



THE NEXT CONVERGENCE

THE FUTURE OF ECONOMIC GROWTH
IN A MULTISPEED WORLD

MICHAEL SPENCE

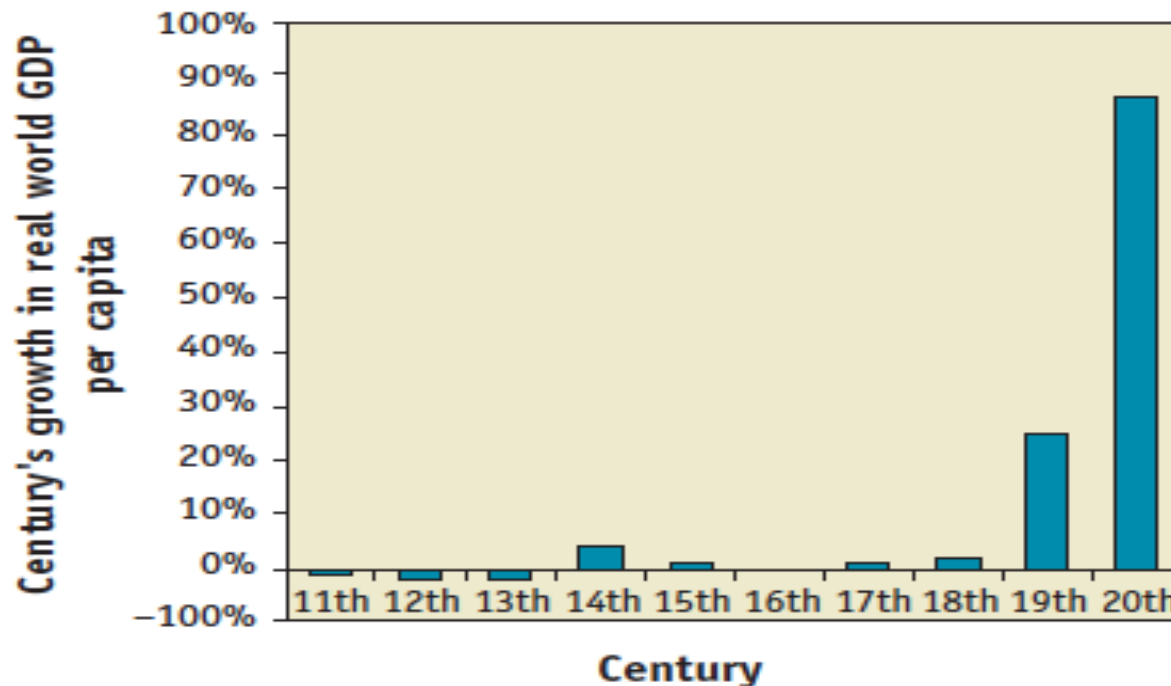
WINNER OF THE NOBEL PRIZE IN ECONOMICS

Iseo Summer School 2011

Growth Acceleration In Late 18th Century

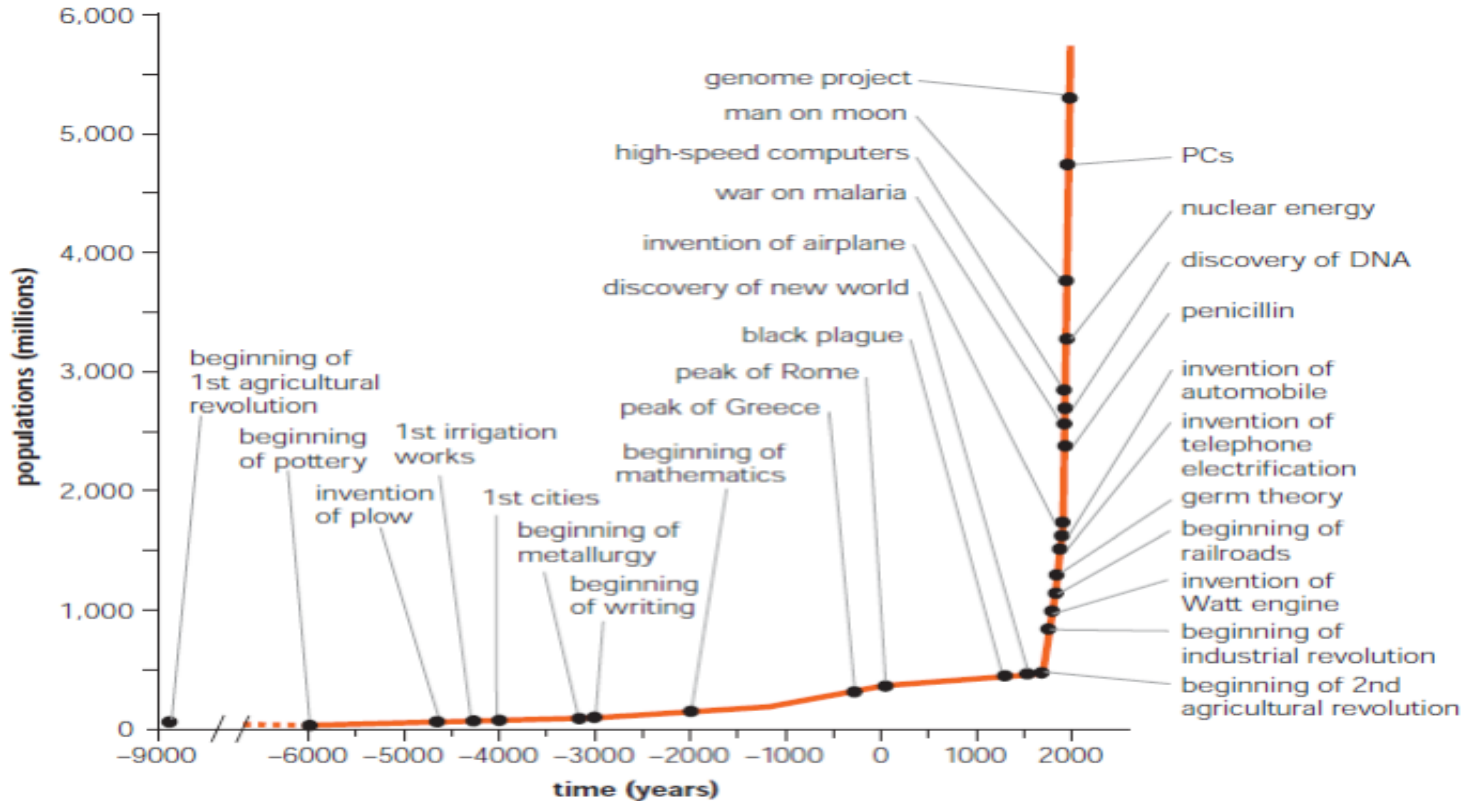
FIGURE 11

Worldwide Growth in Real GDP per Capita, 1000–Present



Source: DeLong 2000.

Population Growth



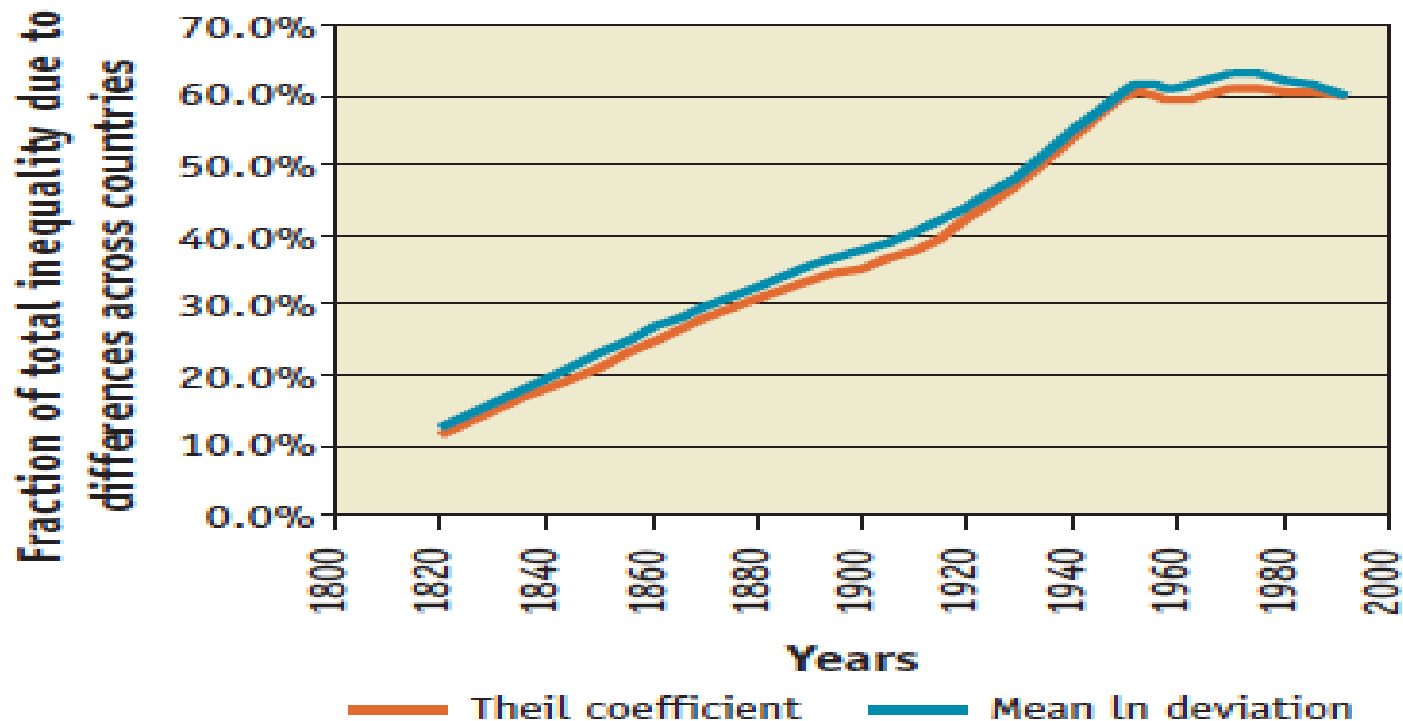
Source: Fogel, Robert. 1999. "Catching Up with the Economy." *American Economic Review* 89(1) (March): 1-21.

Note: There is usually a lag between the invention of a process or a machine and its general application to production. "Beginning" means the earliest stage of this diffusion process.

Two Centuries of Divergence

FIGURE 1.4

Fraction of World Inequality Accounted for by Differences across Countries

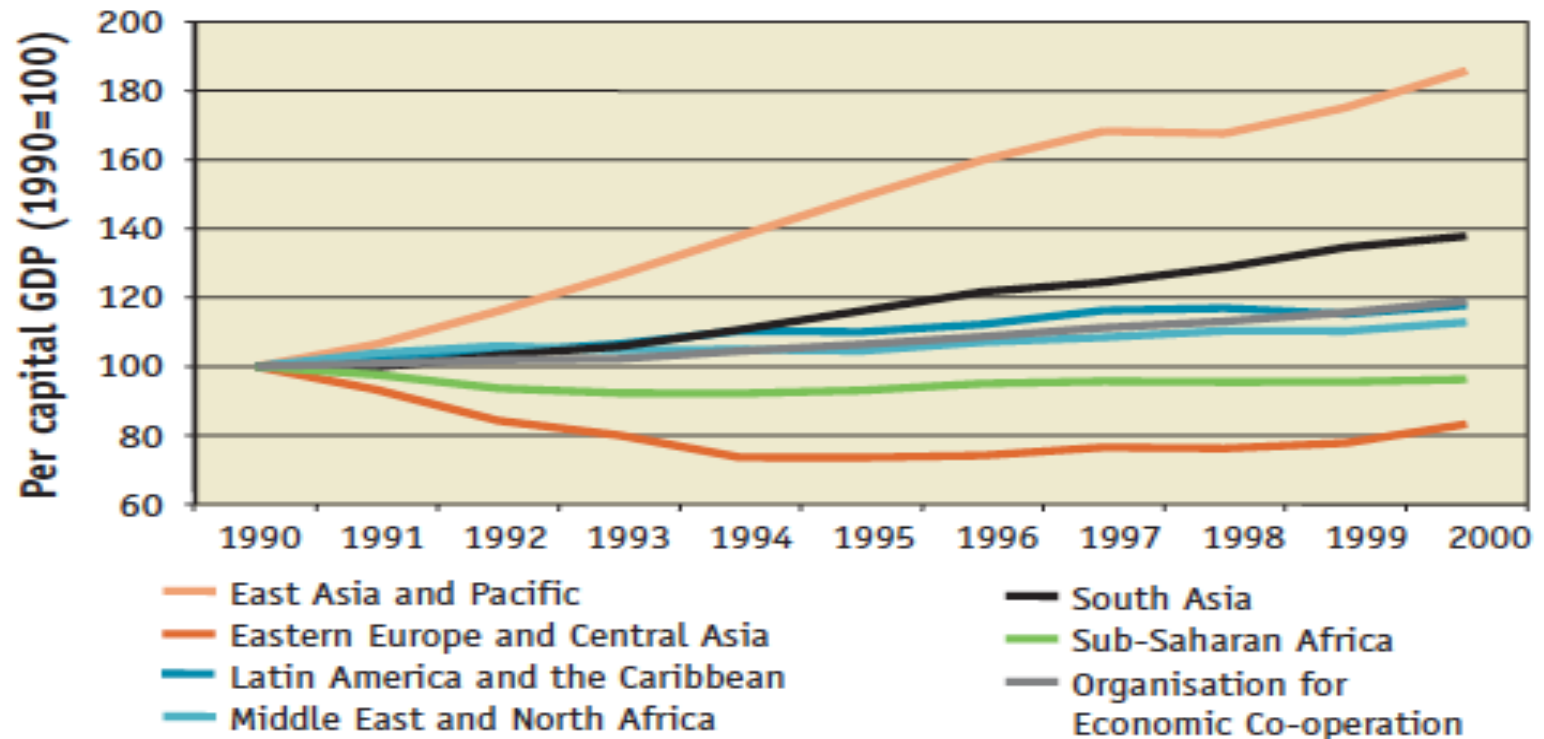


Source: Bourguignon and Morrison 2002.

Different Growth Trajectories More Recently

FIGURE 1.3

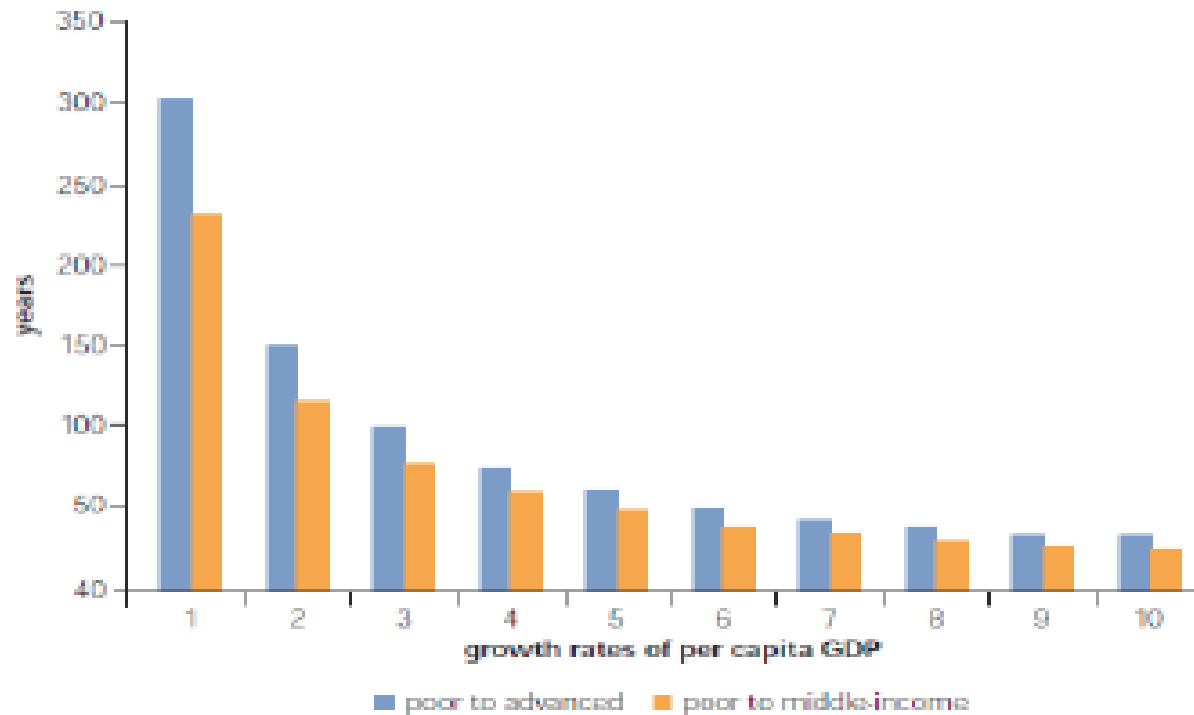
Regional Perspectives on Growth in the 1990s



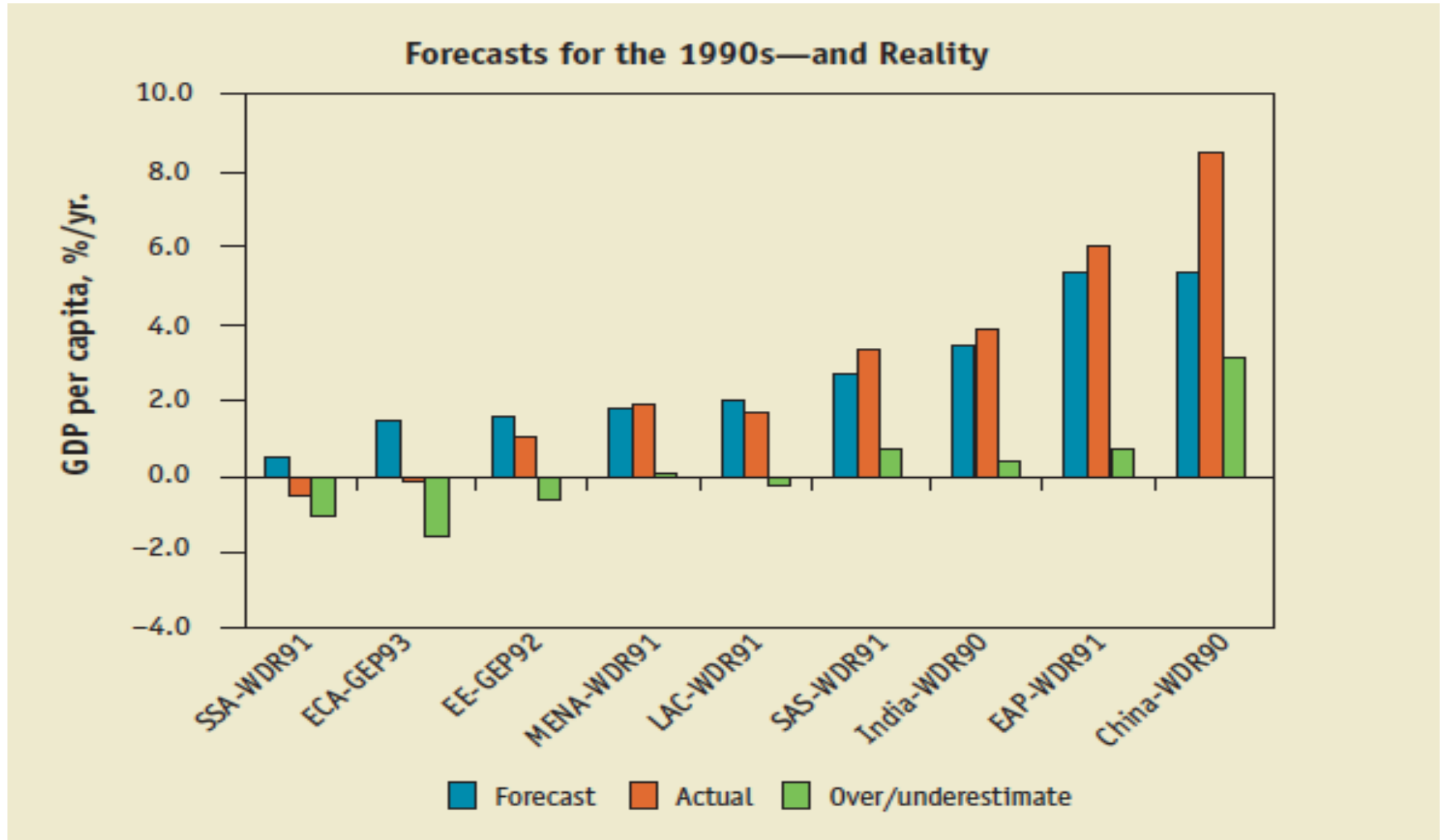
Source: WDI 2003.

Times for the Full Journey

Figure 3 Transitions to Higher Incomes



Economists' Forecasts



Economy	Period of high growth**	Per capita income at the beginning and 2005***	
Botswana	1960–2005	210	3,800
Brazil	1950–1980	960	4,000
China	1961–2005	105	1,400
Hong Kong, China*	1960–1997	3,100	29,900
Indonesia	1966–1997	200	900
Japan*	1950–1983	3,500	39,600
Korea, Rep. of*	1960–2001	1,100	13,200
Malaysia	1967–1997	790	4,400
Malta*	1963–1994	1,100	9,600
Oman	1960–1999	950	9,000
Singapore*	1967–2002	2,200	25,400
Taiwan, China*	1965–2002	1,500	16,400
Thailand	1960–1997	330	2,400

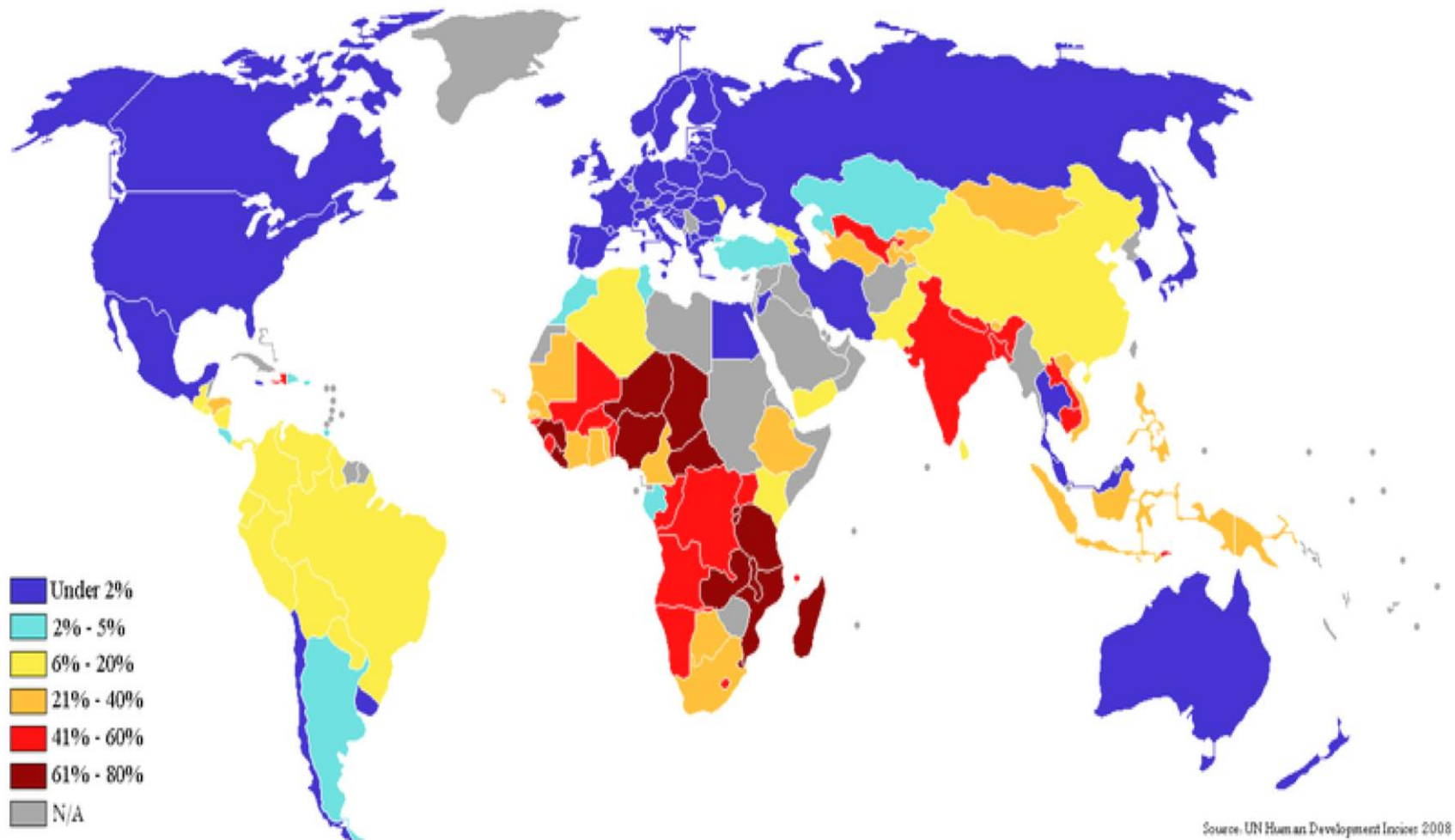
Source: World Bank, World Development Indicators.

*Economies that have reached industrialized countries' per capita income levels.

**Period in which GDP growth was 7 percent per year or more.

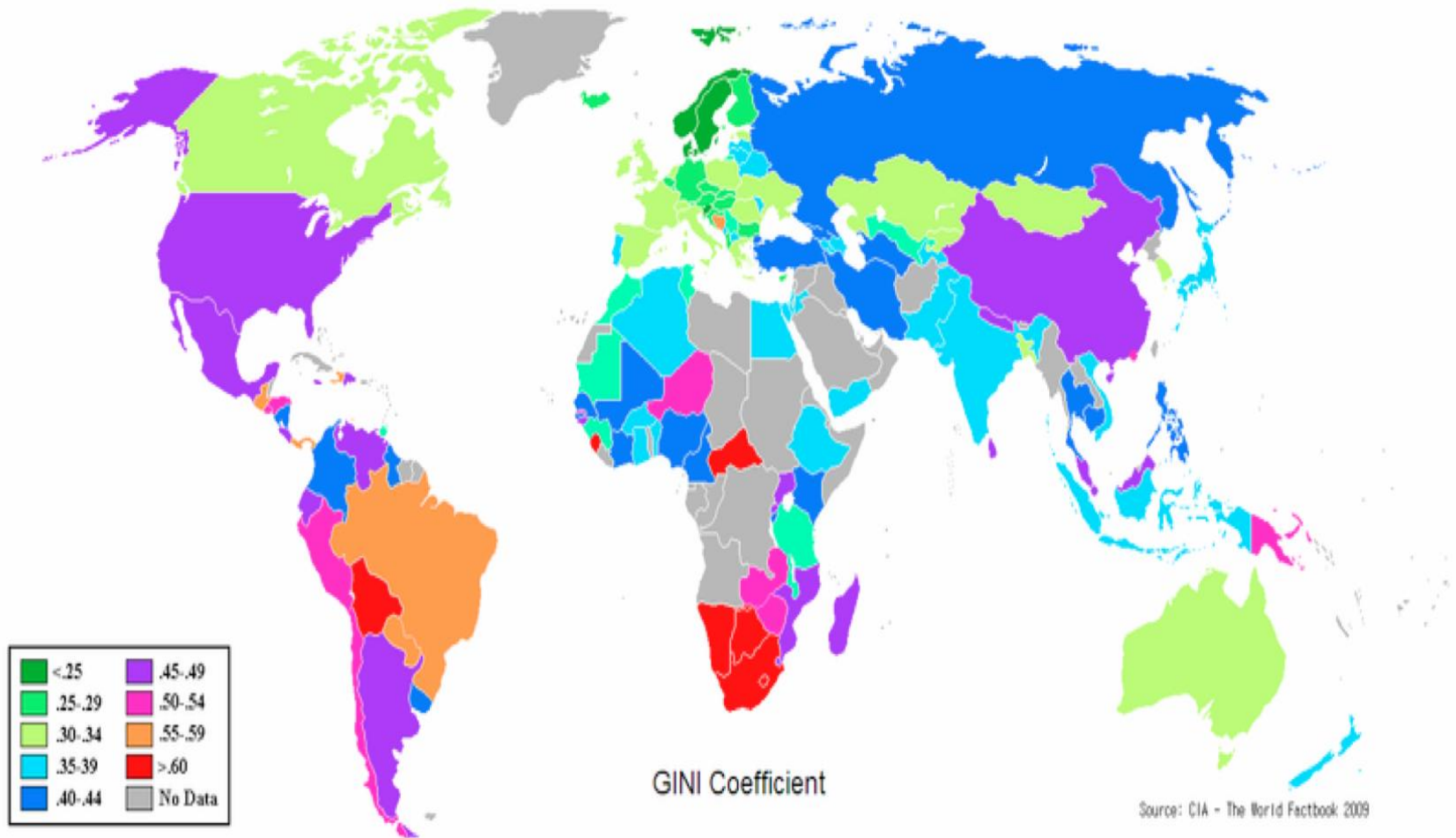
***In constant US\$ of 2000.

Incidence of Poverty Less than \$1.25 per day



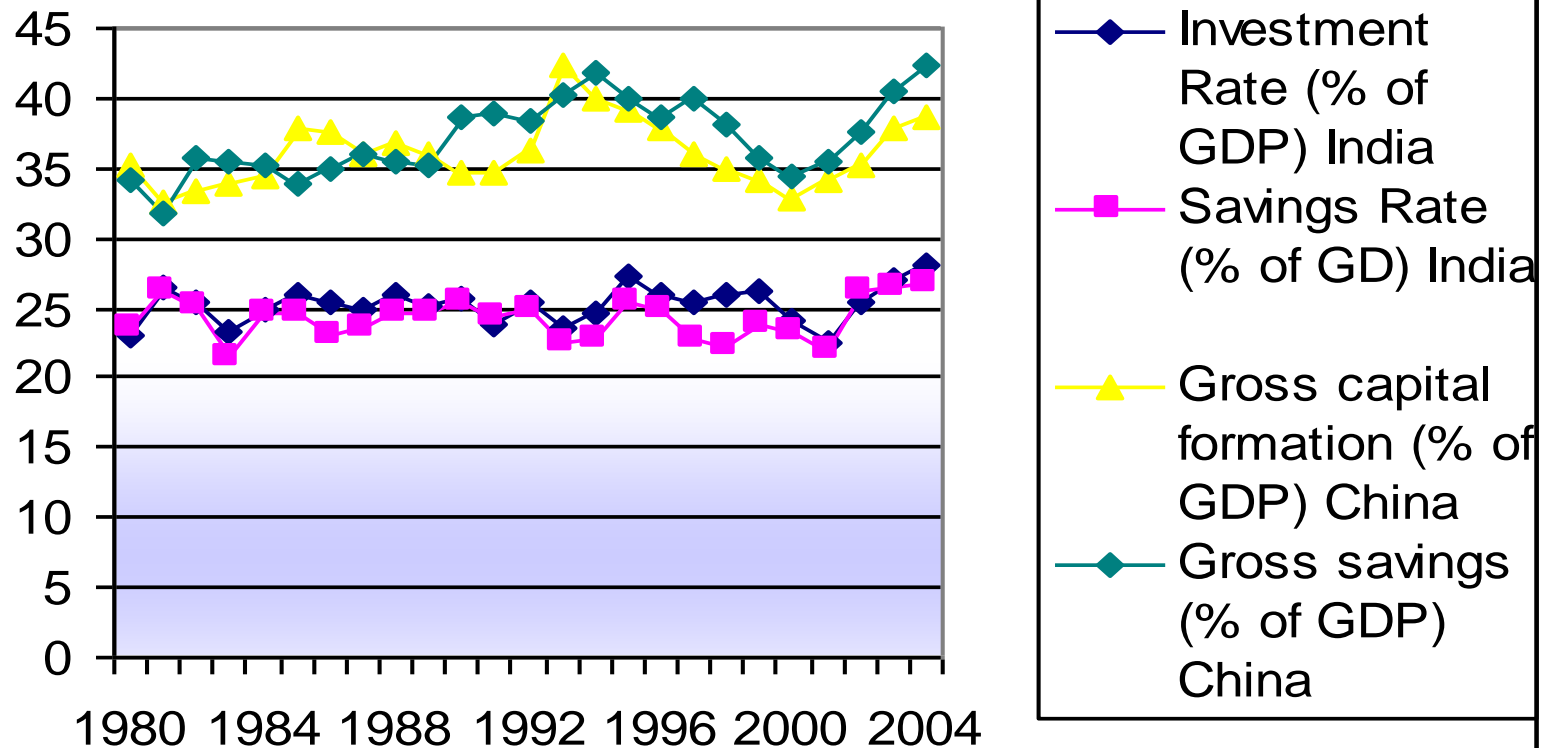
Source: UN Human Development Index 2008

Gini Coefficients

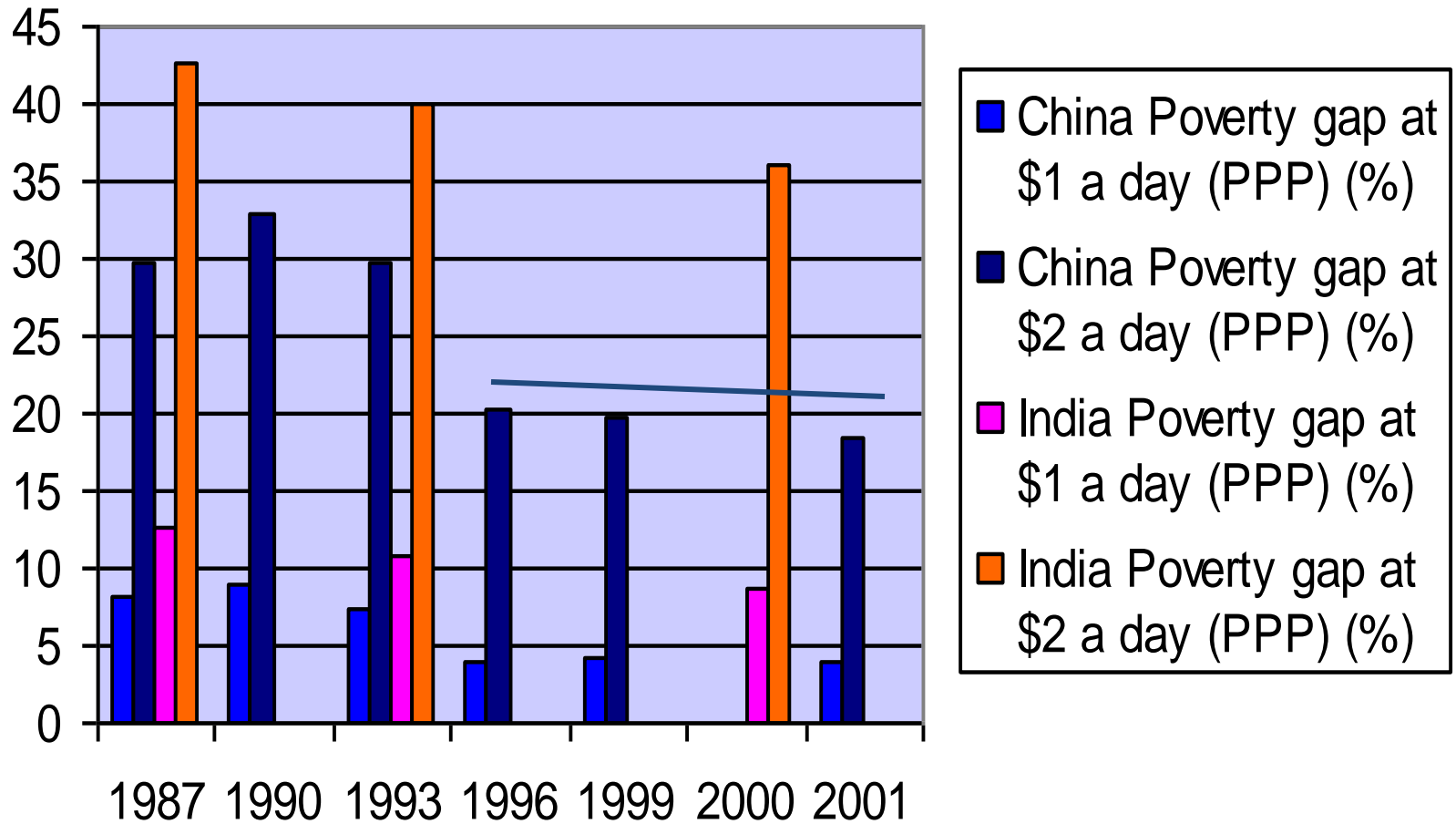


Saving and Investment

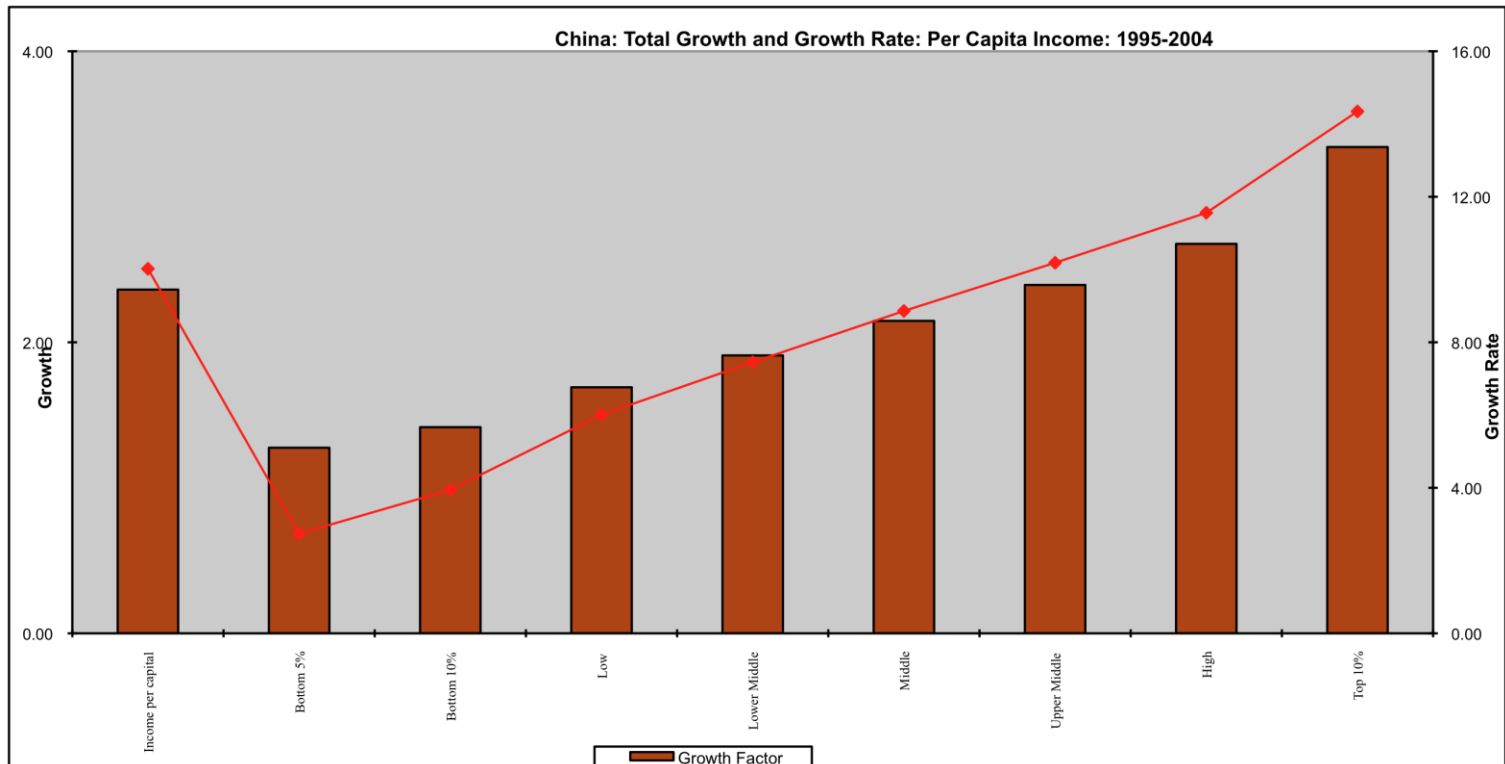
Savings and Investment in India and China



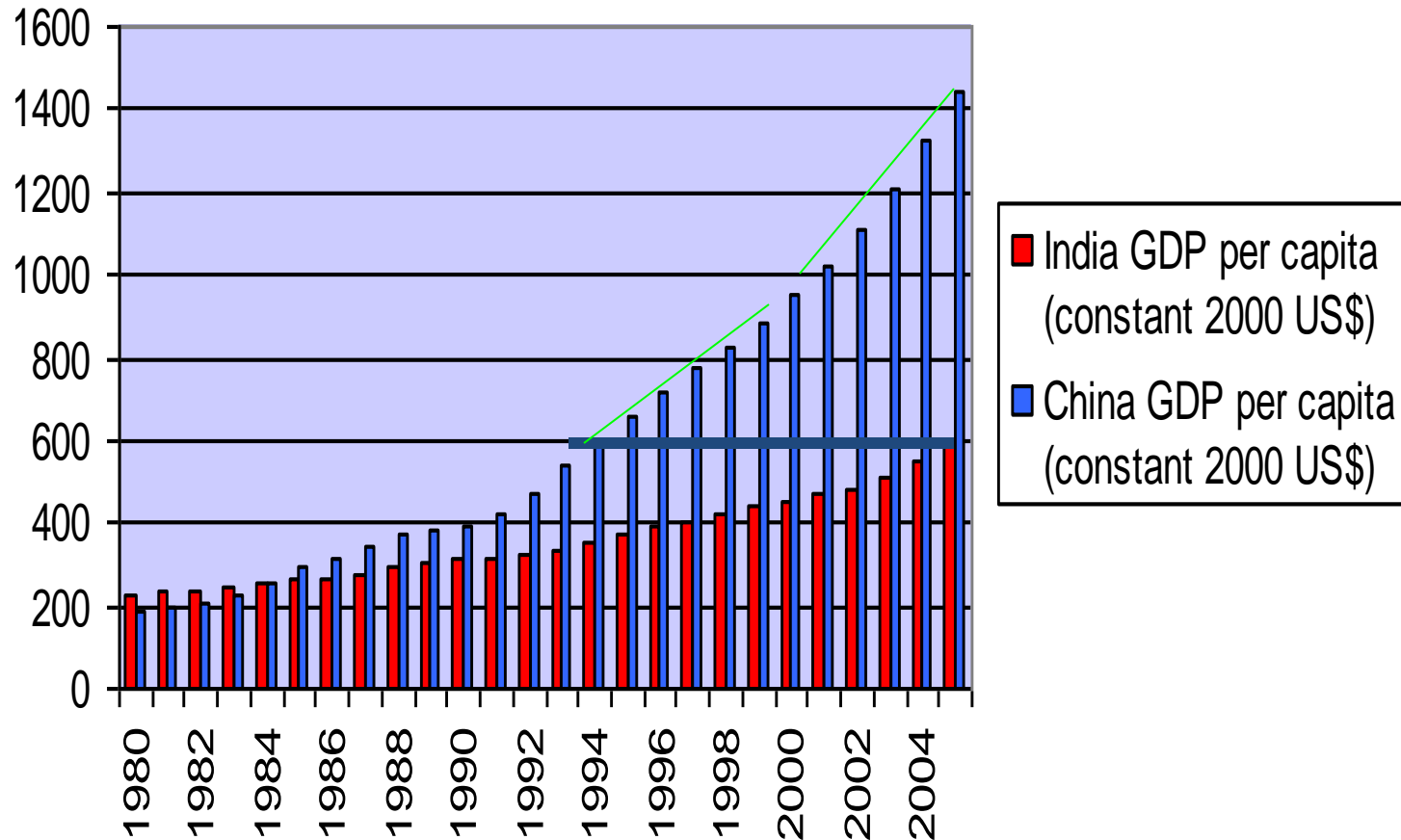
Poverty in China and India



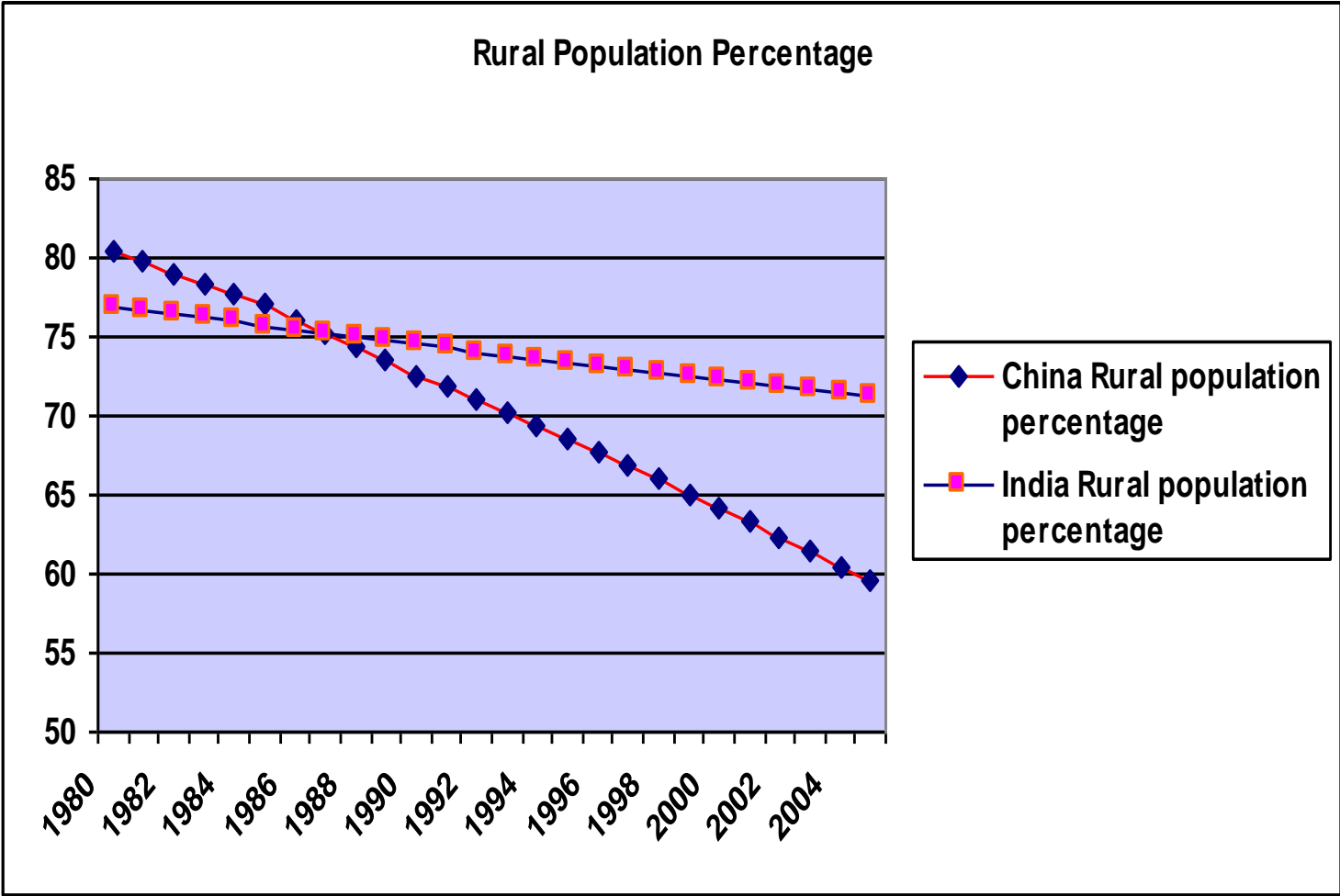
Income Inequality



GDP per capita: China and India (constant 2000 US\$)

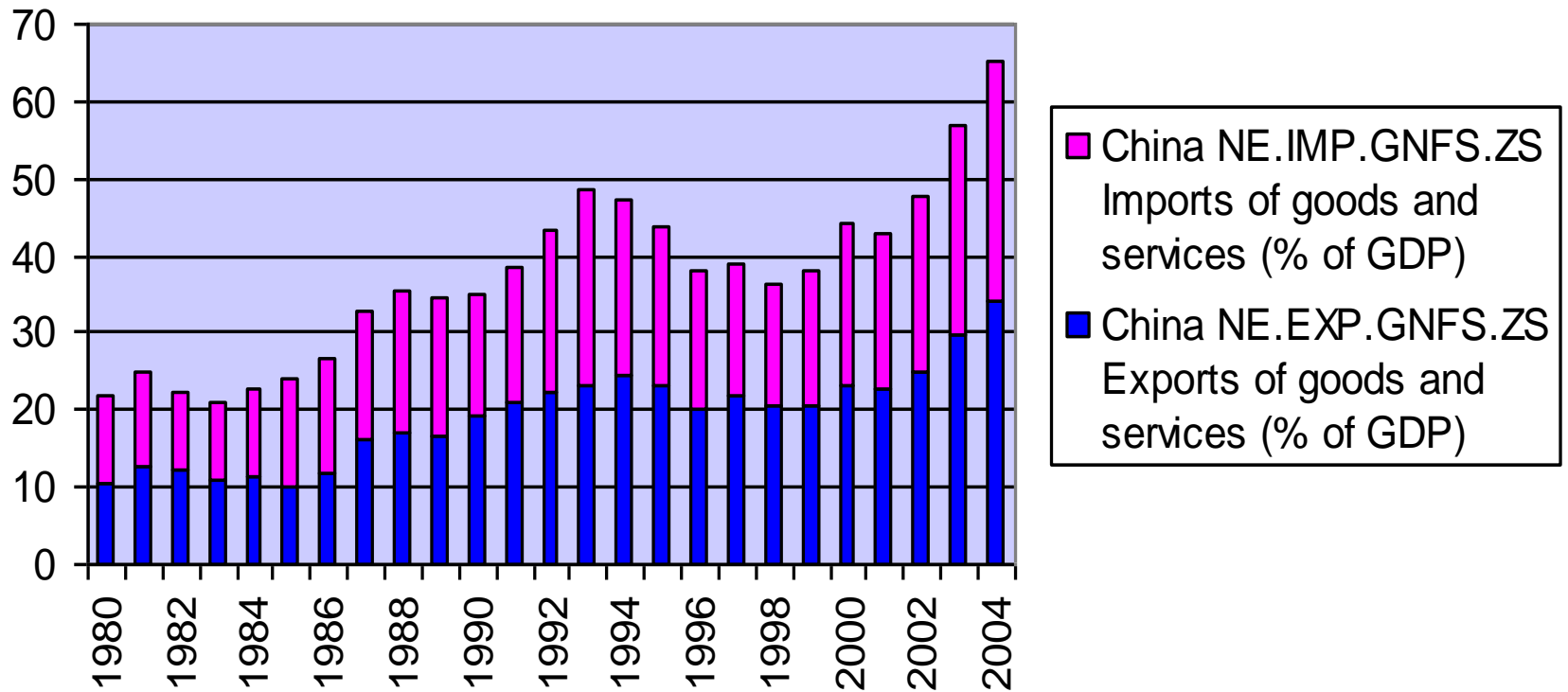


Rural Populations Decline

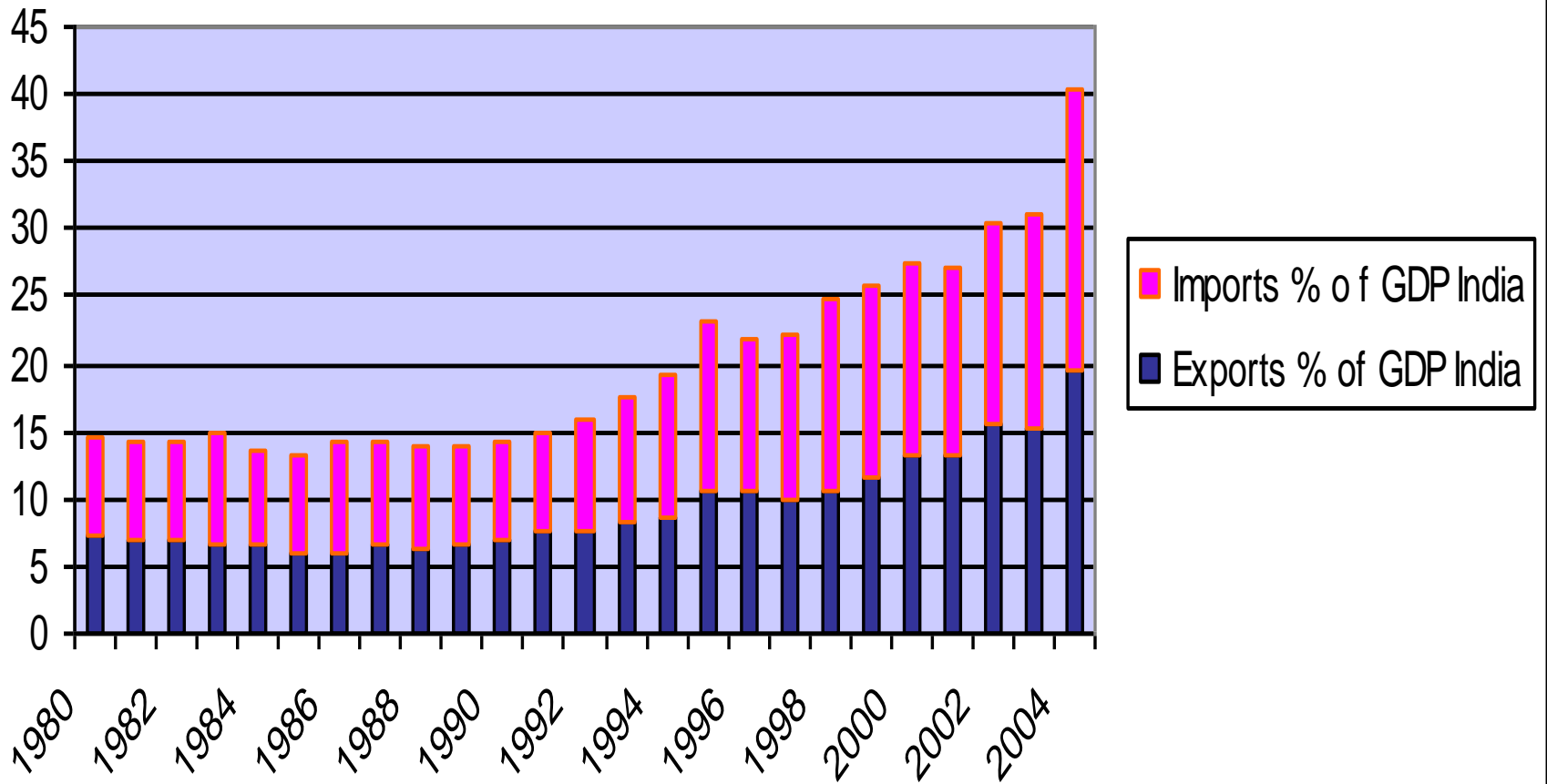


Leveraging the Global Economy

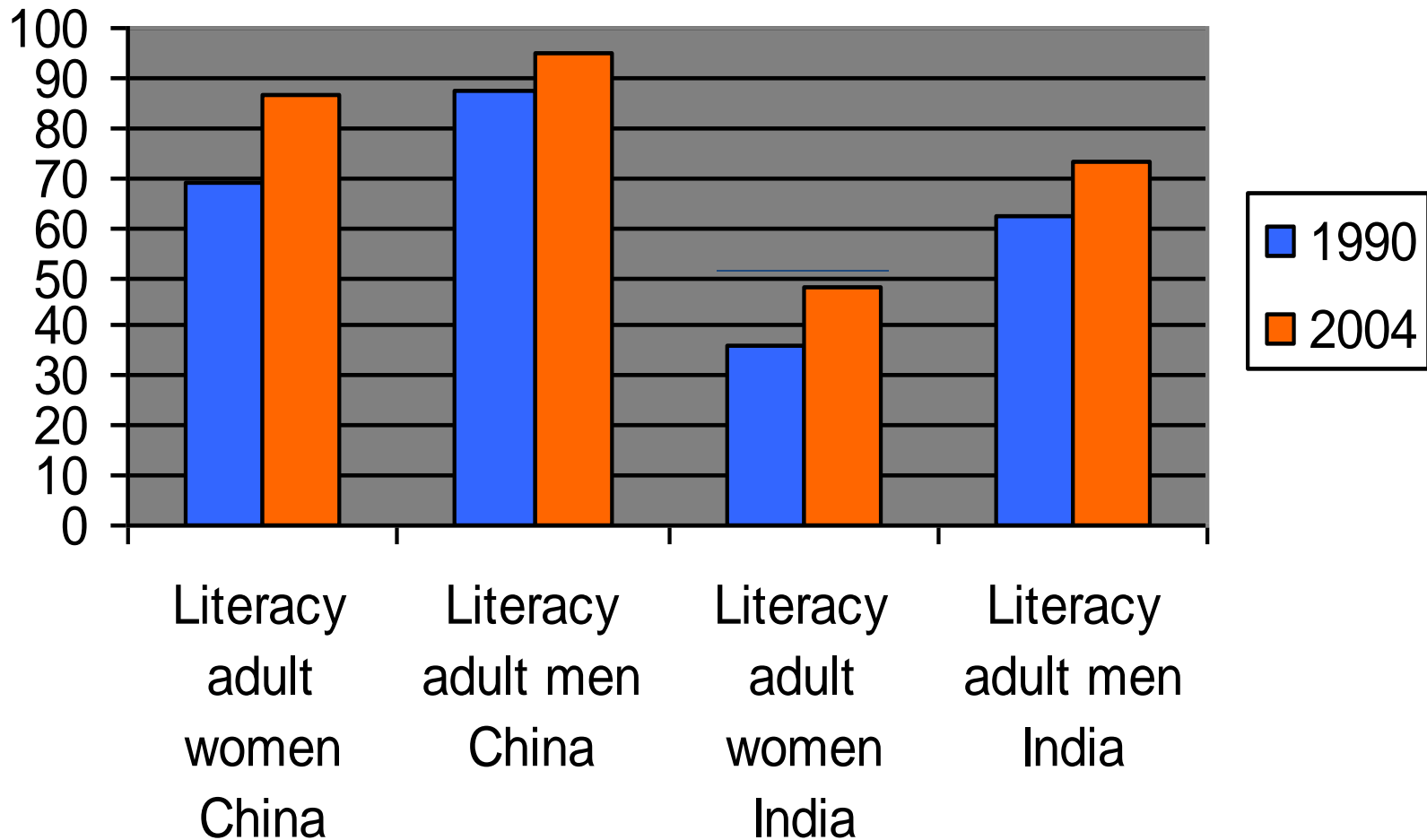
Trade in Relation to GDP China



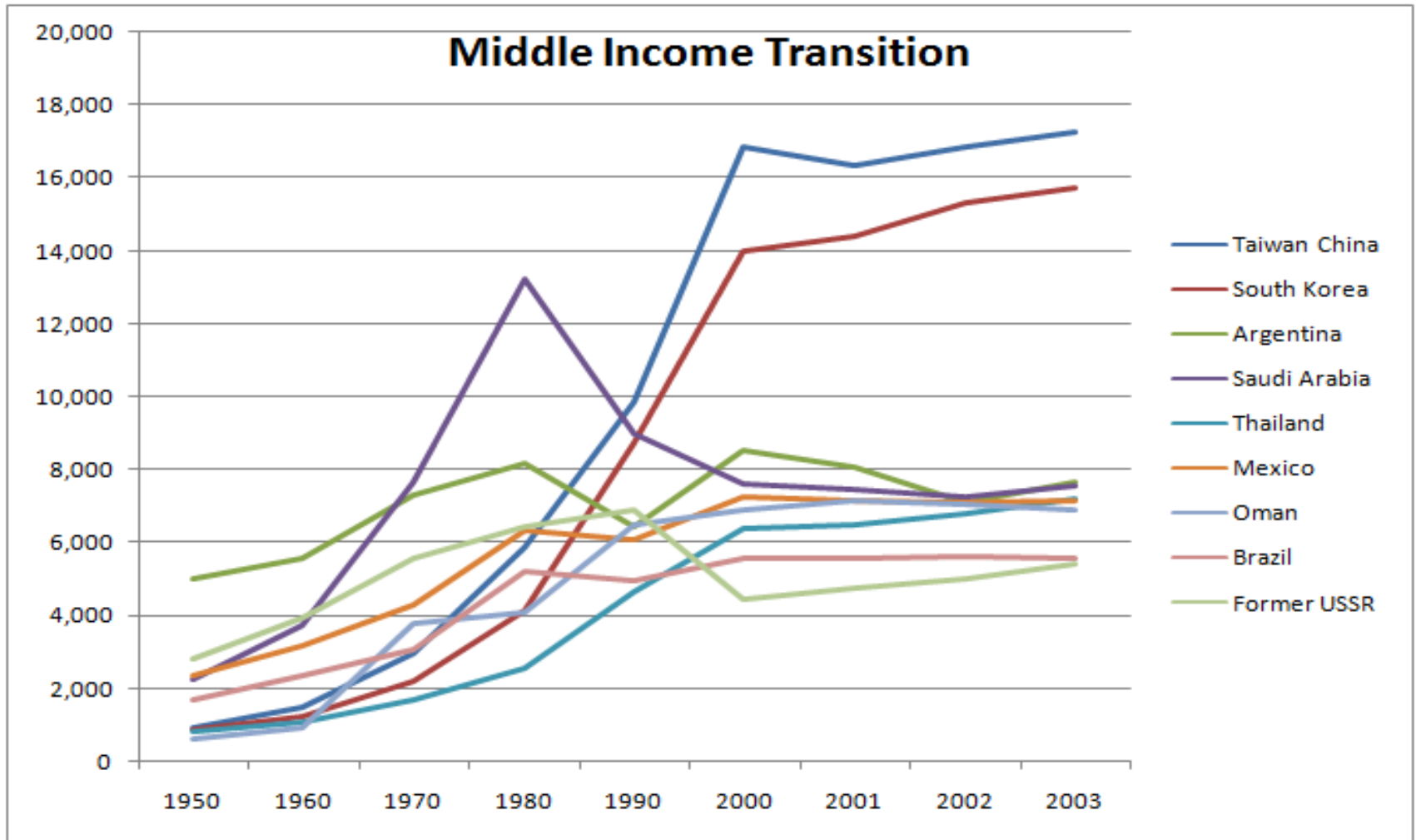
Trade in Relation to GDP India



Literacy Rates: India and China



Middle Income Transition is Difficult



Five High Speed Transitions

- **Japan**
- **Korea**
- **Taiwan**
- **Hong Kong**
- **Singapore**

- **China entering the middle income transition**

Crisis and Developing Countries

- **Two channels of Impact**
 - **Exodus of capital and credit tightening**
 - **Huge fall off in trade**
- **Fast Recovery**
 - **Domestic ownership in financial sector**
 - **Rapid response by central bank**
 - **Trade bounced back**
 - **Reserves**
 - **No toxic assets**
 - **Absence of household balance sheet damage**
- **EM's had v-shaped recovery that policy makers and markets in advanced countries expected**
- **Latter missed the structural reasons for the new normal**

Sustainability of Growth in EM's?

- **Baseline case with extended slow growth in advanced economies – the growth is sustainable**
 - **Economic size**
 - **Trade within EM group**
 - **Higher incomes and closer match between demand and supply sides of the economy**
- **Risks**
 - **Major repeat downturn in advanced countries**
 - **Serious outbreak of protectionism**
 - **Mishandle the current distortions caused by advanced country recovery policies**

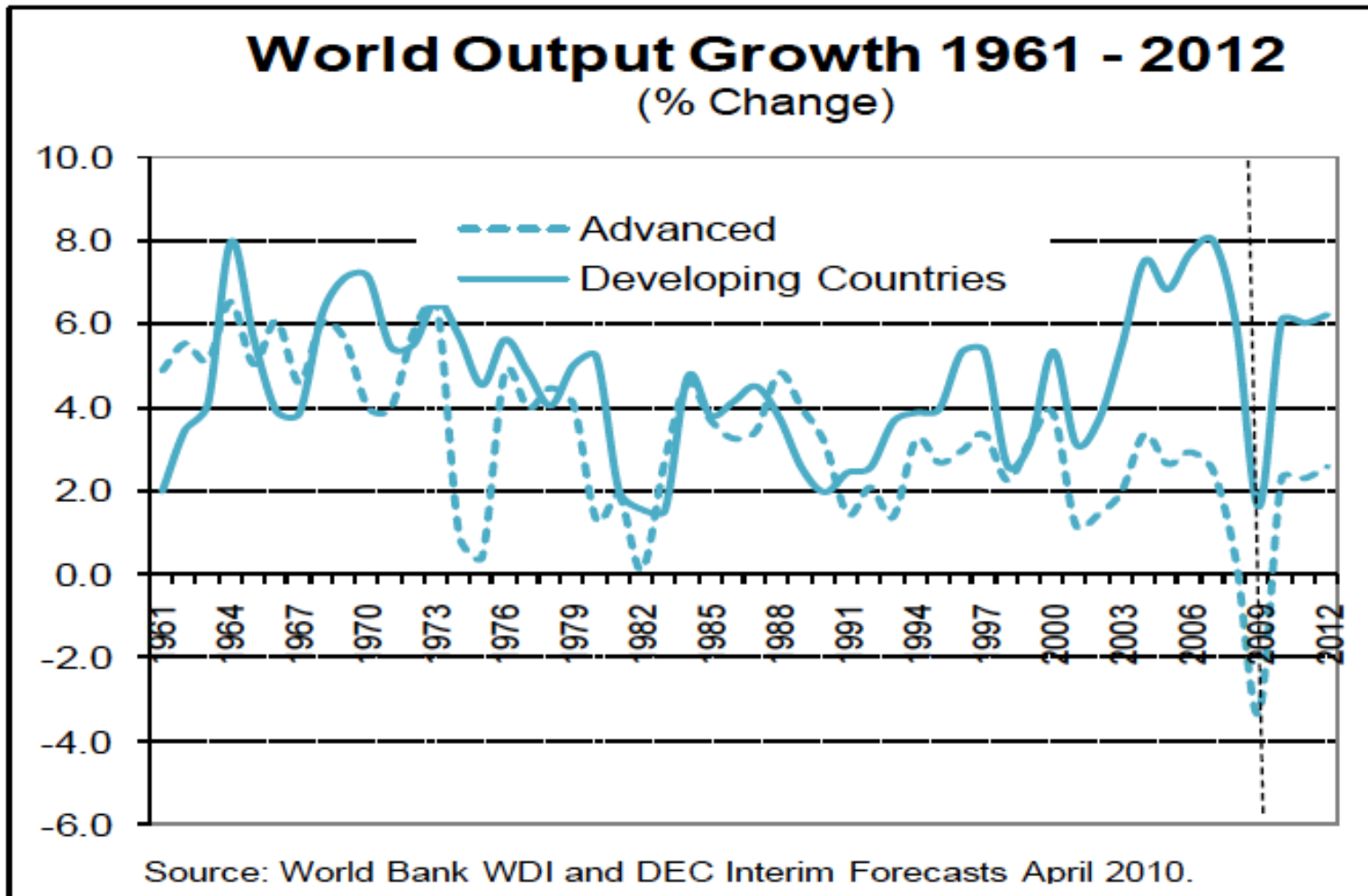
Evolving Structure of Global Economy

- G20 85% of GDP and 66% of population**
- EM's + will pass 50% of global GDP within a decade**
- Impact on advanced countries larger**
- Asymmetries declining**
- They are good at structural change and we are less so**
- Old Hybrid's won't work**
 - Example, post Bretton Woods international currency system**
- China second largest economy in world**

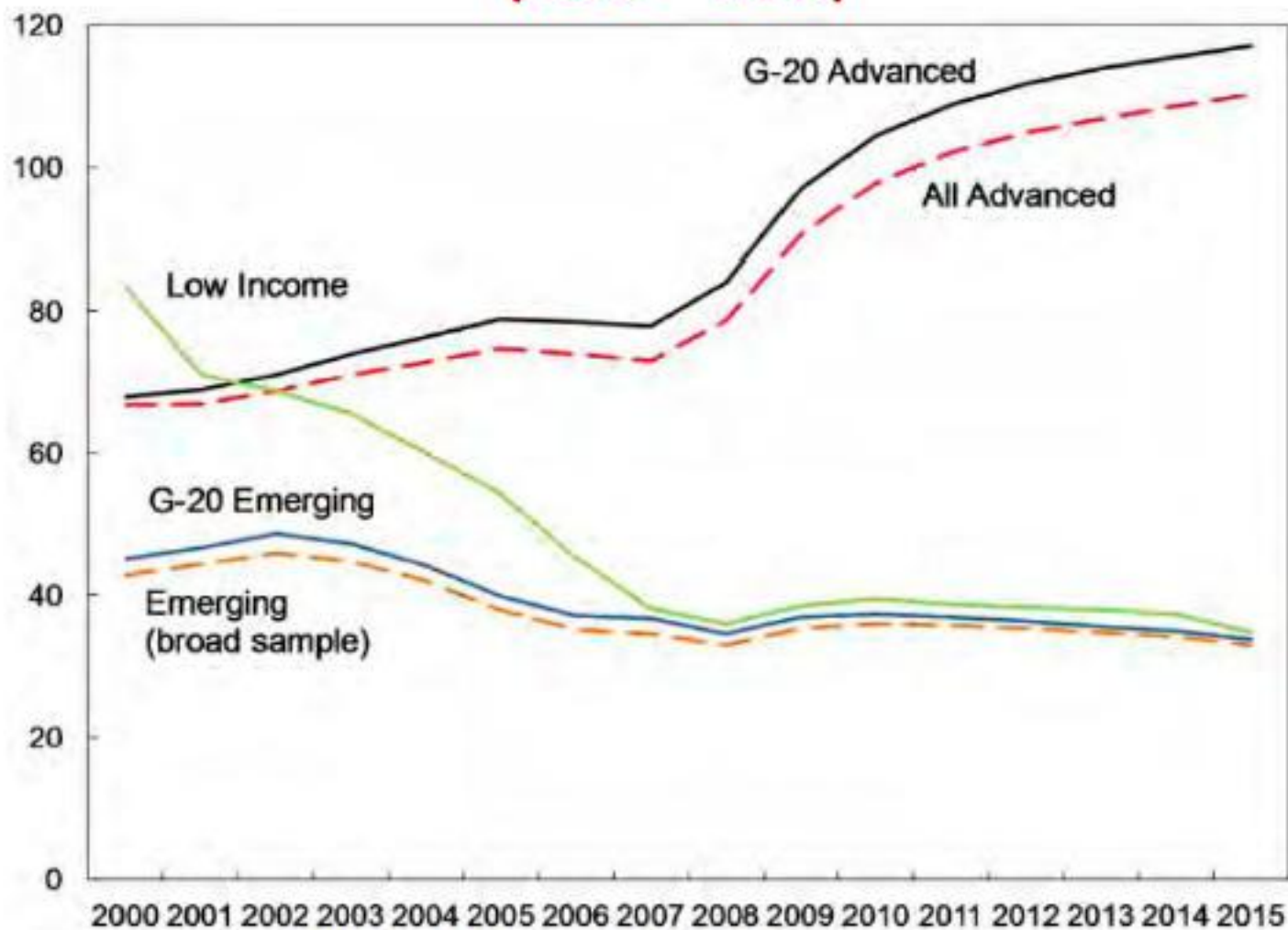


Partial Decoupling

Figure 1



G20 Countries: General Government Debt to GDP Ratios (2000 – 2015)



Source: IMF, *Fiscal Monitor*, May 2010

G20 and The Crossroad in the Global Economy

- **The advanced countries and the major emerging economies**
- **Accounts for 85% or more of global GDP**
- **About 2/3 of world population**
- **Post crisis, it is the entity that sets priorities, manages the global economy and financial system, seeks to achieve cooperative outcomes**
- **Replaces the G7/8**
- **It is too soon to tell if it will be effective at this.**

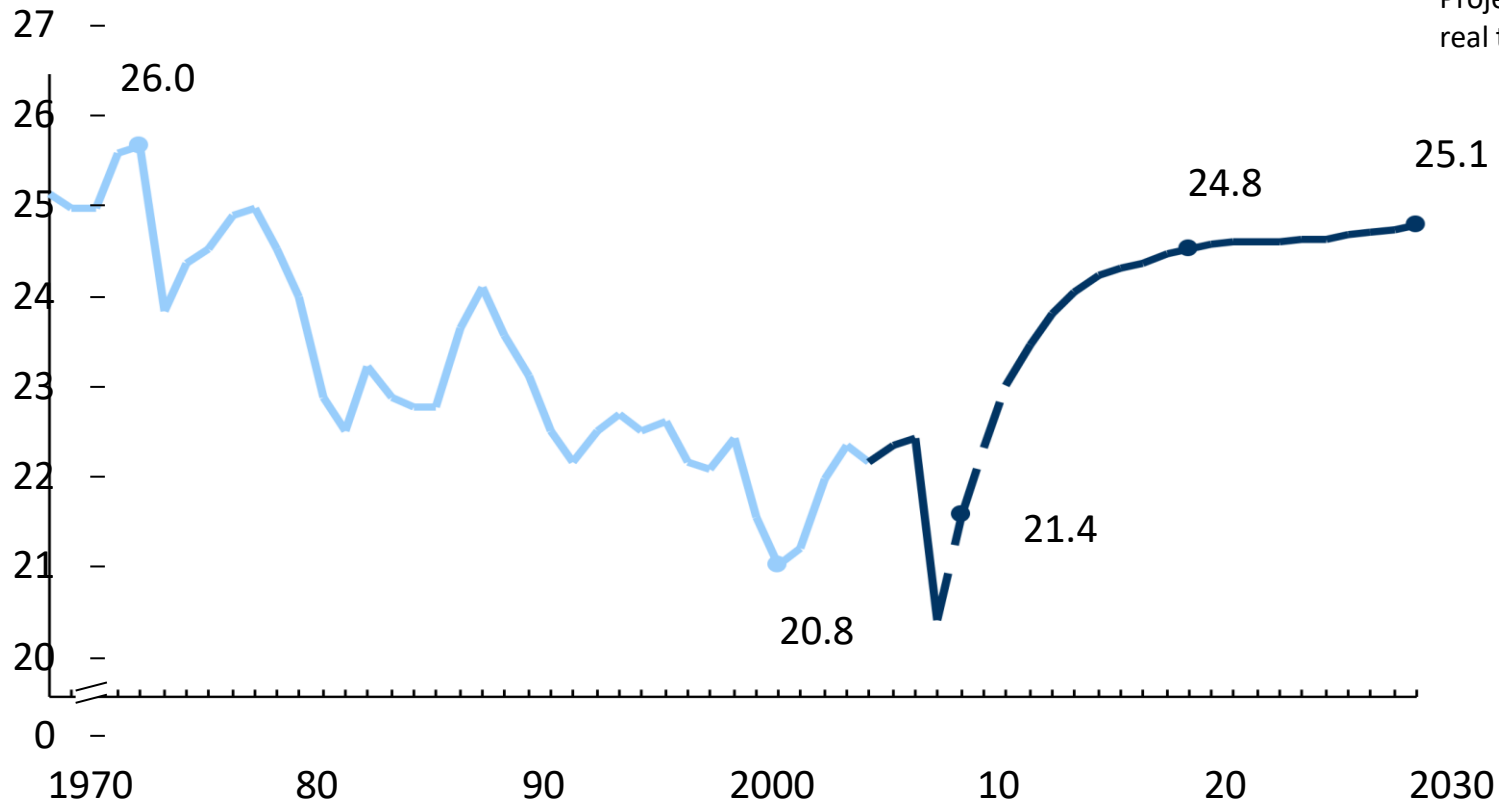
- **The developing economies are within a decade of going past 50% mark of world GDP**
 - **They have systemically important effects on the global economy – this is new**
- **Many old models will have to be changed in this shifting landscape**

In the consensus global growth scenario, the global investment demand could increase to about 25 percent of GDP by 2030

CONSENSUS GLOBAL GROWTH SCENARIO

- Historical trend in nominal terms¹
- Historical trend in real terms²
- - - Projection in real terms^{2,3}

Global investment rate, 1970–2030
% of global GDP



1 Based on actual prices and exchange rates of each year.

2 Shown in 2005 prices and exchange rates.

3 Forecast assumes price of capital goods increases at same rate as other goods and assumes no change in inventory.

Asia

- **East and South**
- **The two future economic giants (China and with a lag India)**
- **3.8 billion people (58% of world population)**

- **Economic concentration is declining now**
- **That will reverse in about 10 years**
- **Global GDP will triple in 30 years or less**
 - **Older growth models will not work**
 - **Natural resources and the environment won't hold up**

- **Asian growth will affect or determine many things**
 - **Sustainability**
 - **Governance**
 - **Levels of investment and costs of capital**

China

- **Second largest economy**
- **Largest export destination for Korea, India, Brazil, Australia, probably Japan soon**
- **EM growth is dependent on China's sustained growth**
 - **In investment terms they are correlated through China**
- **China is entering a complex set of structural changes on the demand and supply side**
- **Generally called the Middle Income Transition (or Trap)**

China

12th five year plan outline just published in Chinese

- **Divided into 12 parts, the proposal provides the basis for drafting the 12th five-year program. It includes accelerating transformation of economic development pattern, further expanding domestic demand and pushing forward the modernization of agriculture.**
- **The proposal also stresses development of a modern industrial system, coordinated development of all regions, and the building of an energy-efficient and environmentally-friendly society in the coming five years.**

- **Acceleration of the transformation of the economic development pattern was a profound reform and should proceed throughout all sectors of economic and social development, while economic strategic restructuring should be a major task in the transformation, according to the proposal.**
- **Reform is a powerful driving force for the transformation and should be pushed forward in all sectors with greater resolve and courage. "Great impetus will be given to economic restructuring, while vigorous yet steady efforts should be made to promote political restructuring," says the proposal.**

- **Meanwhile, the document says China will nurture and develop seven new strategic industries with favorable policies in the next five years.**
- **new-generation information technology, energy-saving and environment protection, new energy, biology, high-end equipment manufacturing, new materials and new-energy cars.**
- **China is still in an important period of strategic opportunities during which there is a great deal China can achieve, and it is faced with both precious historic opportunities and plenty of foreseeable and unforeseeable risks and challenges, the document says.**
- **Premier Wen added an emphasis on social development**

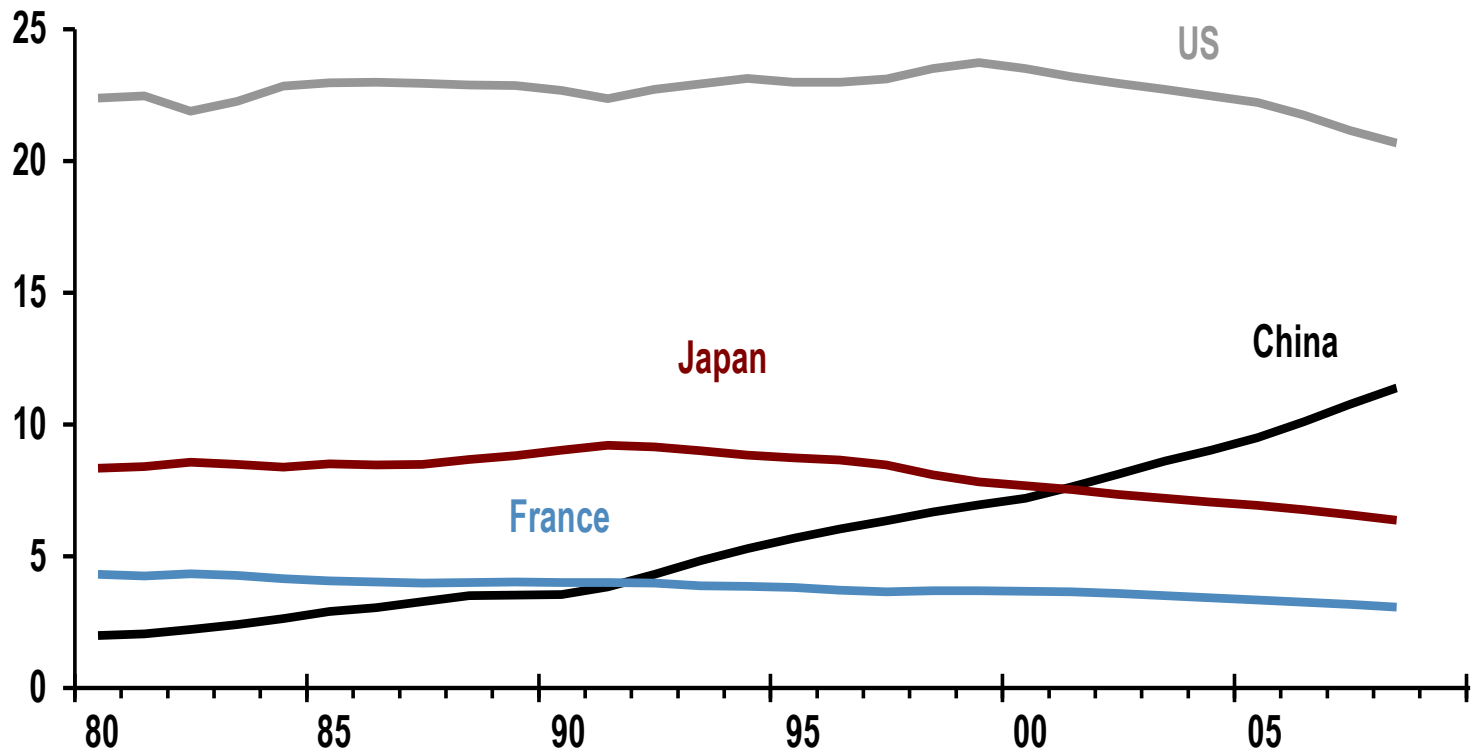
Parallel Shifts in Structure

- **Middle income transition in China**
 - **Major internal evolving structural Change**
- **Shifting macro structure of national income and saving**
- **Global rebalancing of aggregate demand**
- **The crisis and China's growing size has made all of the above more immediate and urgent**
 - **Domestically and in the Global Economy**

PPP Adjustment

GDP : Purchasing power parity

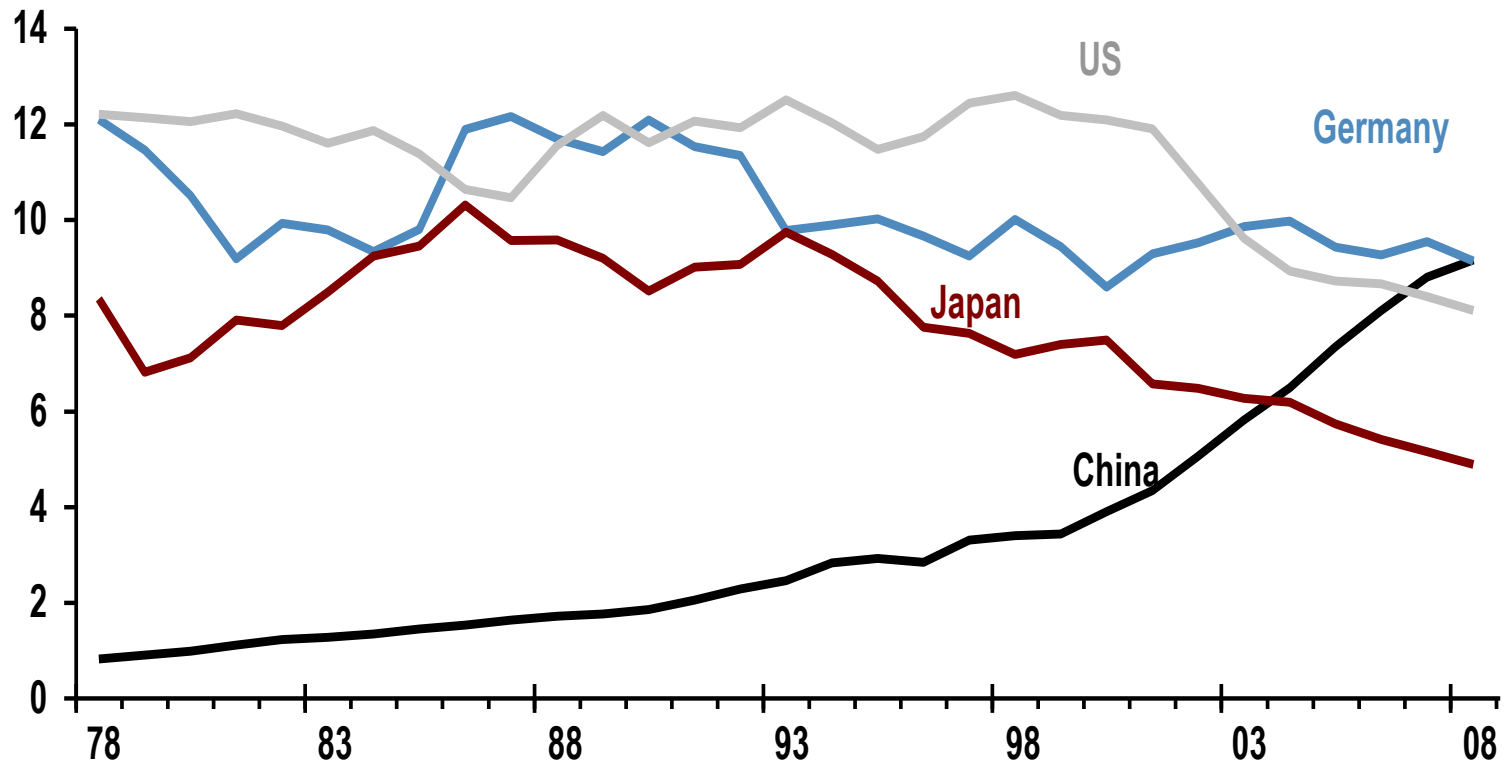
% of world GDP



Trade

Exports

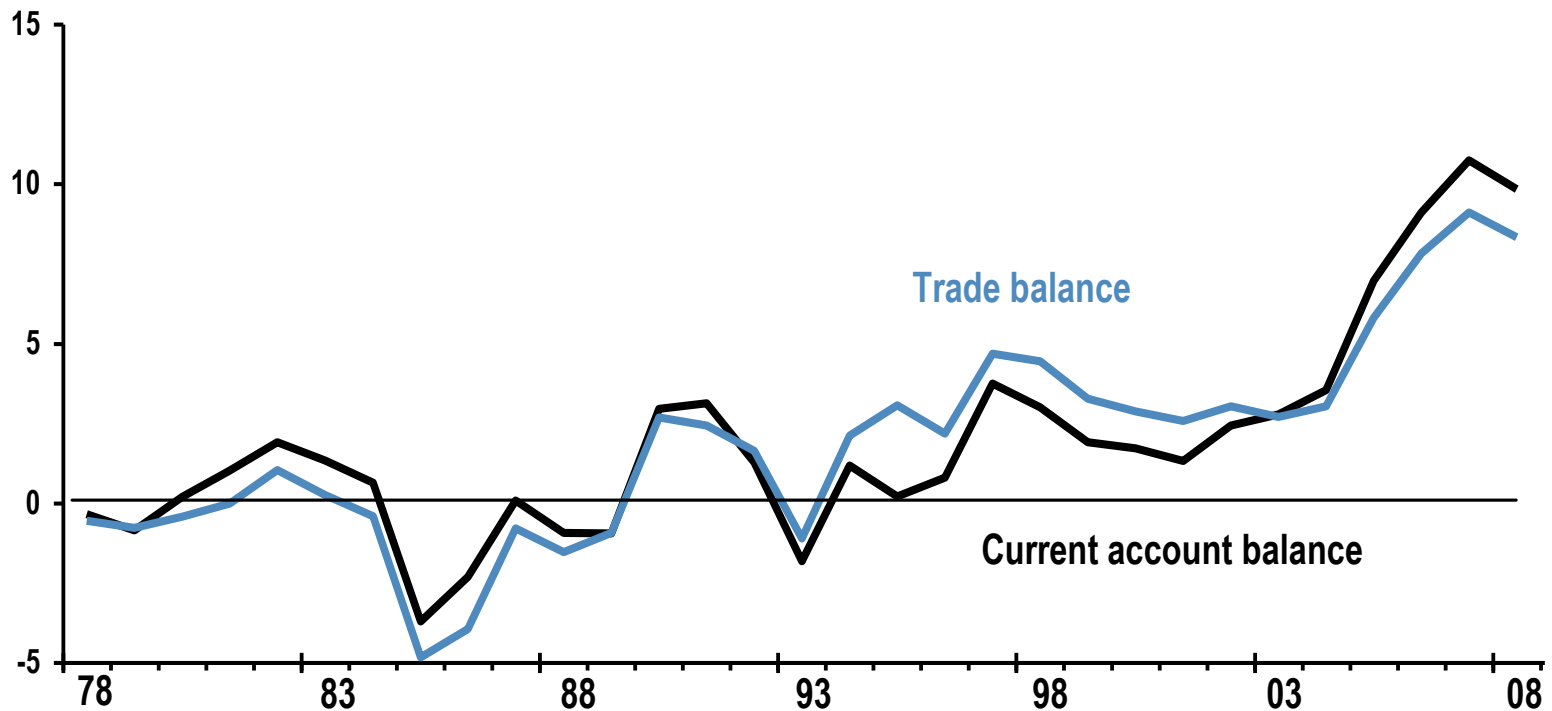
% of world exports



Evolution of China Current Account Balance

China: BOP

% of GDP

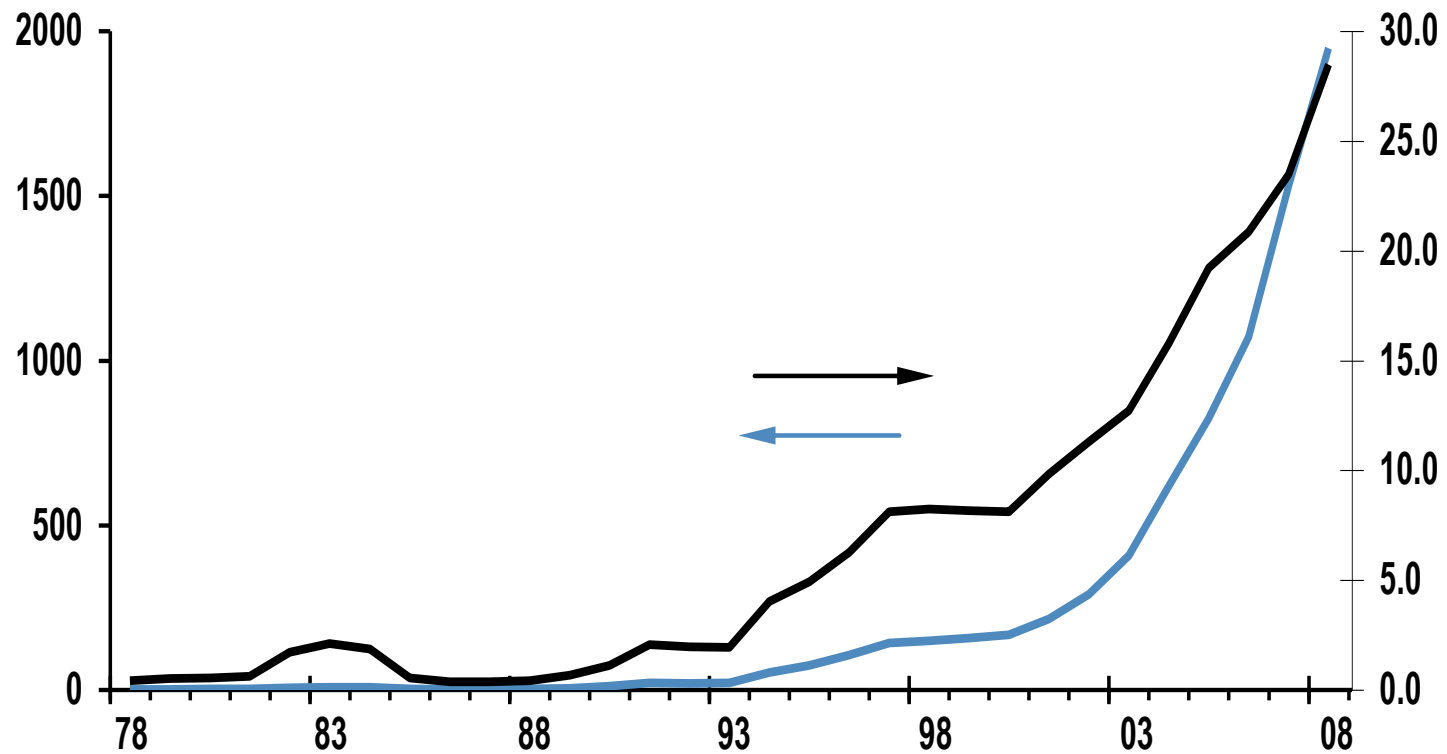


Reserves in China

China: International reserves

US\$ bn

% of world reserves



Recycling Capital

Net private capital inflows

+

Current account surplus

Reserves



Current Account Deficit

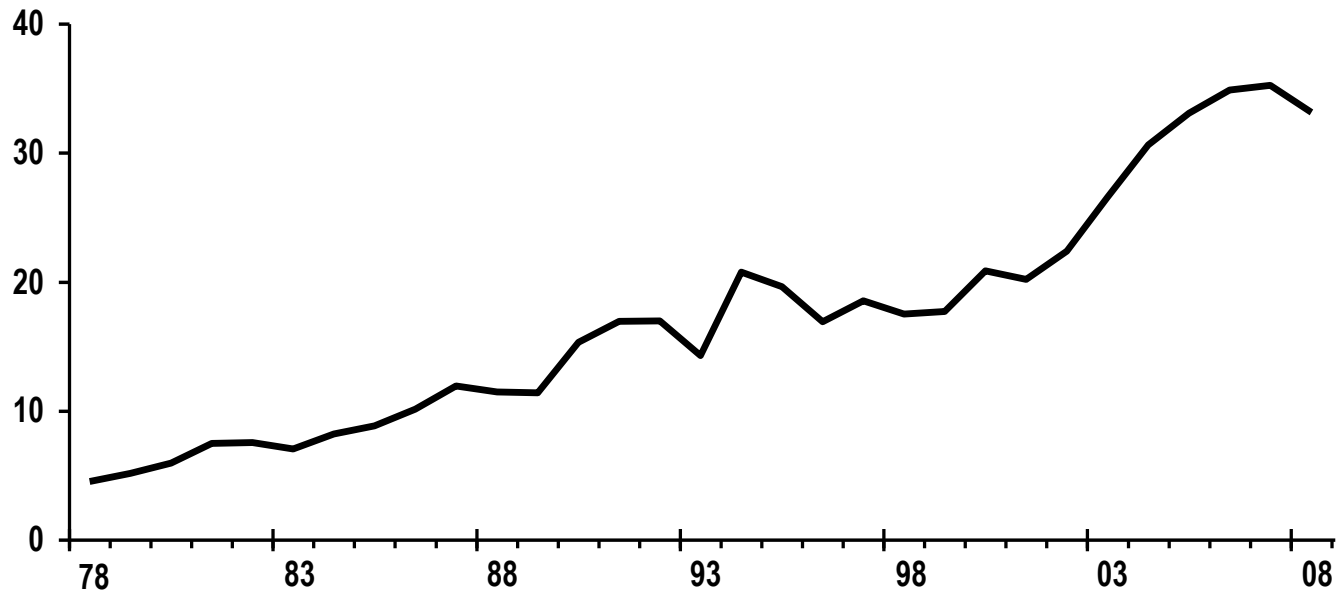
+

Net private capital outflows

China Rising Trade Exposure

China: Exports

% of GDP

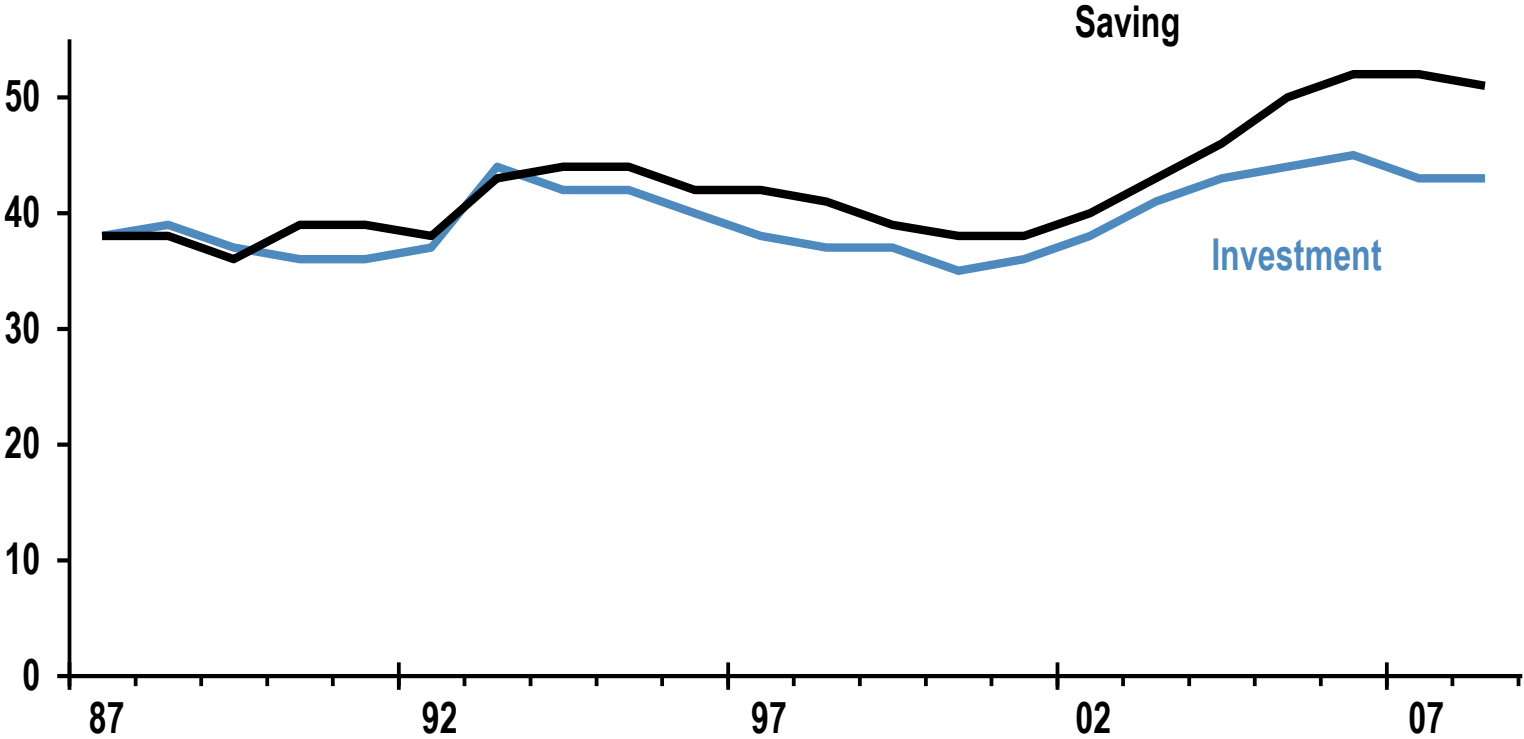


- **Even as domestic economy becomes larger**

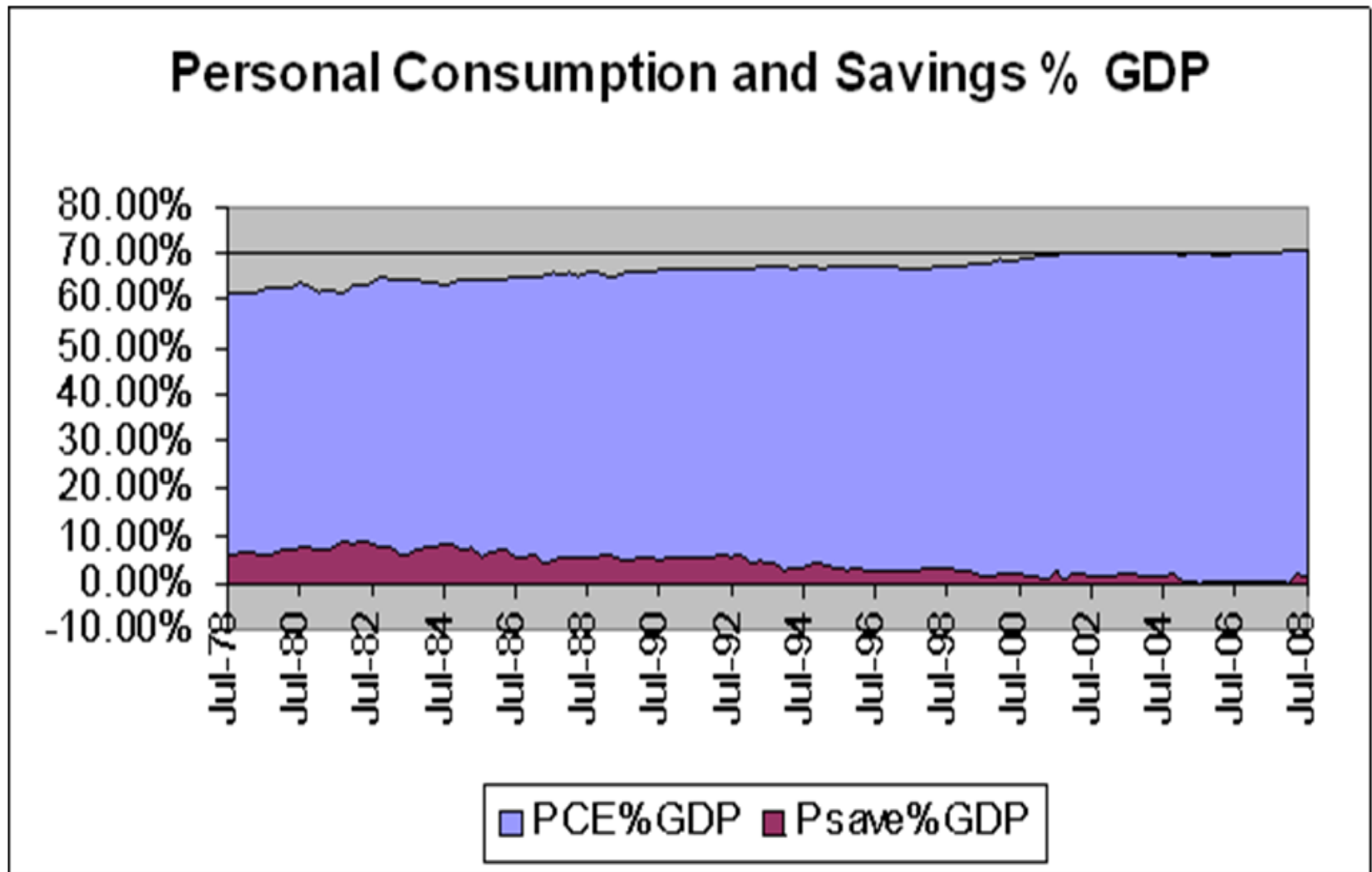
Very High Investment Rate More than Fully Funded From Domestic Savings

China: Savings and Investment

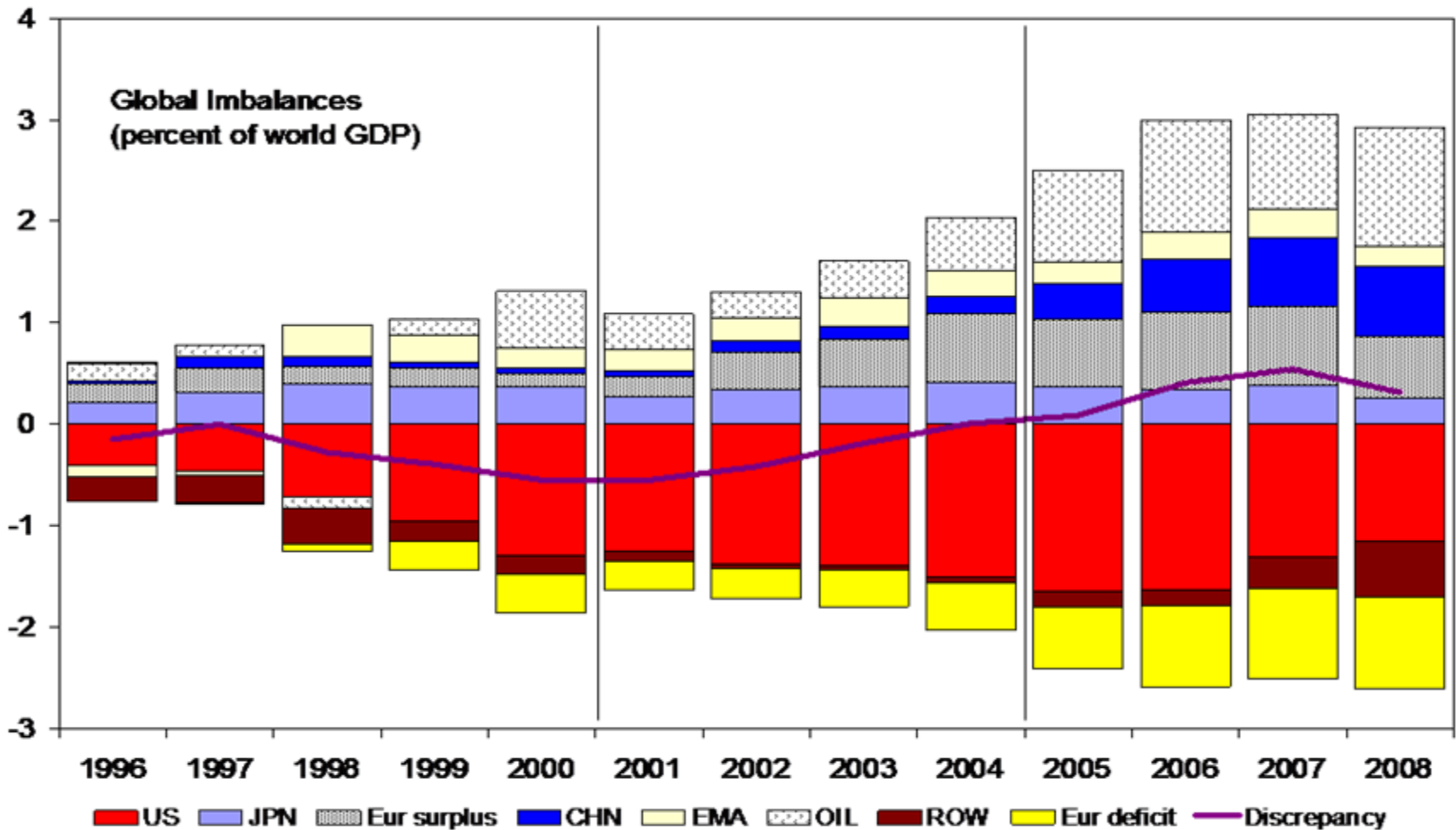
% of GDP



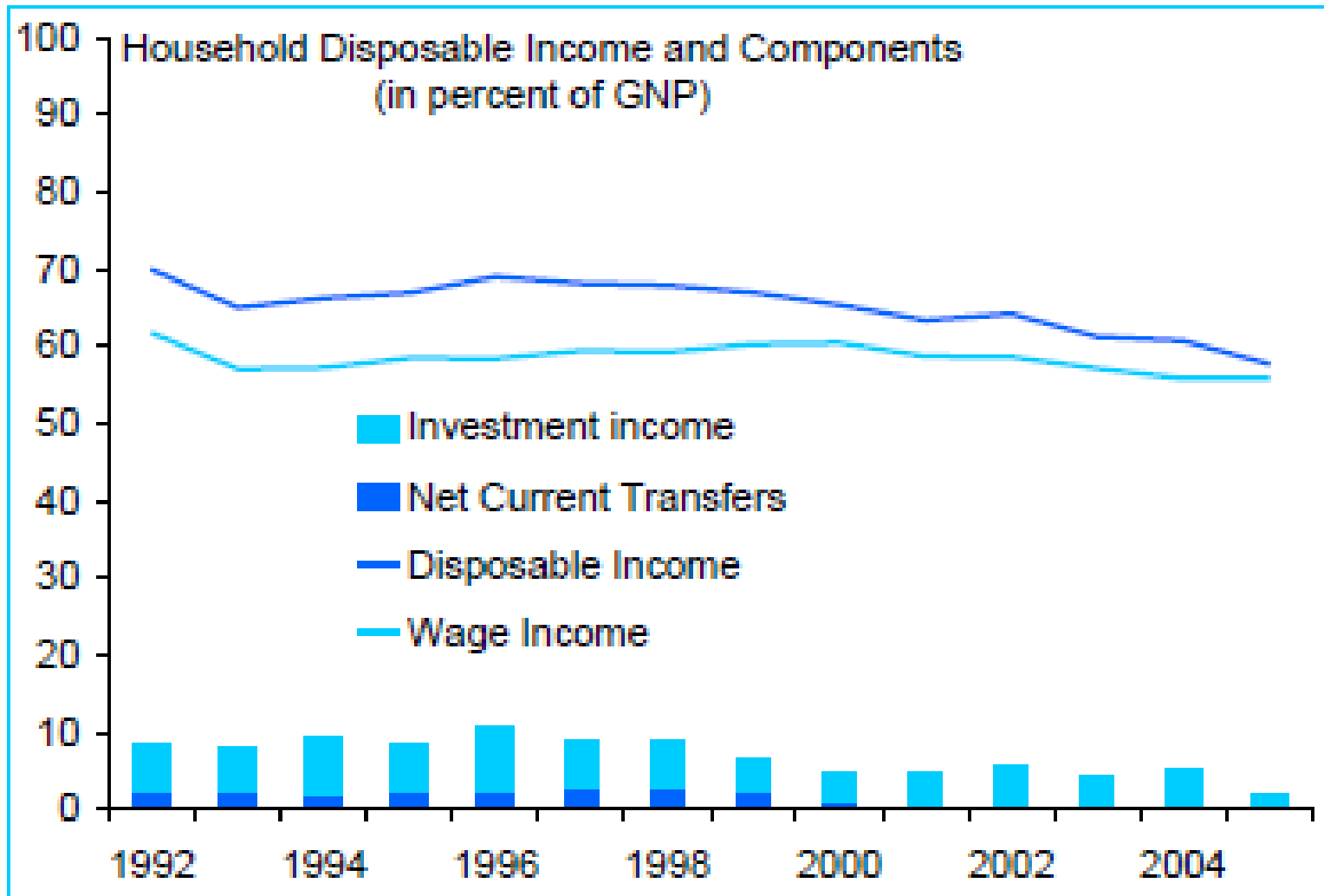
USA Declining Savings Resulting from Financial Disequilibrium



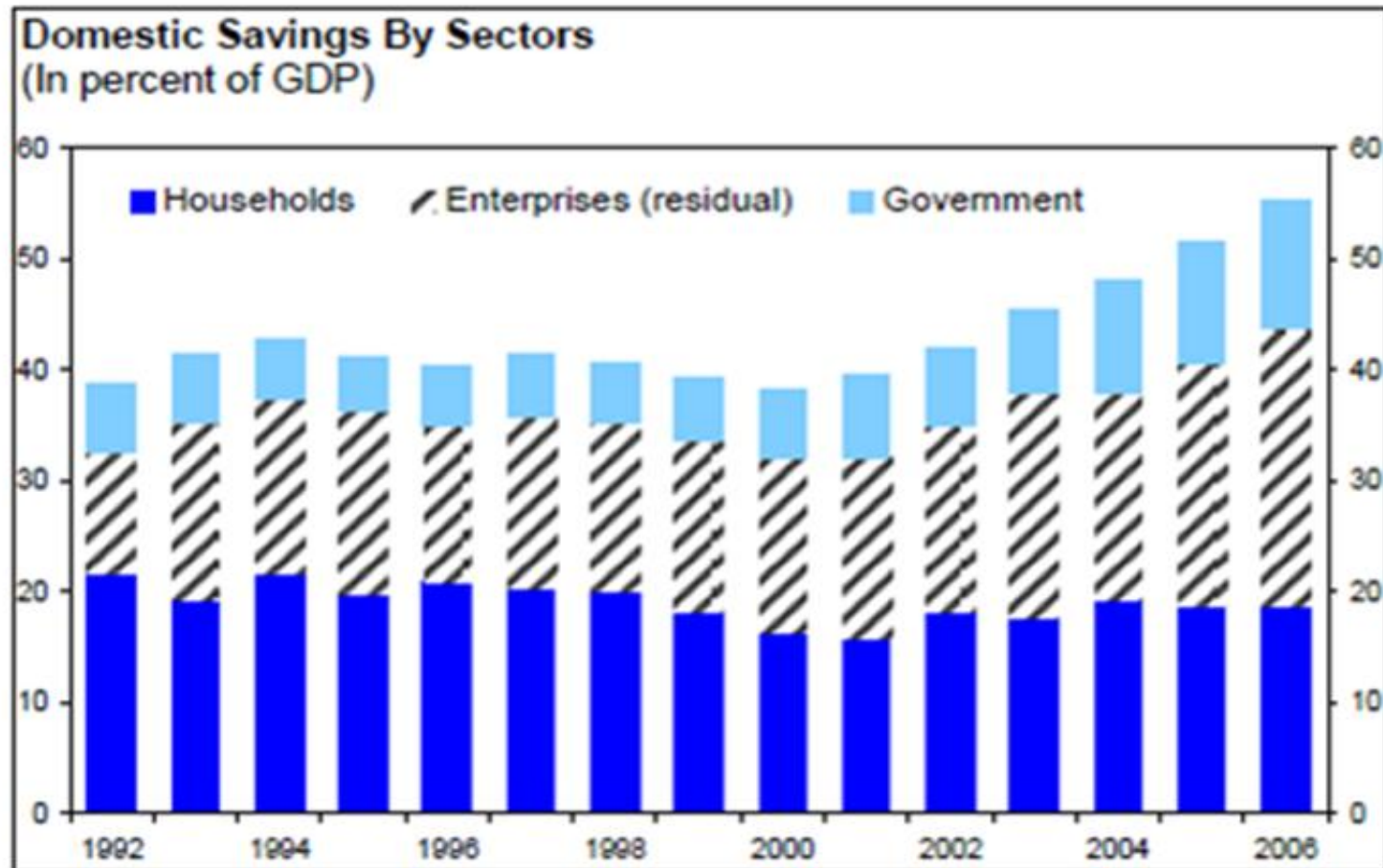
Global Surplus and Deficit Patterns



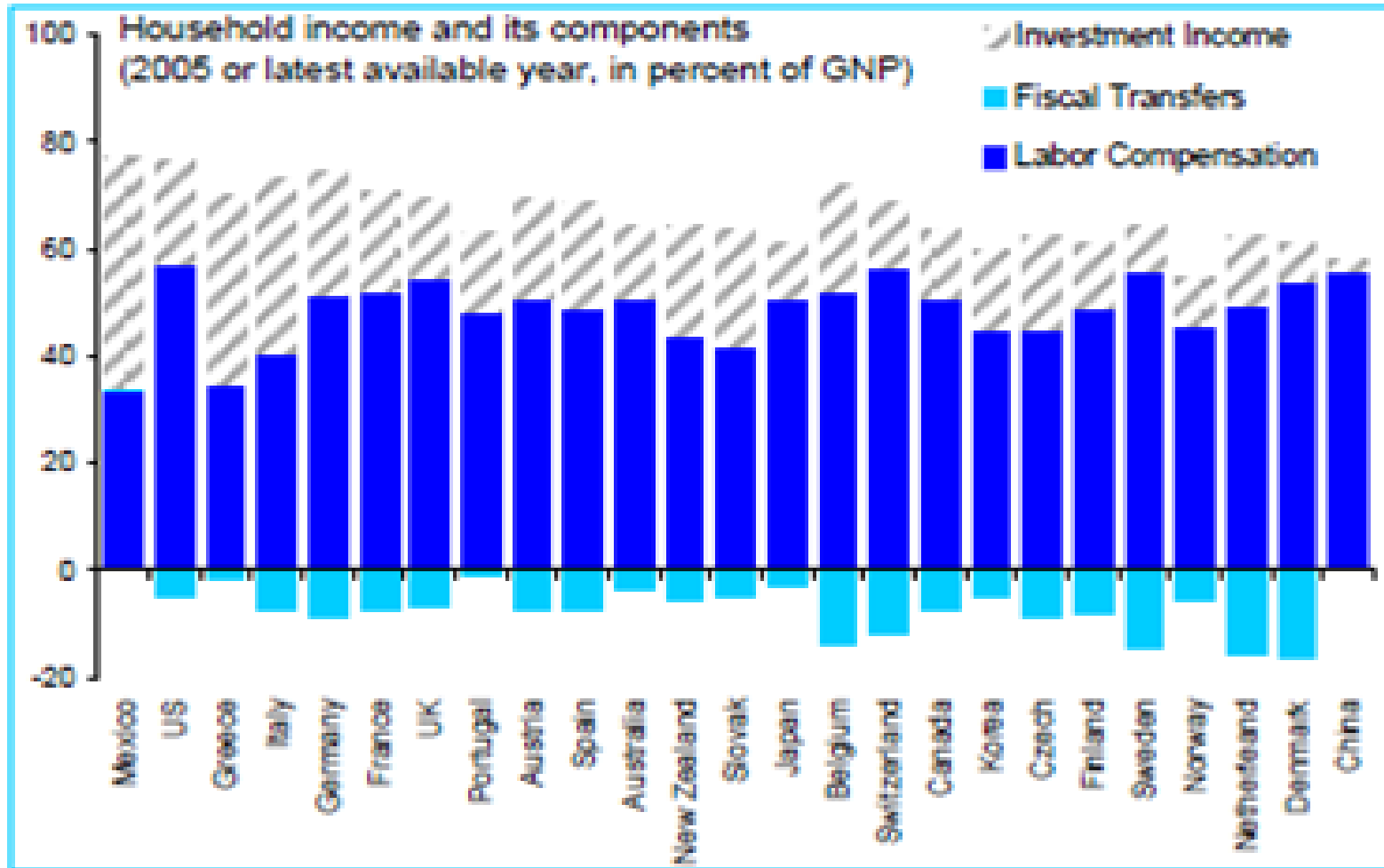
Disposable Income Declining as Percentage of GDP



Components of Savings: The Increase is in the Corporate Sector



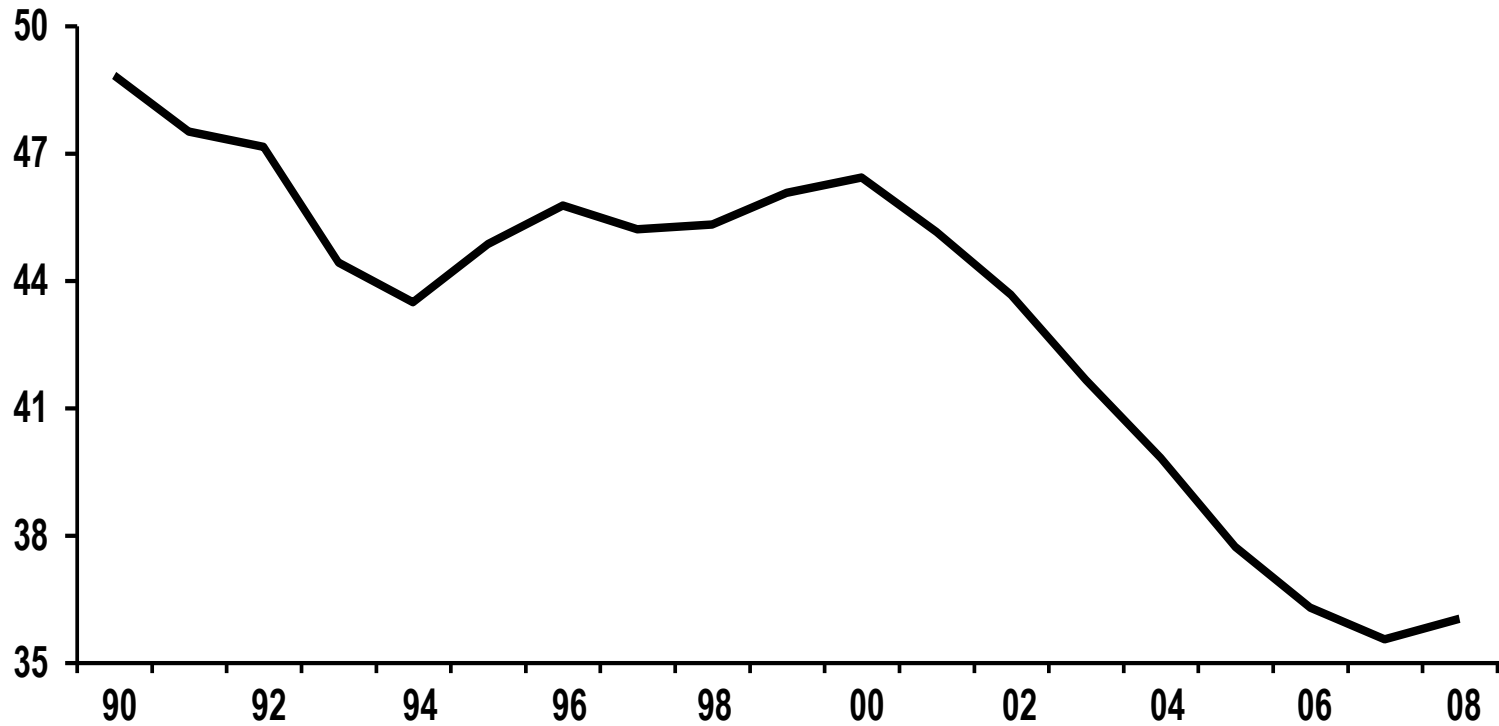
Comparative International Income Data



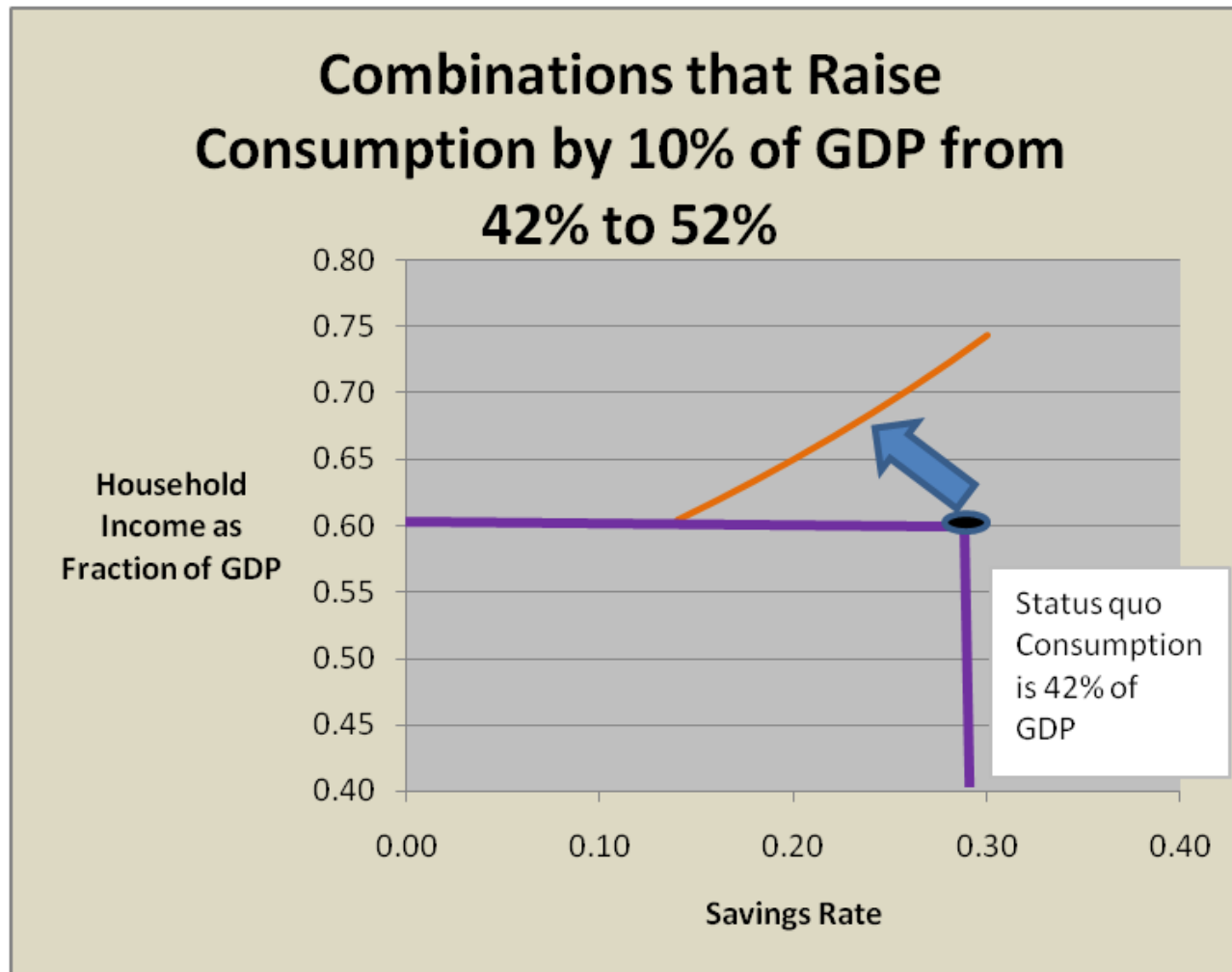
Consumption in Relation to GDP

China: Household consumption

% of GDP



Moving to Increase Household Consumption



Over Emphasis on Exchange Rate

- **Krugman in NYT**
- **Exchange rate is one policy instrument for promoting structural change and reductions in excess savings**
- **But not sufficient**
- **Both US and China economies need deeper structural shifts at macro and micro levels**

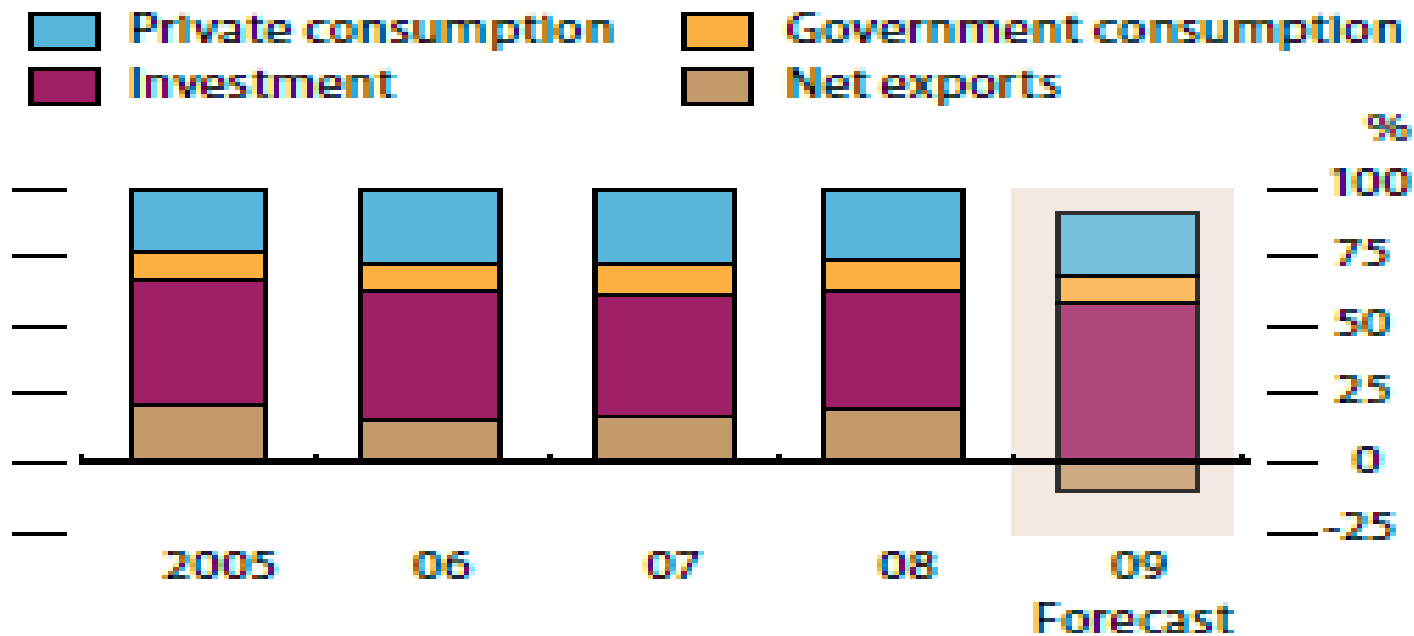
- **Dollar needs to depreciate as part of the adjustment in the US**
 - **The appreciation in the first 6 months of the crisis was abnormal – driven by capital adequacy problems**
- **Probably not a good idea to follow the dollar down for domestic and international reasons**

A Wide Array of Policies Are Needed to Support Longer Term Structural Change

- **Raising household income**
- **Lowering household savings via social insurance**
- **Education**
- **Public sector investment in research**
- **Broader array of equity financing mechanisms**
- **Transition policies for declining industries that must be let go**

Demand Growth

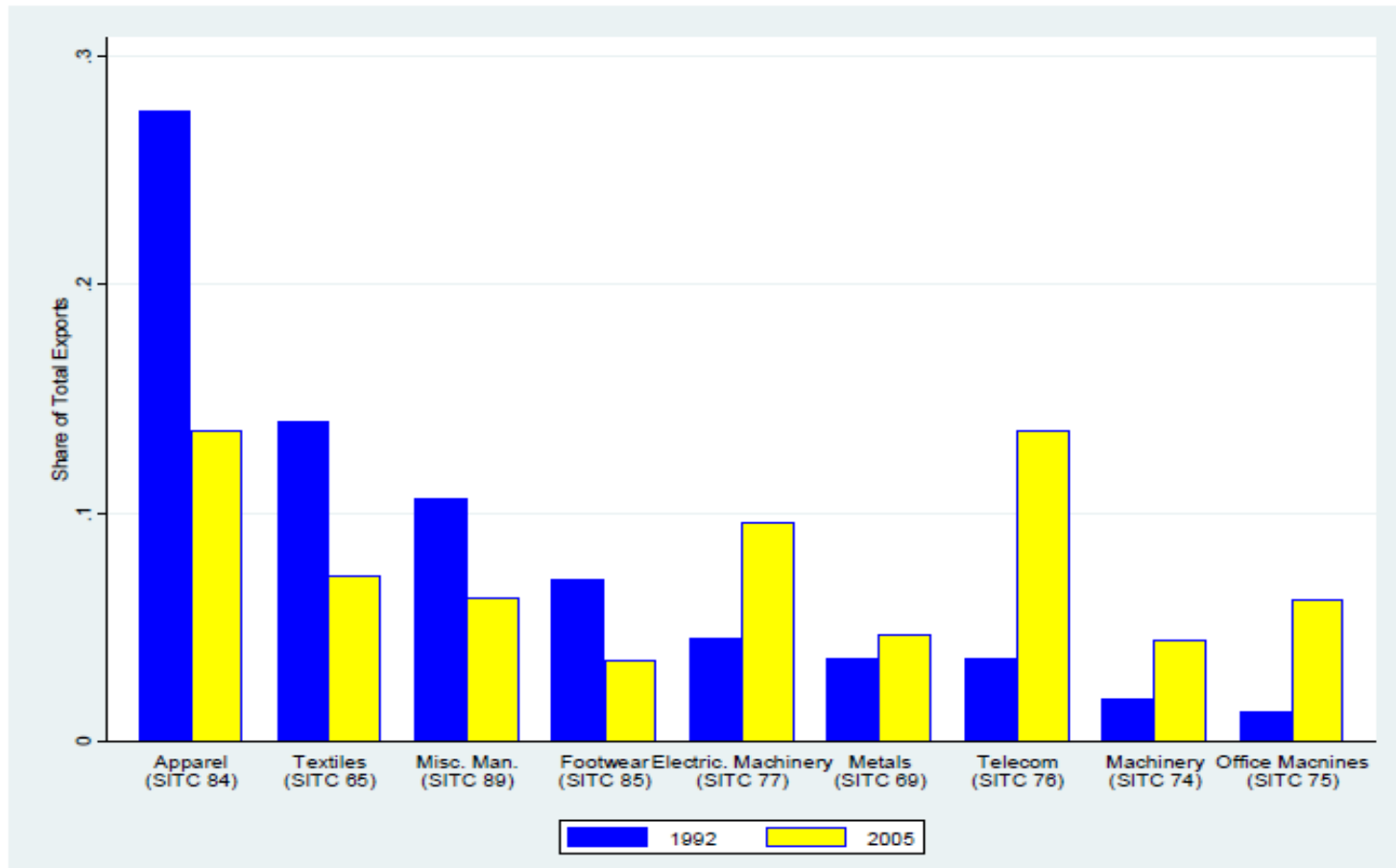
3.3.14 Contributions to growth (demand)



Sources: National Bureau of Statistics of China; staff estimates.

China: Shifting Micro-Structure of the Economy

Figure 2: The Reallocation of Manufacturing Exports Across Major Two-digit Sectors*



Post- Crisis USA Economic Condition

- **US household saving rate up permanently**
- **Effect on global aggregate demand – shortfall of \$1 trillion**
 - **Muted in short run by fiscal stimulus and deficits (many countries)**
- **Increases incentives/pressure for protectionism**
- **Slows global growth**
- **“New normal” – slower growth in advanced countries**
- **A decline of 1% in advanced country growth is, another \$350 billion annual shortfall**
- **Structural Challenges (there before but partially hidden from view)**

Council on Foreign Relations

WORKING PAPER

The Evolving Structure of the American Economy and the Employment Challenge

Michael Spence and Sandile Hlatshwayo

March 2011

Structural Change in Advanced Countries

Challenges for Growth and Employment

- **Structure of the global economy is evolving rapidly**
- **New structural issues for advanced economies**
- **Distributional effects of global integration are important**
- **Impact is different on subgroups within advanced countries**

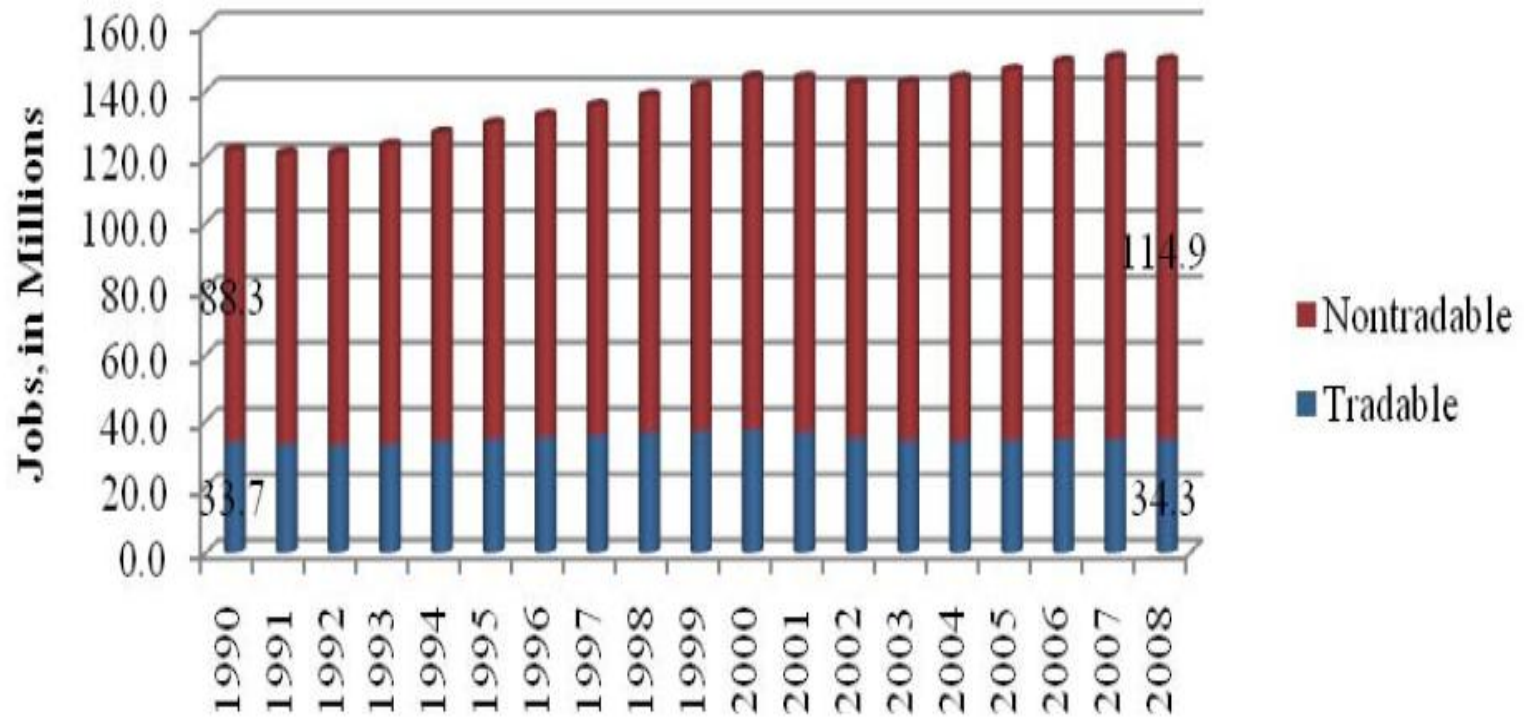
- **We look look at the USA and briefly at Germany (a work in progress)**

Tradable and Non-Tradable Goods and Services

- **Non-tradable**
 - **Proximity matters**
 - **Offshore production and transportation too expensive**
 - **Doesn't just mean heavy**
 - **Government, construction, health, legal services, hospitality (hotels restaurants etc)**
 - **Retailing**
- **Tradable**
 - **Produced offshore and consumed domestically**
 - **Autos, industrial machinery, some agricultural products, information and knowledge intensive services**
- **Boundary is constantly shifting mostly in favor of tradable sector expansion**

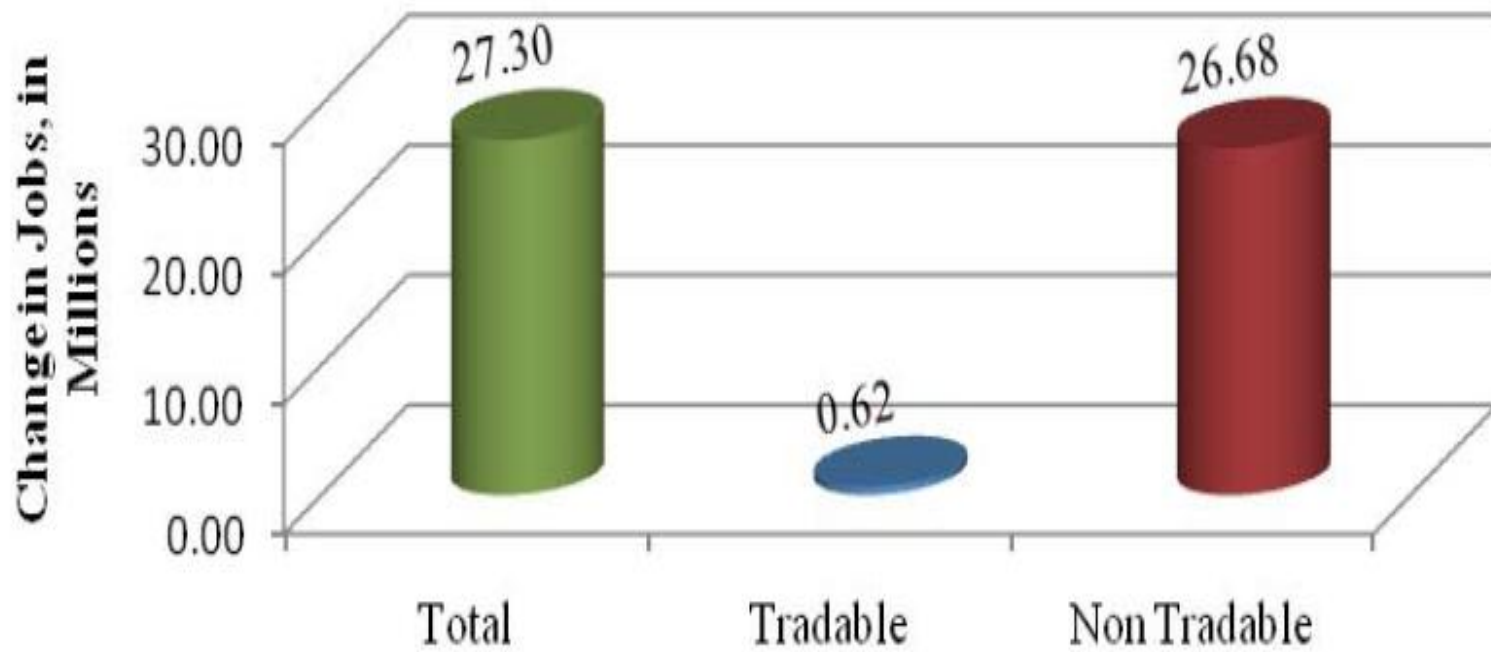
Employment

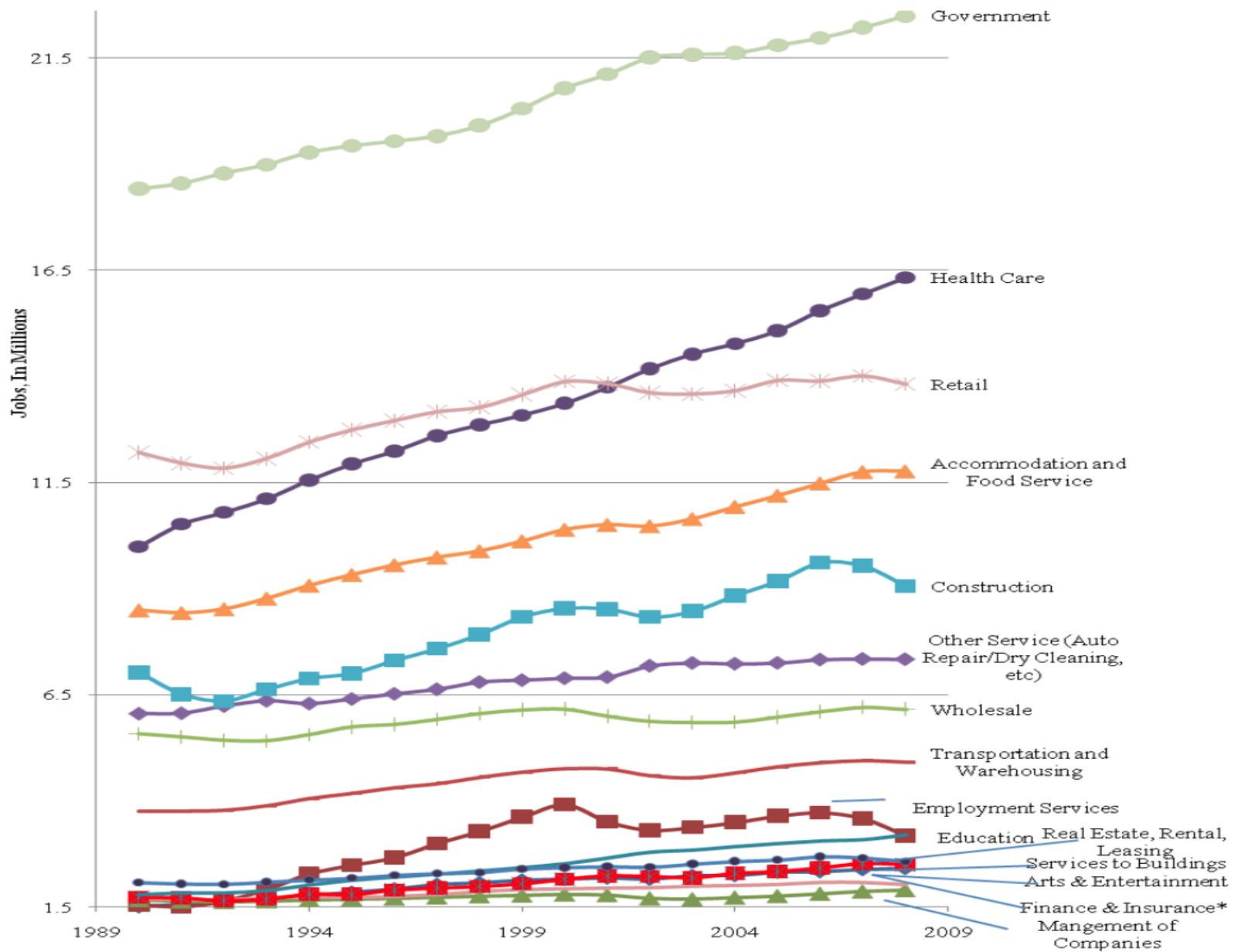
Figure 4. Tradable/Nontradable Jobs, 1990–2008



Source: Authors' calculations using Bureau of Labor Statistics historical data series

Change in Employment





Source: Authors' calculations using Bureau of Labor Statistics historical data series
 *Industries that are not predominantly or entirely nontradable include an asterisk.

Figure 8. Tradable Industry Jobs, 1990–2008 (Majors)^a

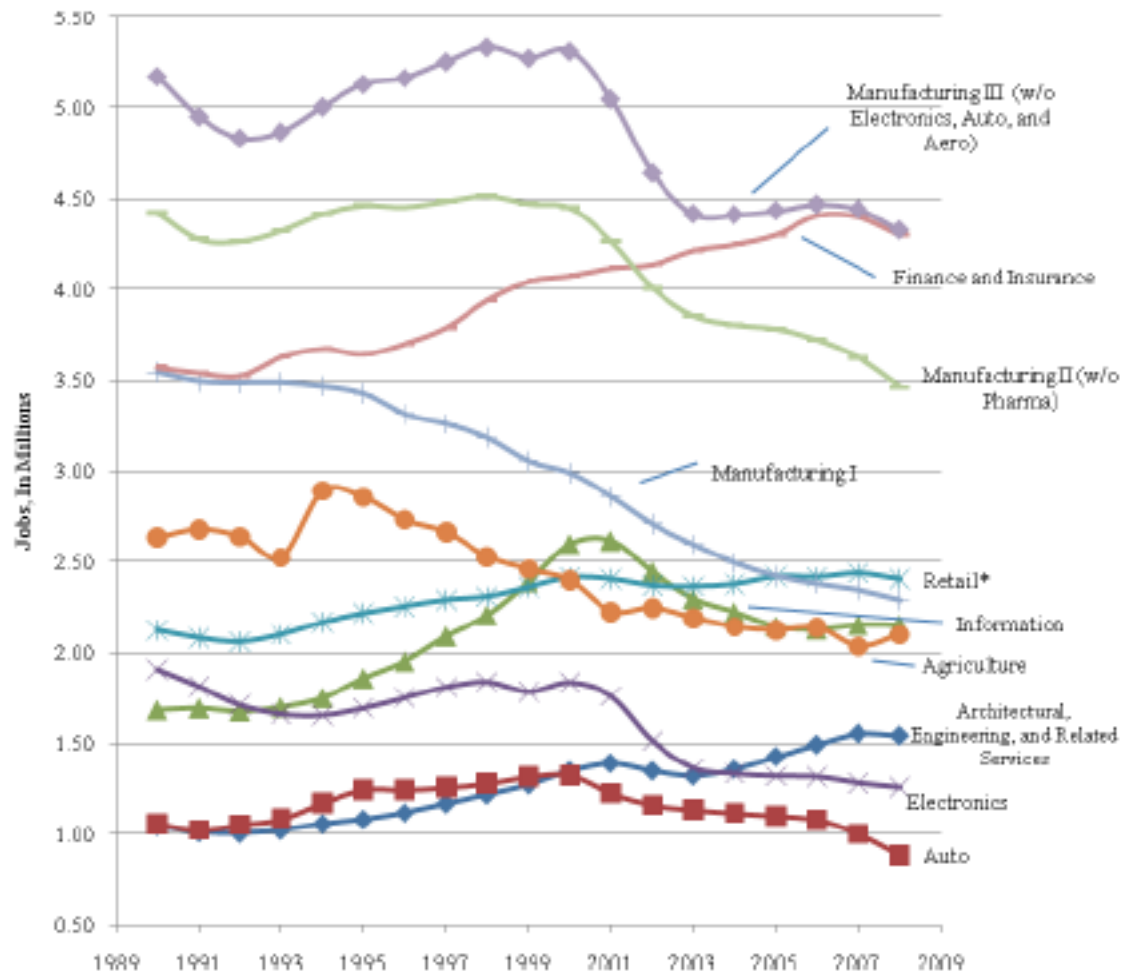


Figure 10. Tradable/Nontradable Value Added, 1990-2008

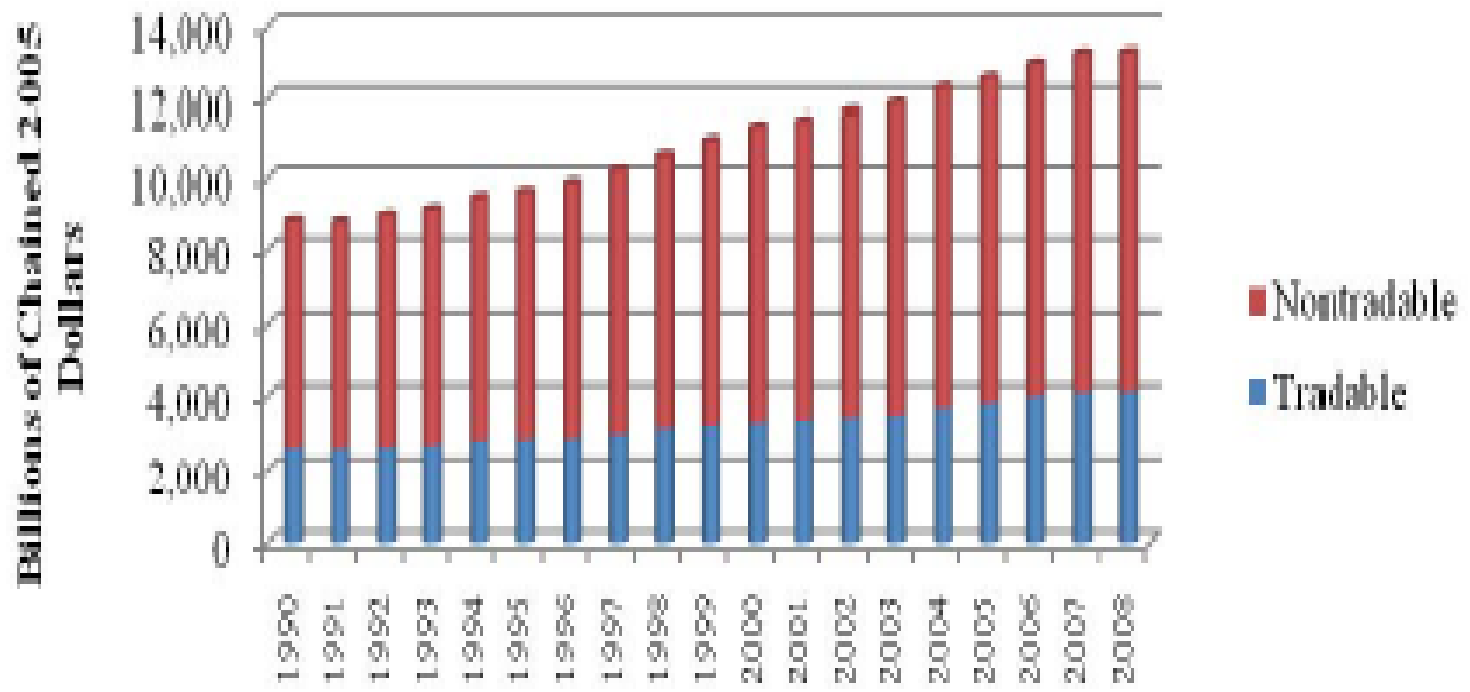


Figure 11. Nontradable Value Added, 1990–2008 (Majors)¹²

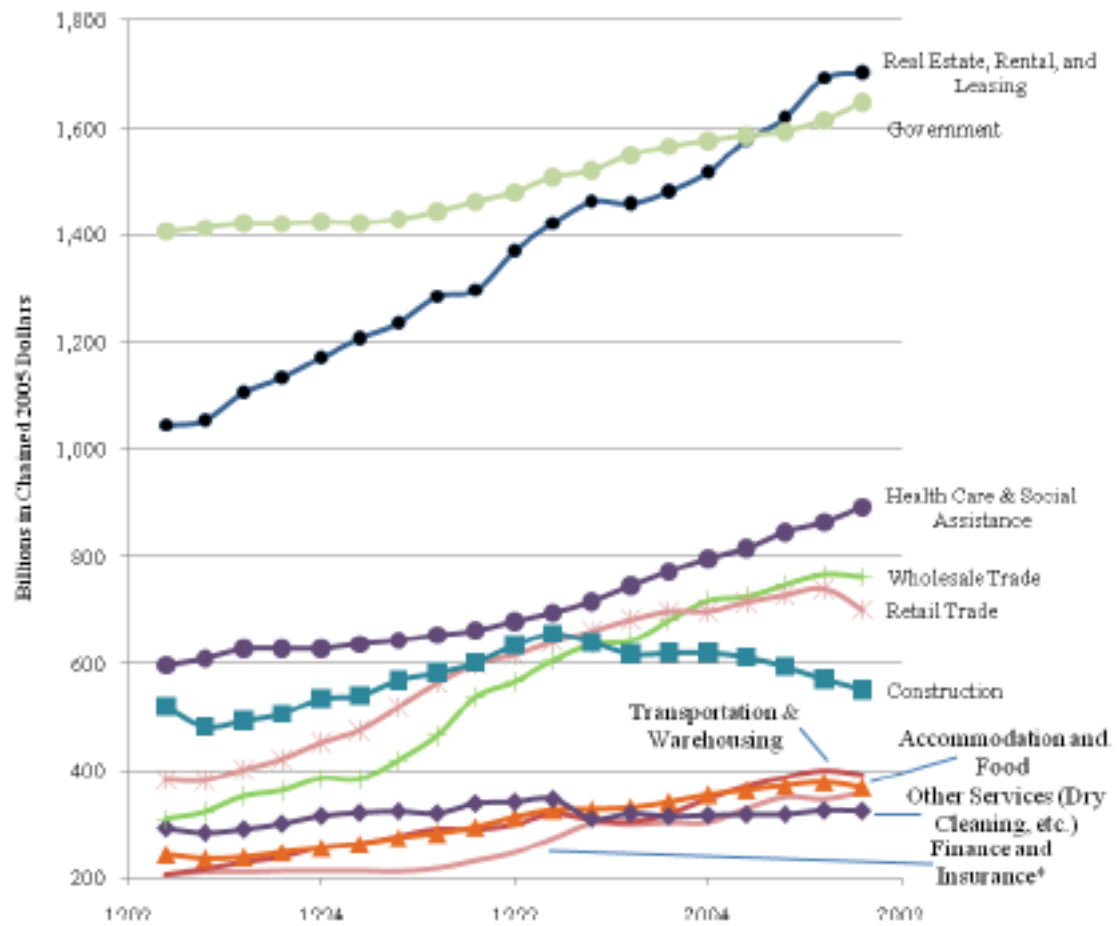


Figure 13. Tradable Industries' Value Added, 1990–2008 (Majors)¹⁴

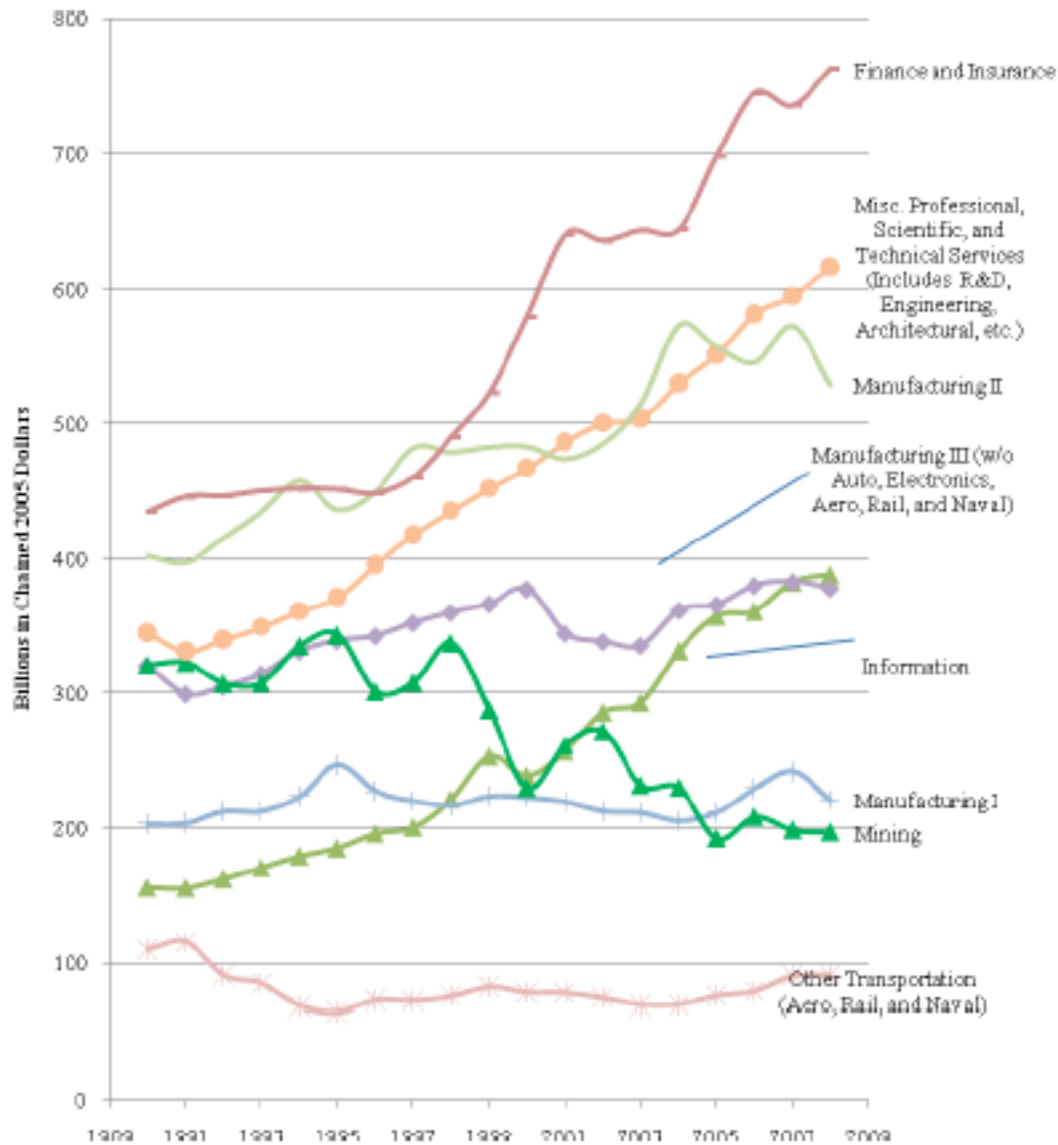


Figure 15. Value Added per Job, 1990–2008

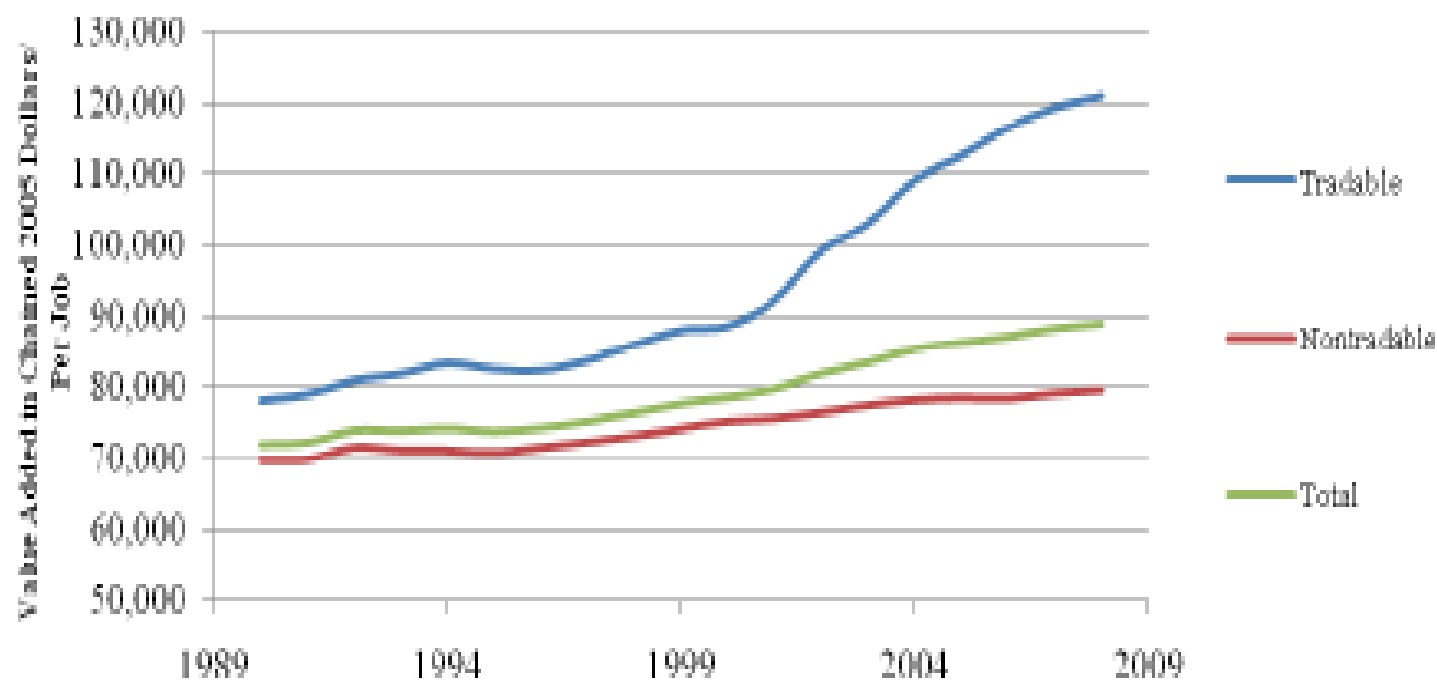
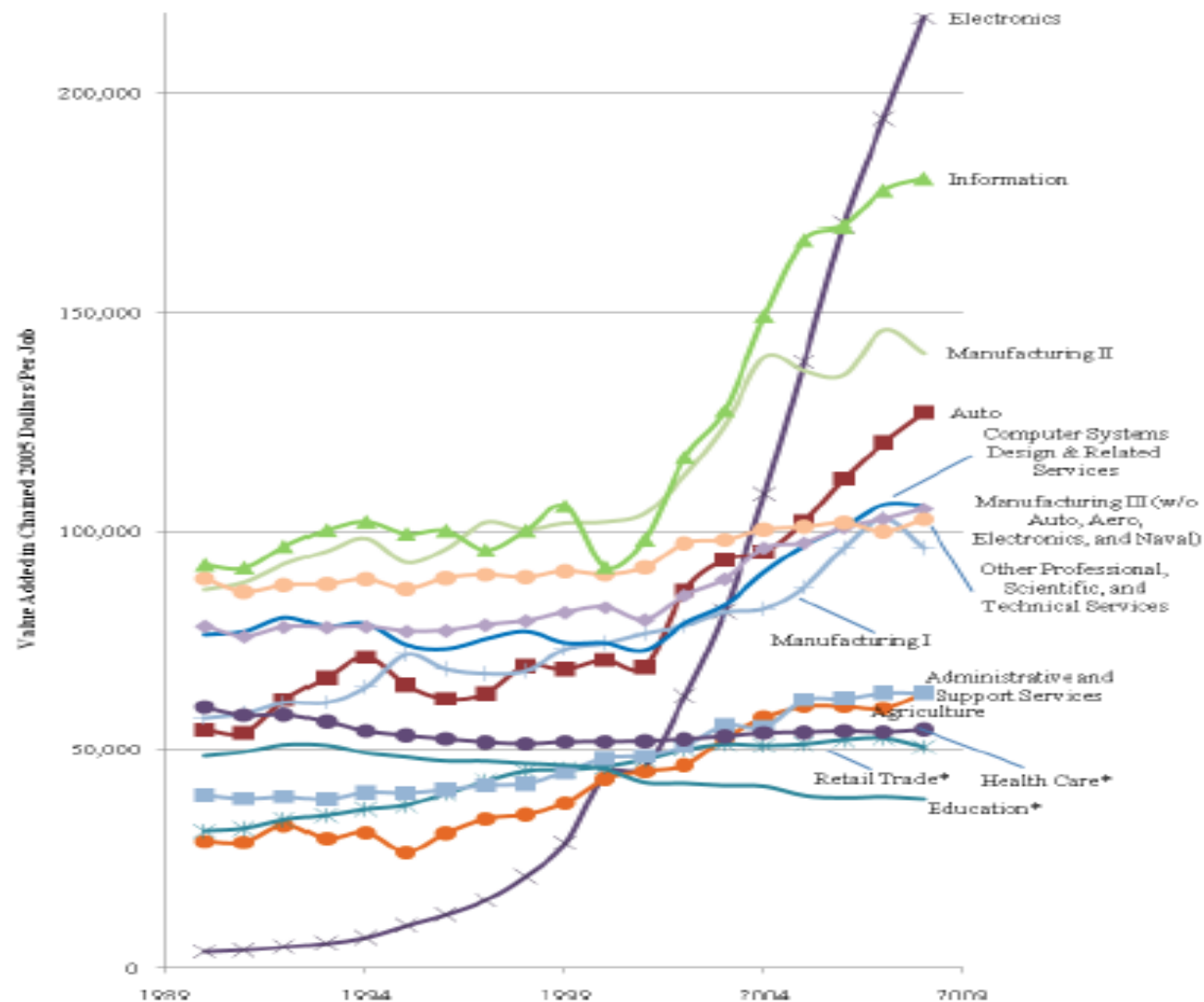


Figure 17. Tradable Industries' Value Added per Job, 1990–2008 (Minors)¹⁷

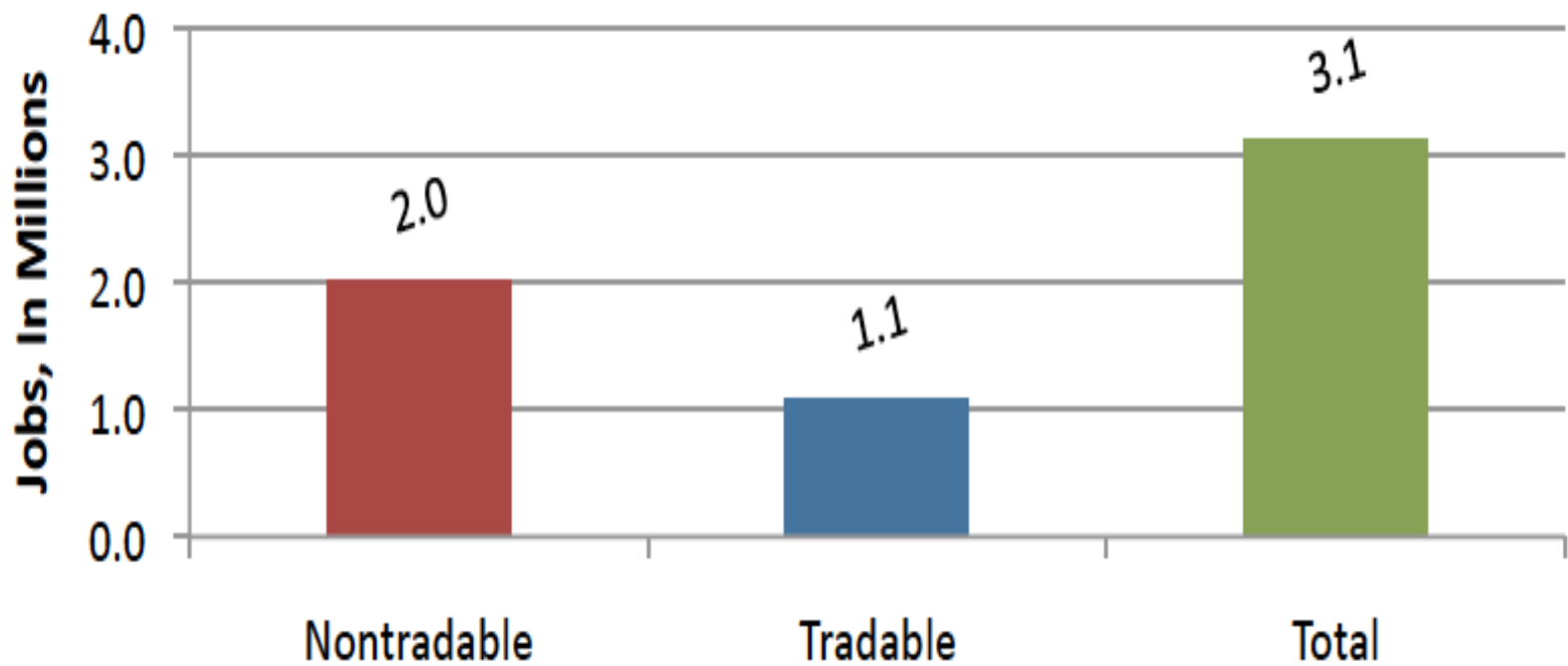


Source: Authors' calculations using Bureau of Economic Analysis and Bureau of Labor Statistics historical data series
 *Industries that are not predominantly or entirely tradable include an asterisk.

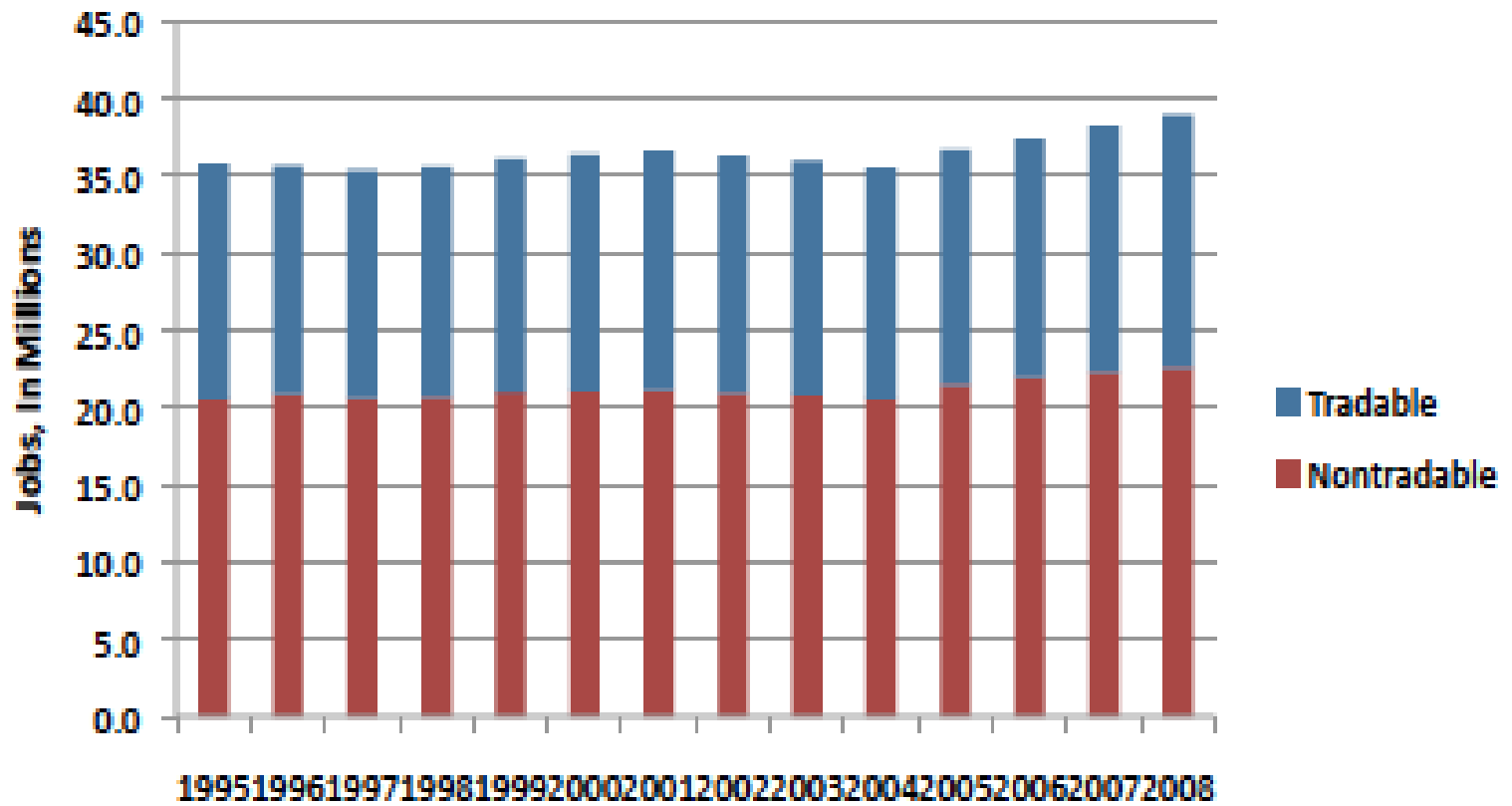
Germany

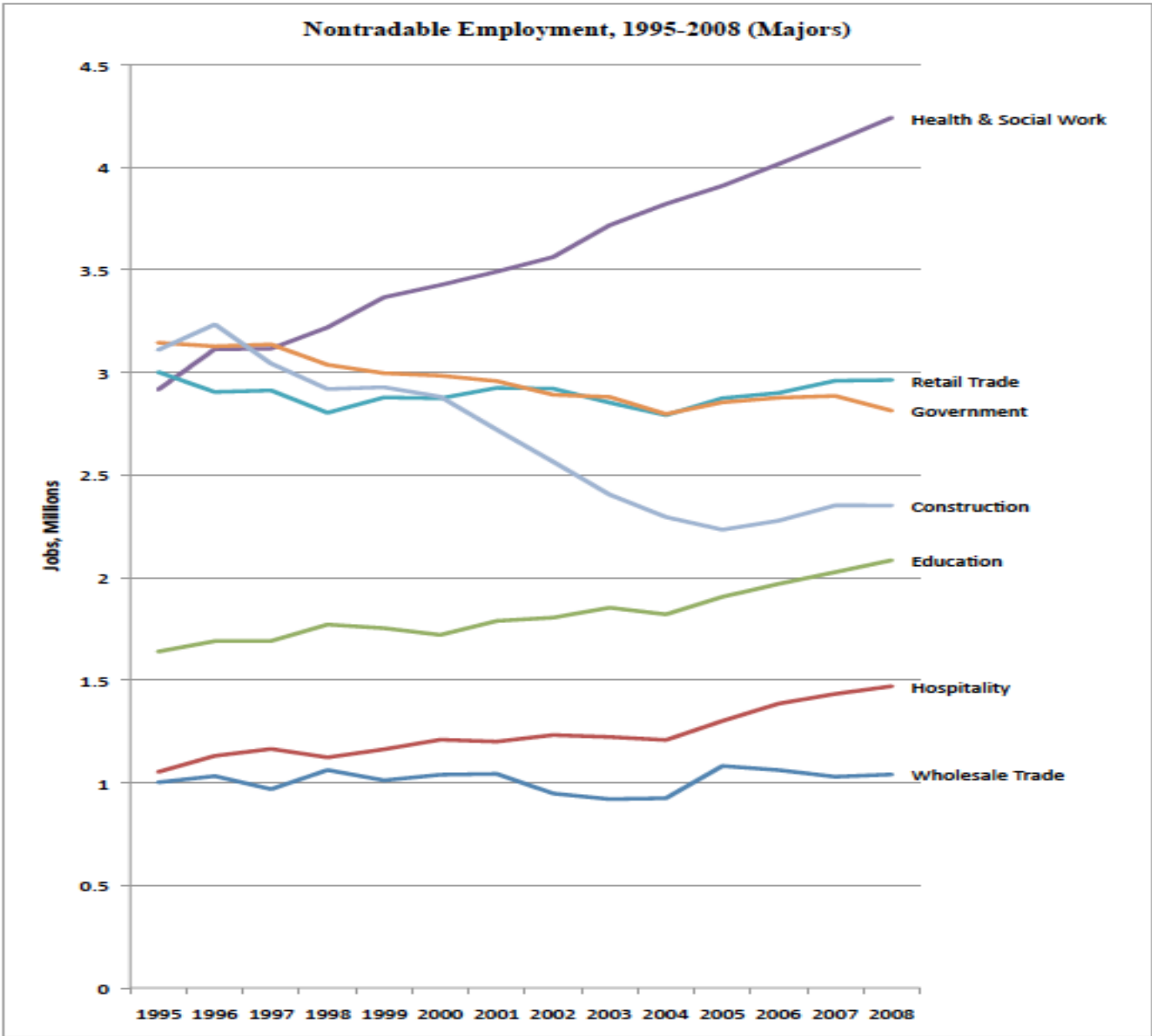
- **Major productivity and competitiveness problem in 2000**
- **Business, labor and government collaboration**
- **Reforms**
 - **Labor markets**
 - **Income growth versus jobs – defacto deflation**
 - **Clusters and support institutions**
 - **Kept a healthy advanced manufacturing sector.**

Net Change in Employment, 1995-2008

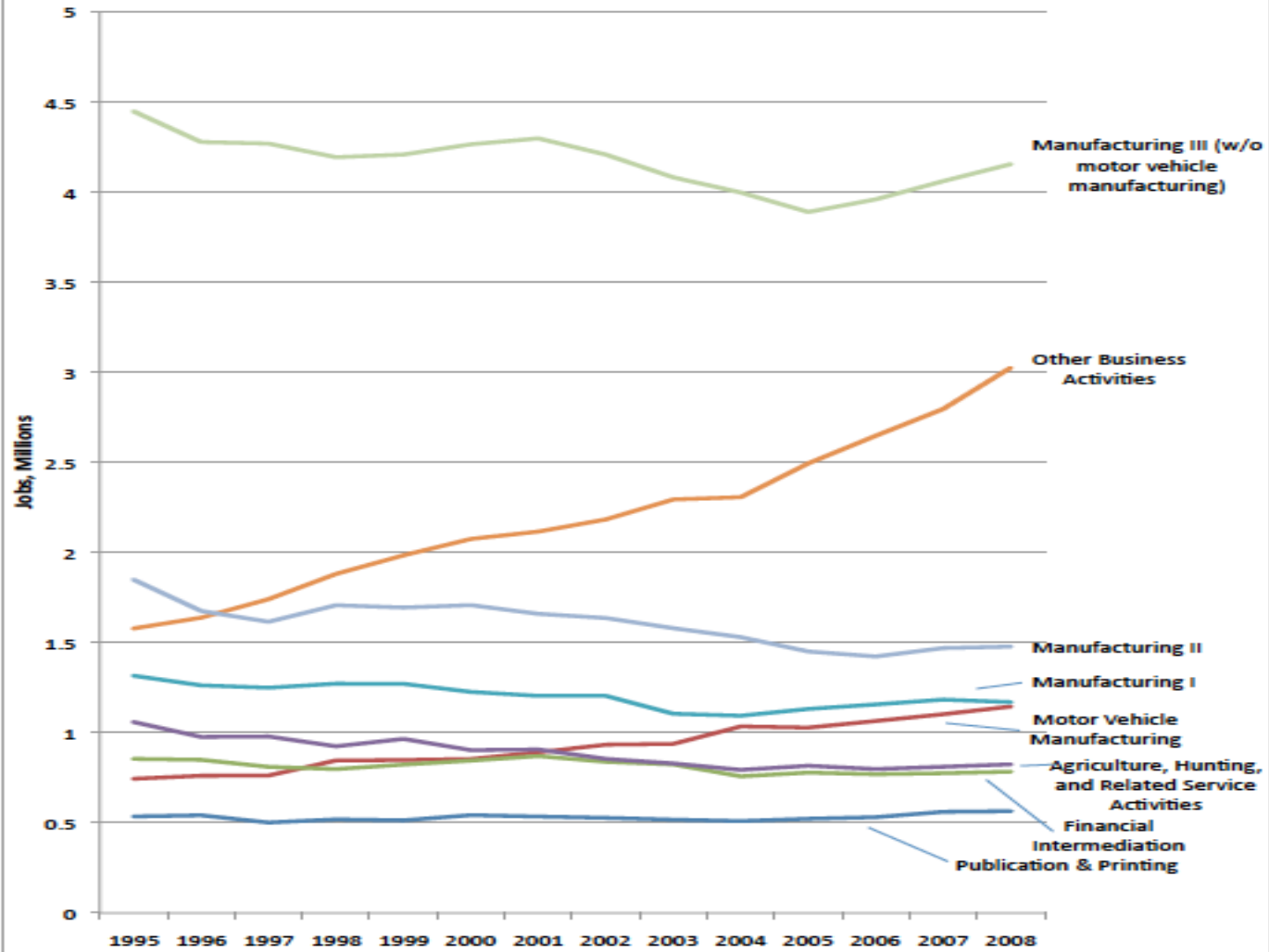


Tradable/Nontradable Jobs, 1995-2008

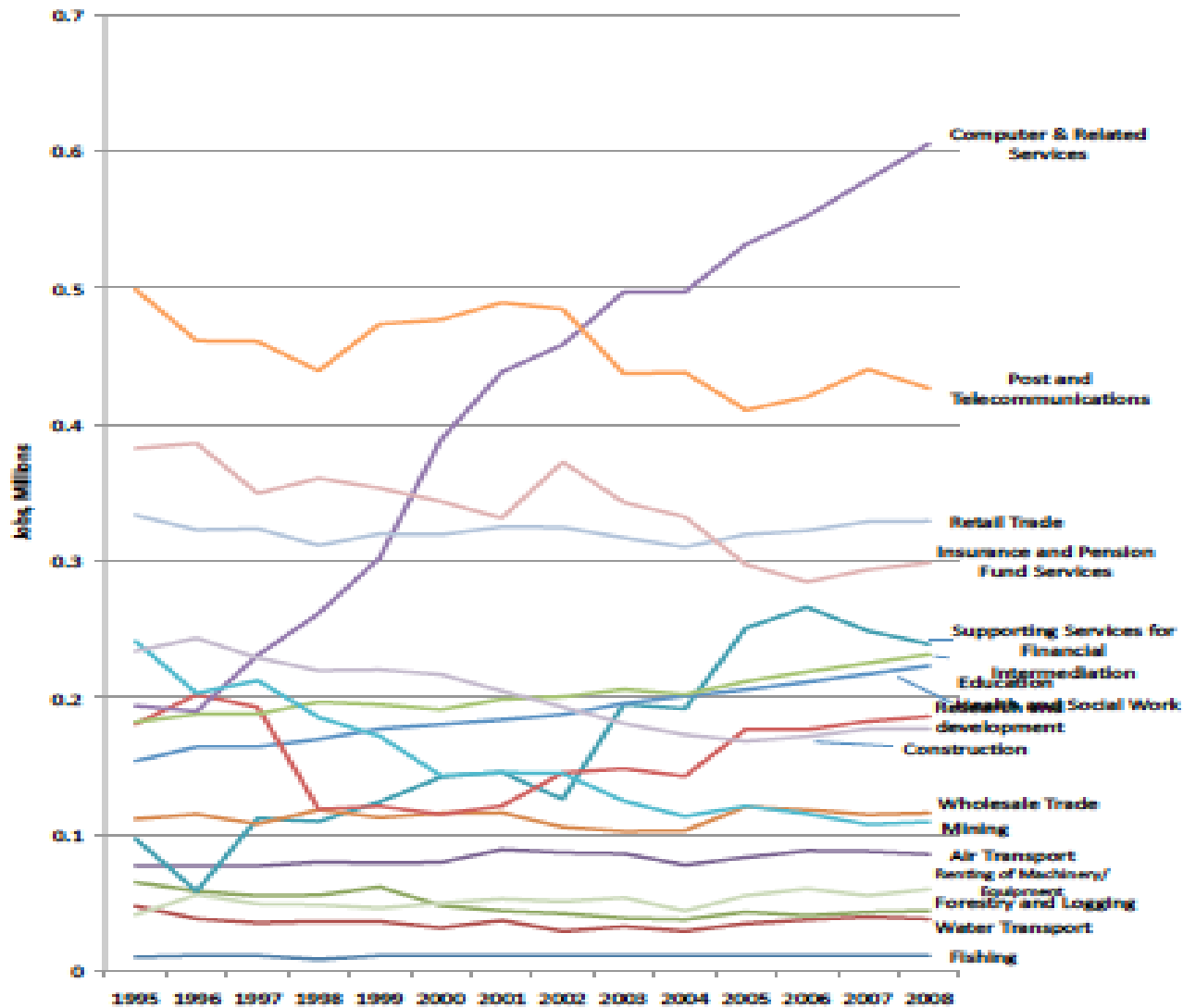


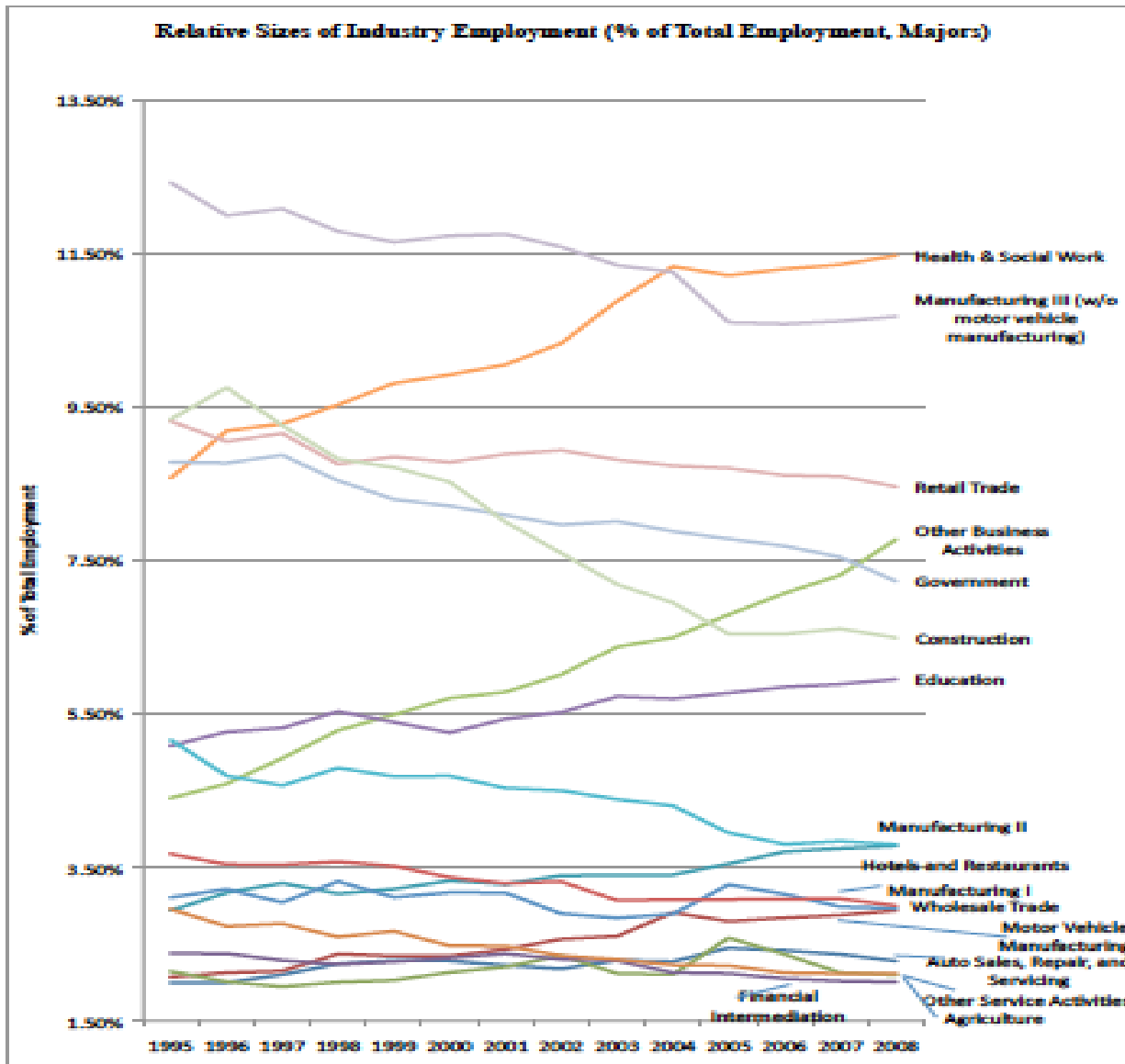


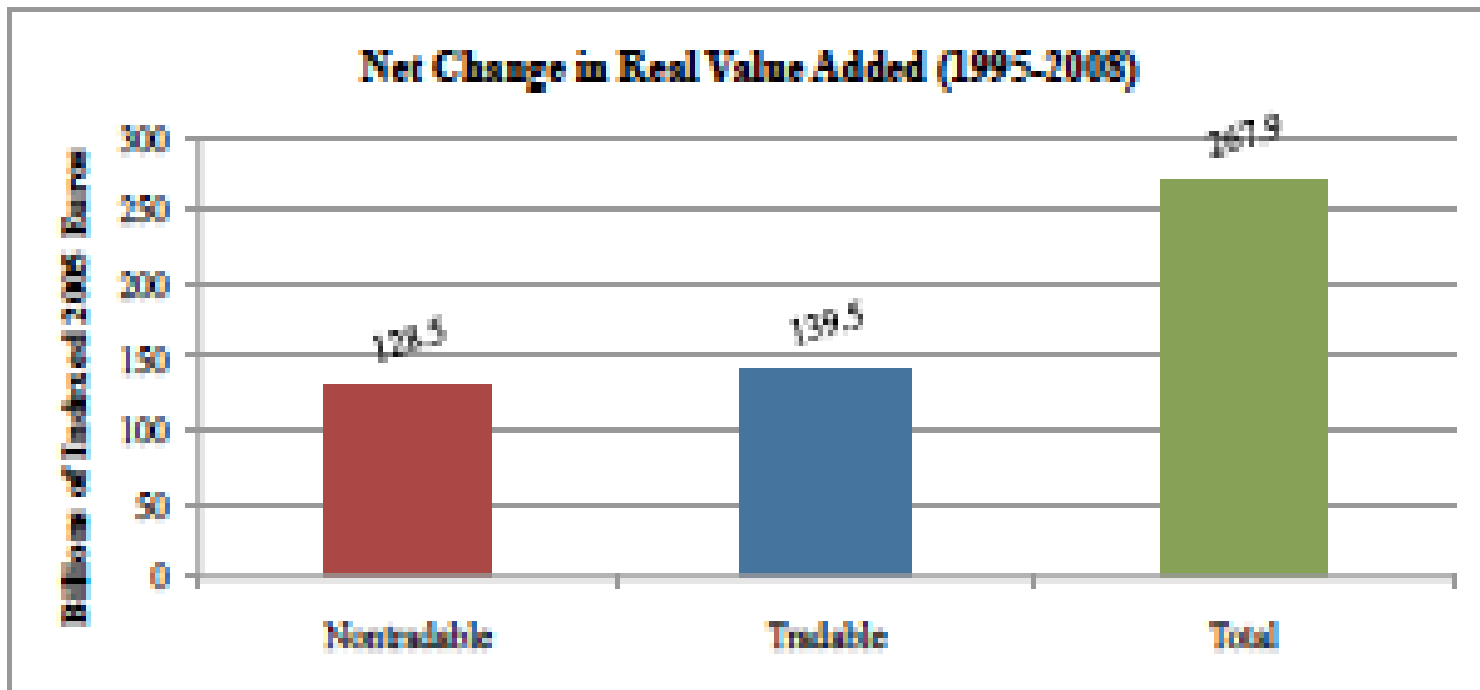
Tradable Employment, 1995-2008 (Majors)



Tradable Employment, 1995-2008 (Minors)





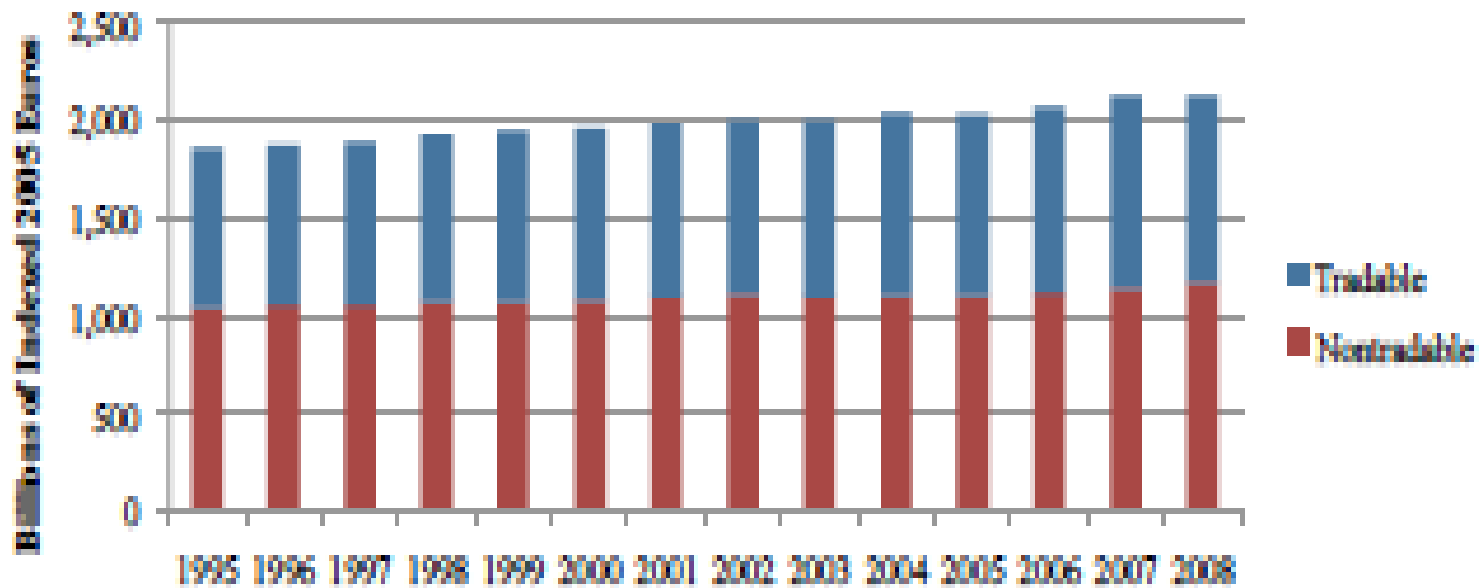


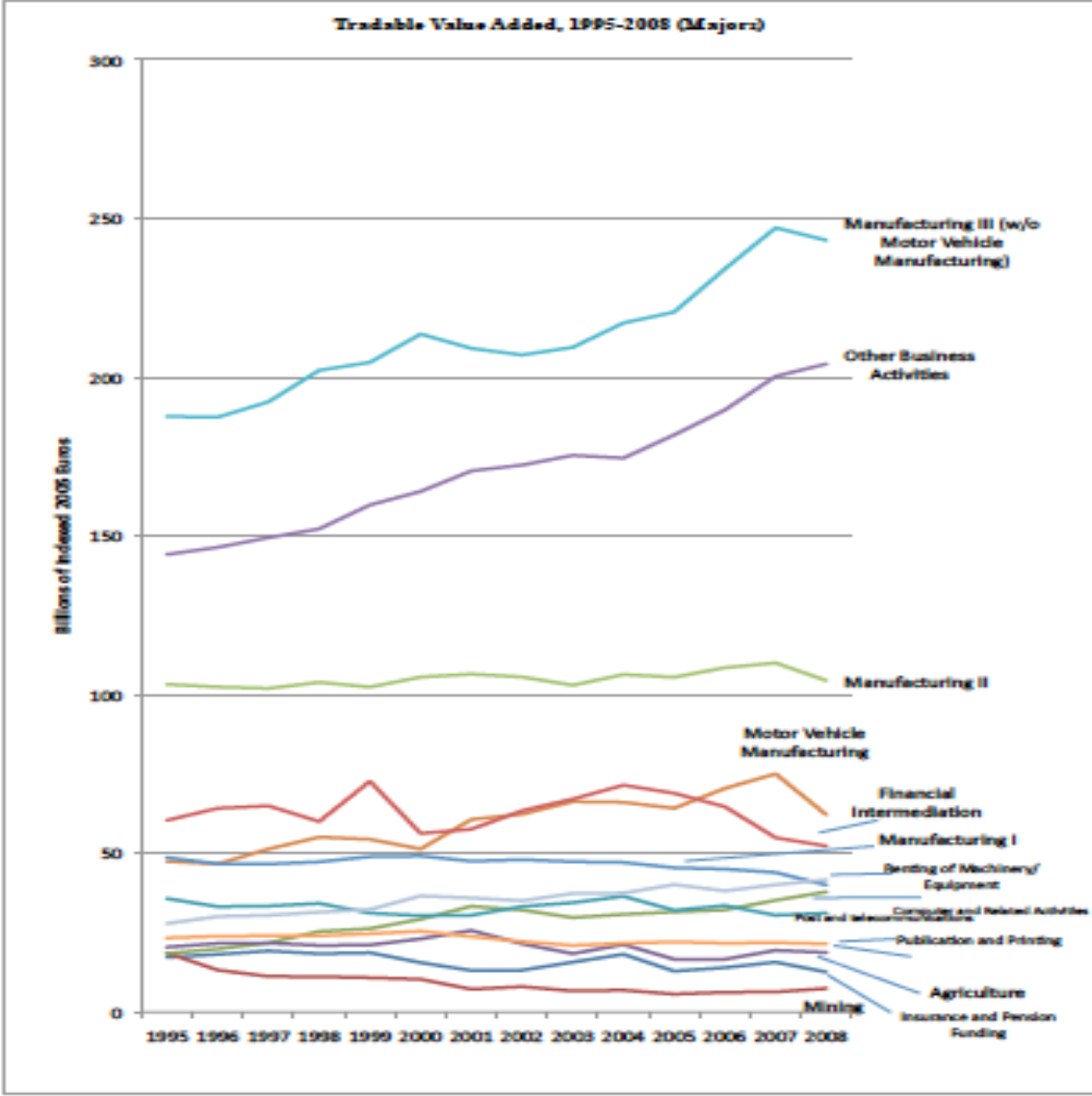
**Percentage of
Net Change**

Nontradable
Tradable

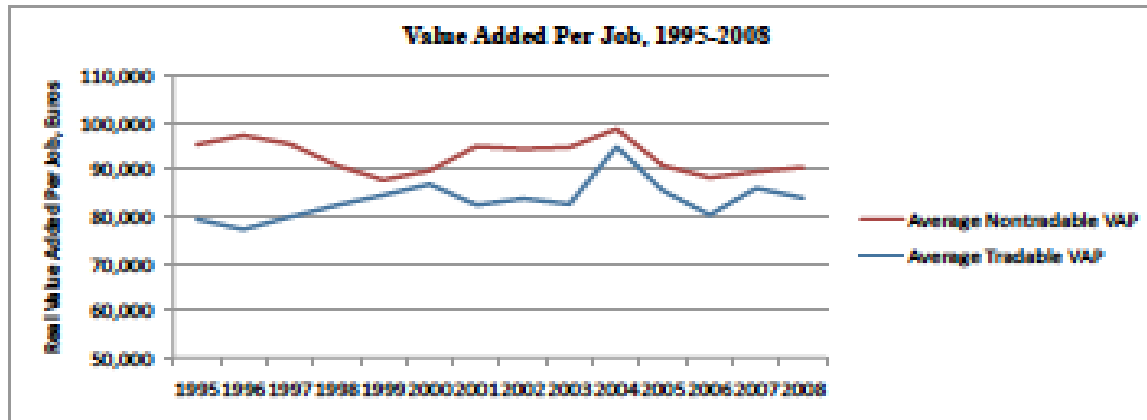
47.9%
52.1%

Tradable/Nontradable Real Value Added, 1995-2008



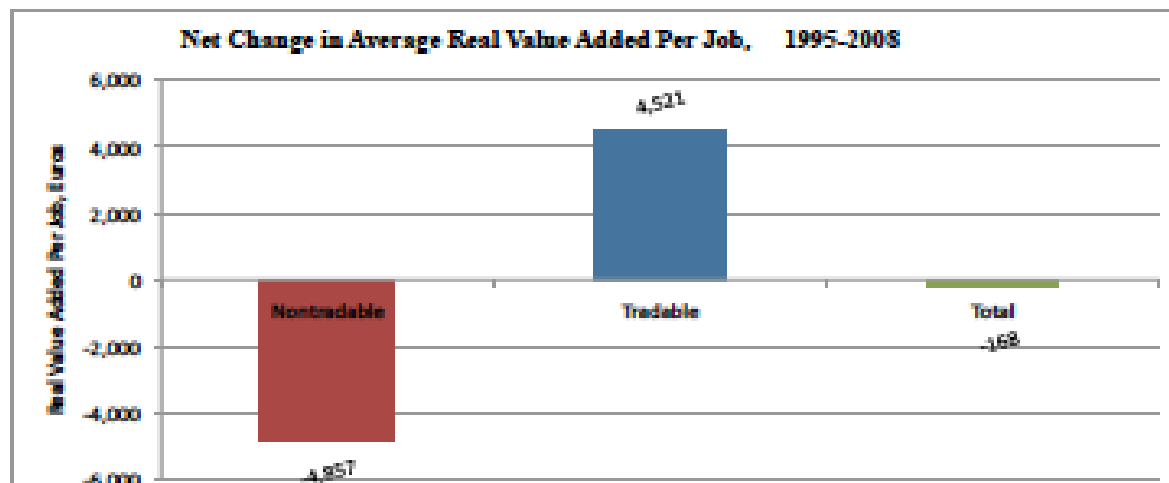


Value Added Per Job



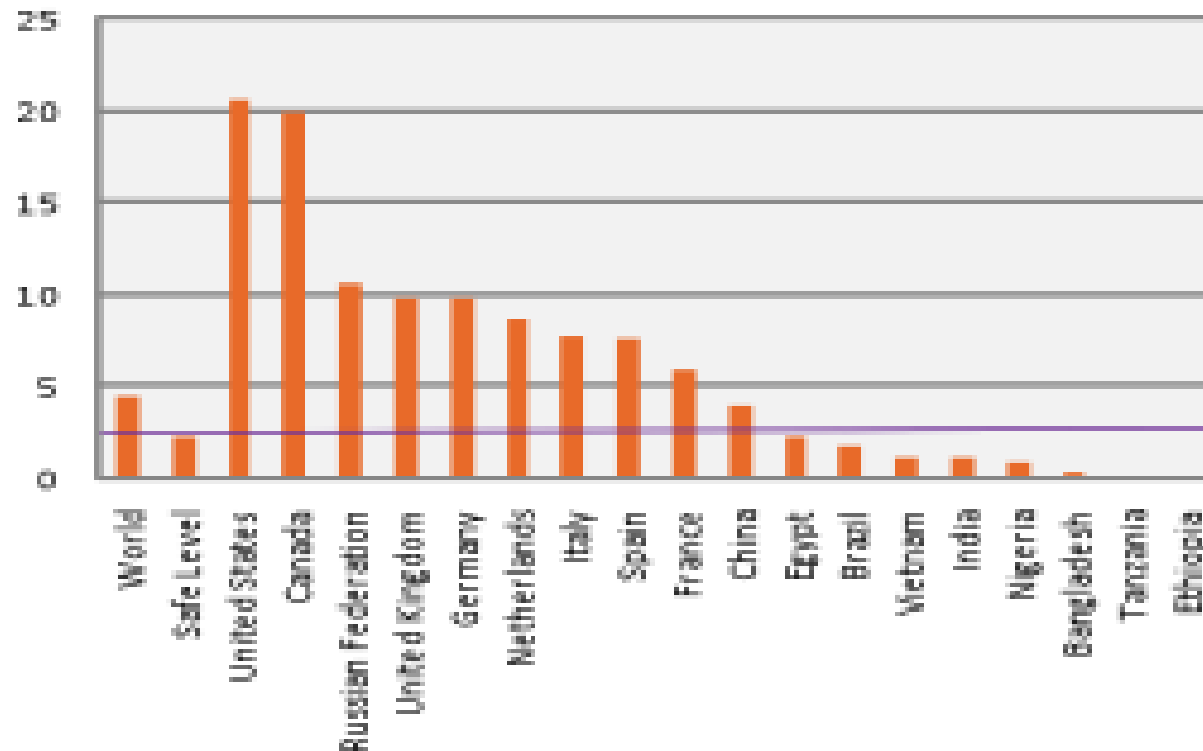
Nontradable VAP losses driven by real estate, recreational and cultural activities, sewage and refuse disposal, utilities, and households with domestic staff; gains driven by collection and purification of water.

Tradable VAP gains driven by water transport (i.e. international and domestic water transportation industry, including ports), R&D, renting of machinery/equipment, and manufacturing II and III.



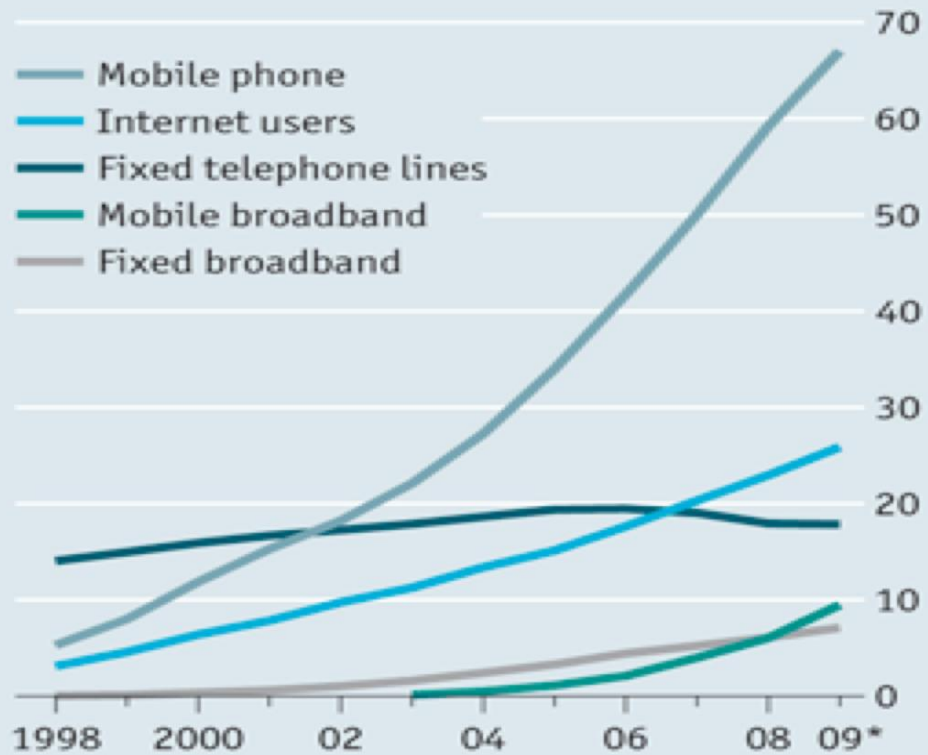
CO2 EMISSIONS PER CAPITA

Tons per year



Telecommunications

Global subscriptions per 100 people



Source: International
Telecommunication Union

*Estimate

Cell Phones as Percentage of the Population

