

In The Grip of a Great Convergence

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January 23 , 2011

Cambridge House Symposium

Vancouver , Canada

www.discoveryinvesting.com

**Convergent Per Capita Income –
Divergent Economic Growth Rates
In Emerging and Developed Countries**

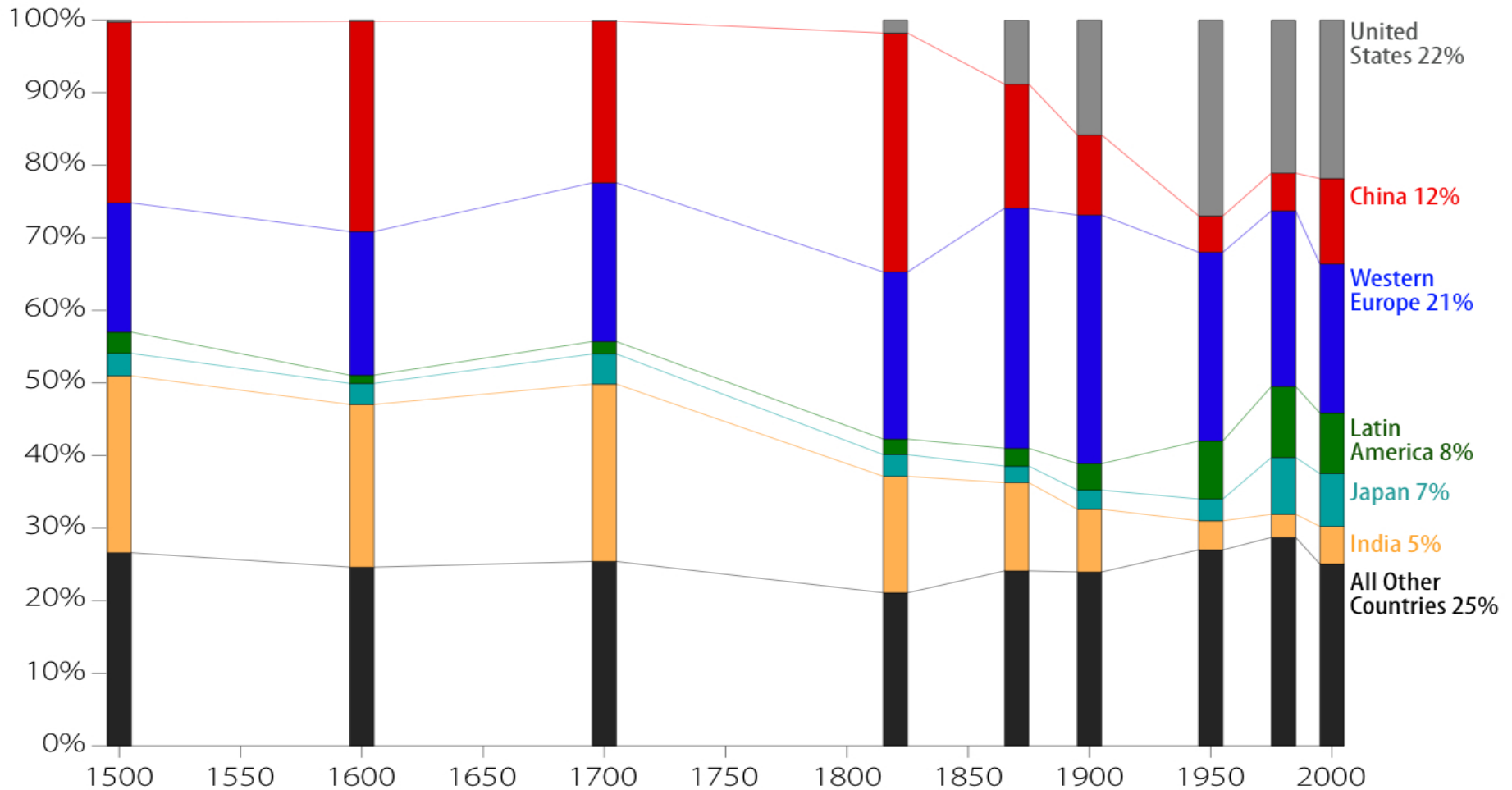
**“The Economic Story Of Our Times”
(and that of our Grandchildren and their Children)**

“In the Grip of the Great Convergence”

Financial Times, January 4, 2011

Percentage of World GDP (last 500 years)

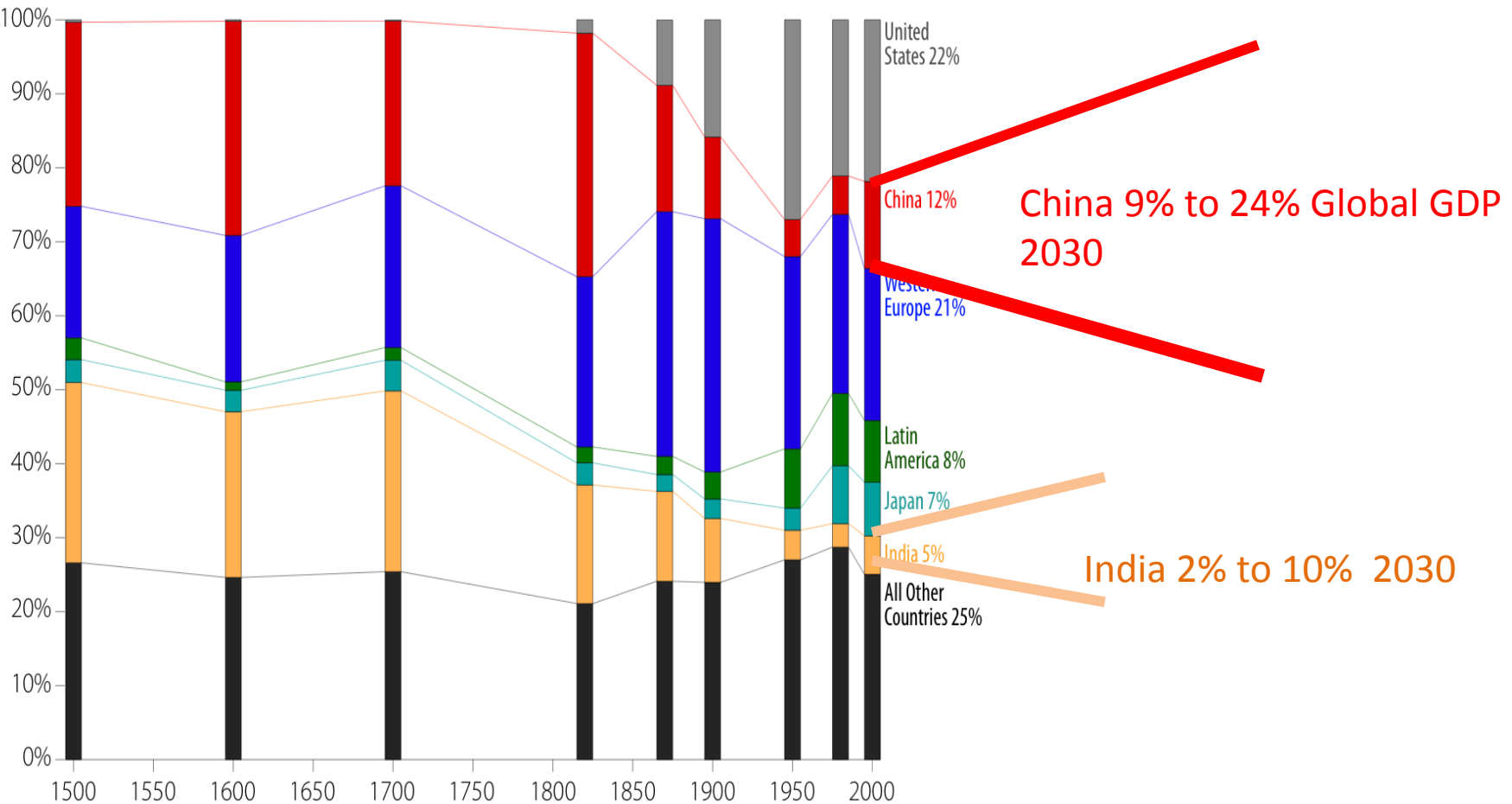
China, India, Japan, Latin America, Western Europe, and United States



Divergence in Growth

Percentage of World GDP (last 500 years)

China, India, Japan, Latin America, Western Europe, and United States



Eastern Dominance

For 18 of the past 20 centuries China and India dominated global output (GDP)

- The Economist 2010

Reversion to the Mean and Beyond In GDP and Income

- There is an immutable law of nature that says all systems eventually revert to their mean.
- Behavioral Psychologists tell us that reversion often goes to extremes.
- Examples: Behavioral Economists document both short term and long term asset price bubbles, US housing and Japan being the most recent examples.

Western Europe: 1820 to 1950

Created a huge economic advantage over
“the rest of humanity.”

This wealth advantage is being reversed -
much more quickly (~30 years) than it
was established.

Result: Wealth Transfer Through Reversion of Growth and Income

Is this Inevitable?

Is it Desirable?

**A Challenge To Maintaining Our Quality Of Life
(our comfort level)**

The Wealth Generation Advantage of North America Post WW II

Accelerating productivity and western economic freedom dominated the world, creating a huge economic advantage for North Americans.

This wealth disparity is an anomaly to be reversed.

Perhaps unwillingly and painfully.

The Evolution of the Great Income Convergence

- Professor Kenneth Pomerantz has documented that this convergence involves China and the West.
- Income Divergence (China's and India's great wealth decline) occurred in mid 19th and 20th Centuries, lasted ~150 years.
- By 1980, 130 to 150 years later, real per capita income in Chindia had **fallen** to ~6% of the West.

As of 2011 However

- China is now banker to the West. The US is the primary debtor.
- Last week's meeting between Presidents Hu and Obama provided a playbook of this recent **convergence of income and divergence of growth.**
- After the meeting China clamped down on Washington's most sensitive and growing issue – access to its rare earth minerals.

Global Reversion of Income and Growth:

This Dynamic will be known as:

The Great Convergence of Global QOL

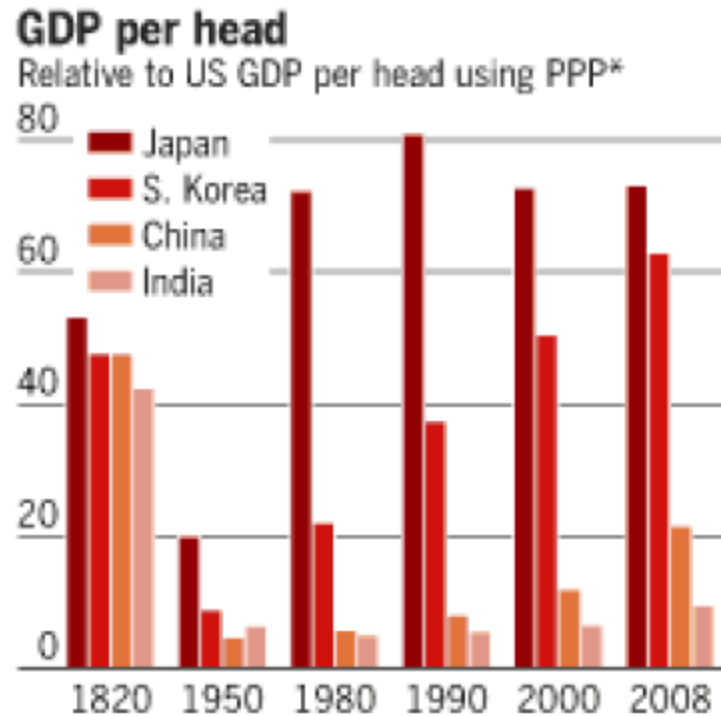
“What once had been centres of global technology in China had fallen vastly behind. This divergence is now reversing. That is far and away the biggest single fact about our world.”

Martin Wolf, Financial Times, January 4, 2011

Circa 1980: A Convergence of Per Capita Output Began

- Deng Xiao Peng in China liberalized Chinese political philosophy regarding capital economics in 1979.
- Between 1980 and 2008 Chinese per capita output rose from 6% (of the US and Canada) to 24%.
- India's per capita output rose from 5% to 10% (of output of an average US worker)

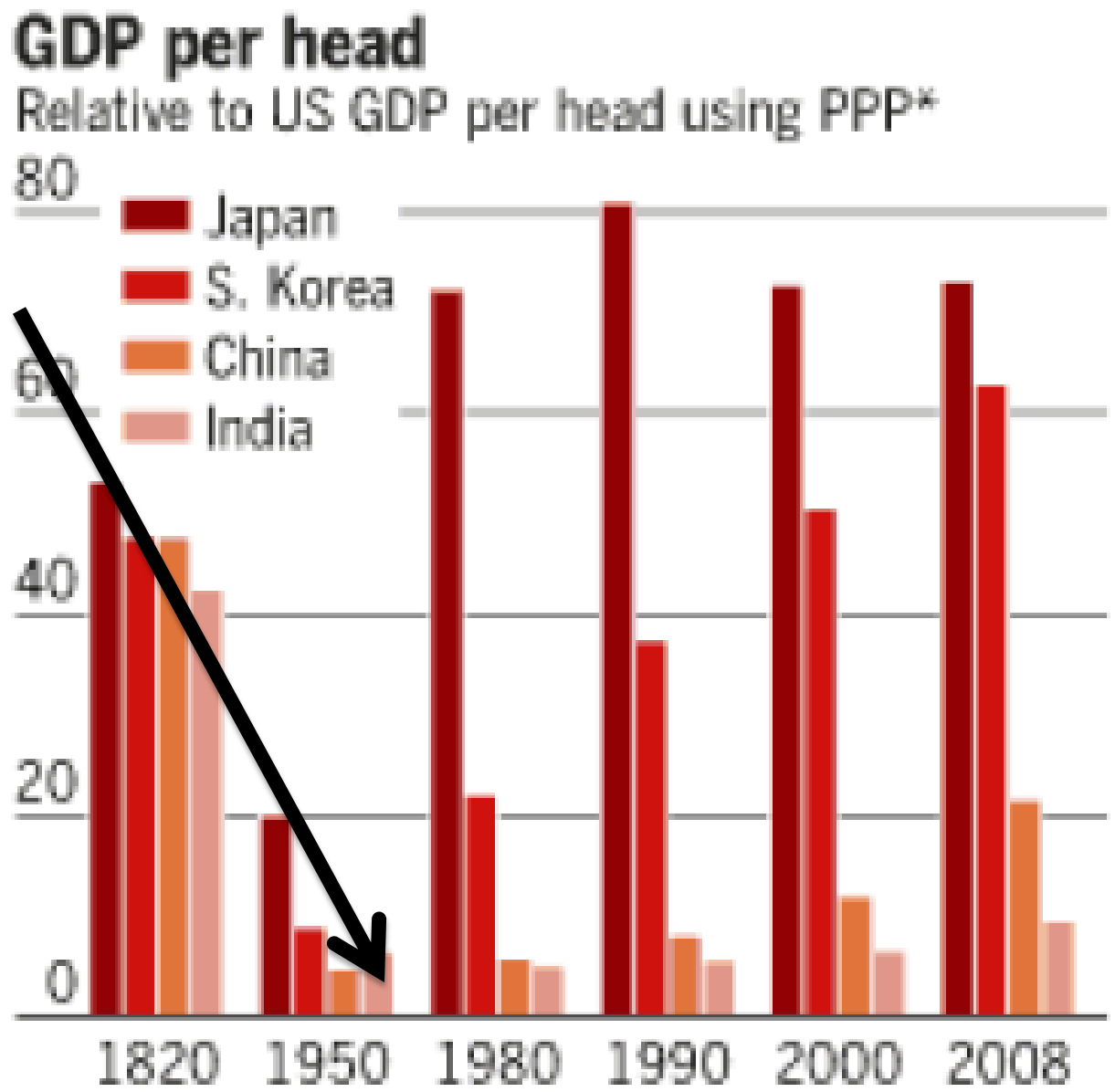
World Changing Events



GDP per head
US 2009 \$ PPP*, log scale

Divergence 1820 to 1950

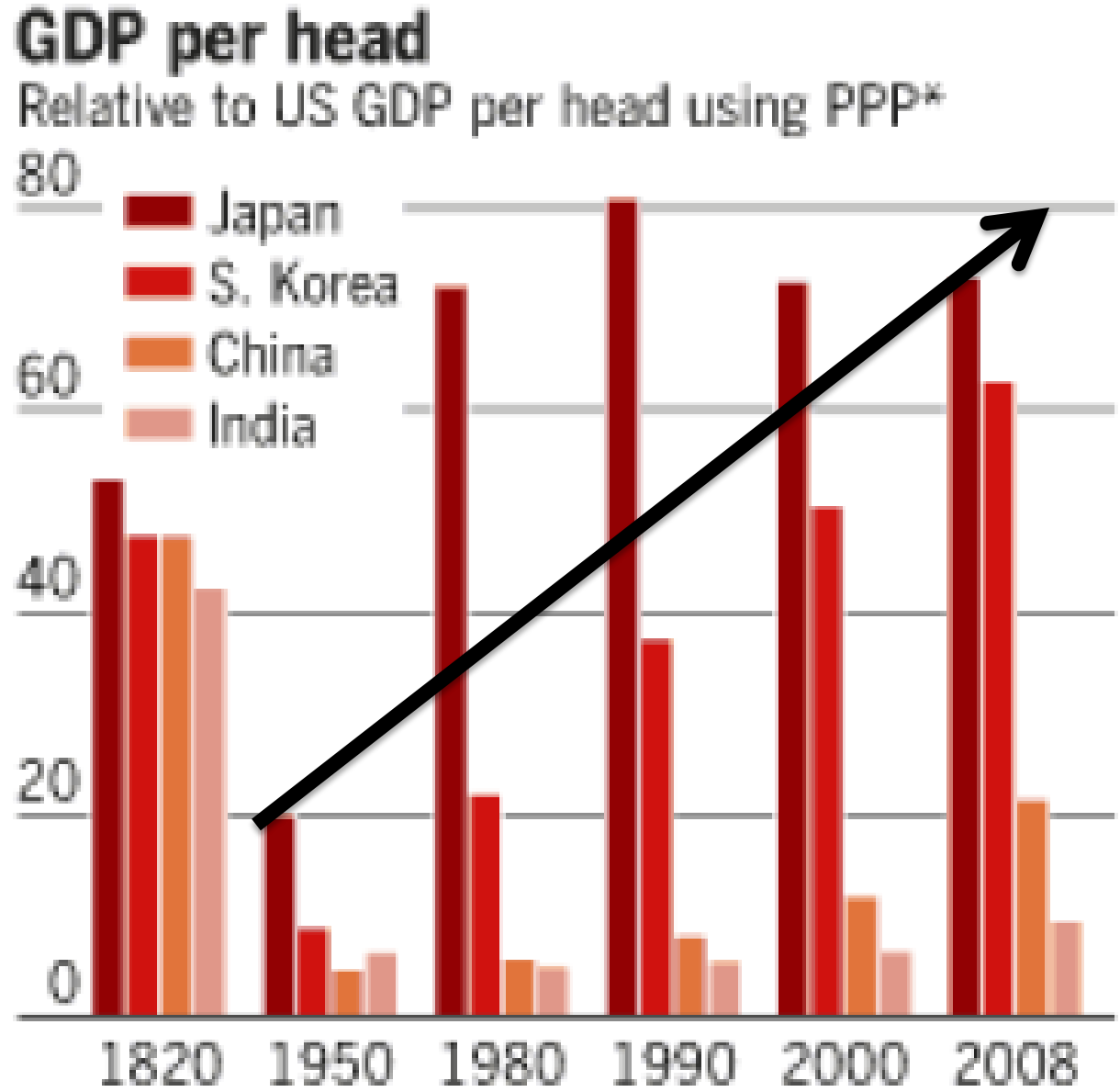
(Per capita
DIVERGENCE
of GDP
in China, India,
Korea and Japan)



GDP per head

US 2009 \$ PPP*, log scale

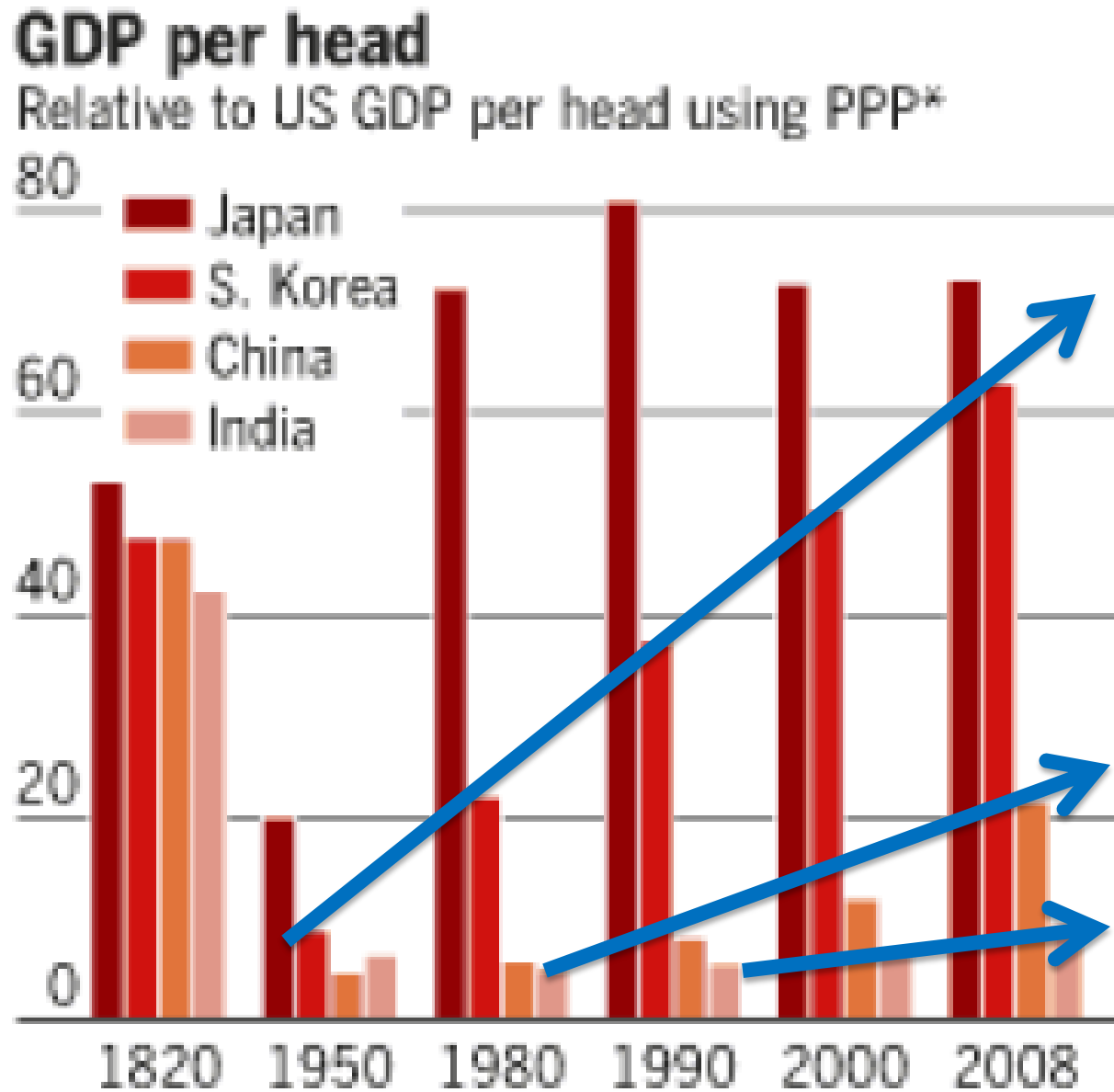
CONVERGENCE
Begins with
Japan and S.
Korea



GDP per head

US 2009 \$ PPP*, log scale

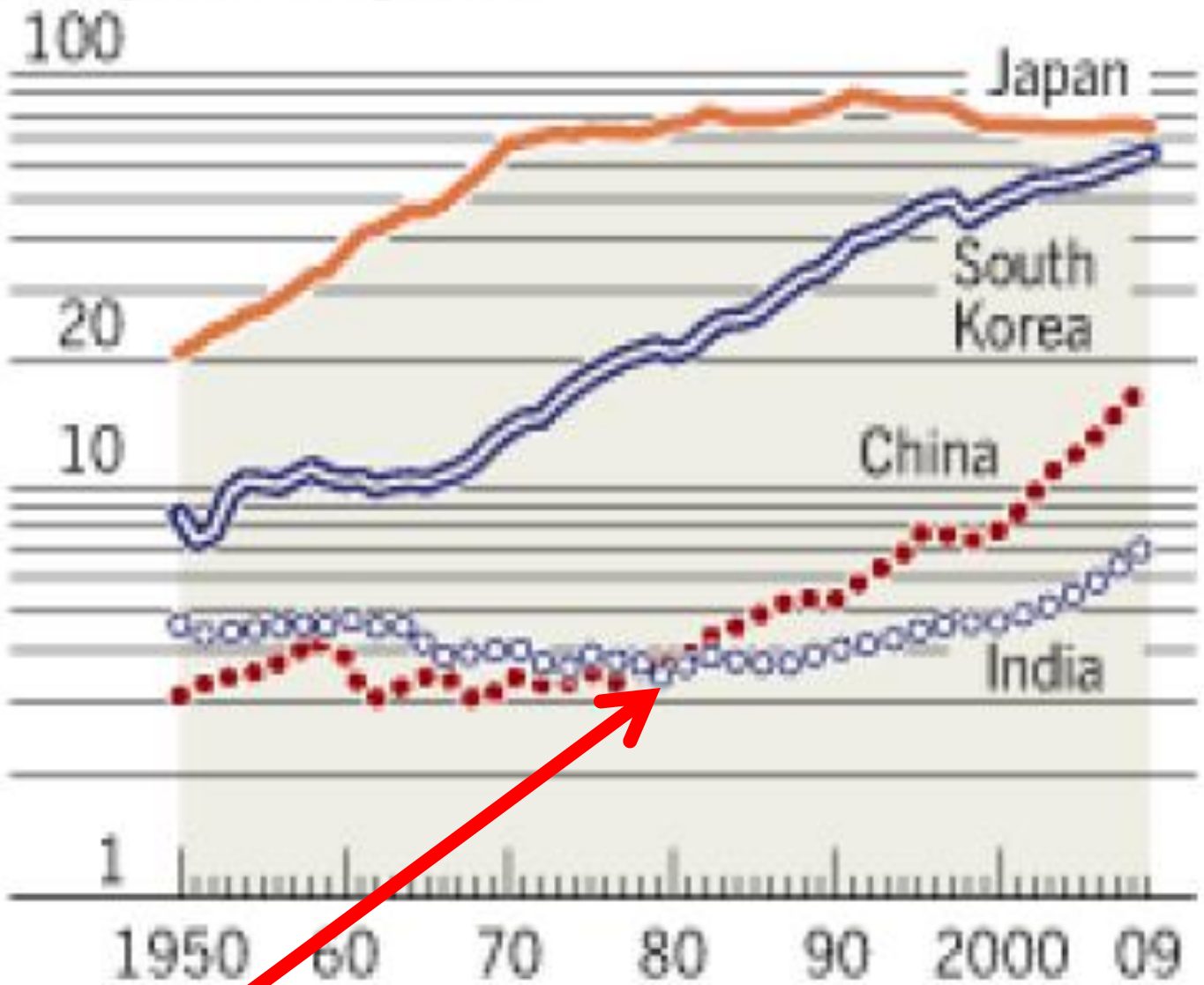
CONVERGENCE
Continues with
China and India
Circa 1980



GDP per head

US 2009 \$ PPP*, log scale

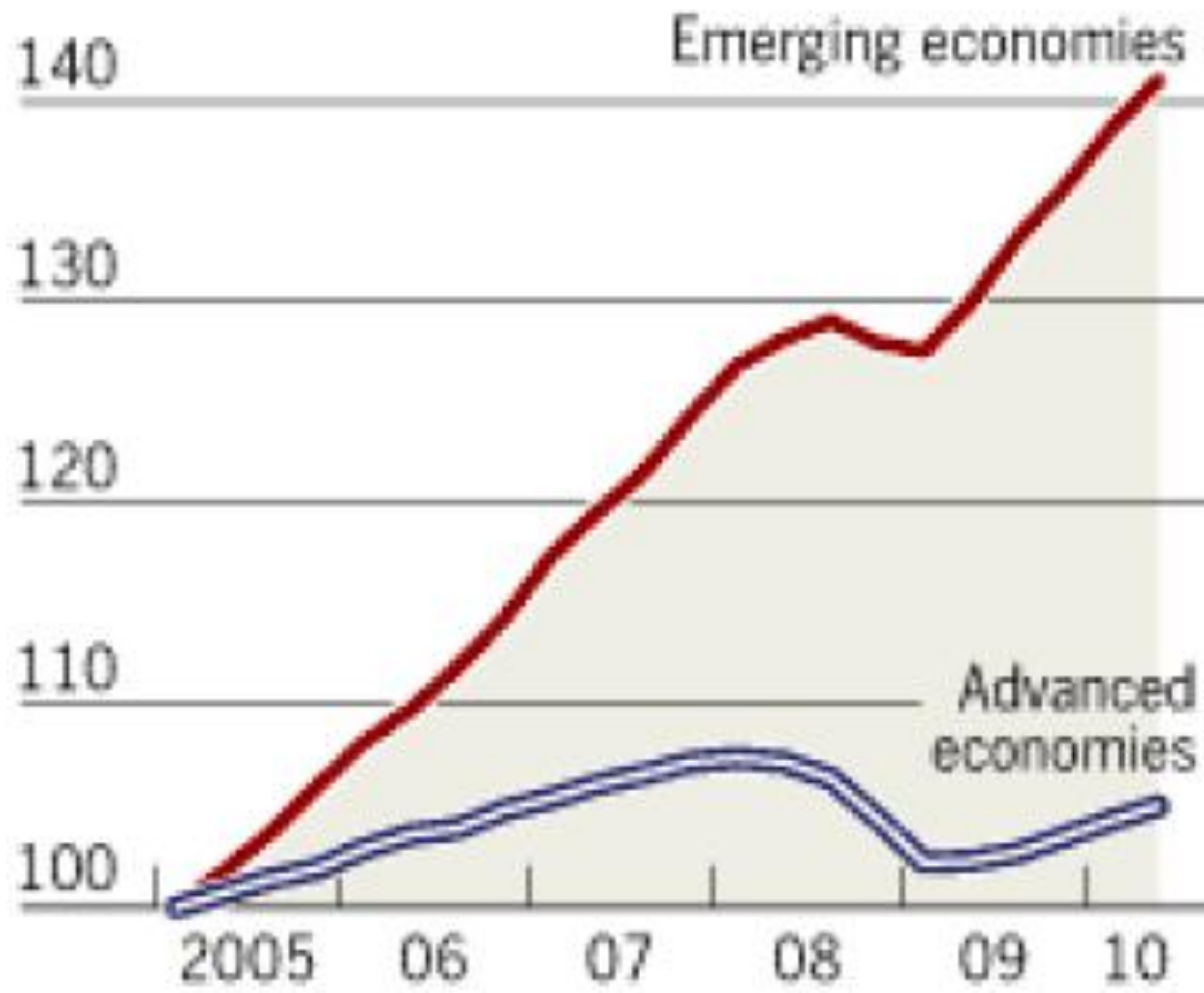
Relative to US GDP per head
using PPP*, log scale



Is Divergence the Same Decoupling?

Growth

GDP rebased (Q1 2005 = 100)



Divergent Growth Rates are Staggering (Nov. 2010)

Fed Chair Ben Bernanke, noted that in 2Q 2010, the aggregate real output of **emerging** economies was:

41% higher than at the start of 2005.

70 % higher in China and

55 % higher in India.

Scale of the Convergence

- What is impressive is not the convergence but its SCALE.
- China is today where Japan was in 1950.
- “If China follows Japan’s Growth Path it would still have 20 years of VERY FAST GROWTH in front of it.”

Growth and Income Dynamics

Rapid divergence in growth rates implies rapid convergence in incomes.

Convergence

But, in the advanced economies, real output was just 5 % higher. For emerging countries, the “great recession of 2008/2009” was a blip.

For high-income countries, it was calamitous.

A Case Study Of Critical Metals 2011

- Convergence has accelerated the 30 year “Giant Sucking Sound” in both soft and hard commodities.
- U.S. Impotence in extractive resource policy, supply chain evolution, job development and intellectual property creation.
- REEs, Moly, Cobalt, Graphite, indium, Tungsten,, even Copper

O Canada

- Canada's potential role in the Convergence.
- Jack Lifton said it best in the Cambridge House Critical Metals Symposium. The role is Canada's choosing.
- Her human capital, IP and natural resource bounty will stand the country in good stead.

Role of Canada in Critical Metal Discovery

- Rare earths
- Vanadium
- Graphite
- Niobium
- Tantalum

The US Resurgence

- Development of Intellectual Property
- Restocking and reclassifying the strategic stockpile
- Supply Chain awareness and development