



Singapore at 50:
What lies ahead?
2-3 July 2015
Shangri-La Hotel

SESSION TWO

The Economy: Technology, Talent and Social Justice

Mr Ravi Menon
Managing Director
Monetary Authority of Singapore

Organised by



In Celebration of



The Economy Technology, Talent, and Social Justice

Ravi Menon

Managing Director, Monetary Authority of Singapore

Institute of Policy Studies, SG50+ Conference "Singapore At 50: What Lies Ahead?"

3 July 2015, Shangri-La Hotel

The MAS logo consists of the letters "MAS" in a white serif font, centered within a gold-colored circle. This circle is set against a dark blue rectangular background that spans the width of the slide.

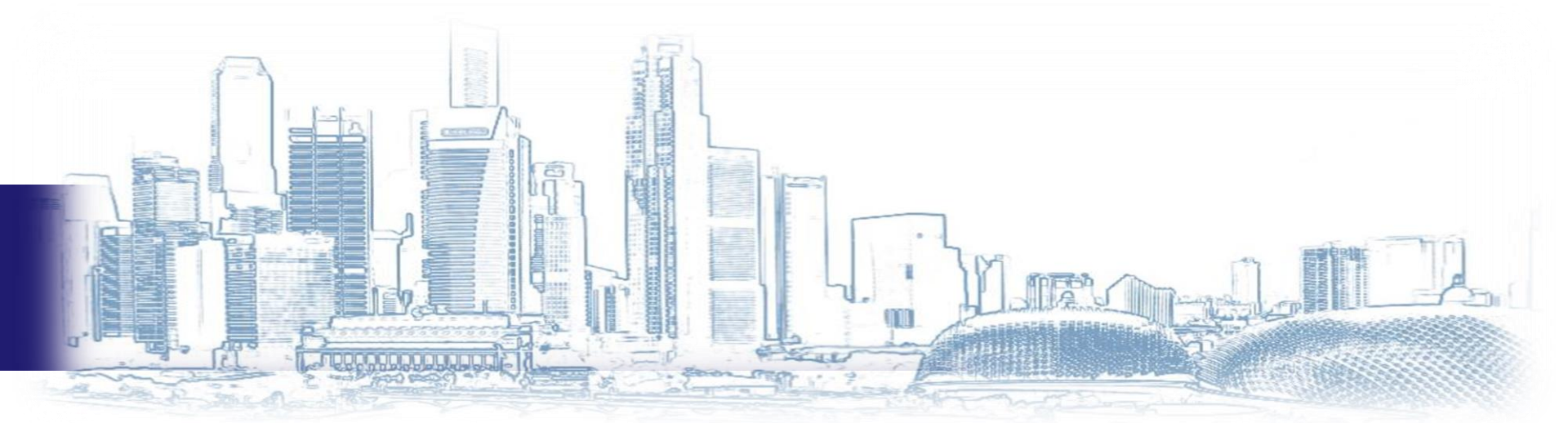
MAS

Monetary Authority of Singapore

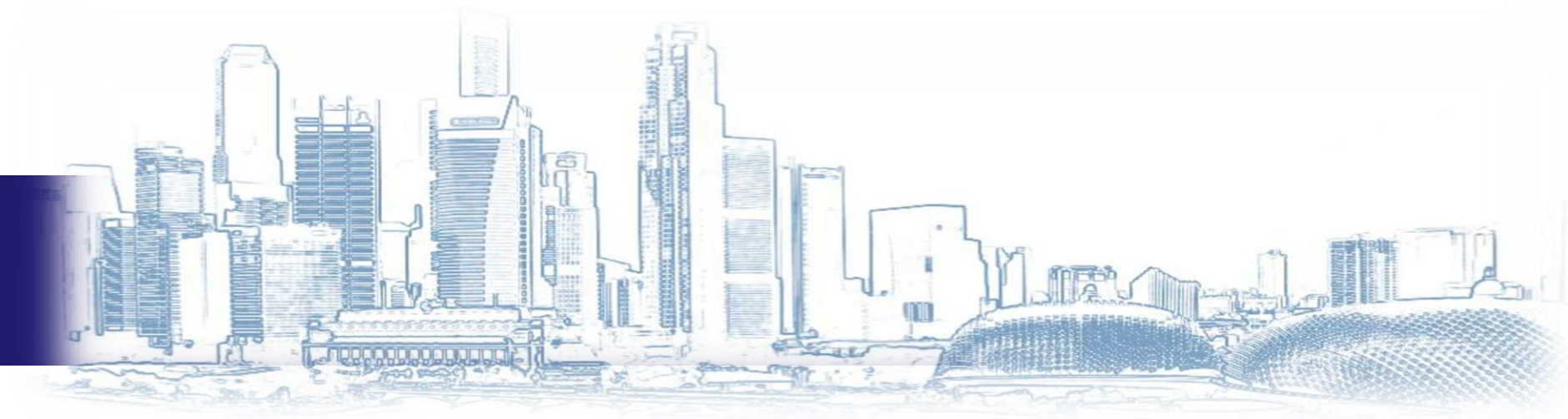
A blue line-art illustration of the Singapore skyline is visible in the background. It features various skyscrapers and the distinctive domed roof of the Esplanade - Theatres on the Bay. The illustration is positioned behind the dark blue banner containing the MAS logo and text.

Drivers of Singapore's Economic Future

- **Asia and China**
- **Technology and Skills**
- **Social Compact**

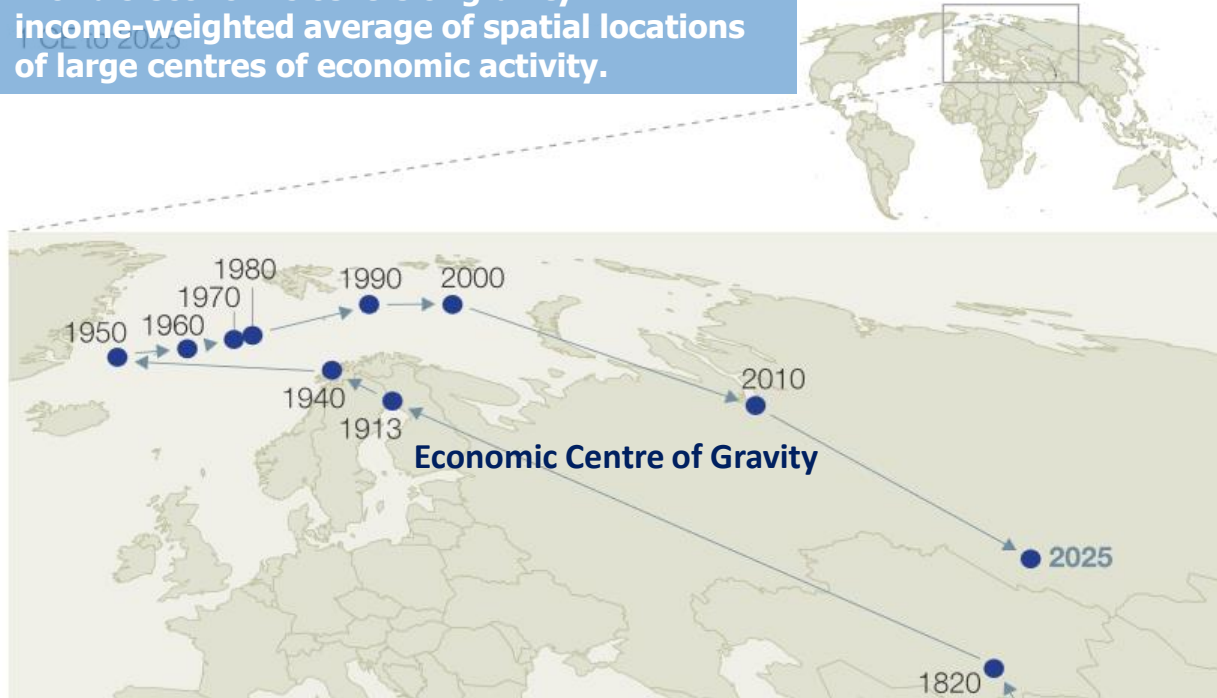


Rise of Asia and China



Centre of gravity shifting to Asia

World's economic centre of gravity:-
income-weighted average of spatial locations
of large centres of economic activity.



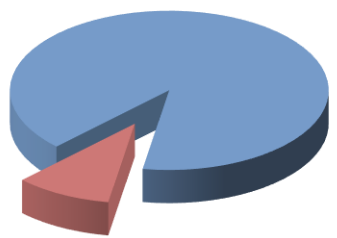
Source:

McKinsey Global Institute (2012), "Urban World: Cities and the Rise of the Consuming Class", June.

China: today's 7% is yesterday's 10%

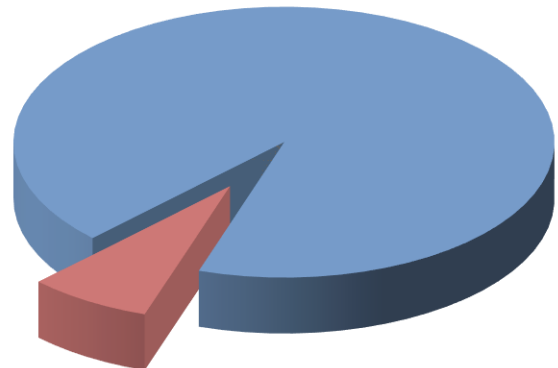
China's economy is 2.5 times larger today than 10 years ago.
GDP increase is larger in absolute terms, despite slower growth.

2004



**10% per annum
(US\$180 bn)**

2014

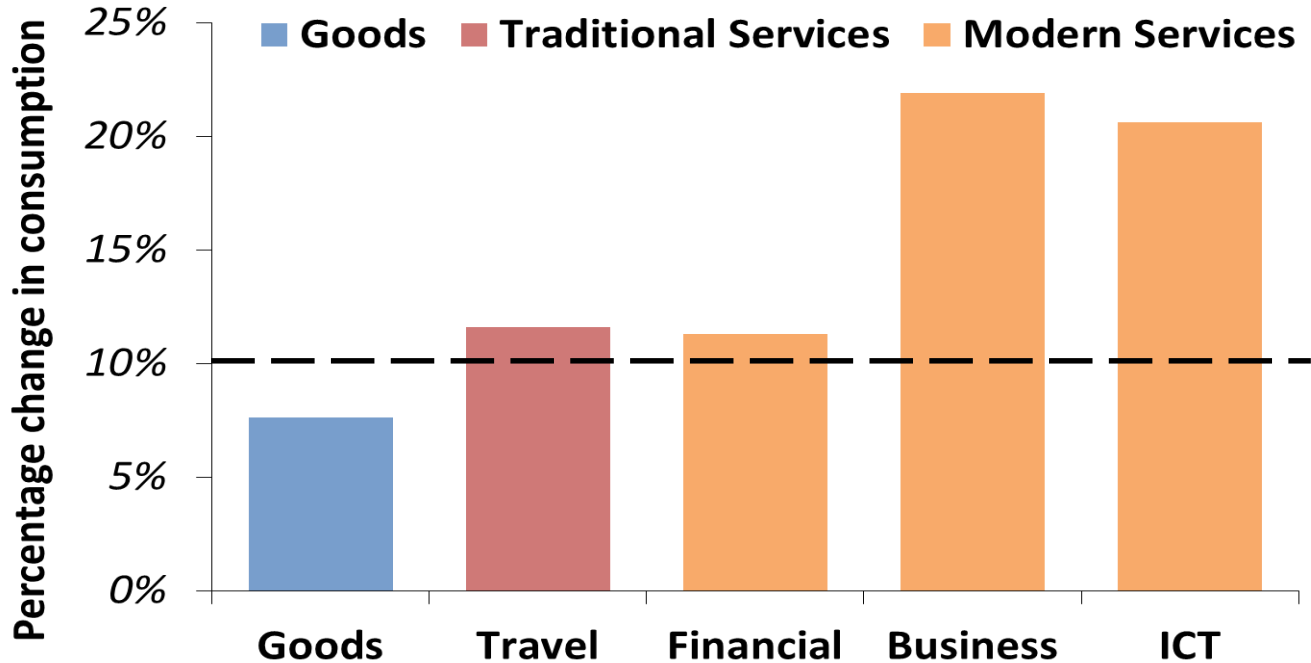


**7% per annum
(US\$300 bn)**

Source: IMF and EPG, MAS estimates

What will Asia's middle class buy?

Given a 10% increase in income, the demand for modern services increases by proportionately more.



Source: EPG, MAS estimates

Integrate more with Asia

New Forms of Integration

**Manufacturing
trade**



**Services
trade**

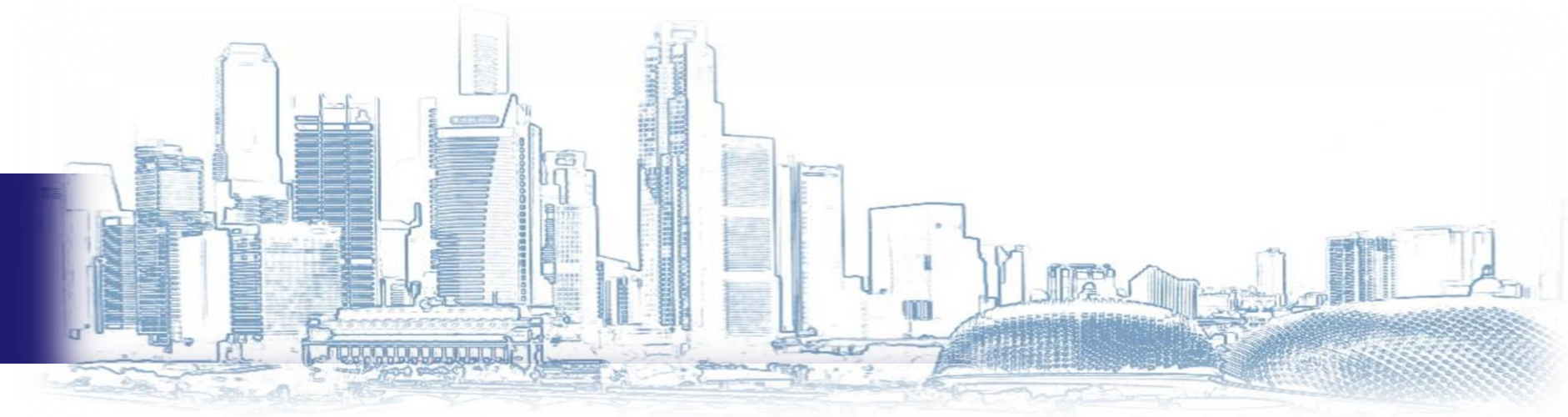
**Export of
goods/services**



**Export of
capital/people**



Technology and Skills



Technology's Impact in Future

- Will technology sustain growth?
- What does technology mean for jobs?



Will technology sustain growth?

Techno-pessimists

(Robert Gordon)

**Our best innovations may
be behind us**



Techno-optimists

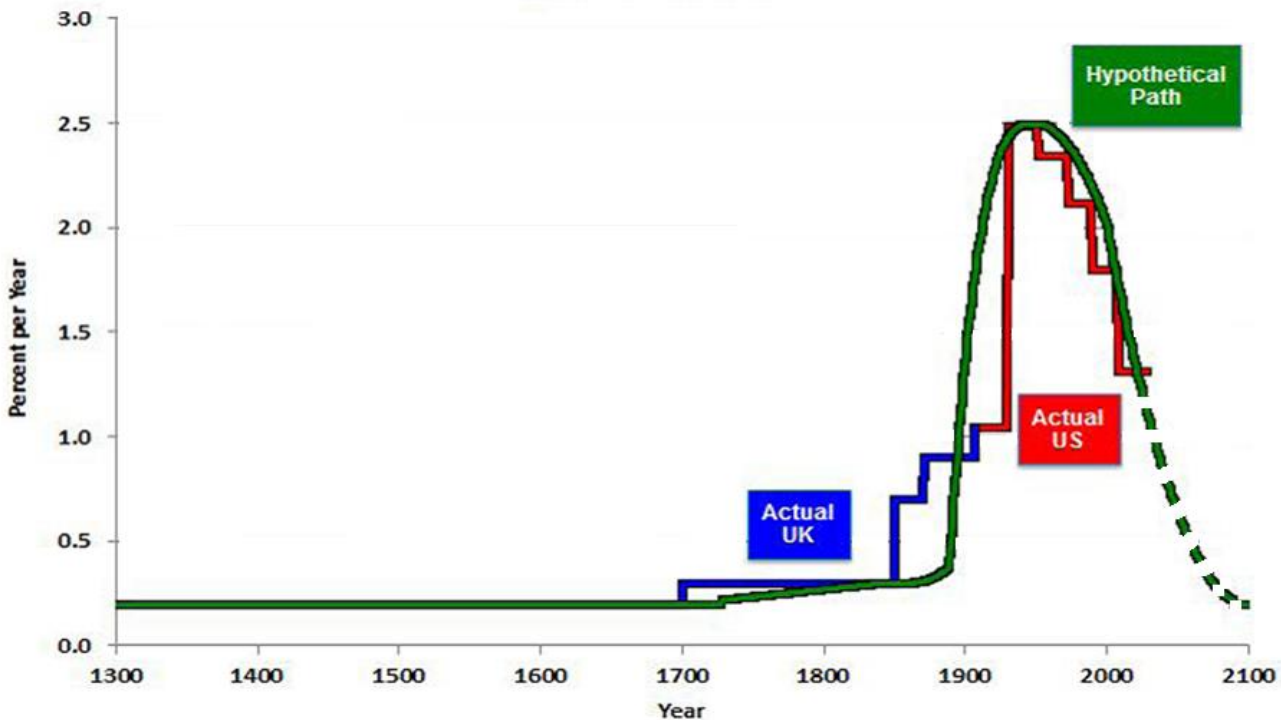
(Erik Brynjolfsson and
Andrew McAfee)

**New digital technologies
will transform economy**



Will technology sustain growth? No.

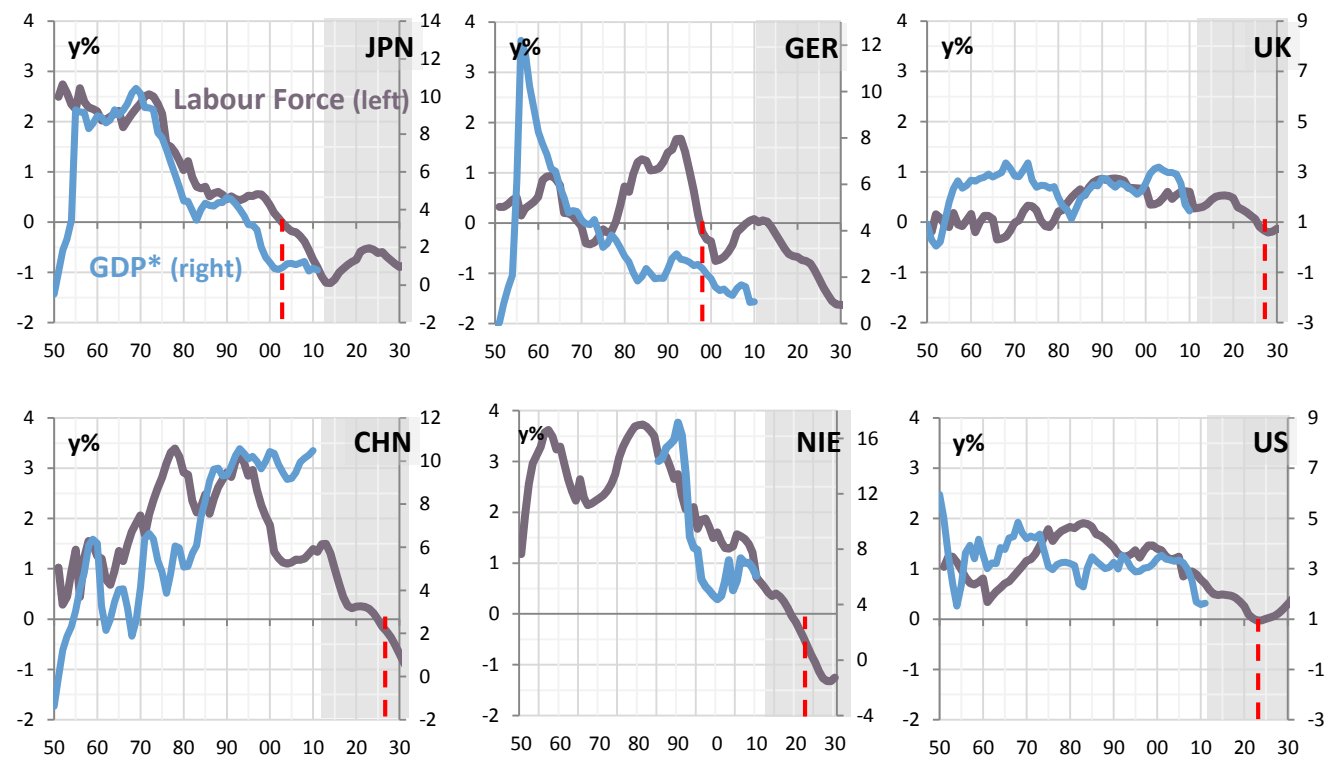
Growth in Real GDP per Capita, 1300-2100, with Actual and Hypothetical Paths





Is demographics destiny?

Labour Force Growth and Real GDP Growth

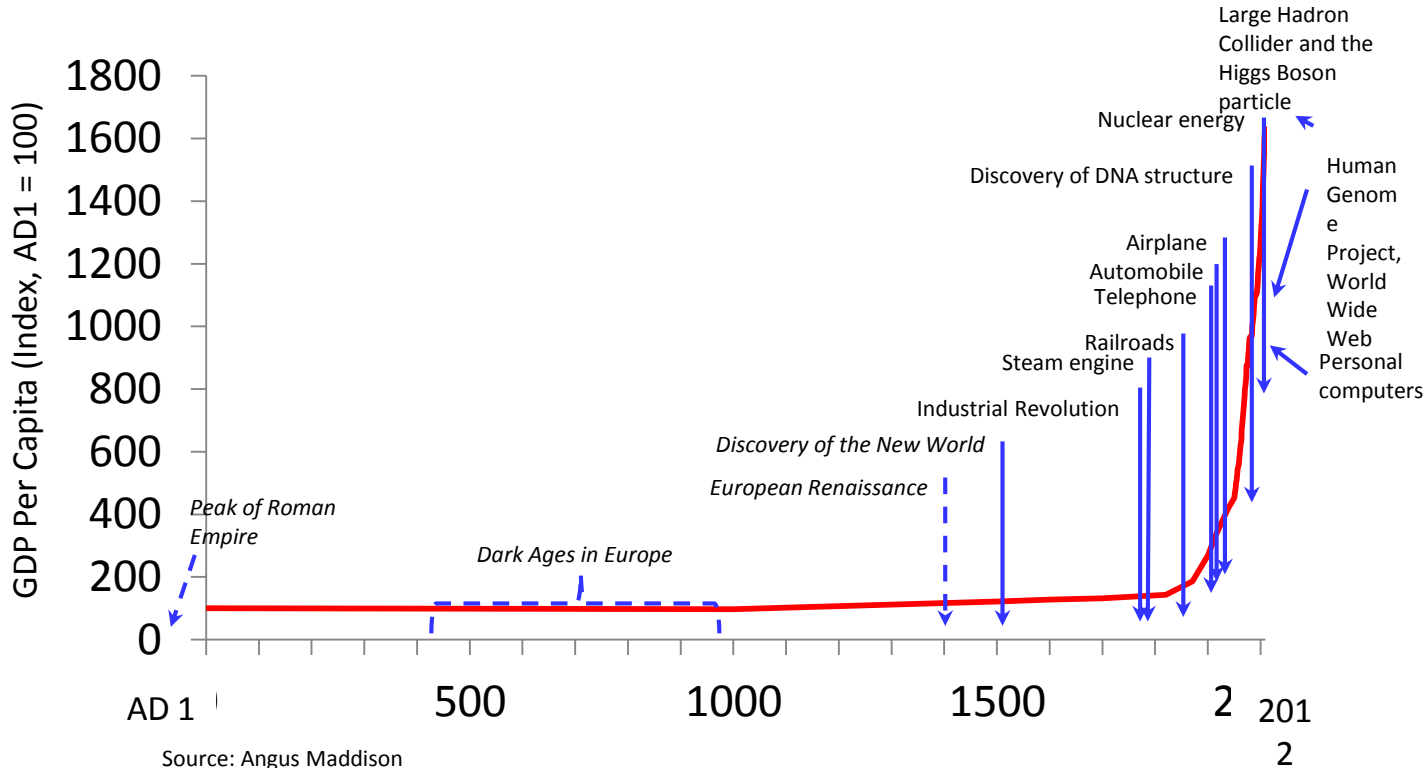


* 10-year moving average



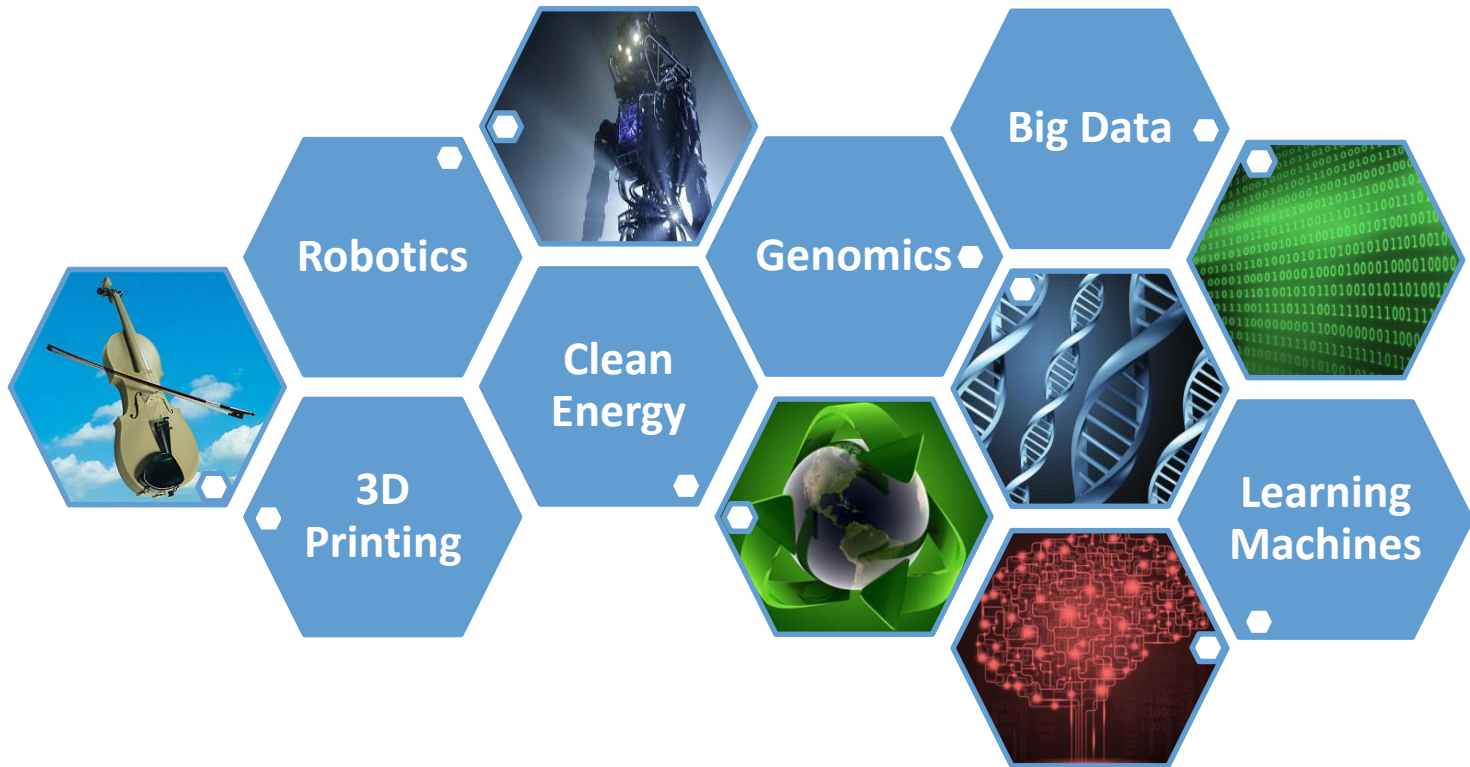
Will technology sustain growth? Yes.

Level of Real GDP per Capita, AD1-2012



Source: Angus Maddison

Big trends in technology



Which jobs can machines do?

- **Routine, repetitive tasks**
- **Analytical and processing tasks**
- **Creative and empathy-based jobs**



Skills rather than talent

Capacity over content

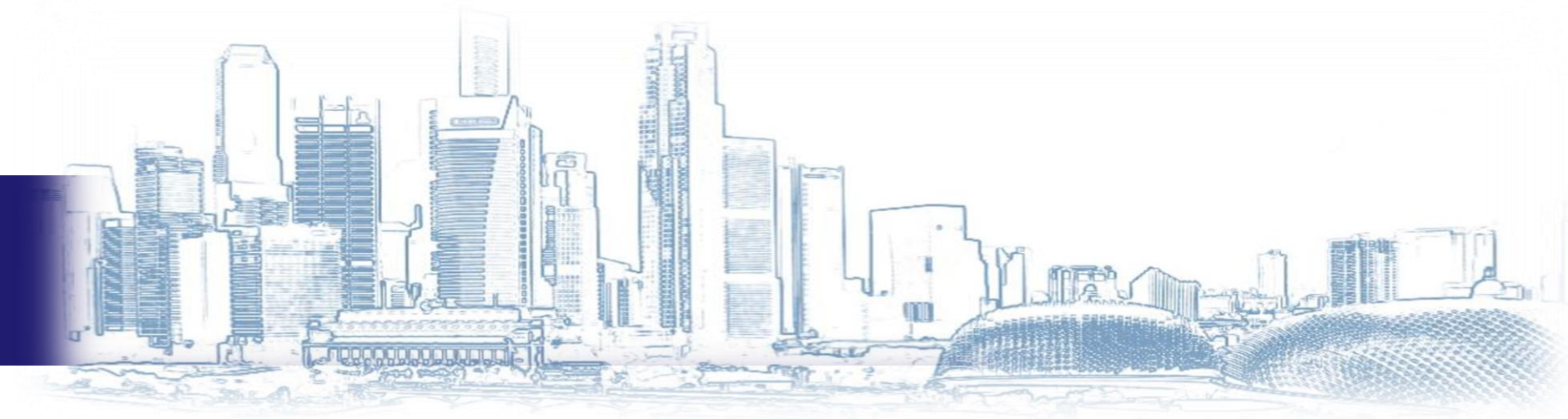
**Industry needs
over paper qualifications**

**What machines don't have:
Practical and soft skills**

Lifelong learning



Social Compact



Inequality not a problem if there is mobility

"The issue is not how much inequality there is, but how much opportunity there is for the individual to get out of the bottom class and into the top. If there is sufficient movement upward people will accept the efficiency of the markets. If you have opportunity, there is a greater deal of tolerance for inequality."

– Milton Friedman



But will there be mobility if there is inequality?

"If we had a high degree of income mobility we would be less concerned about the degree of inequality in any given year. But we do not. Moreover, as inequality has increased, evidence suggests that year-to-year or generation-to-generation economic mobility has decreased."

– Alan Krueger





Sustaining an opportunity society

