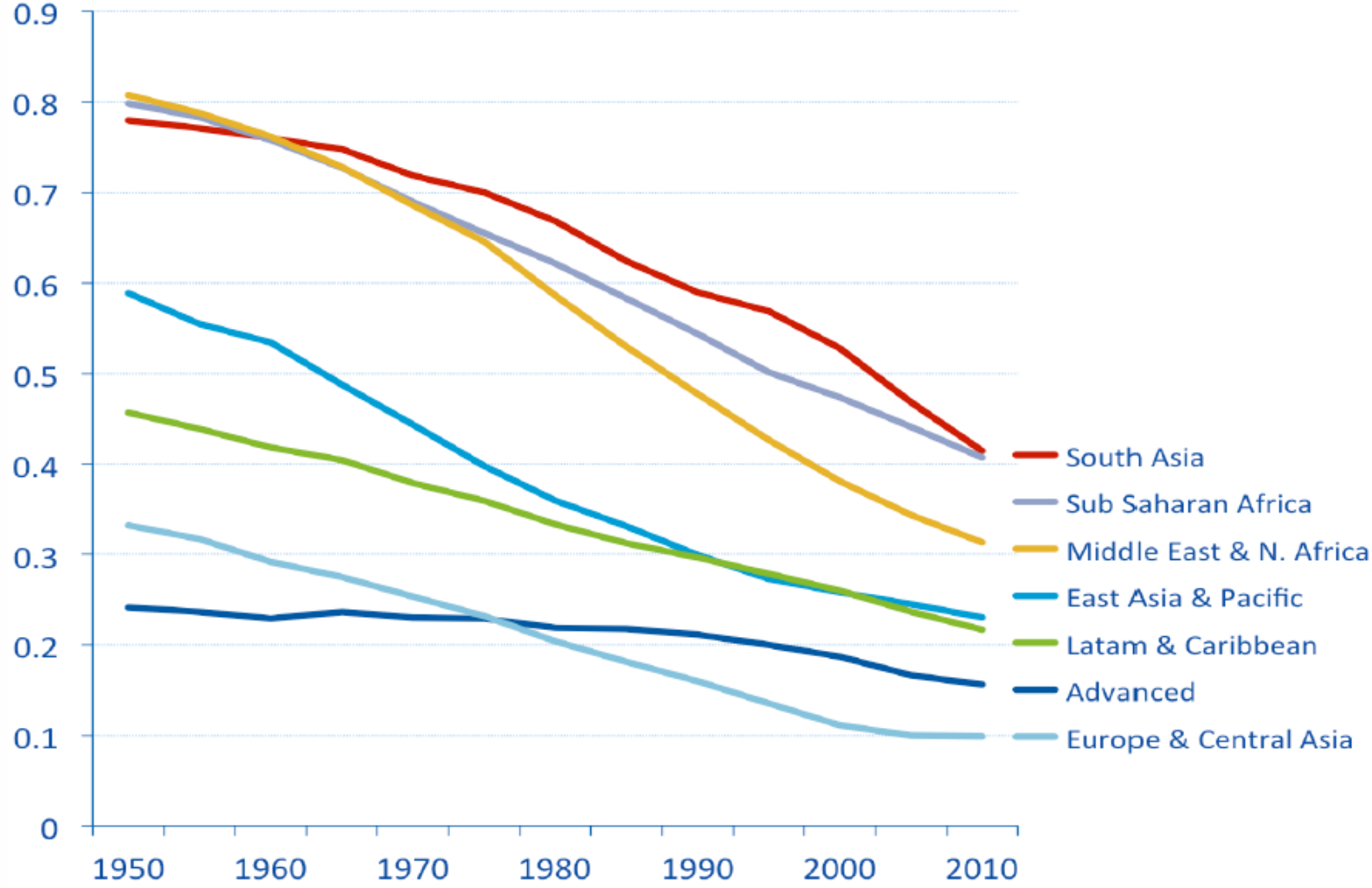
Source: Piketty. 2013. "*Inequality & Capitalism in the Long-Run*."

Global Inequality exists between nations and within nation (Kanbur)

- Global “between nation” inequality has narrowed largely due to China/India/EME move out of poverty
- But “within nation”, inequality is still growing
- The first question is addressed by global trade and investment policies and national development strategies, but determined by geography:
  1. Favourable location and natural resource endowment
  2. Efficiency gains from concentration and proximity, with low transaction costs
  3. Tech externalities, thick labour markets and specialization

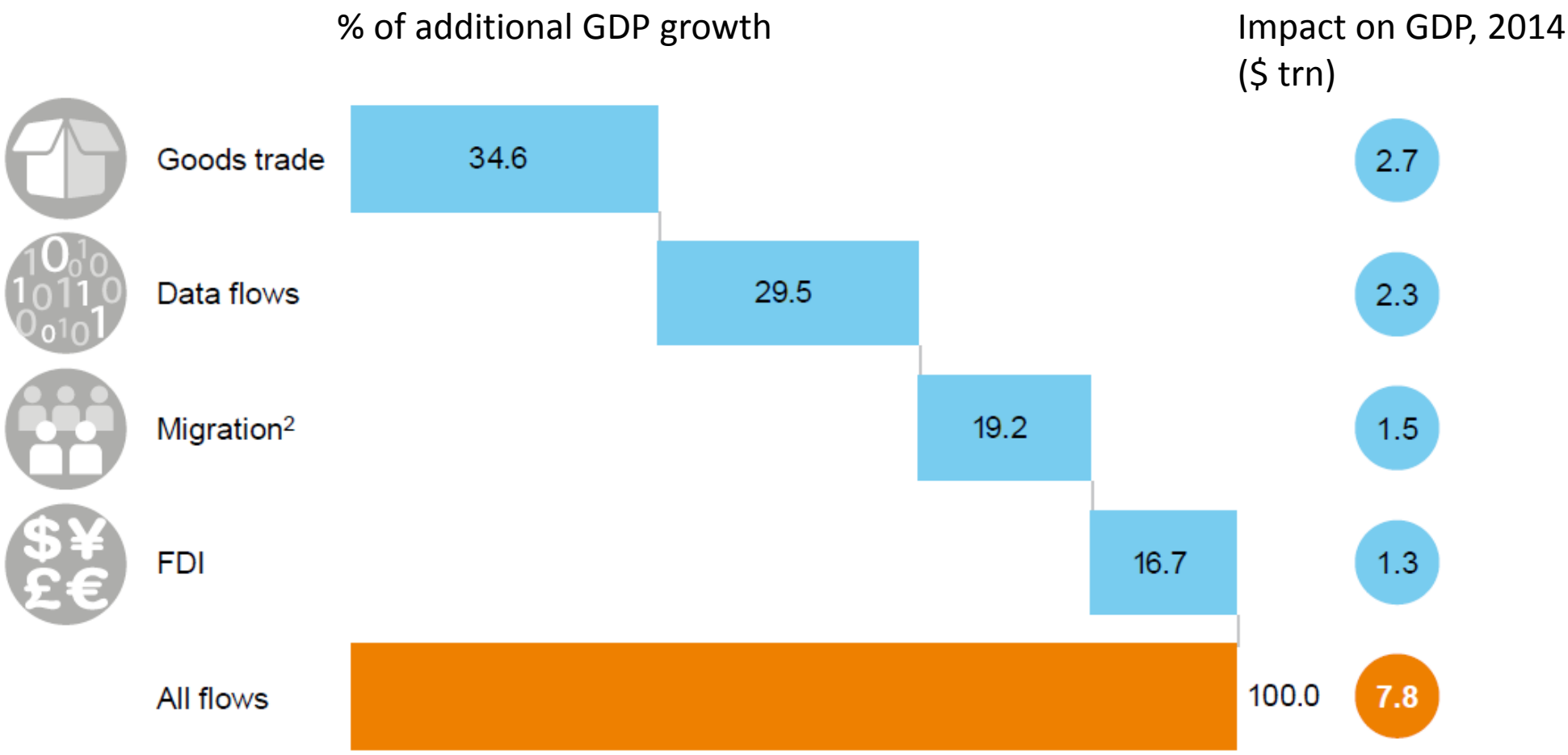
1950-2010: Significant Reduction in ”Between Nation” Inequality Globally…a lot due to China/India/EME growth

Human Capital Gini Coefficient of population 15+



Castelló & Doménech. 2013. "*Human Capital and Income Inequality: Some Facts and Some Puzzles*." BBVA Research.

Global Flows Increased Global GDP by $7.8 trn (2014)

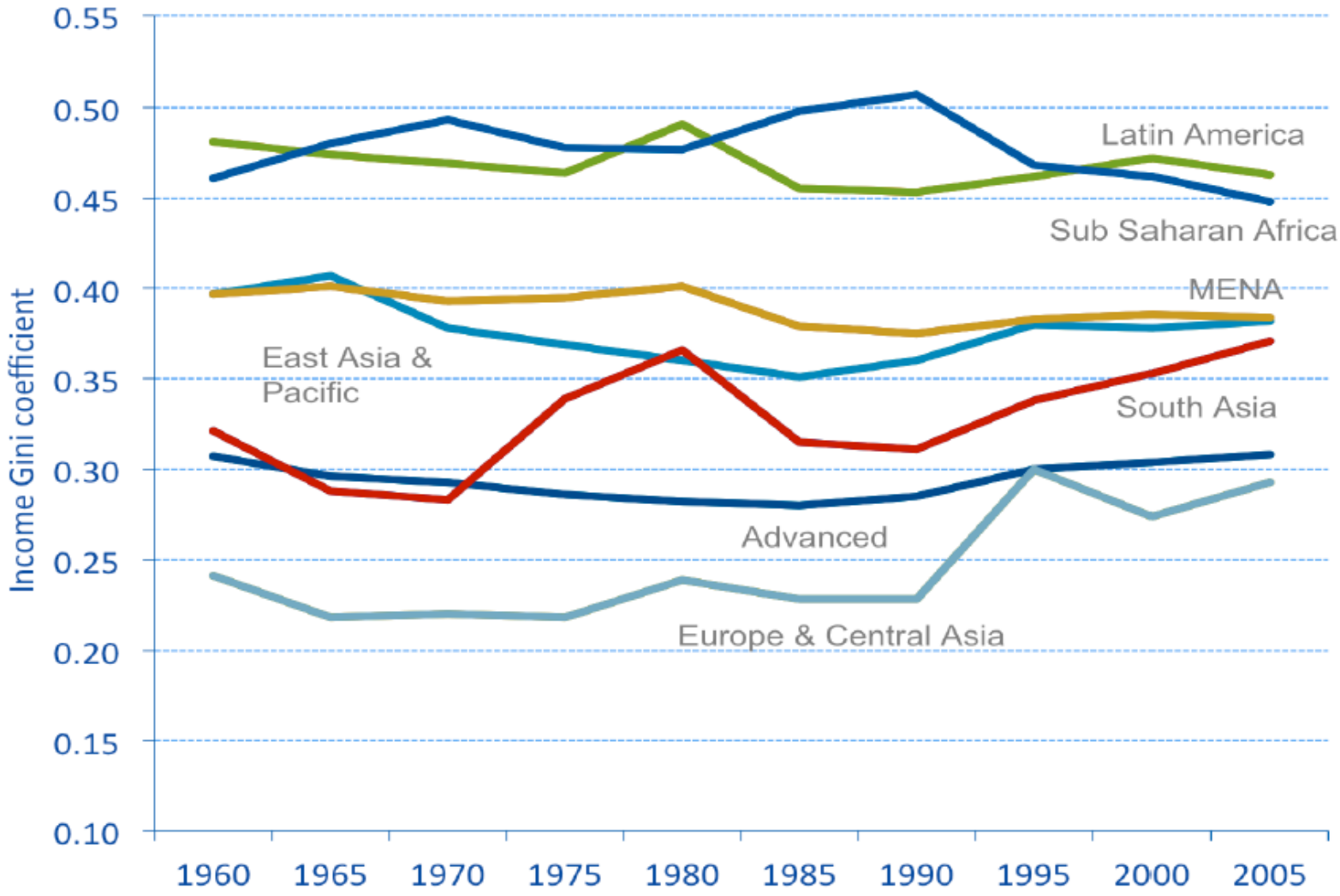


1 Includes inflows and outflows data for 139 countries in MGI Global Flows model; see technical appendix for more details. 2 Global migration flows declined slightly from 2003 to 2013, resulting in a positive impact despite a negative coefficient. Migration flows are negligible or slightly negative at the global level, possibly due to the loss of skilled labor in developing countries or the difficulties of absorbing a large influx of refugees or migrants. However, migration flows have a positive impact on productivity in advanced economies. Note: Numbers may not sum due to rounding. Data source: McKinsey Global Institute analysis.

Source: McKinsey. 2016. "*Digital Globalization: The New Era of Global Flows*."

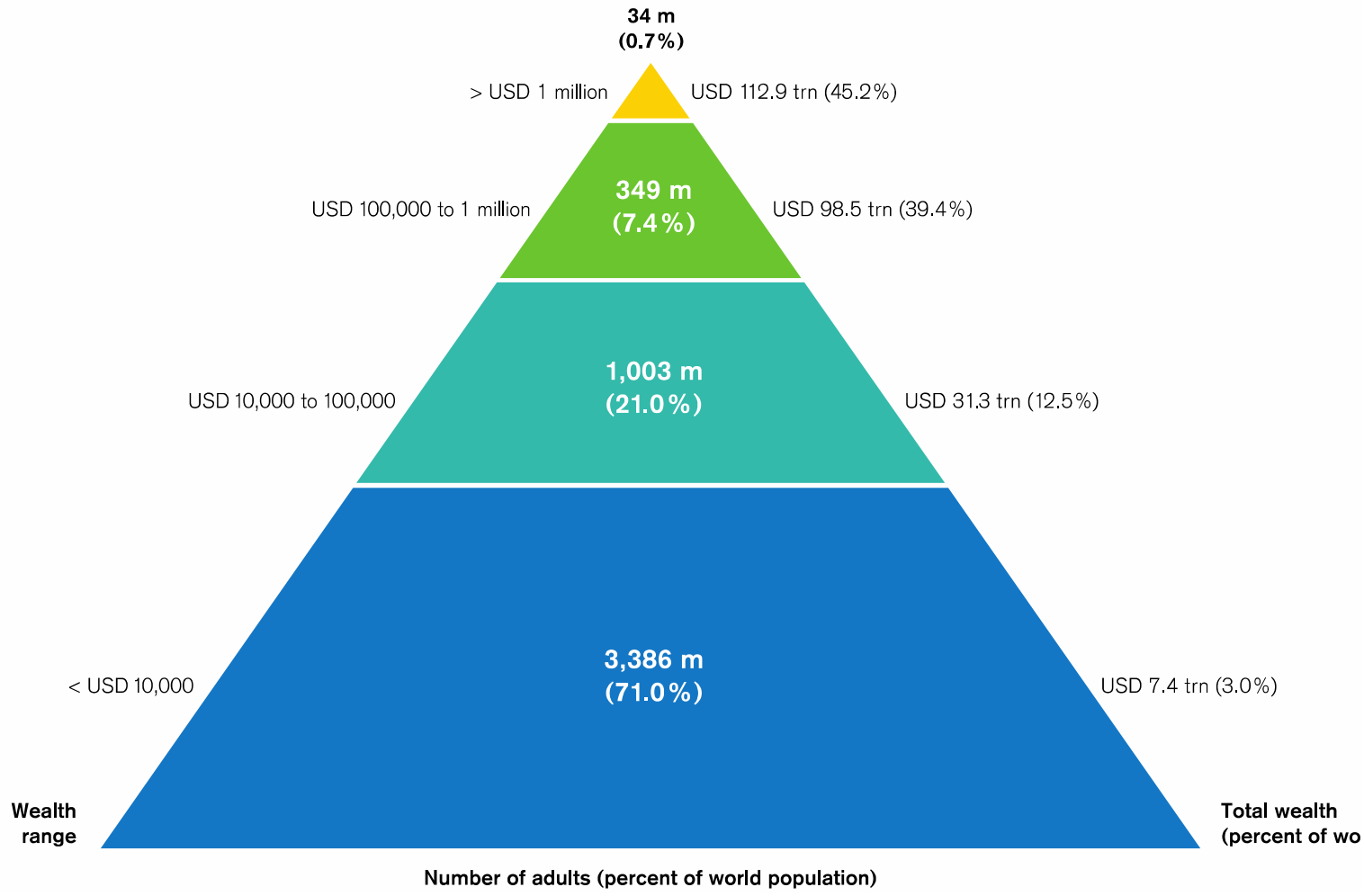
…But ”Within nation” Inequality may be worsening

Evolution of the income Gini coefficient across regions, 1960-2005



Data source: World Income Inequality Database, v3.0.
Castelló & Doménech. 2013. "*Human Capital and Income Inequality: Some Facts and Some Puzzles*." BBVA Research.

Global wealth is highly concentrated



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2015

Geography of Inequality

- Rich countries are aging, with higher debt burden, but growing social inequality (Piketty).
- Huge demographic birthrate in emerging markets, like Middle East and Africa, which puts stresses on job creation, governance and population migration.
- Inequality of income can be dealt with through exchange of labour + migrant remittances (and learning of skills by migrant workers in advanced markets
- However, increasingly barriers are coming up due to fear of terrorism and rising nationalism.

Negative Interest rate = alternative taxation of older generation and high savers; not likely to revive economy

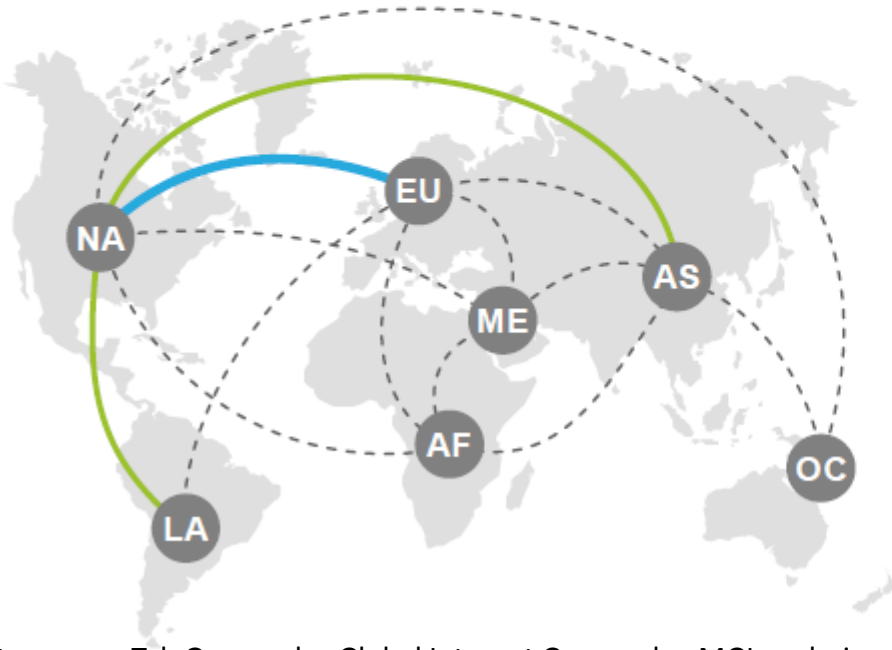
Cross-border Data Flows 45x Larger and Connecting More Countries

Used cross-border bandwidth

Regions	NA United States and Canada	EU Europe	AS Asia	LA Latin America	ME Middle East	AF Africa	OC Oceania

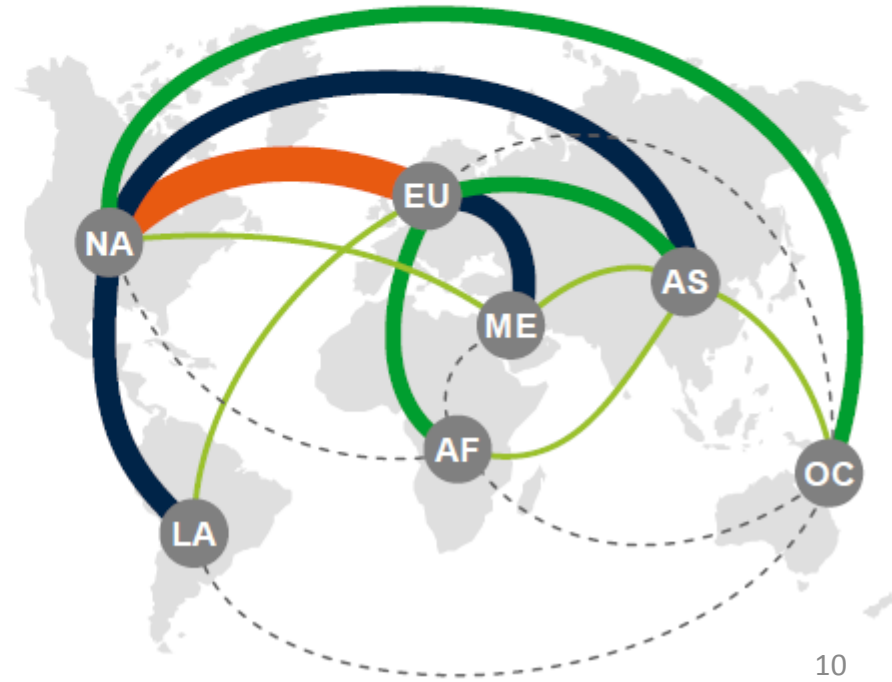
Bandwidth Gigabits per second (Gbps)	<50	50–100	100–500	500–1,000	1,000–5,000	5,000–20,000	>20,000

2005
100% = 4.7 Terabits per second (Tbps)



2014
100% = 211.3 Tbps

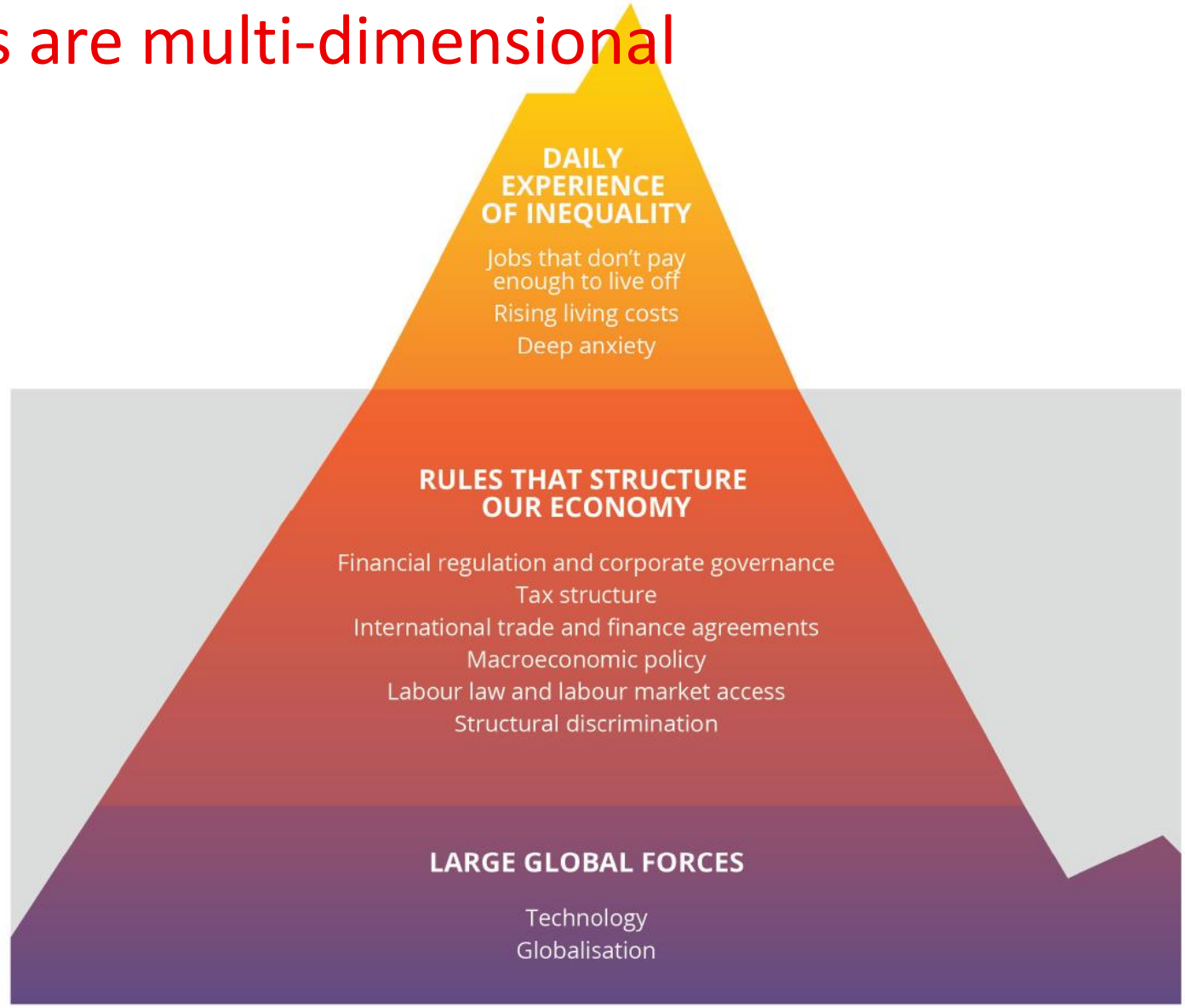
45x larger



Data source: TeleGeography, Global Internet Geography; MGI analysis.
Source: McKinsey. 2016. "*Digital Globalization: The New Era of Global Flows*."

Section 1 International Lessons on Inequality

Dealing with Inequality: The Tip of the Iceberg, issues are multi-dimensional

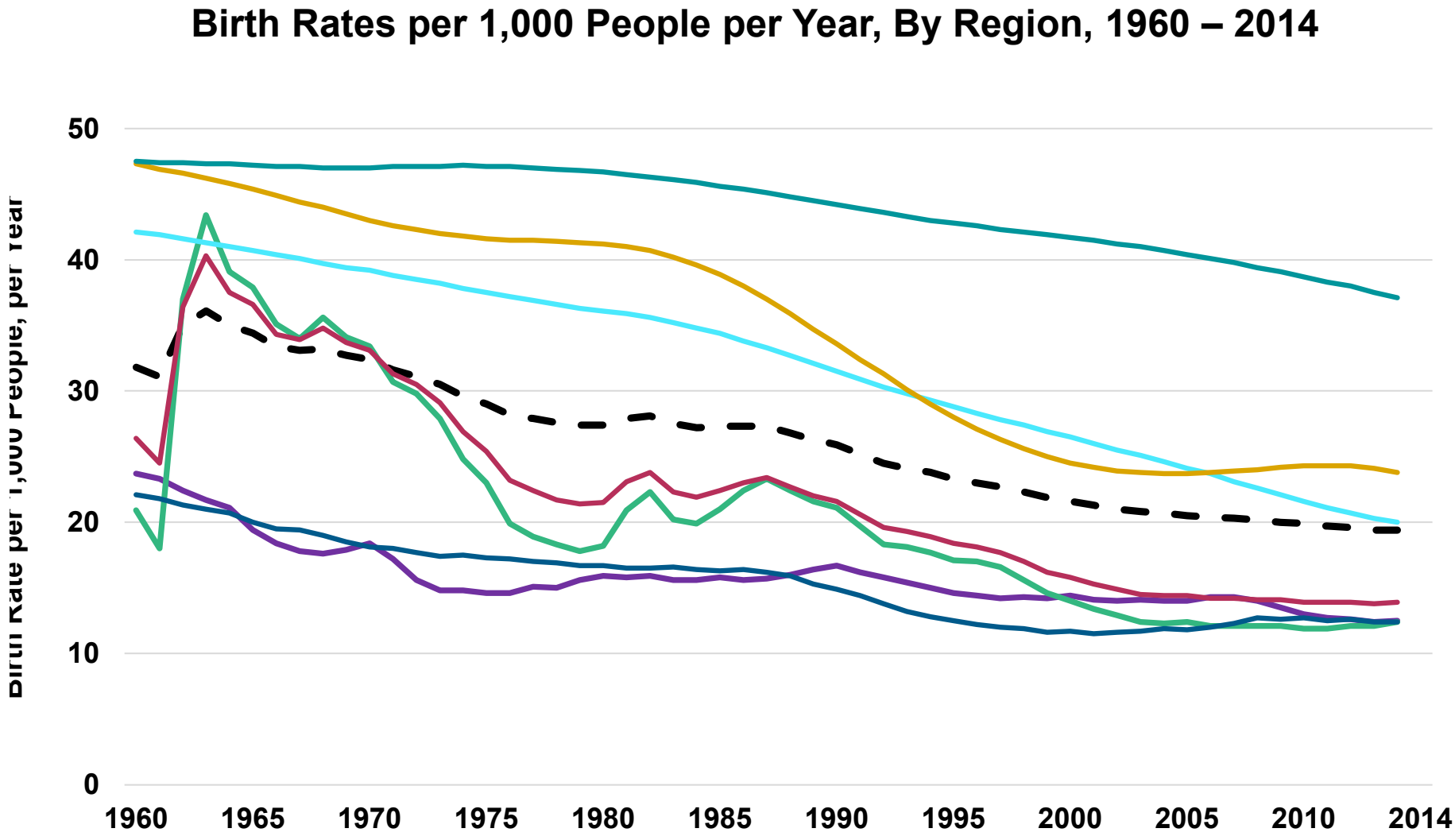


Data source: http://rooseveltinstitute.org/wp-content/uploads/2015/10/RTW-Social-Share-Iceberg.jpg
Source: Chifley Research. 2016. "*Inequality: The Facts and the Future*."

What Does Inclusive Prosperity Mean to Households?

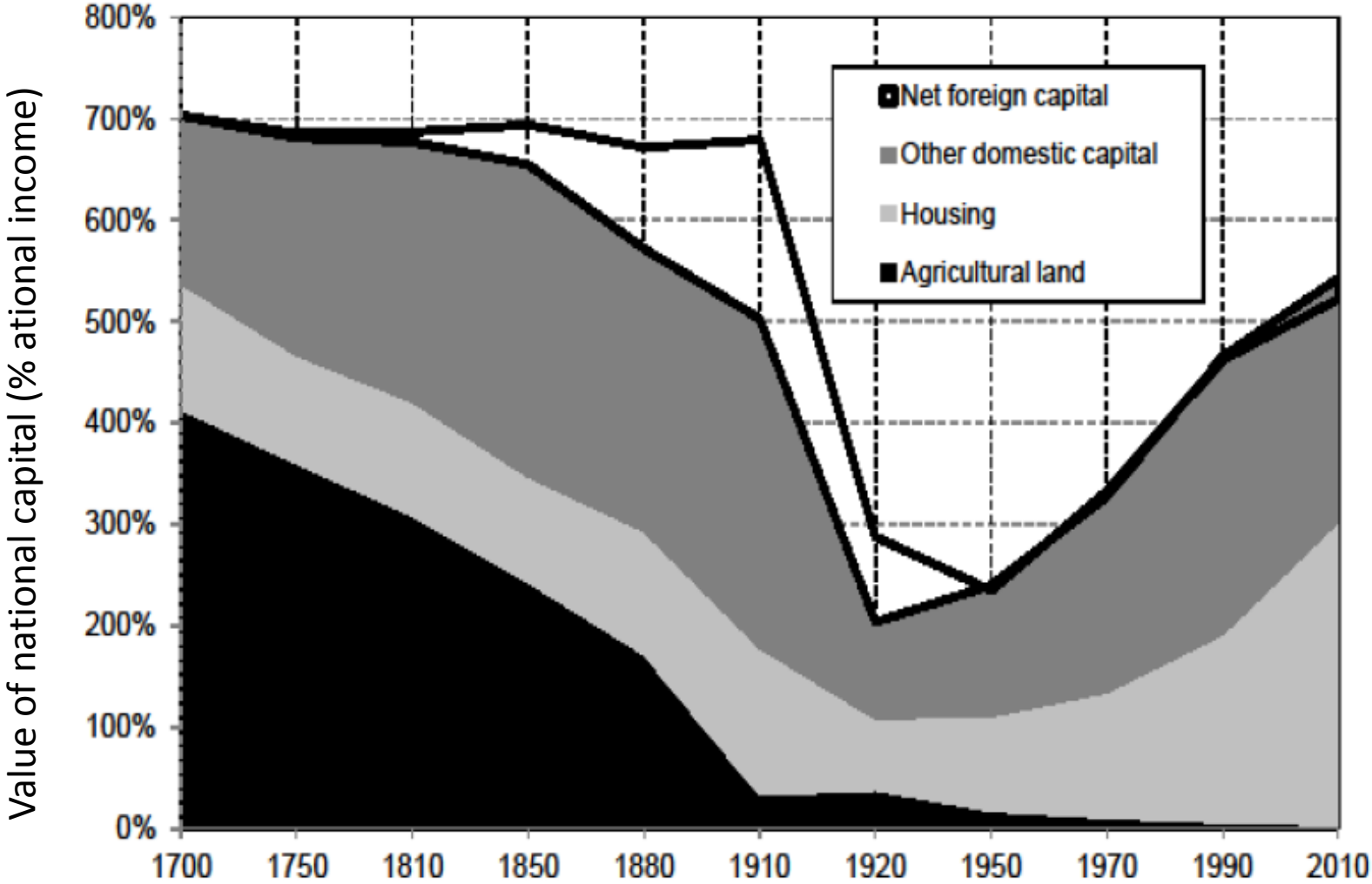
Source: Chifley Research. 2016. "*Inequality: The Facts and the Future*."

Geography of Demography – High birth rates in Africa & Middle East – Pressure on Job creation



Return on Capital in UK, 1950 onwards - agriculture land values decline, housing and financial assets dominate

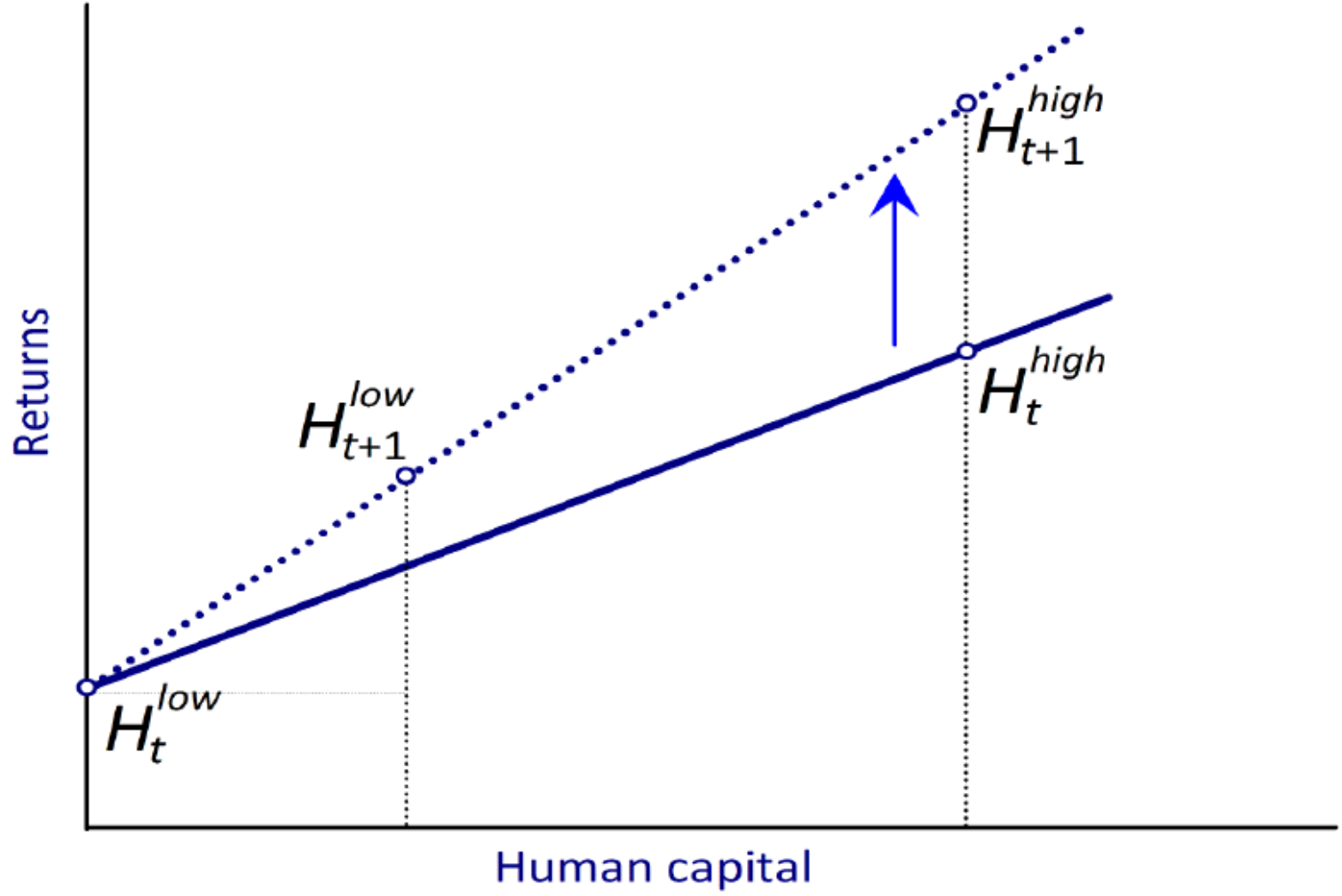
Capital in the United Kingdom, 1700-2010



Note: National capital is worth about 7 years of national income in the United Kingdom in 1700 (including 4 in agricultural land).
Data sources and series: See piketty.pse.ens.fr/capital21c
Source: Piketty. 2013. "*Inequality & Capitalism in the Long-Run*."

Effects on Income Inequality Offset by Skill-biased Technological Changes

Skill-biased technological change and human capital



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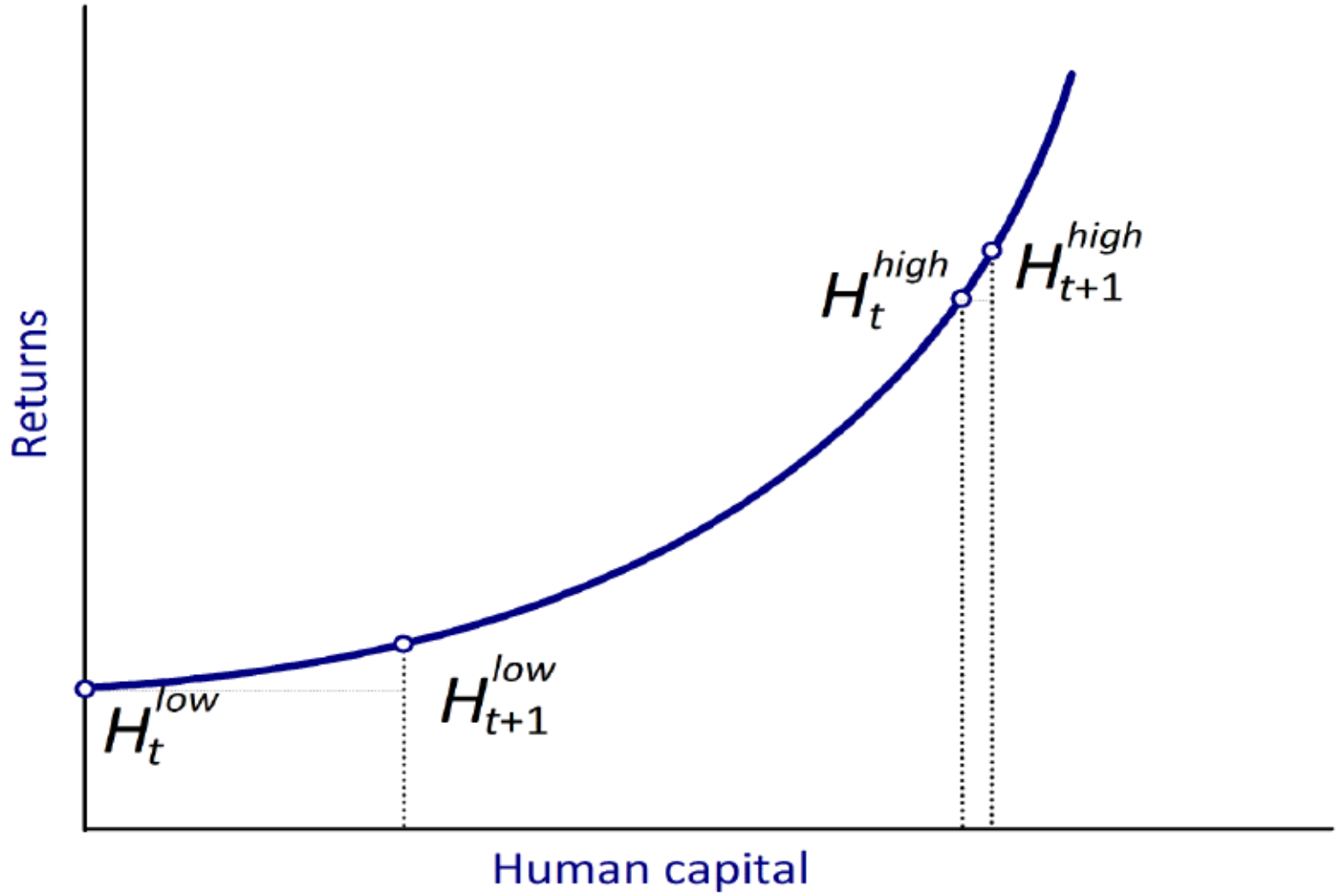
Effects on Income Inequality Offset by Increasing Returns to Education

Increasing returns to education and human capital

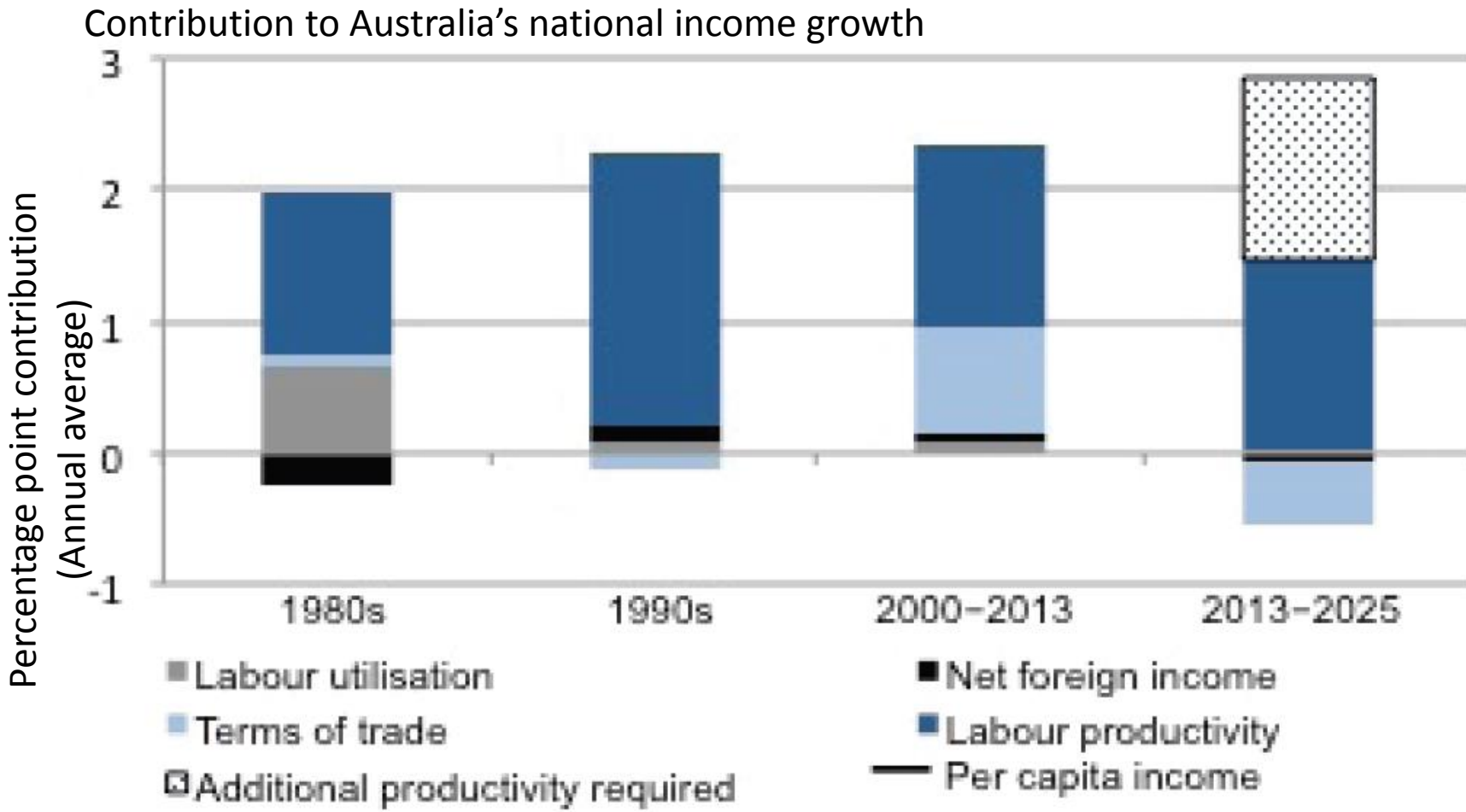


Castelló & Doménech. 2013. "*Human Capital and Income Inequality: Some Facts and Some Puzzles*." BBVA Research.

Impact of Digitization on Economy

- **Labour**: Robotization + 3D printing = higher productivity, but loss of jobs
- **Capital**: Improved capital allocation, but write-down of old equipment and inventory
- **Multi-factor productivity**:
  - R&D and product development – faster innovation cycles
  - Operations and supply chain optimization –improvement in production, distribution and funding/payment cycles
  - Resource management – improved energy and resource through intelligent buildings, cities and lower pollution
- Key is Continuous Education/Training/Skills upgrading at state, corporate and individual levels

GDP growth due to Increased Labour Utilisation and Improved Productivity. (Australia experience)



Data source: Treasury (2014) Budget Paper 1. Lighter shading represents additional labour productivity growth to achieve long run average growth in real national income per capita.
Source: Chifley Research. 2016. "*Inequality: The Facts and the Future*."

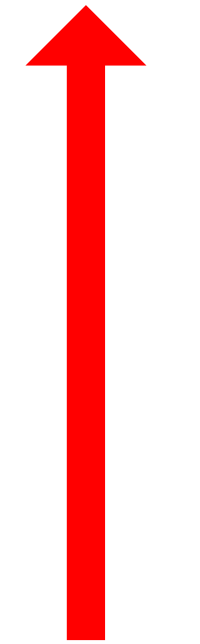
Multi-layer New Economy of Platforms – from Hardware to Software

Software + Sharing economy: Apps/Knowledge and Services = Efficiency + Convenience + Green (Personalization of data/service

Multi-sided platforms – Alibaba, Amazon – consumer focused – finance follows product

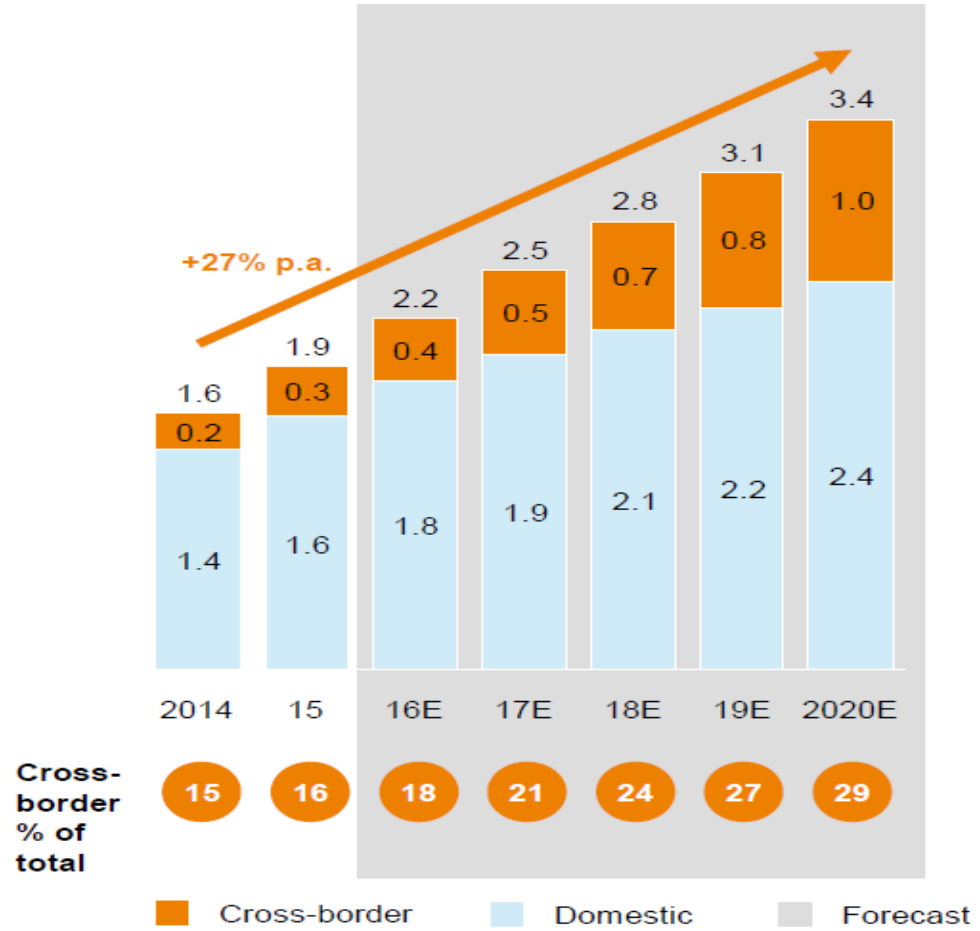
Financial service – payments, credit, investments (duplicated hardware – low usage of data analytics

Hardware: Telco platforms; railways; electricity grids

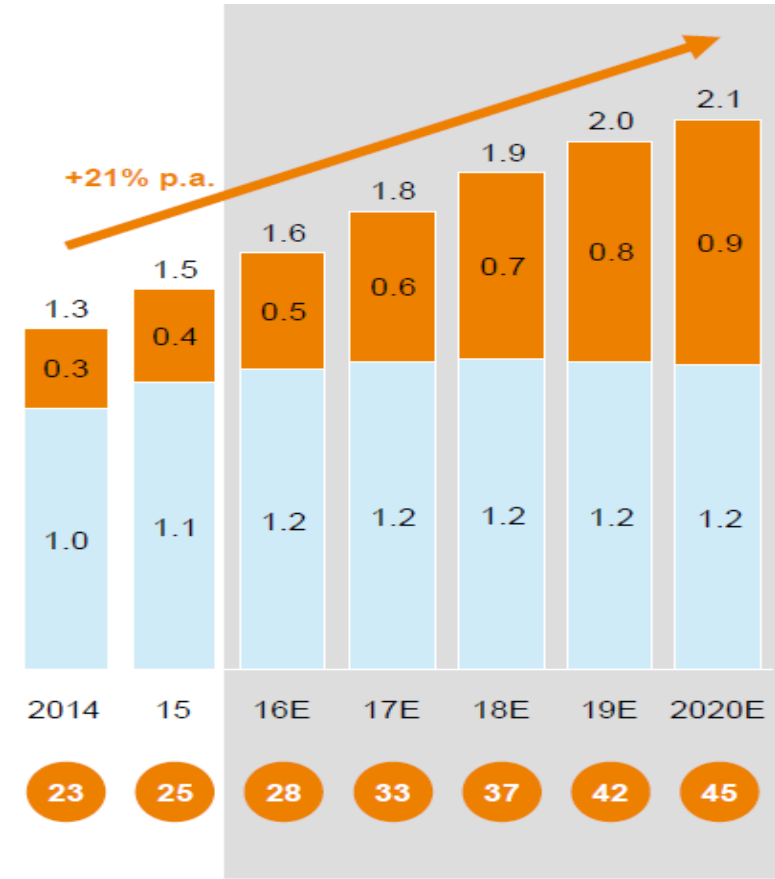


By 2020, 940 Million Online Shoppers Expected to Spend $1 Trillion on Cross-border E-commerce Transactions

Global B2C e-commerce transaction volume ($ trillion)



Global B2C e-commerce shoppers (Billion)



Note: Numbers may not sum due to rounding.

Data source: AliResearch; McKinsey Global Institute analysis.

Source: McKinsey. 2016. "*Digital Globalization: The New Era of Global Flows*."

Section II Implications for Malaysia Different Scenarios

Malaysia's wealth ratios similar to advanced country levels

- Malaysia has a highly developed financial sector, with M3, stock market capitalization and bond market capitalization at 135% of GDP, 135% and 96% respectively. This would put Malaysia roughly equal to global average of around 380% of GDP, lower than advanced country financialization (US 430%) , but way above most emerging markets (196% of GDP).
- It should be relatively easy to construct Malaysia's national balance sheet at market values (including landed properties – normally around 250% of GDP) to examine the distribution between urban and rural, etc.

Choice of Different Economic/Political/Social Models

- Economic model - pure economic objective of raising incomes and wealth, enabling resources for redistribution
- Political model - compromise on different degrees from different communities on method going forward, involving different trade-offs – namely slower growth
- Social model – where religion and ethnicity play dominant role, over-riding economic considerations
- Globalization factor – geo-politics influence domestic politics and social values, e.g. spread of Arab model of state in which religion has primacy in governance, affecting FDI and possible contagion from Middle East conflicts

Economic Model - go for growth in order to compete

- Malaysian growth already stabilizing at 4-4.5% per annum, and with population growth at roughly 2-2.4% per annum (including foreign labour imports), productivity growth would have to be at least 2% per annum or more, in order for Malaysia to compete.
- Note that advanced country labour productivity is lucky to be around 1% per annum.
- Acceleration in labour productivity would require fairly radical changes to education and skills training programmes, reducing reliance on foreign labour, encouraging robotization and re-training programmes for short-term labour disruption.

Impact of Technology on wealth creation

- ICT technology has several direct impact on future national wealth and income creation.
- Malaysian SMEs and startups will be able to access global markets with proper access to internet and marketing skills (e.g. halal food, herbal medicine, niche products).
- Those startups that can reach unicorn levels (e.g. Grabtaxi) will have valuations exceeding US$1 billion or more. Key success if bumiputera startups reach unicorn status for signaling effect for other young SMEs to emulate
- Huge niche on creative industries (e.g. cartoons, films, documentaries) building on Malaysia's biodiversity and culture heritage. Difficult to nurture if self- or public censorship discourage such creativity.

Malaysia has chance of being first Islamic-majority country of reaching Advanced Country status (>US$13,00 per capita)

- In terms of WEF Global Competitiveness Report 2015/16, Malaysia is ranked 18th, behind Qatar (14th) and UAE (17th), but ahead of Saudi Arabia (25th), Indonesia (37th) and Turkey (51st).
- Recent advances in income per capita has slipped back in US$ terms because of lower oil and commodity prices and ringgit.
- Indonesia has larger GDP ($859 bn) but much lower income per capita. However, Indonesia has decided to go for growth and ASEAN has become a growth pole attracting FDI and relocation of industries outside China.
- Complex problems if ASEAN and Malaysia embroiled in geo-political conflicts in South China Sea and Middle East, including being affected by acts of terrorism.

Concluding Observations

- Going forward, Malaysia faces strategic choices of how to break out into advanced country income levels, by using its strategic geographic position at the fastest growth region in the world. We have huge advantages and also difficult constraints.
- Inequality is bound with the issue of national identity – a conversation that is only just beginning, because it is not only entangled with culture, religion, language and civilization, but how the different communities can work together to evolve not only common policies on economy, education and technology, but also visions of how we will compete in an increasingly complex world.
- How to begin this conversation at all levels of society, particularly across communities and networks will be key to Malaysia's stability, development and future.

Thank you

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