

THE NEXT CONVERGENCE: STRUCTURAL CHANGE, GROWTH AND EMPLOYMENT IN A MULTI SPEED WORLD



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DEC LECTURE
DEC 5, 2011



Council on Foreign Relations

WORKING PAPER

The Evolving Structure of the American Economy and the Employment Challenge

Michael Spence and Sandile Hlatshwayo

March 2011



FOREIGN AFFAIRS

FOREIGN AFFAIRS

On
**Reinventing
Michael Spence**

APR 2010

**Spence, High
Economics**

**Spence's
Not the Problem**

Spence

**The Great
Spence**

**Spence's
Economic
Thought**

**Spence's
Global
Economy**

**Spence's
Economic
Thought**

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How America Can Compete

Globalization and Unemployment
Michael Spence

The Risks and Rewards of
Health-Care Reform
Peter Orszag

Learning From the Germans
Steven Rattner

Does Obama Have a Grand Strategy?

Daniel Drezner

Foreign Affairs



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中国经济 中长期发展和转型

国际视角的思考与建议

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中国经济
中长期发展和转型

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经济观察

800



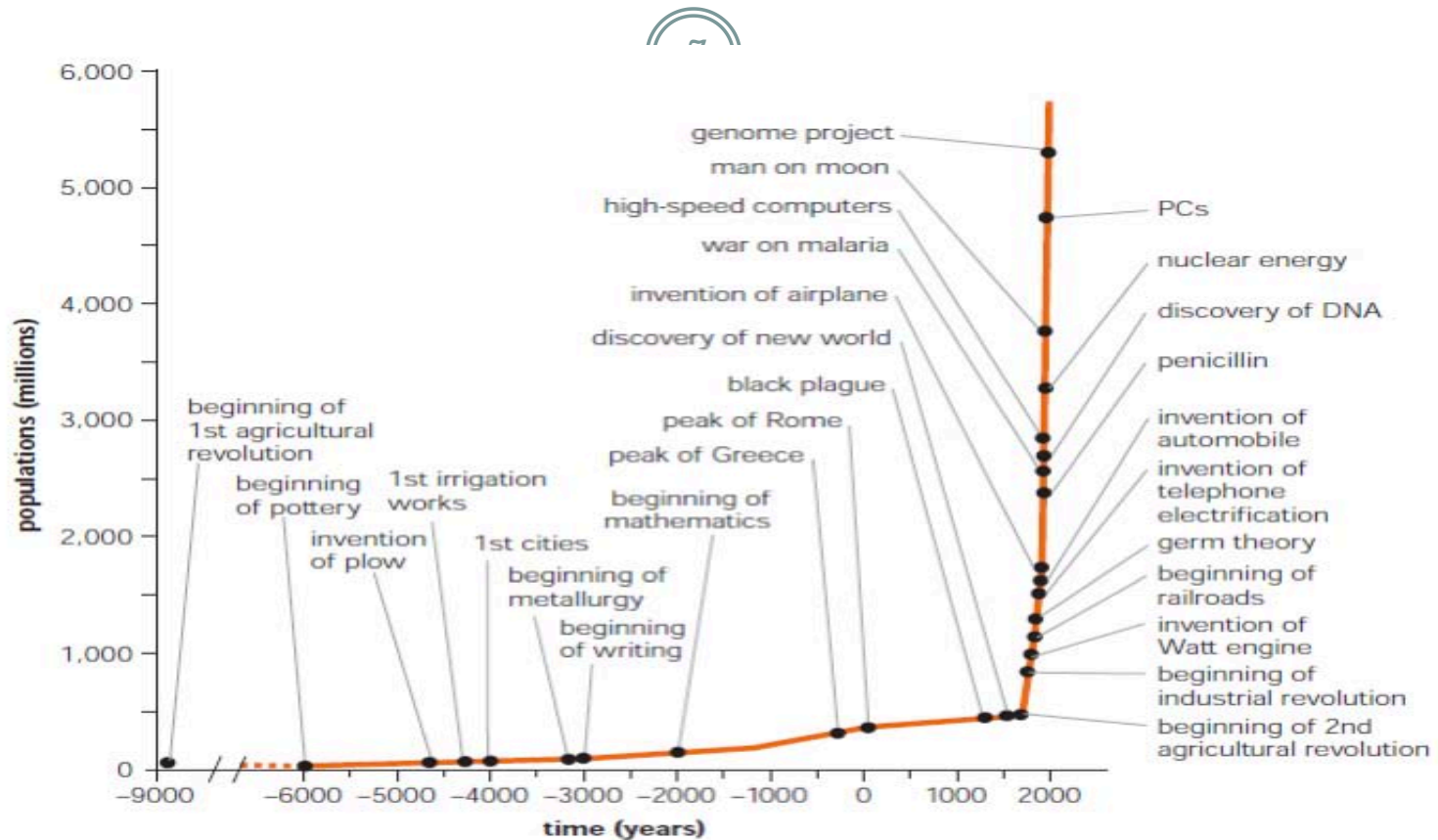
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What is the Next Convergence?



- Before the Industrial Revolution
- 200 years of divergence
- Post World War II: Reversal of the Pattern
 - GATT
 - Collapse of Colonial Empires
 - Technology

Population Growth



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

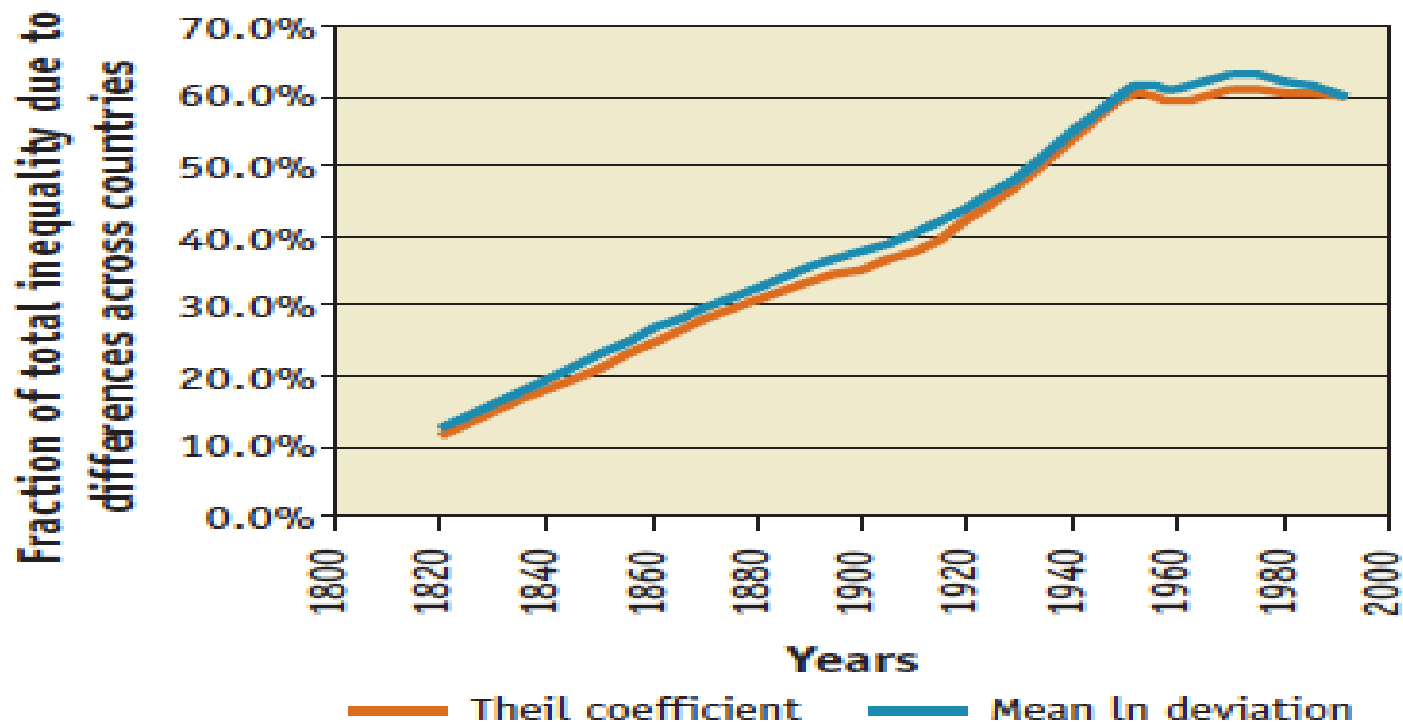
Note: There is usually a lag between the invention of a process or a machine and its general application to production. "Beginning" means the earliest stage of this diffusion process.

Two Centuries of Divergence



FIGURE 1.4

Fraction of World Inequality Accounted for by Differences across Countries



Source: Source: Bourguignon and Morrison 2002.

How Do Advanced Countries Growth

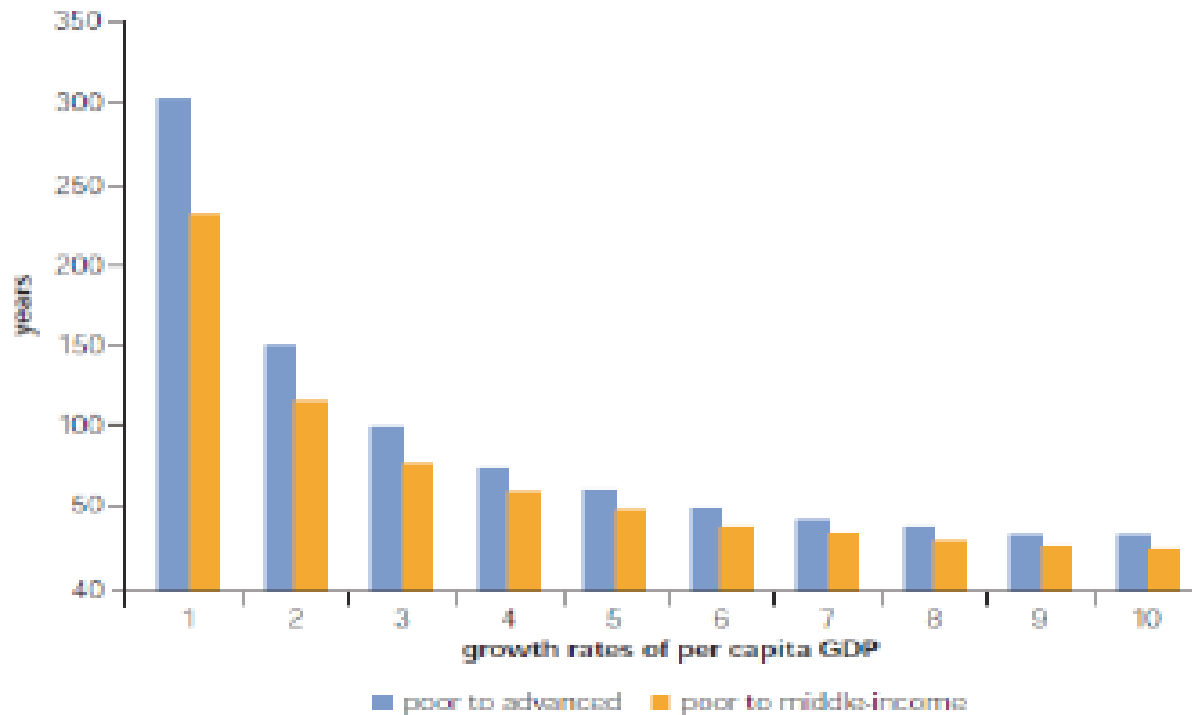


- By capital deepening, but there is a limit
- By population growth but that does not cause income growth
- By innovation
- Solow and endogenous growth theory
- How fast
 - 2.5% with spurts to 3.5%
- By contrast, developing countries can grow at 10% for extended periods
- By importing and adapting technology and expertise from outside
 - Provided the transmission channels are open, TFP rises faster than in developed countries and the gap starts to close

Times for the Full Journey

10

Figure 3 Transitions to Higher Incomes



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.

Key Elements in Sustained High Growth



- **The global economy**
 - Knowledge transfer and catch up growth
 - Market Size and specialization
- **Very high rates of overall saving and investment**
- **An effective government that supports and complements the private sector dynamics**
- **Structural change and economic diversification**
- **Leadership**

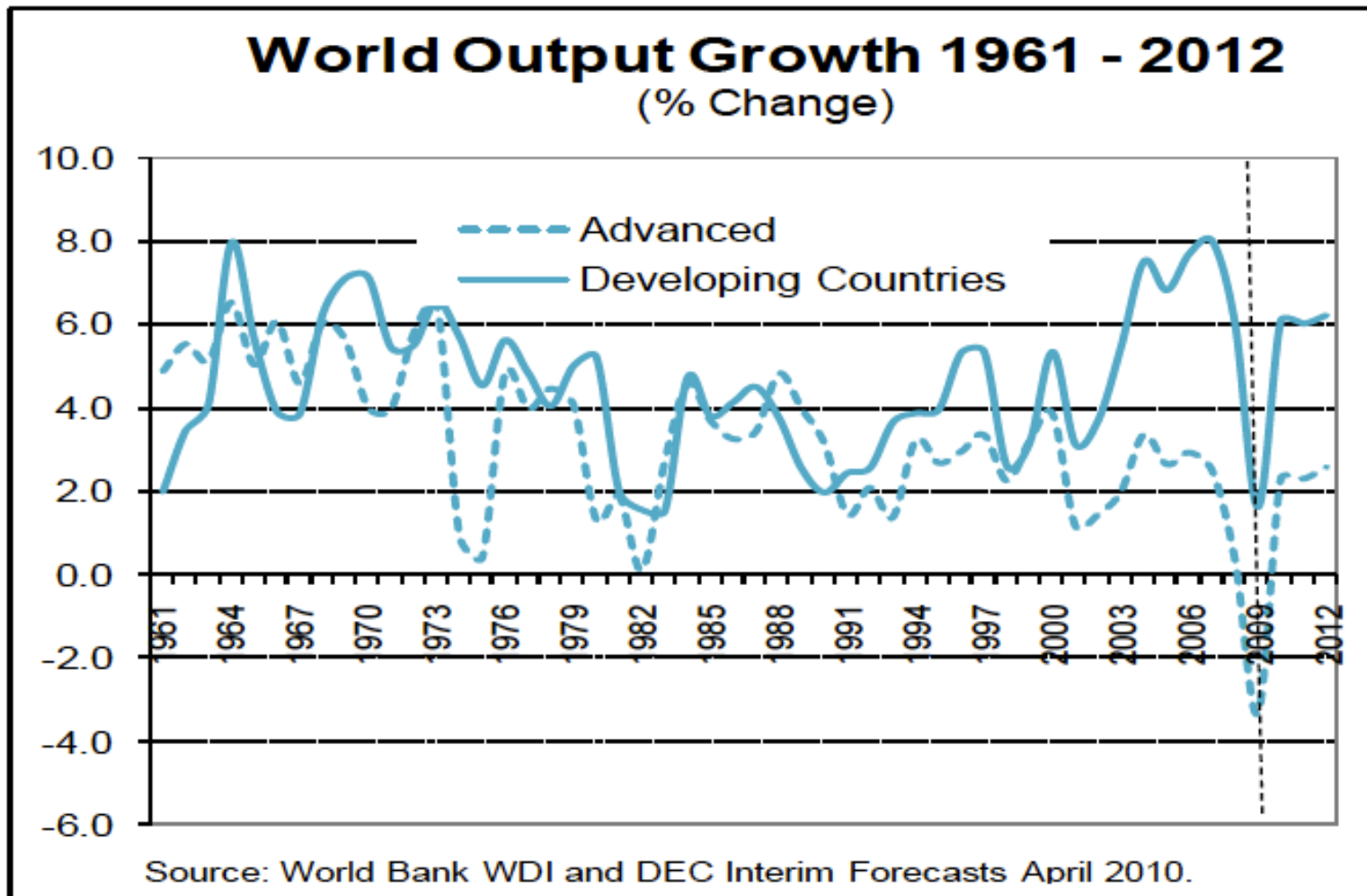
When Does It Fail?



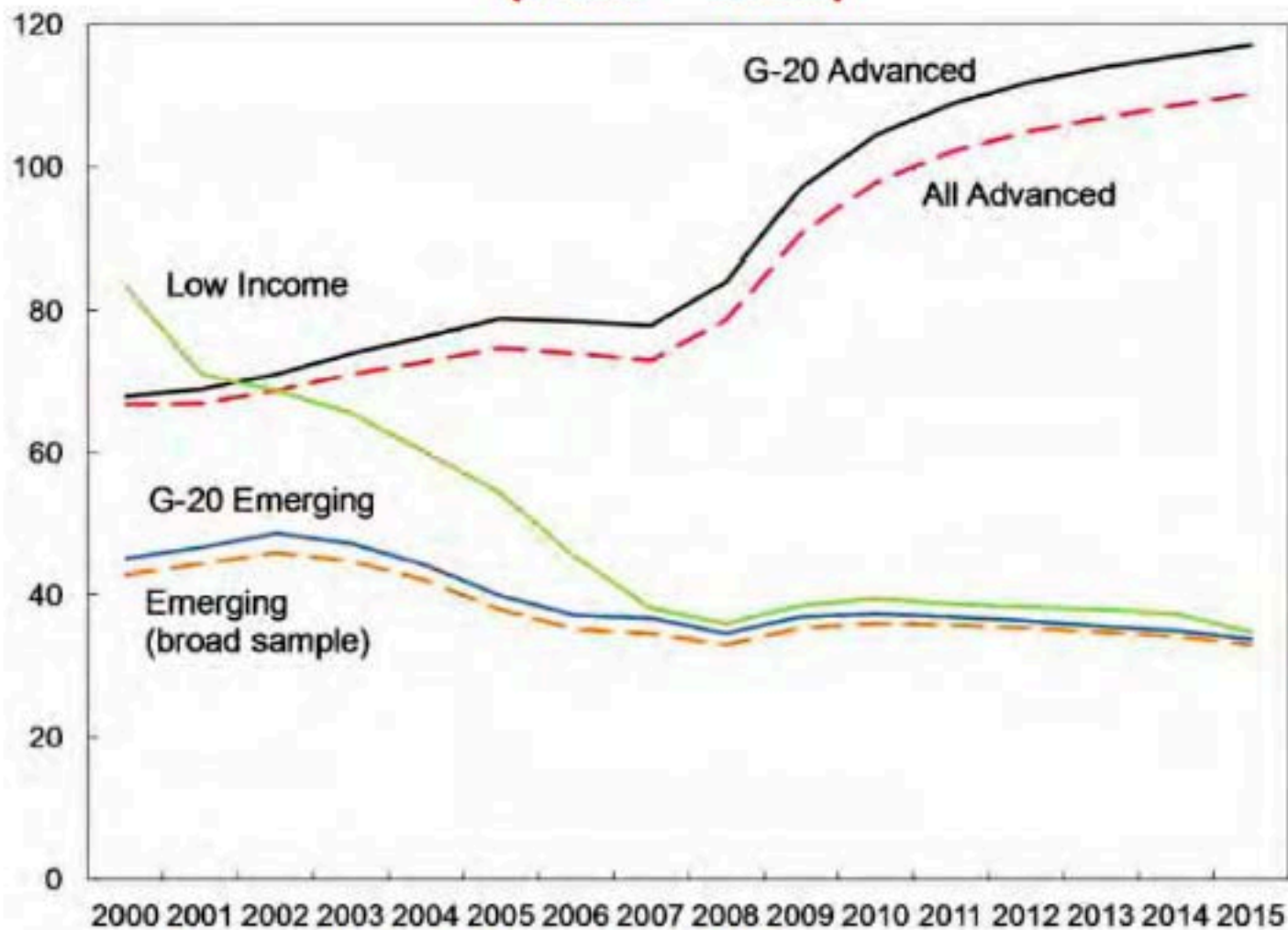
- Leadership
- Failures of governance
- But the form of governance is uncorrelated with economic performance
- Pursuit of other objectives than growth
- Natural resource distort the political economy
- National Identity not formed
- Low rates of public sector investment
- “Bad” Strategy
- Inclusiveness failure

Partial Decoupling

Figure 1



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



Source: IMF, *Fiscal Monitor*, May 2010



% Job Losses
Relative to Peak
Employment Month

Percent Job Losses In Post WWII Recessions

— 1948 — 1953 — 1957 — 1960 — 1969 — 1974 — 1980 — 1981 — 1990 — 2001 — 2007

Source: calculatedriskblog.com
(11/04/11)



Current
Employment
Recession

Dotted Line
ex-Census
Hiring

Post Crisis Sustainability of Growth in EM's

- In the context of a difficult, extended slow growth in advanced economies
- It looks like the growth is sustainable
 - EM growth dynamics still in place
 - structural change and supporting policies deeply embedded
 - Economic size of EM group
 - Trade within EM group
 - Higher incomes and closer match between demand and supply sides of the economy
 - China's growth has become an important engine
 - Main export partner for Japan, Korea, India, Brazil and lots of others
 - The network structure of global has shifted
- Downside Risks to Baseline Case
 - Another major downturn in advanced countries
 - Failure to deal with rebalancing of demand
 - Serious outbreak of protectionism
 - Mishandling the current distortions caused by advanced country recovery policies – low interest rates and QE2
 - Growth falters in China

Evolving Structure of Global Economy

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- G20 85% of GDP and 66% of population
- EM's will soon pass 50% of global GDP within a decade
- Asymmetries declining
- Systemic impacts are rising
- Old Hybrid's
 - Assumed correctly that the systemic impacts of EM's were limited
 - Enabled focus largely on domestic growth and development
 - Won't work now
 - Systemic impact coming at much lower income levels – China and India
 - ✦ Creates tensions and challenges for global coordination of policies
- EM's are a double edged sword for advanced economies
 - Big market opportunity
 - Challenge to employment in tradable sector of advanced economies as they move steadily up the value added chain

China: Short Term Issues



- Short run
- Inflation, asset bubbles. NPL's and off balance sheet sovereign debt
- The Resources, Competence and Will framework
- Inflation coming down
- Moderately soft landing is levelling off of real estate prices
- Total sovereign debt well under 50% of GDP
- NPL's can be pulled out and banks recapitalized as necessary
- State balance sheet is huge

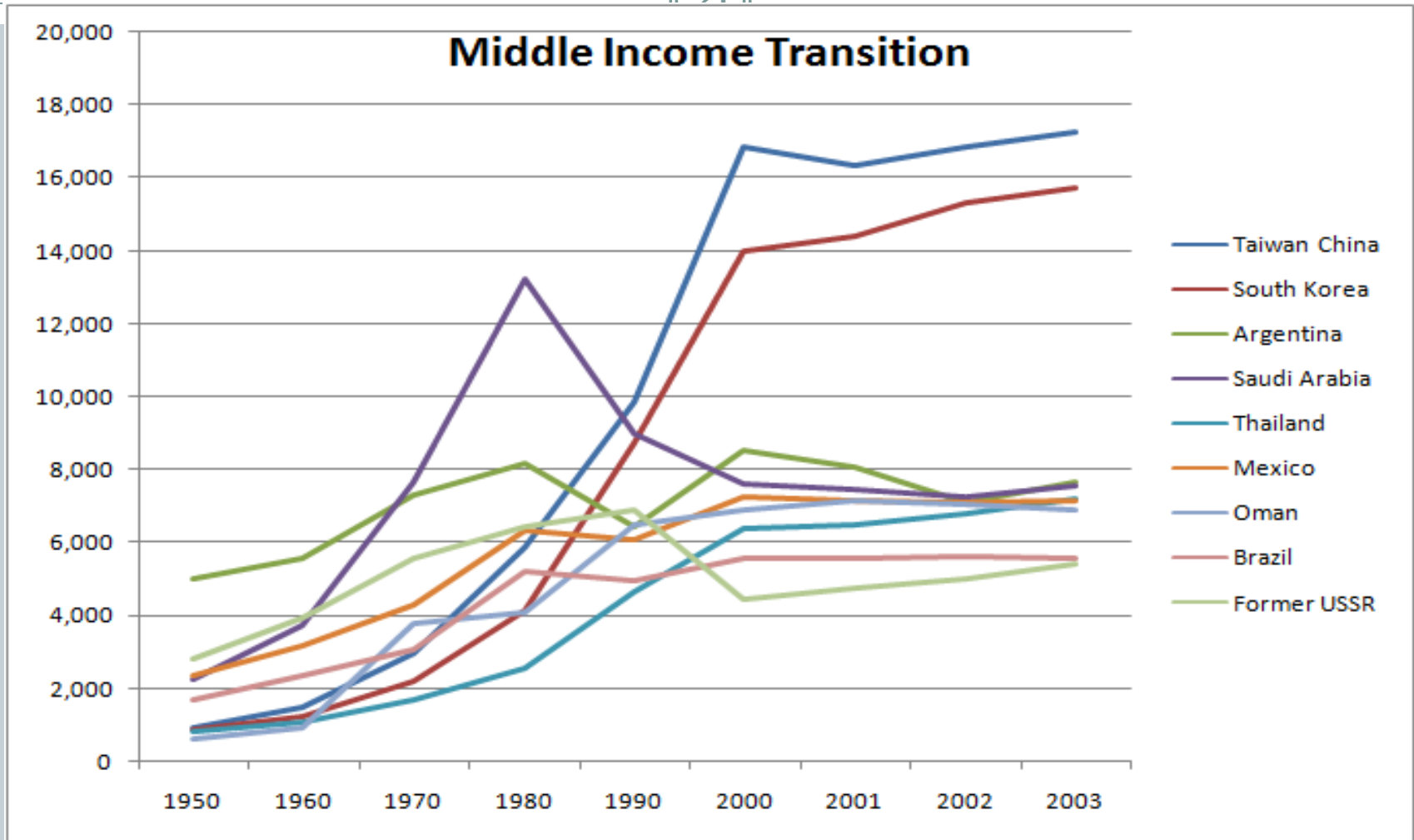
China and the Middle Income Transition

20

- **Parallel Shifts in Structure in 12th Five Year Plan**
- **Middle income transition in China**
 - Major internal structural change on supply side
 - Wages in Pearl River Delta post-Foxcomm
- **Parallel shift in demand side structure involving national income and saving**
 - Required to have domestic demand drive growth and the structural evolution of the economy
- **Global rebalancing of aggregate demand and elimination of current account surplus and excess savings – but without loss of growth momentum**
- **The crisis and China's growing size has made all of the above more immediate and urgent**
 - Domestically and in the Global Economy

Middle Income Transition is Difficult

21

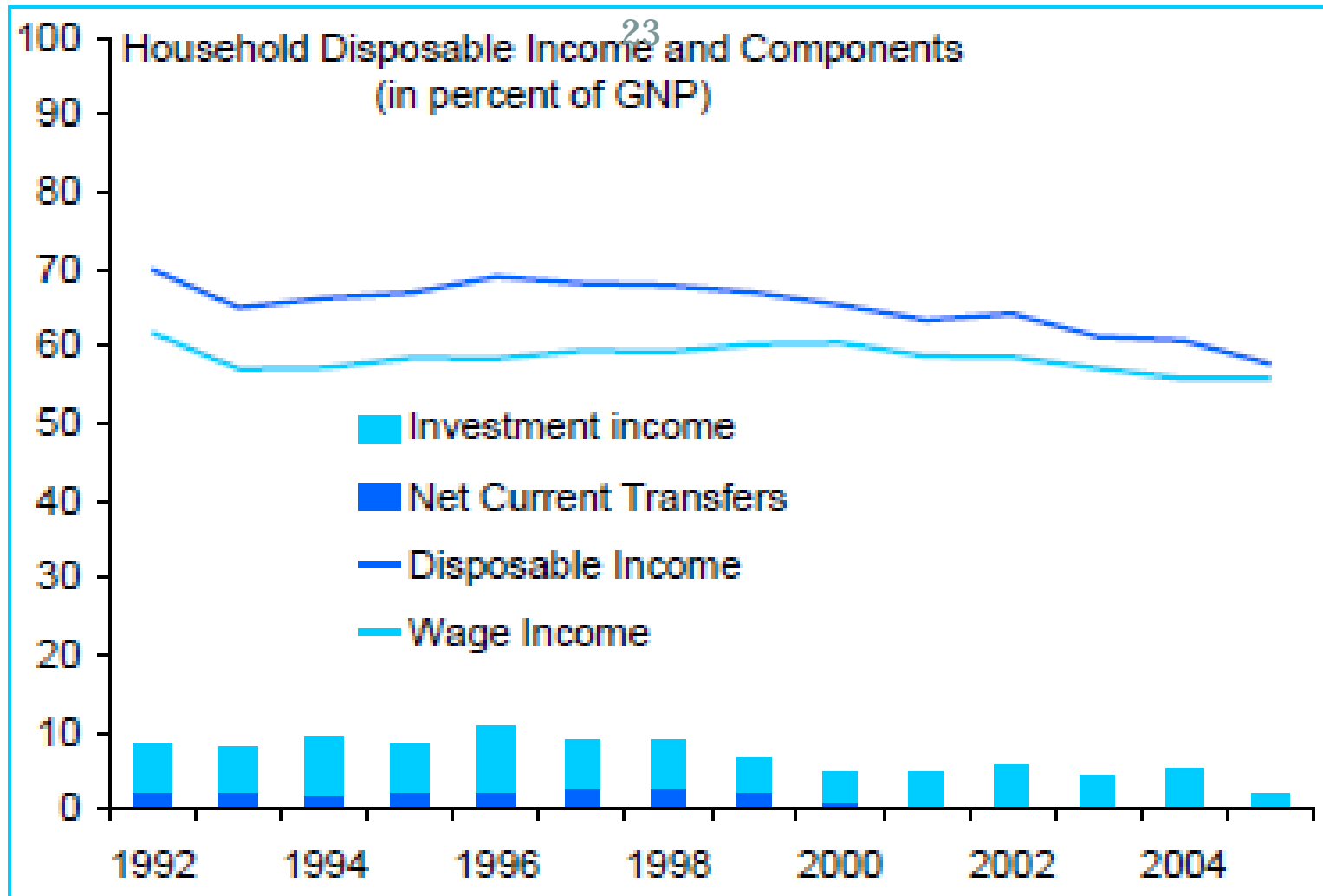


Five High Speed Transitions

22

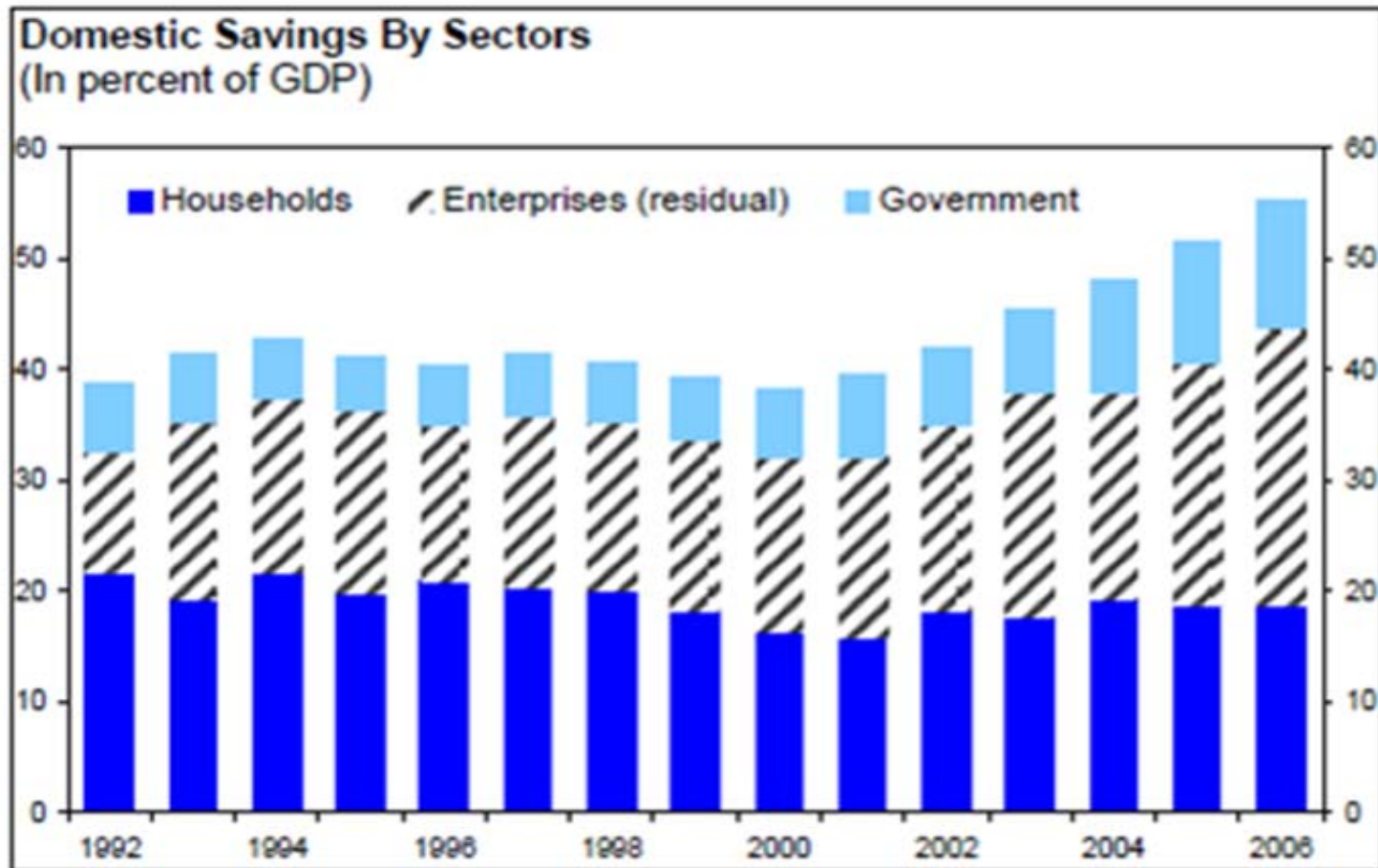
- Japan
- Korea
- Taiwan
- Hong Kong
- Singapore

Disposable Income Declining as Percentage of GDP



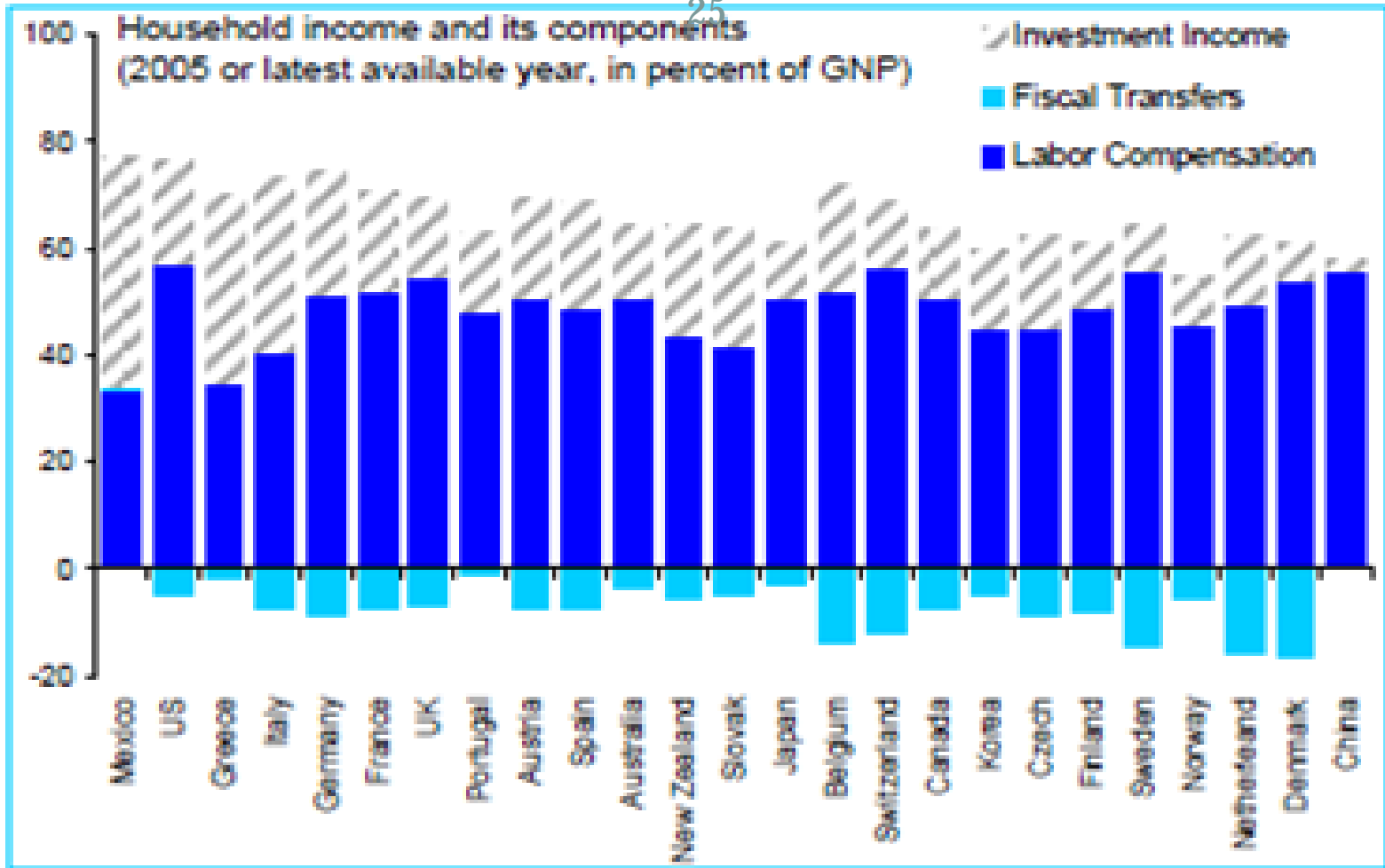
Components of Savings: The Increase is in the Corporate Sector

24



Comparative International Income Data

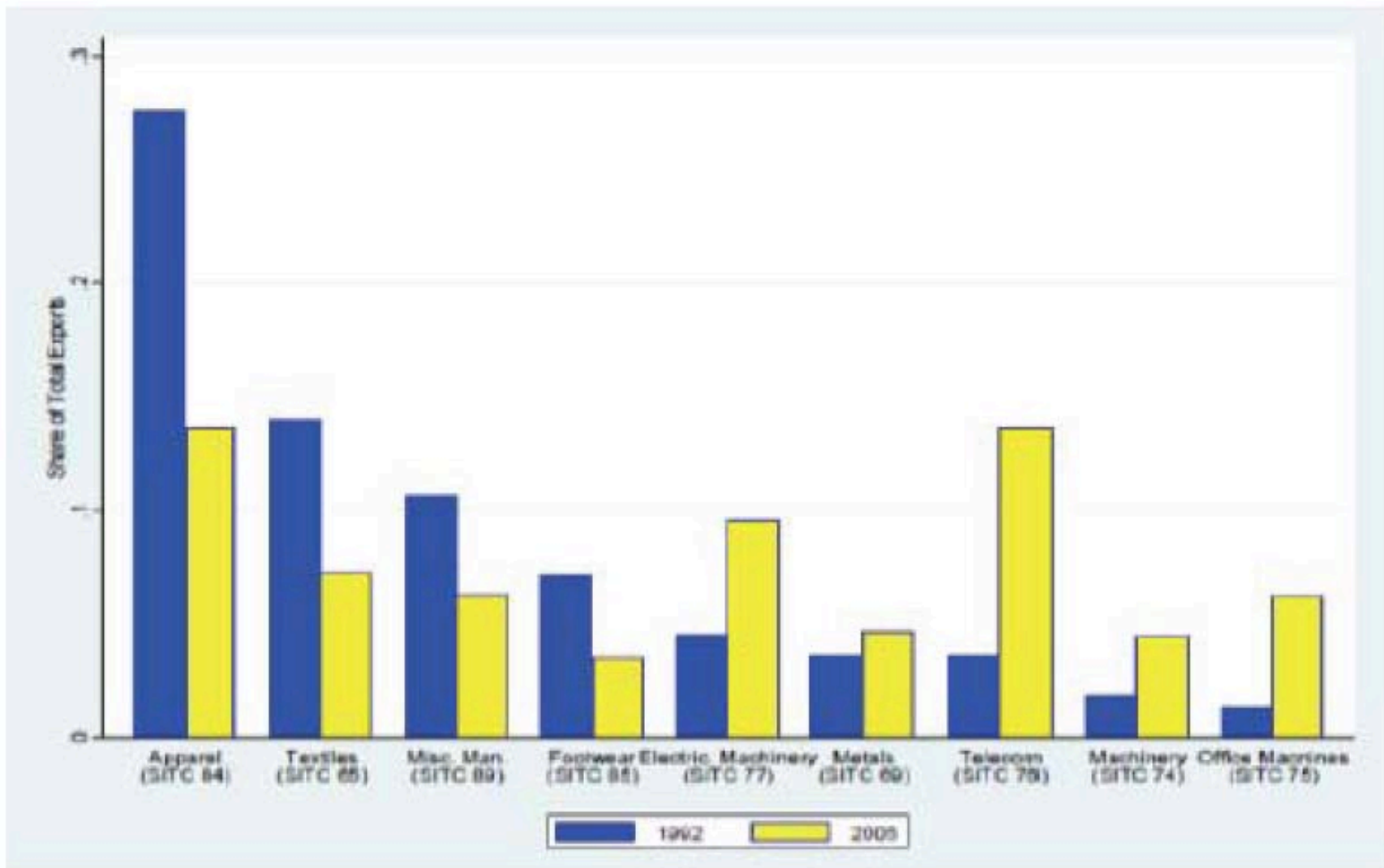
25



Requirements

26

- Major change in the investment system
 - Shift from investment led to rate of return lead growth
- Shift in structure of income side of the economy – shift toward the household sector
- Elimination of low return investment
- As market takes larger role, innovation and human capital investment is central
- Financial sector development to expand savings options and recycle savings to productive (high return) investment
- Corporate governance
- Social insurance and services – focus on inclusion
- Urban service sector will take over from labor intensive process manufacturing as main entry level employment engine



Crossroads in Global Economy



- Moment when emerging economies are large, systemically important, much more self-sufficient and resilient
- China 25 years ago and now
 - Growing at close to 10%
 - But 25 years ago it was small and didn't matter
 - Now it is the equivalent of about 4% real growth in the US economy or Europe

Eurozone



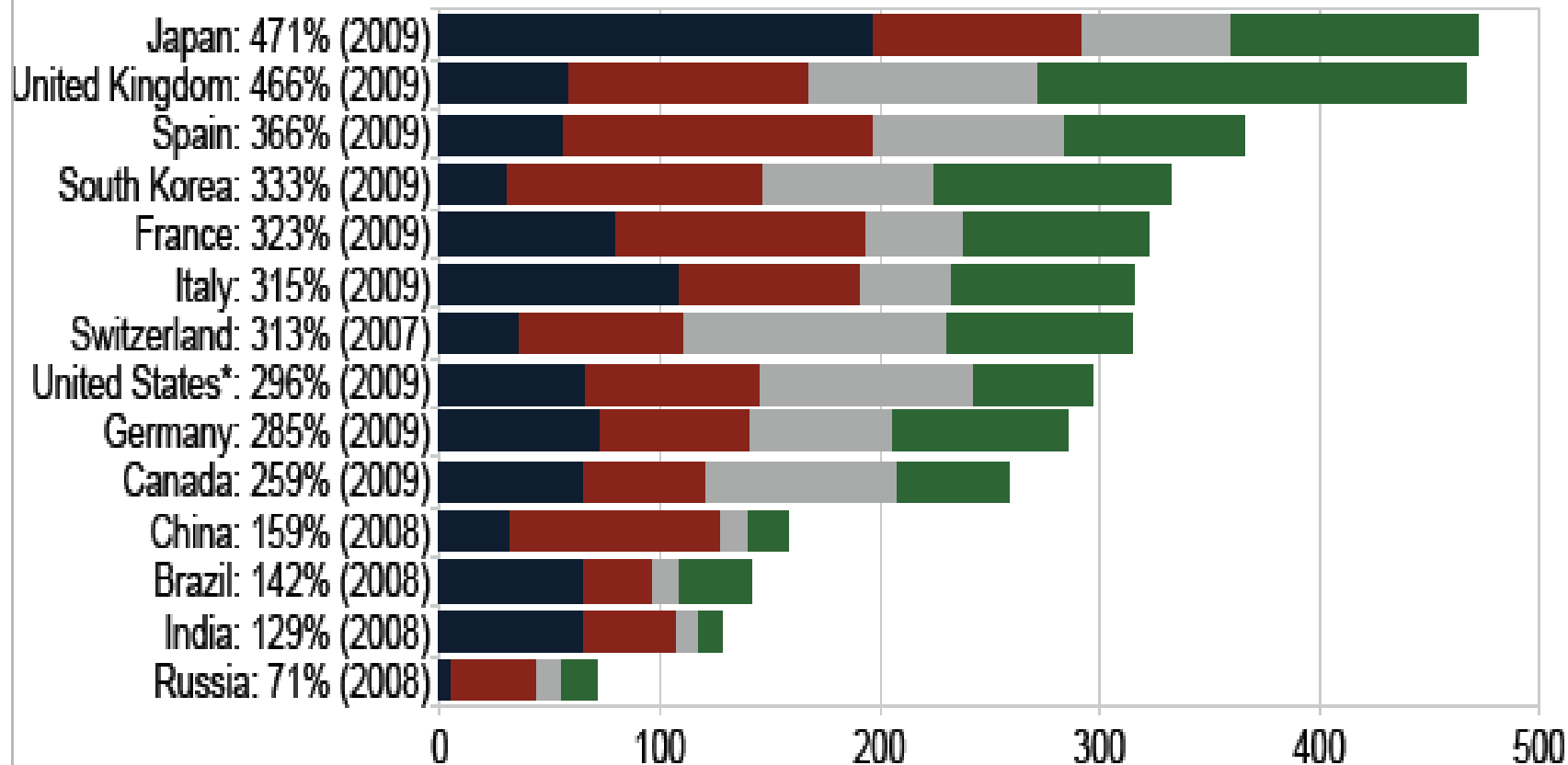
- **Mostly likely scenario**
 - Periphery exits
 - No growth model without a reset
- **Less likely but possible**
 - The eurozone core comes apart
 - Key is Italy

Italy



- Third largest sovereign debt market
- Debt to GDP 120%
- Highly vulnerable to escalating yields
- But (see graph) overall debt OK
- Household debt low
- Household net worth high
- Dynamic northern economy
- New government is highly competent
- The issues are will and support from the ECB as implement reforms

Total Debt in Selected Countries around the World, latest data available, as percent of GDP, by sector



Black – government

Red – non-financial corporate

Grey – household

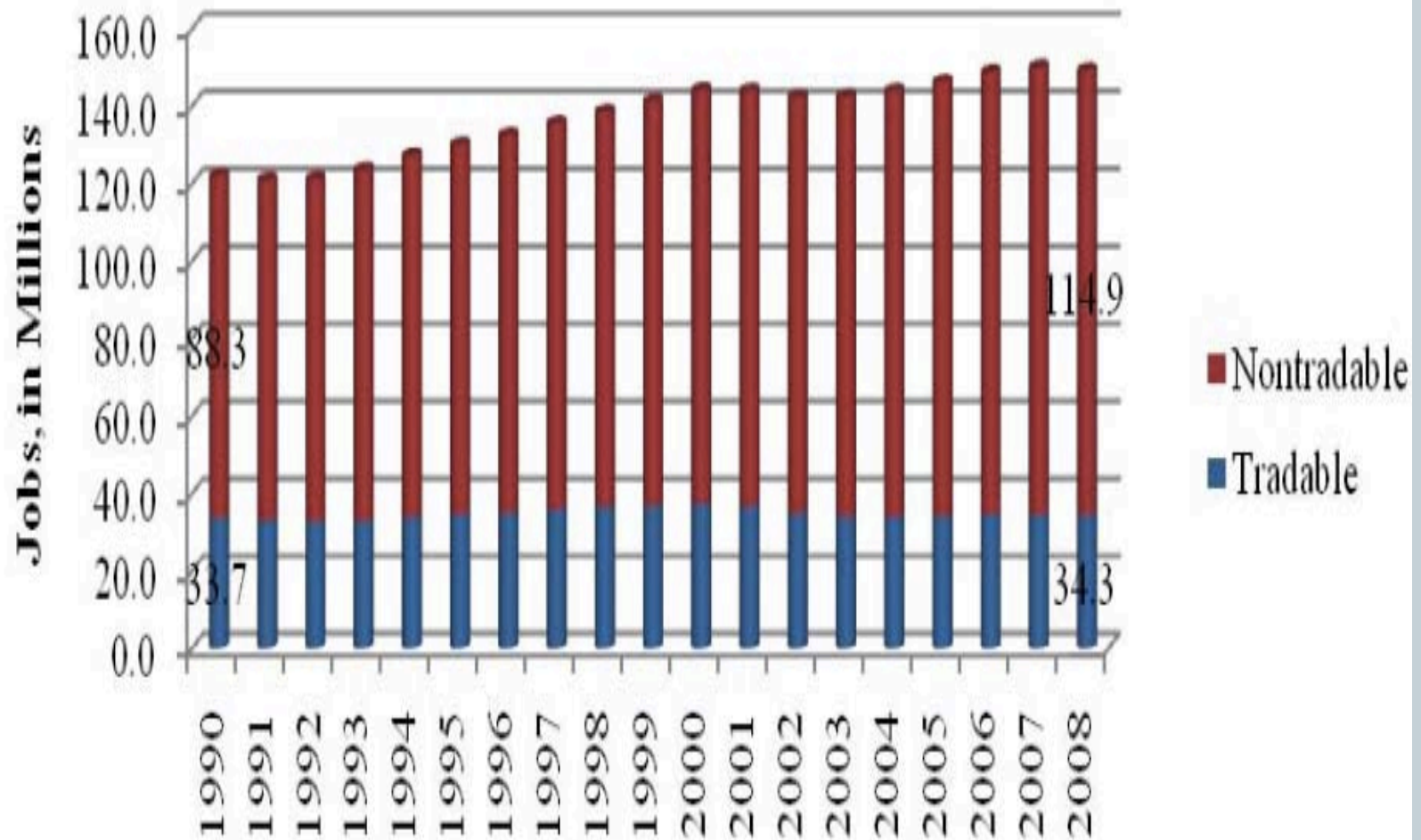
Green – financial institutions

Structural Challenges for the Advanced Economies



- **Adapting to and Accommodating EM growth and size**
- **Structural Changes in Advanced Economies**
- **Partial growth engines and no employment engines**
- **Distributional Issues**
- **In Context of the Reinhart/Rogoff, new normal post crisis period**
- **Fiscal challenges**
- **Political gridlock – at least until 2013**

Employment in the US



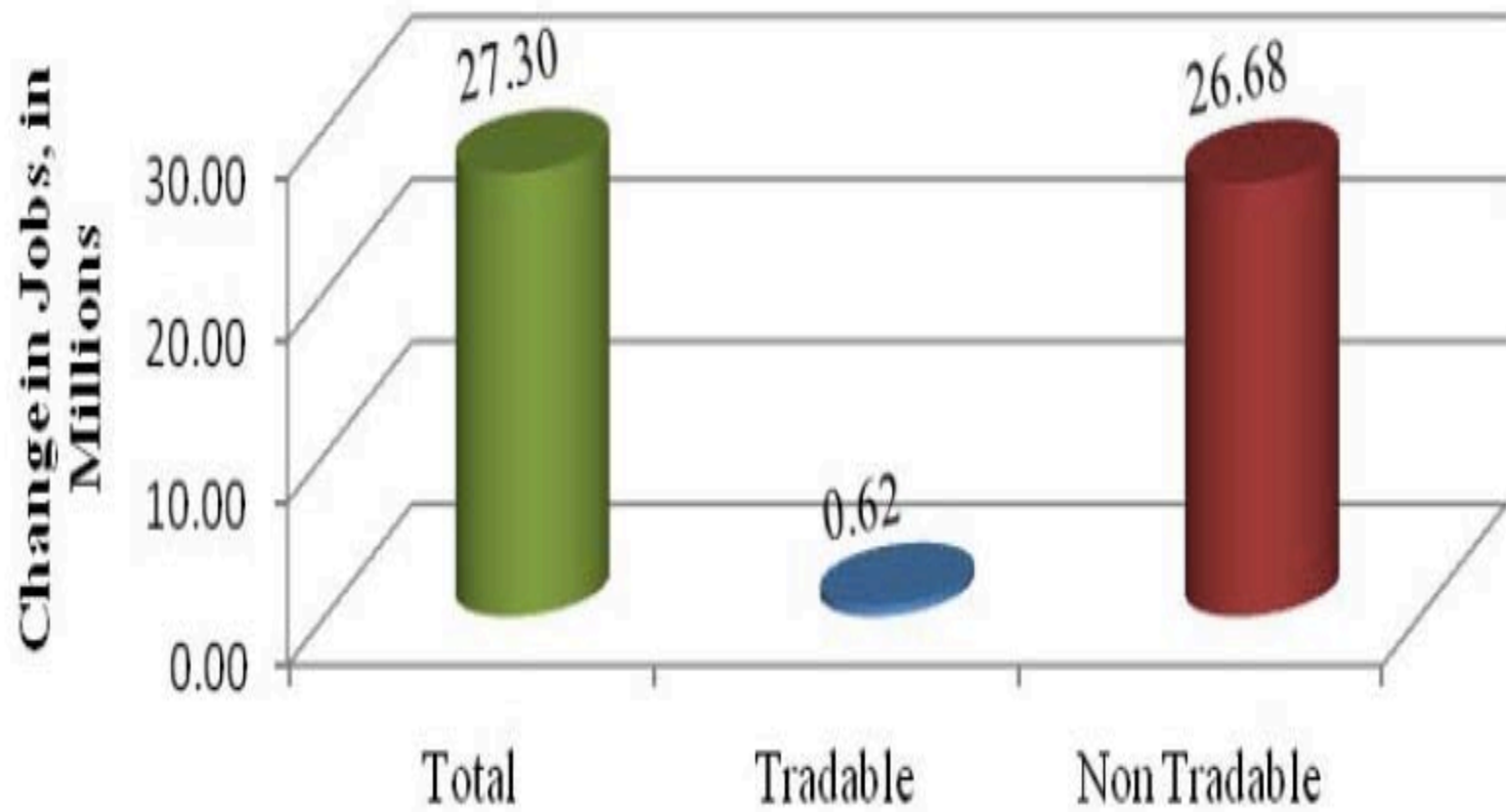
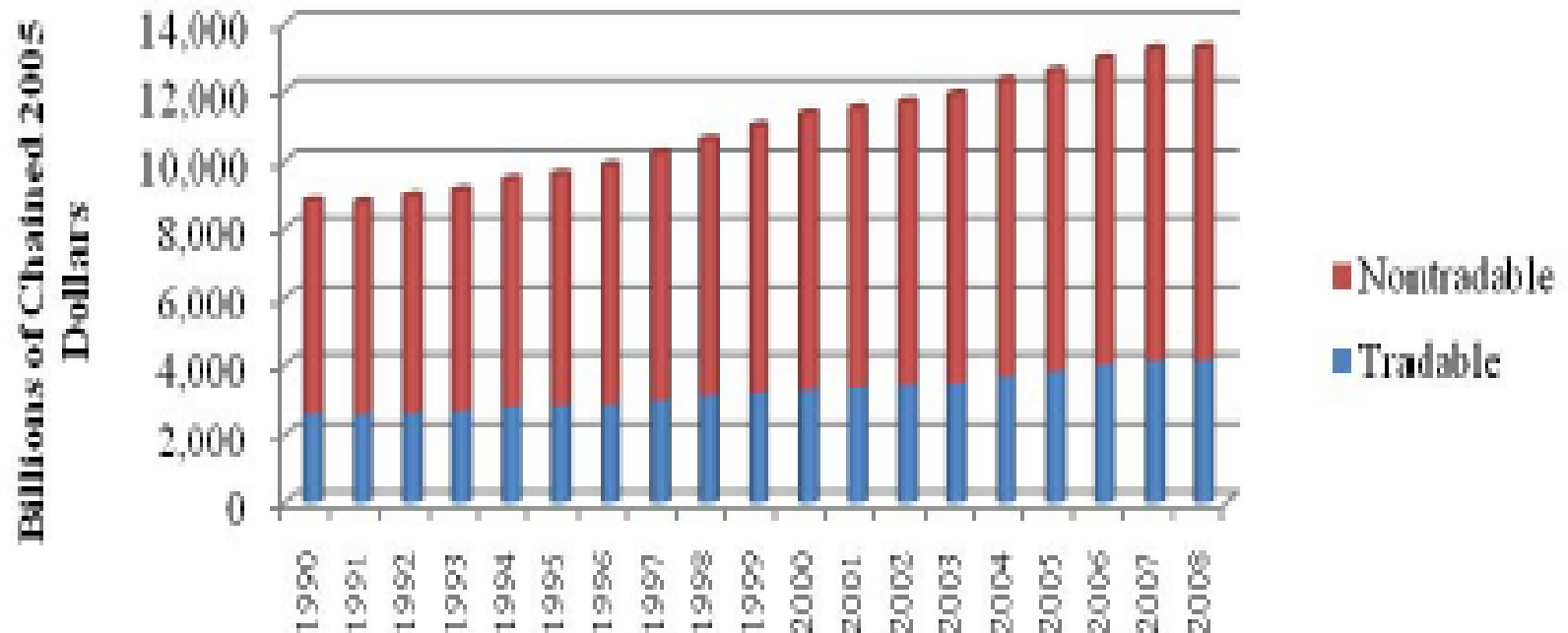




Figure 10. Tradable/Nontradable Value Added, 1990–2008



Source: Authors' calculations using Bureau of Economic Analysis historical data series

Value Added Does not Show the Same Pattern

36

Total Change in Value Added, 1990-2008

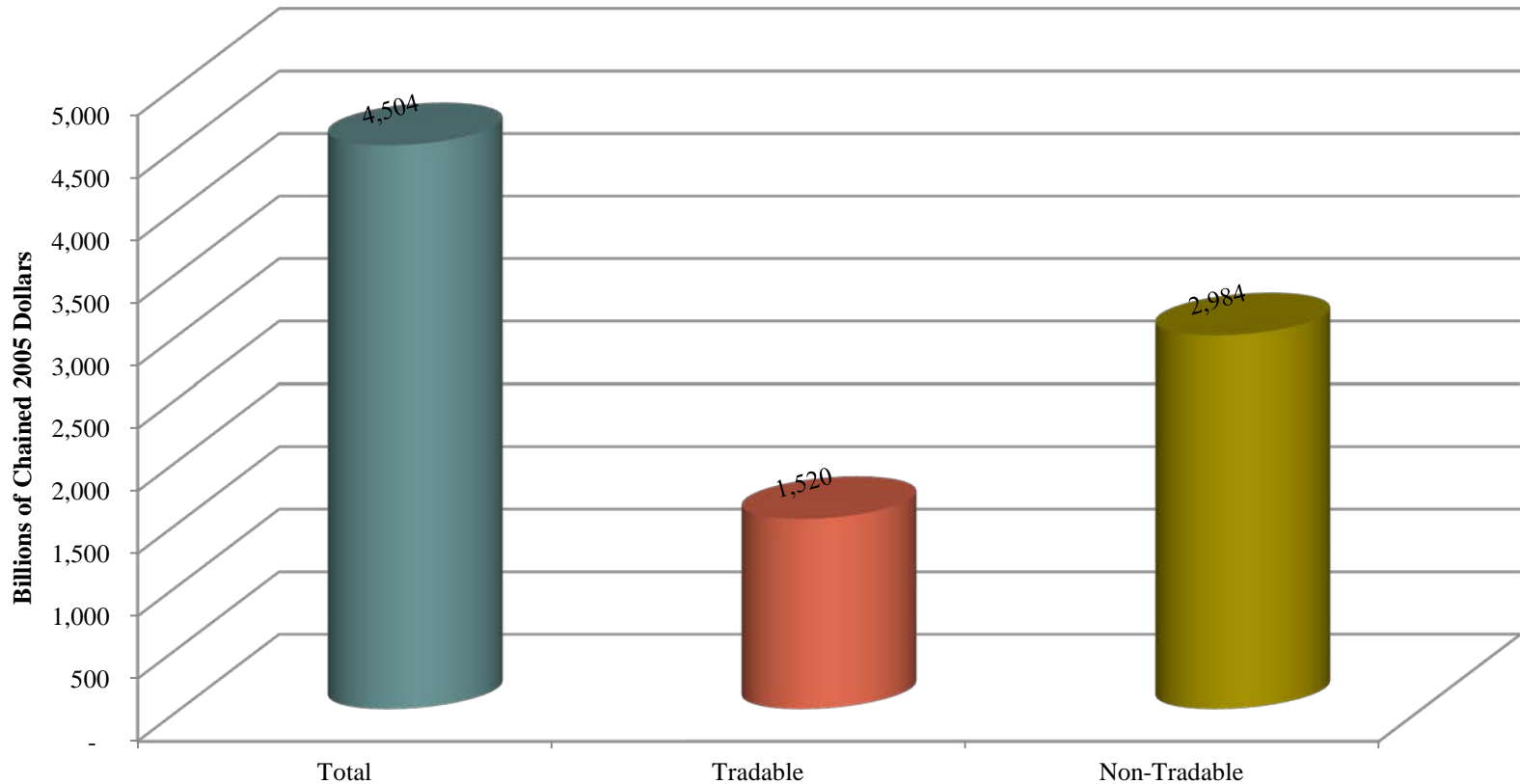
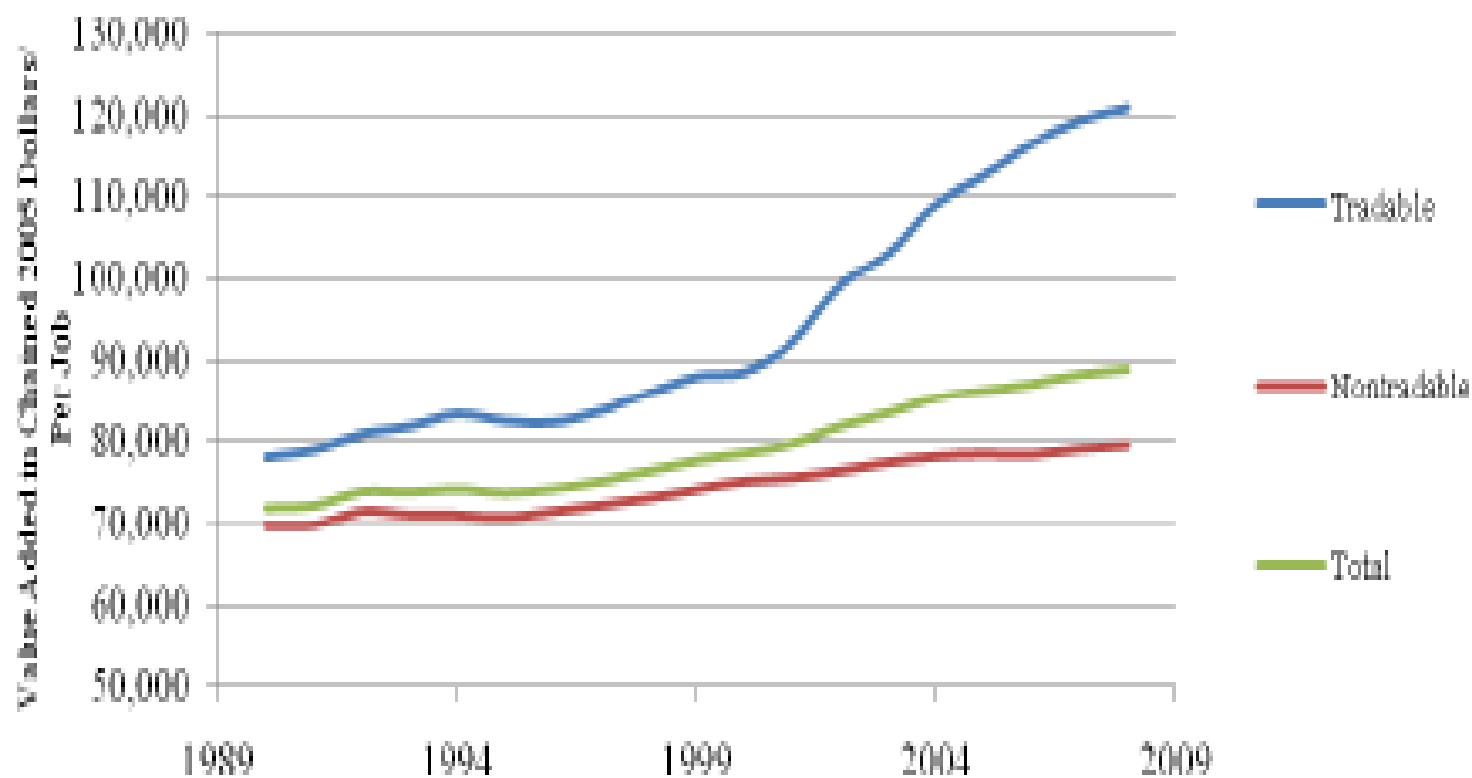
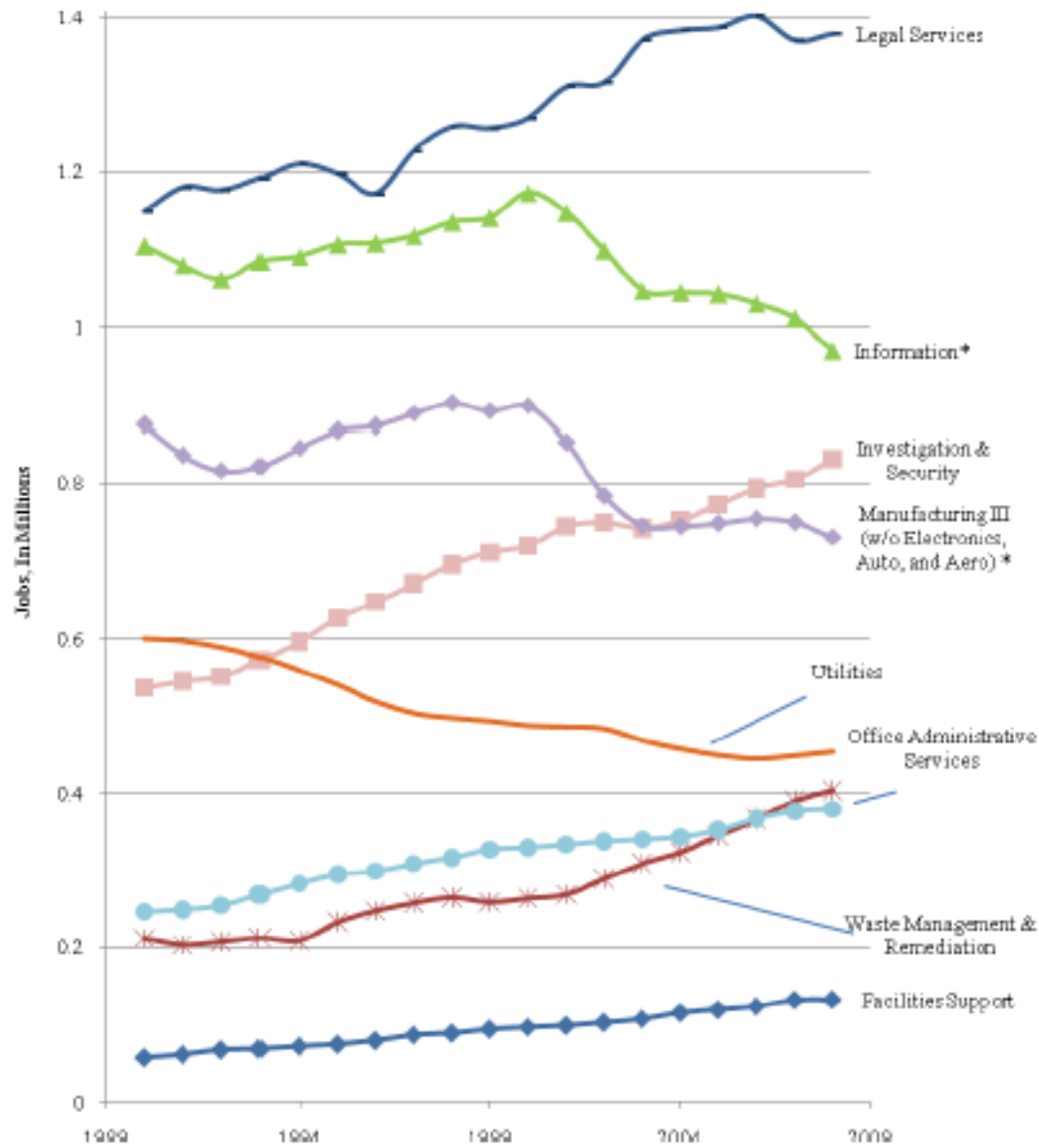


Figure 15. Value Added per Job, 1990–2008



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

Figure 7. Nontradable Industry Jobs, 1990–2008 (Minors)^a



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



Table 1. Description of Manufacturing Industry Splits

Manufacturing I	Food, beverage, and tobacco production; textile, apparel, footwear, and leather goods
Manufacturing II	Wood and paper products; petroleum and coal; basic chemical products; synthetic materials; nonmetallic mineral products; glass; and cement products
Manufacturing III	Primary and fabricated metal products; heavy machinery; transportation equipment; computers and electronics; household appliances; semiconductors; and furniture production

Source: Summary of the North American Industry Classification System descriptors for manufacturing.

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

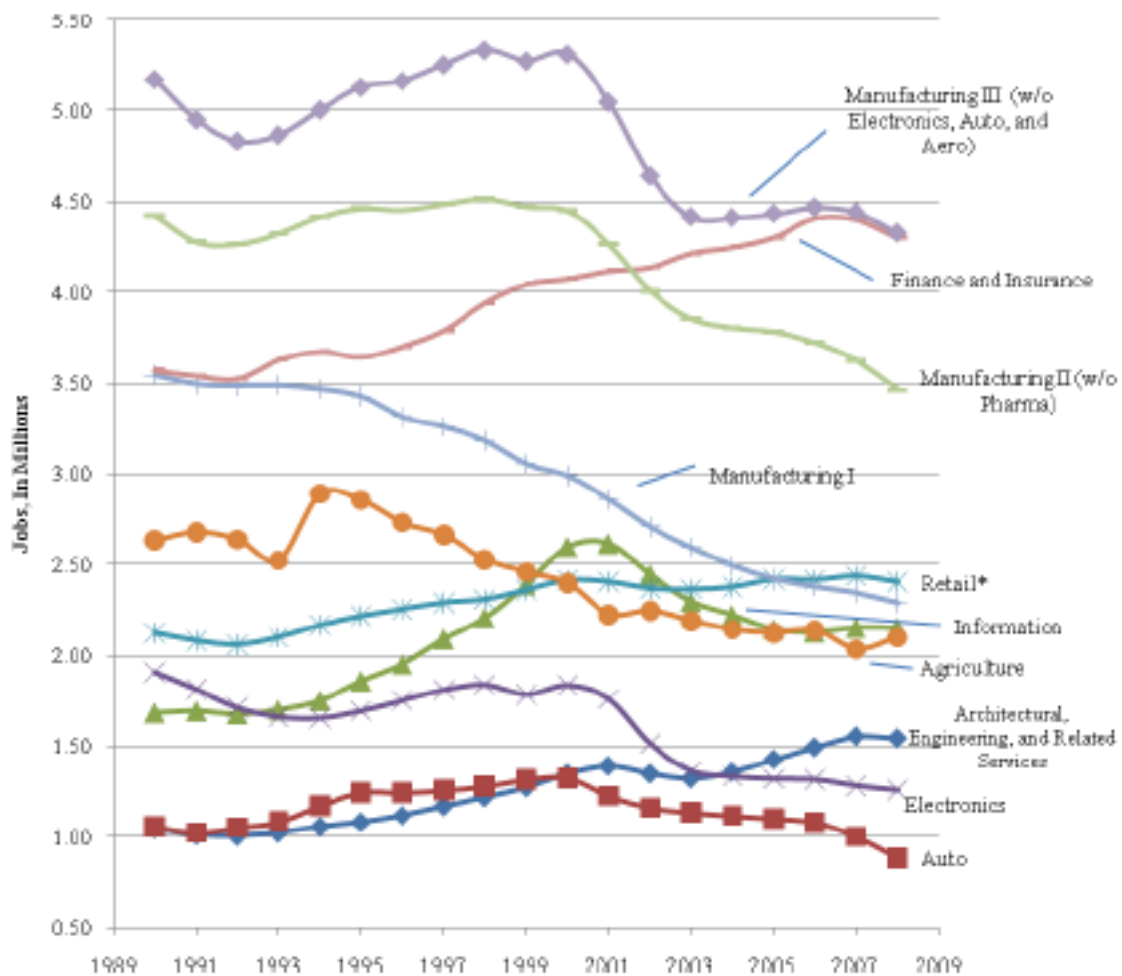


Figure 9. Tradable Industry Jobs, 1990–2008 (Minors)¹⁰

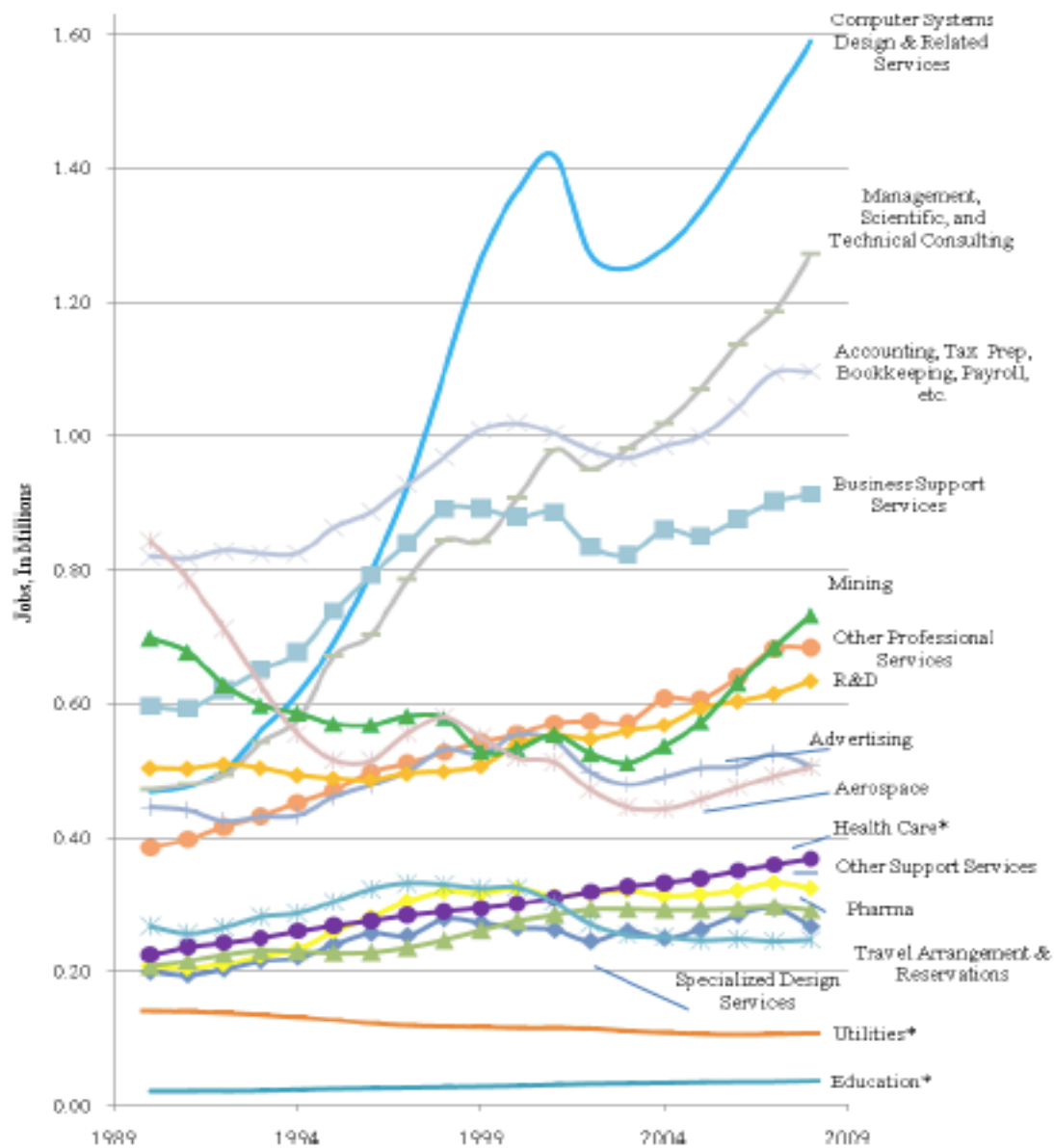
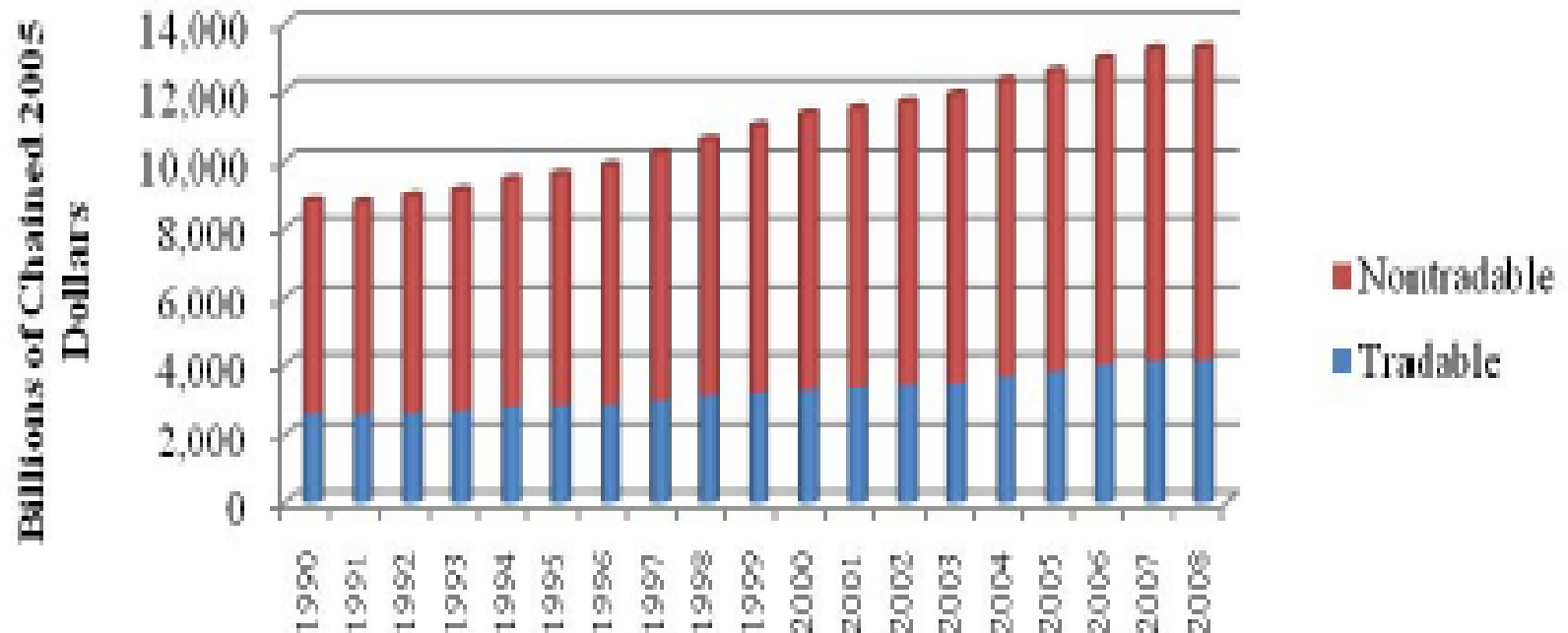


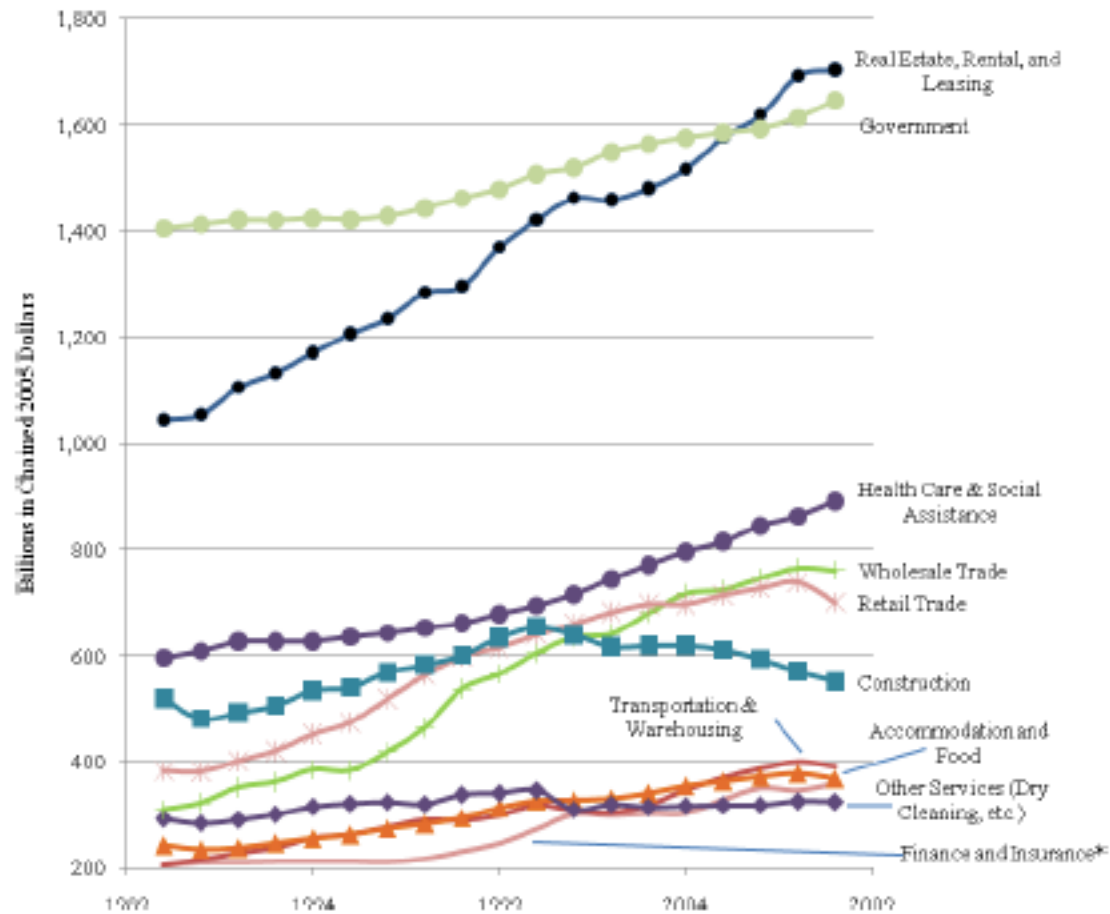


Figure 10. Tradable/Nontradable Value Added, 1990–2008



Source: Authors' calculations using Bureau of Economic Analysis historical data series

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



Source: Authors' calculations using Bureau of Economic Analysis historical data series

*Industries that are not predominantly or entirely nontradable include an asterisk.

Figure 12. Nontradable Value Added, 1990–2008 (Minors)¹³

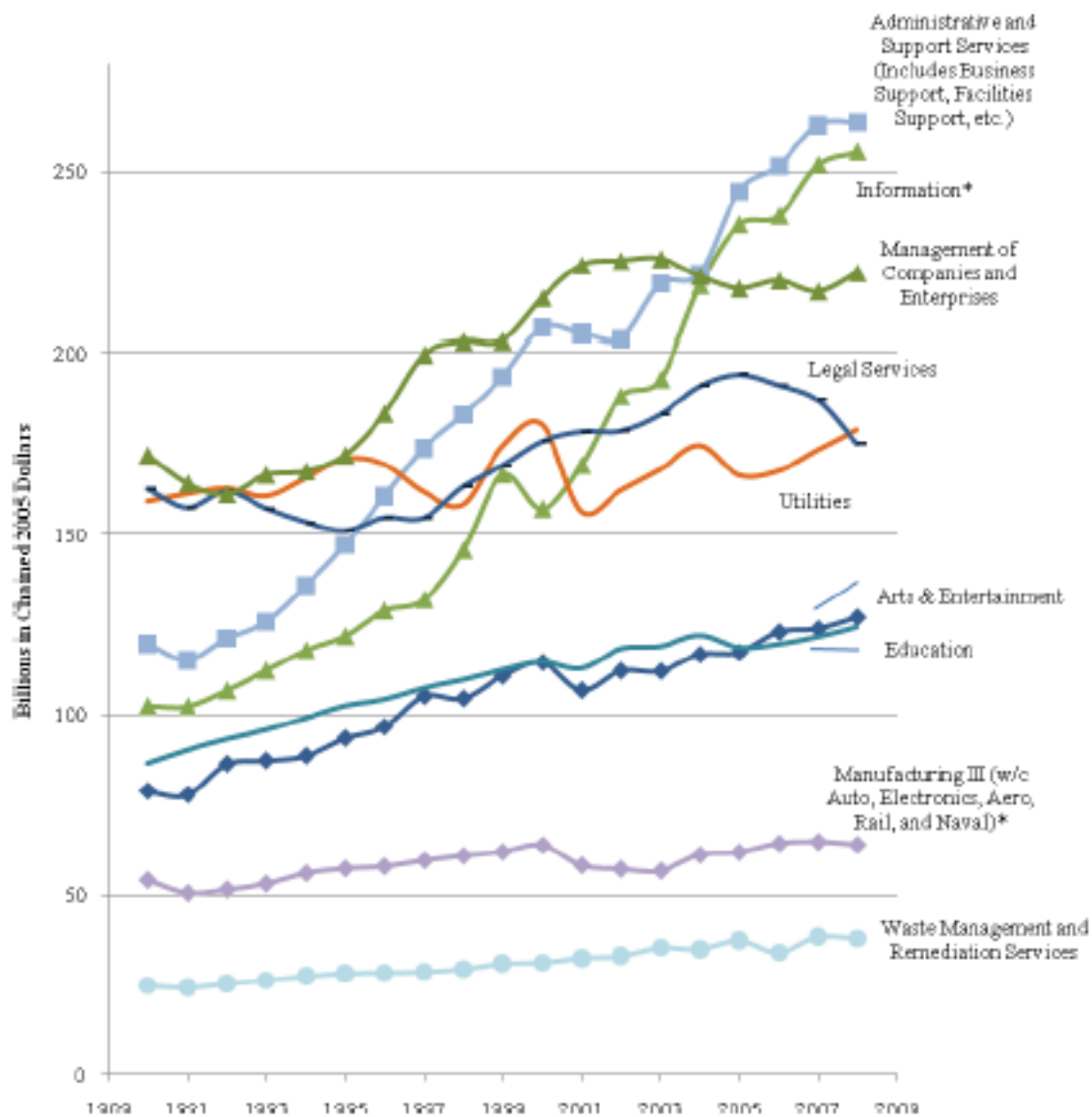


Figure 13. Tradable Industries' Value Added, 1990–2008 (Majors)¹⁴

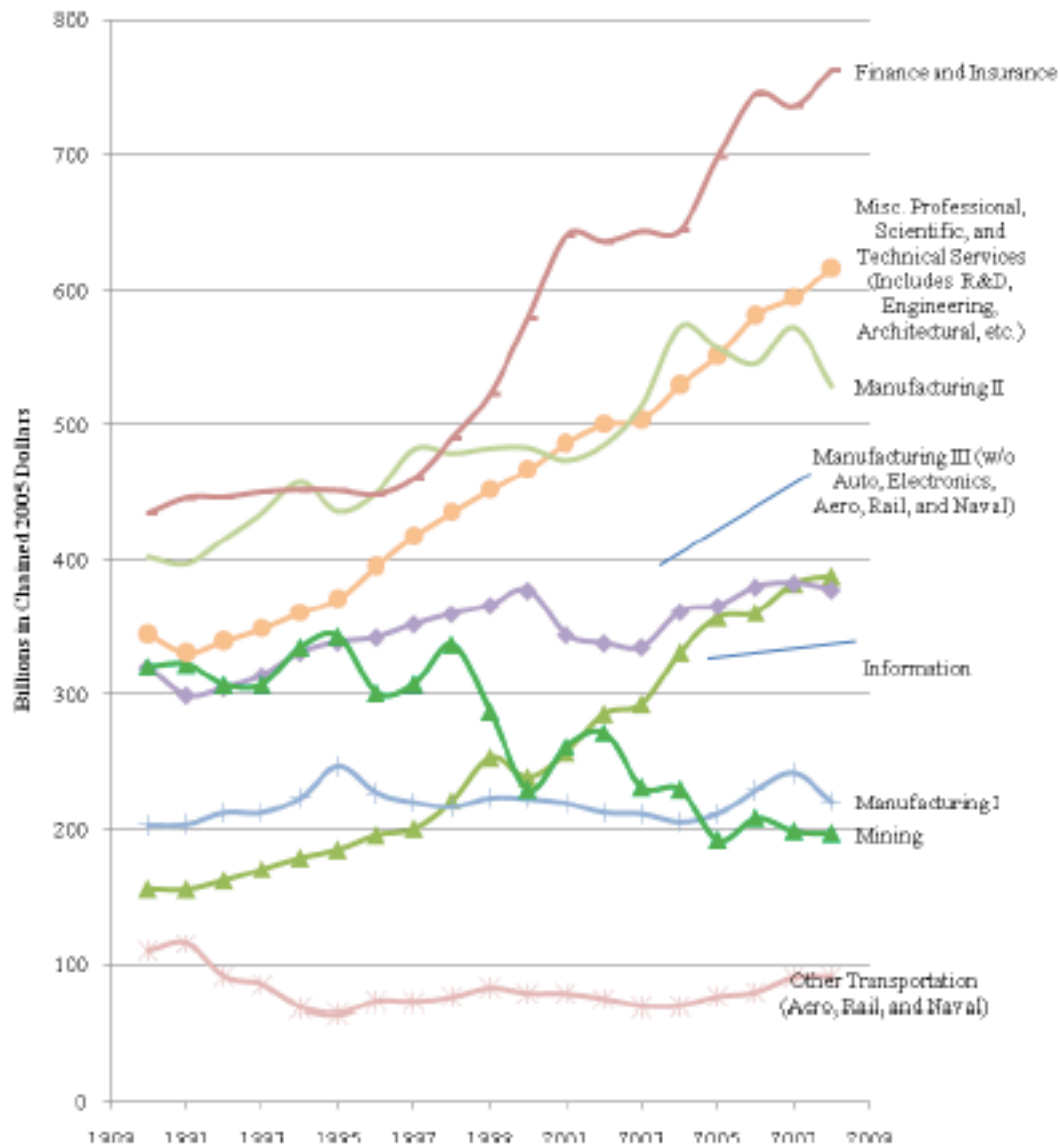


Figure 14. Tradable Industries' Value Added, 1990–2008 (Minors)¹⁵

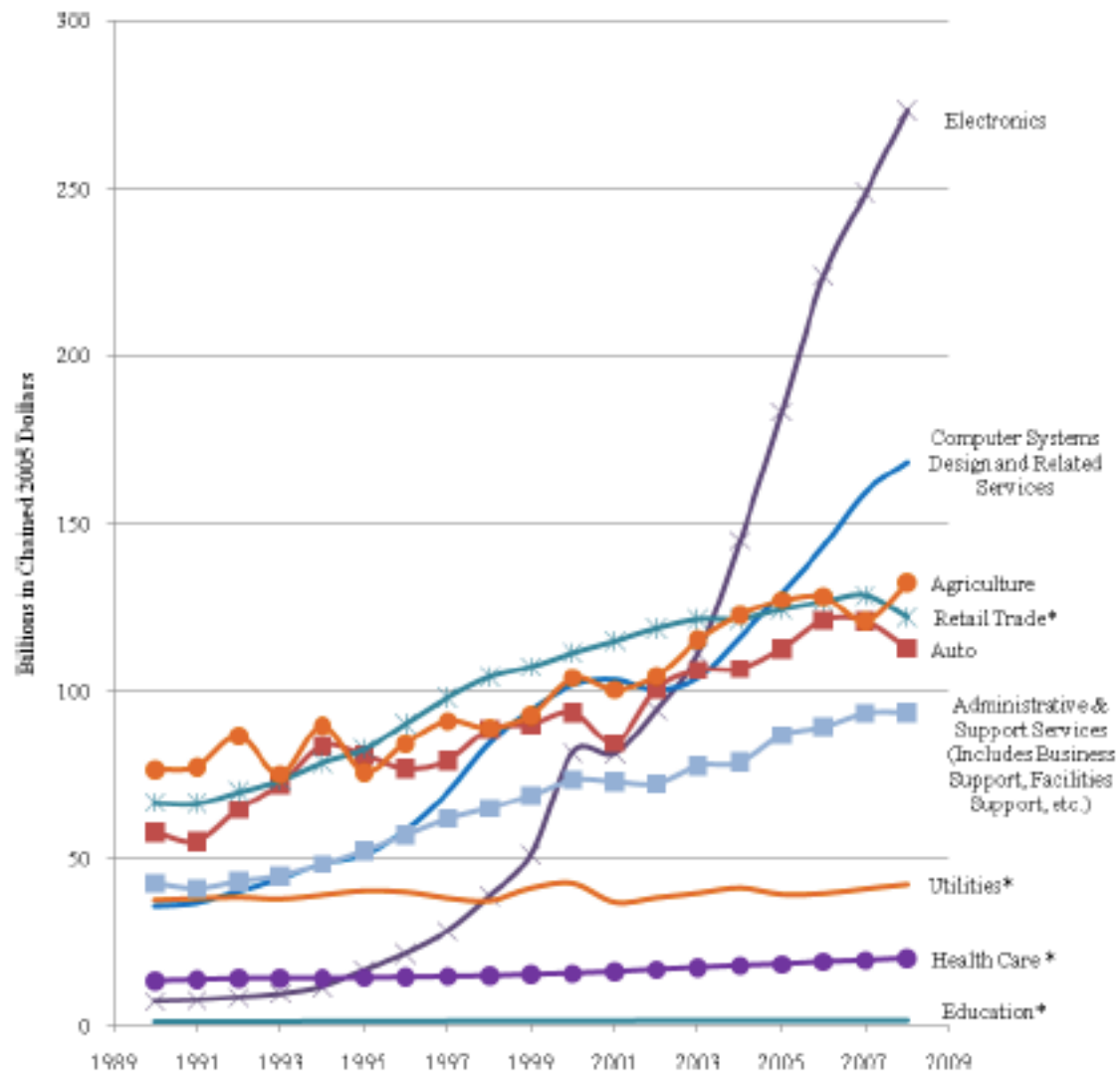
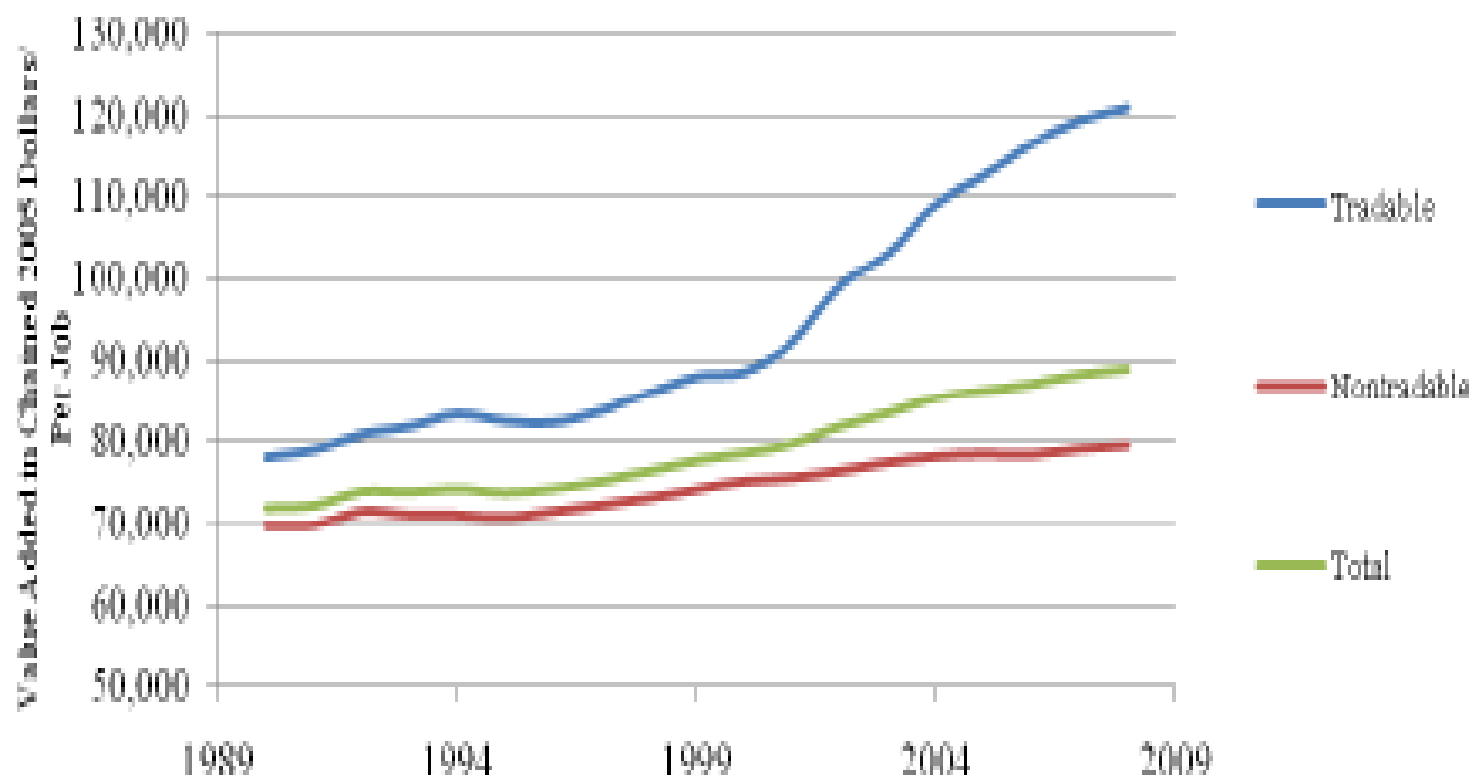


Figure 15. Value Added per Job, 1990–2008



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

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

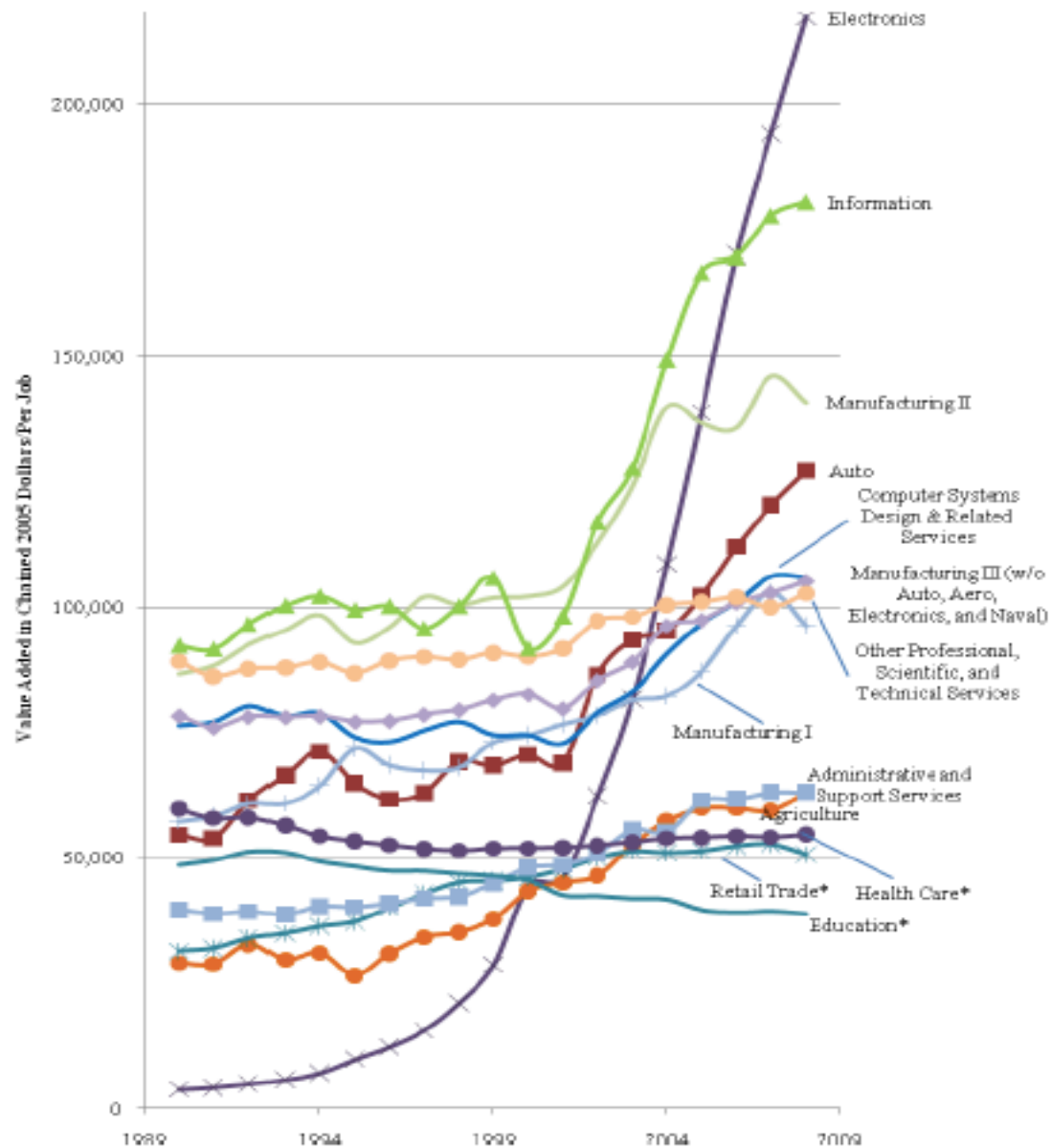


Figure 19. Nontradable Industries' Value Added per Job, 1990–2008 (Majors)¹⁹

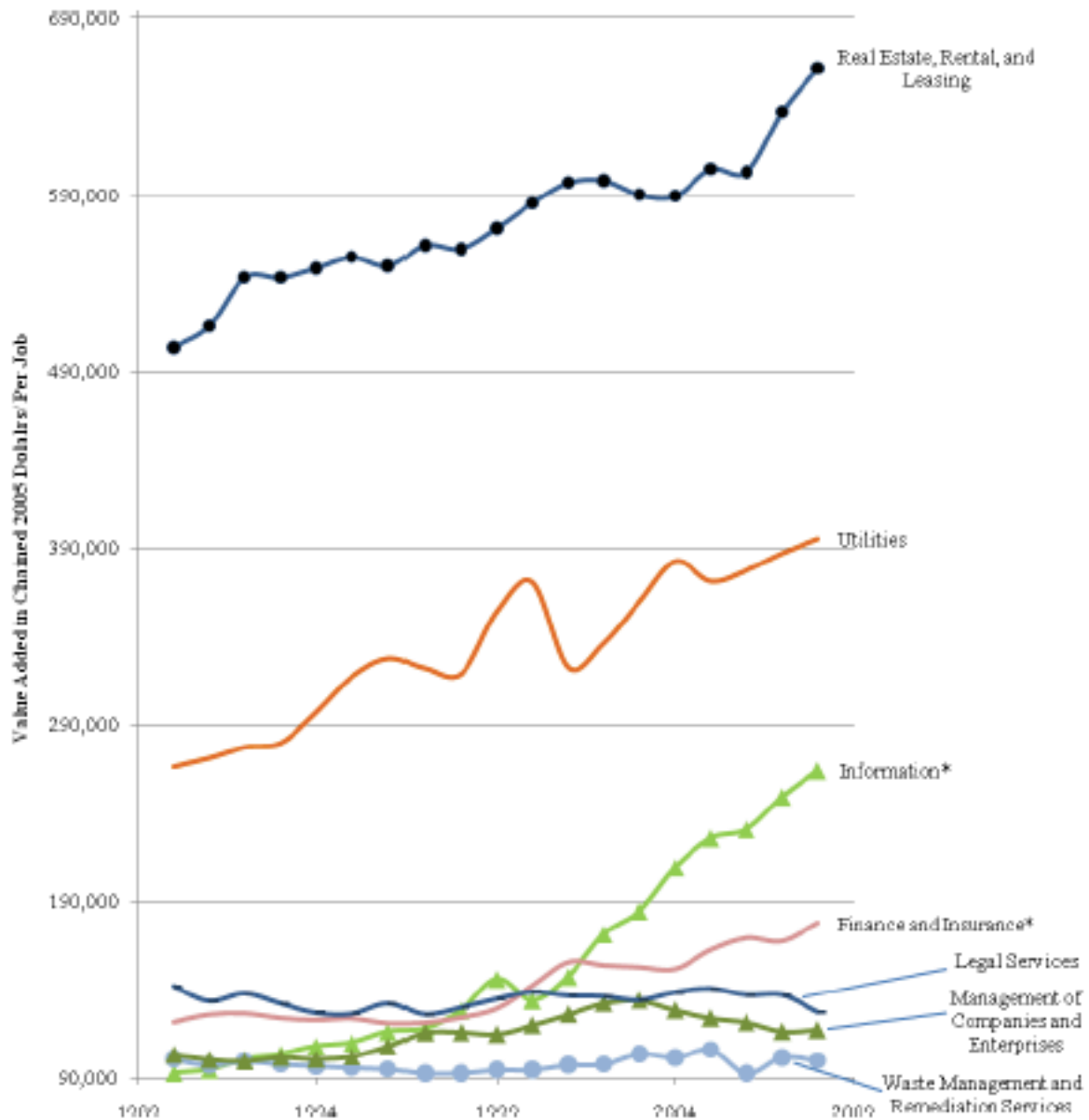
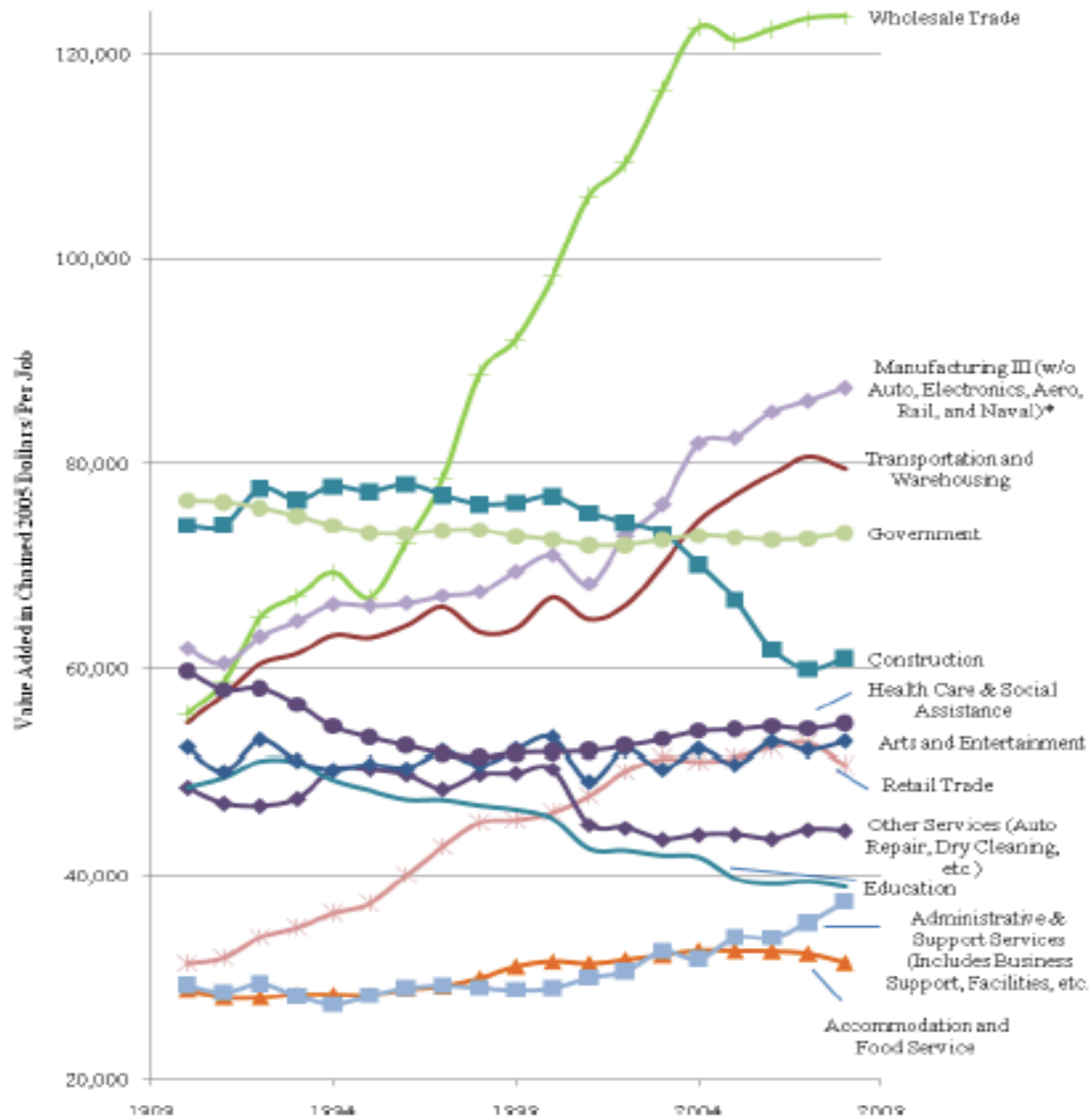
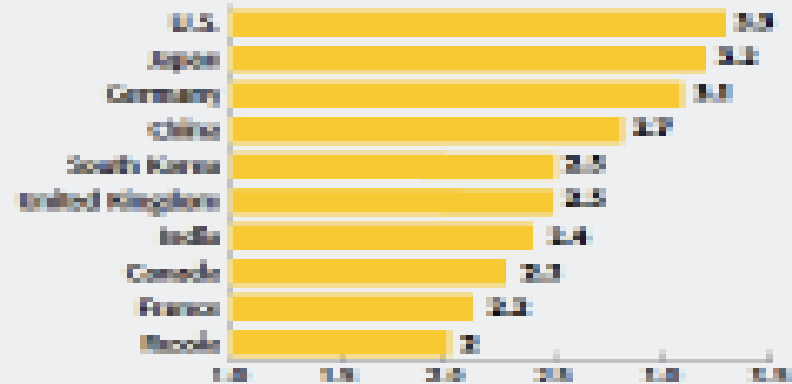


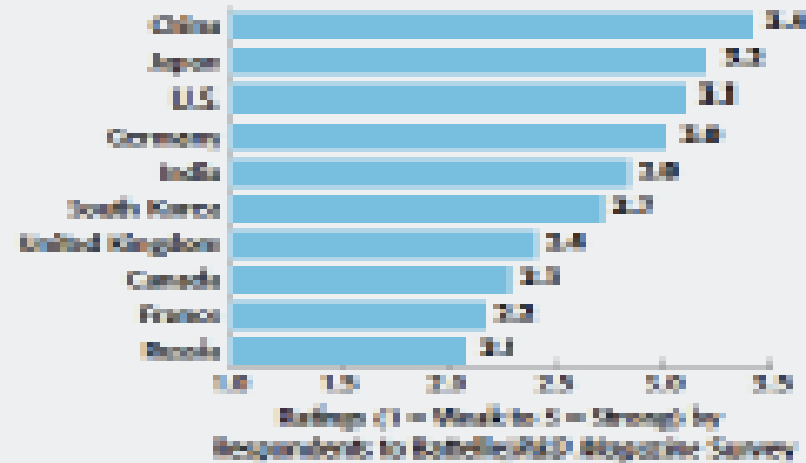
Figure 20. Nontradable Industries' Value Added per Job, 1990–2008 (Minors)²⁰



Perceived Country by Country Technical Strength (2010)



Perceived Country by Country Technical Strength (2015)



Source: R&D magazine, December 2010.

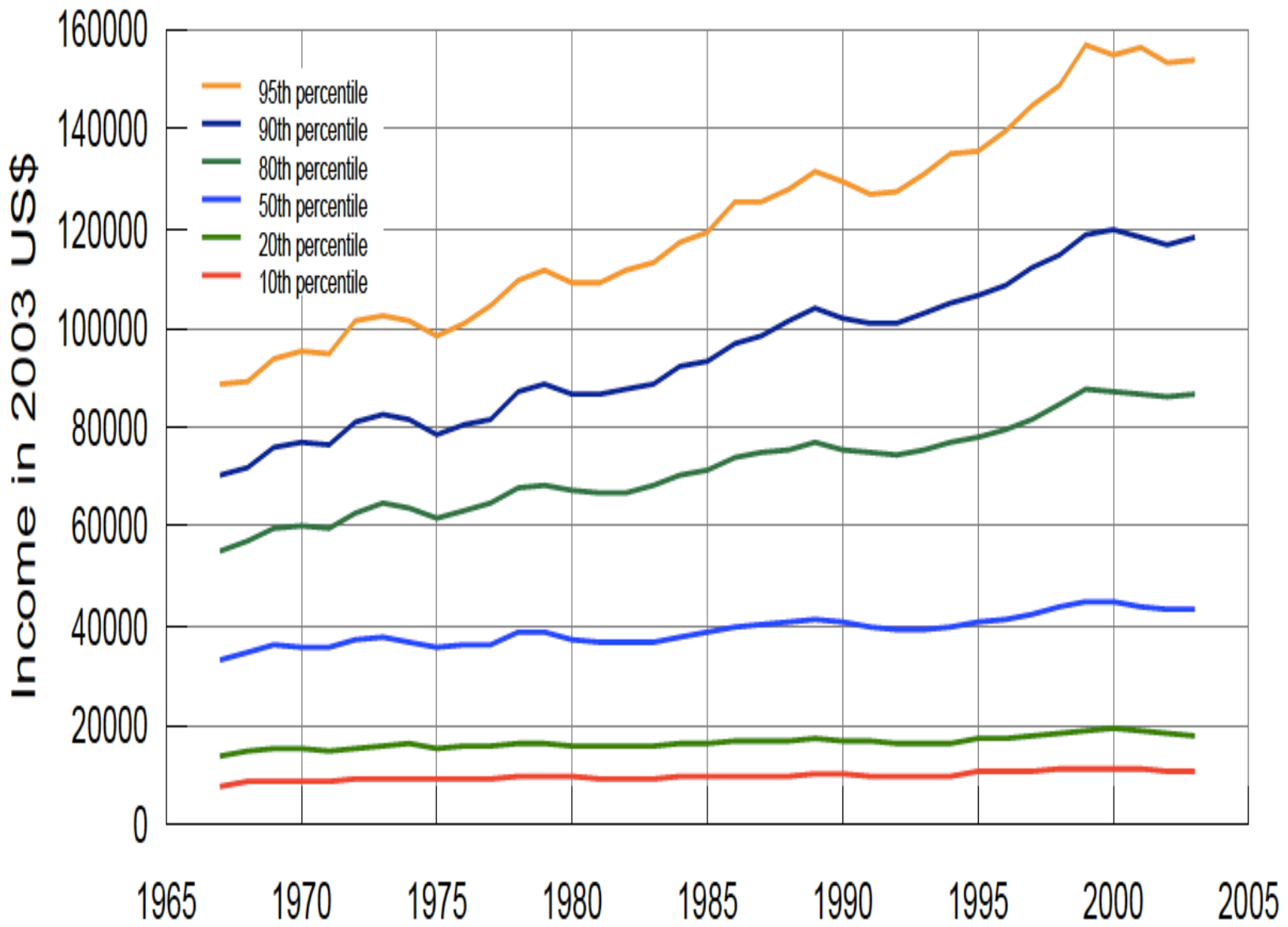
■ Figure 1. ■

COMPARING COUNTRIES' AND ECONOMIES' PERFORMANCE

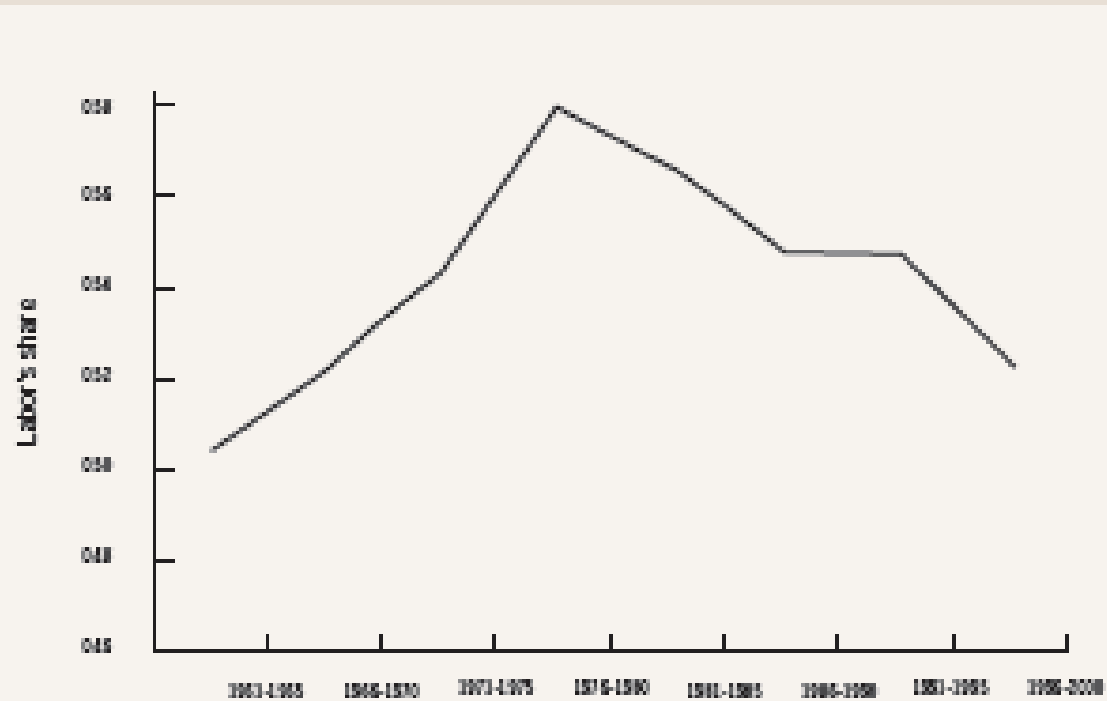
	Statistically significantly above the OECD average
	Not statistically significantly different from the OECD average
	Statistically significantly below the OECD average

	On the overall reading scale	On the reading subscales					On the mathematics scale	On the science scale
		Access and retrieve	Integrate and interpret	Reflect and evaluate	Continuous texts	Non-continuous texts		
OECD average	493	495	493	494	494	493	496	501
Shanghai-China	556	549	558	557	564	539	600	575
Korea	539	542	541	542	538	542	546	538
Finland	536	532	538	536	535	535	541	554
Hong Kong-China	533	530	530	540	538	522	555	549
Singapore	526	526	525	529	522	539	562	542
Canada	524	517	522	535	524	527	527	529
New Zealand	521	521	517	531	518	532	519	532
Japan	520	530	520	521	520	518	529	539
Australia	515	513	513	523	513	524	514	527
Netherlands	508	519	504	510	506	514	526	522
Belgium	506	513	504	505	504	511	515	507
Norway	503	512	502	505	505	498	498	500
Estonia	501	503	500	503	497	512	512	528
Switzerland	501	505	502	497	498	505	534	517
Poland	500	500	503	498	502	496	495	508
Iceland	500	507	503	496	501	499	507	496
United States	500	492	495	512	500	503	487	502
Liechtenstein	499	508	498	498	495	506	536	520
Sweden	497	505	494	502	499	498	494	495
Germany	497	501	501	491	496	497	513	520
Ireland	496	498	494	502	497	496	487	508
France	496	492	497	495	492	498	497	498
Chinese Taipei	495	496	499	493	496	500	543	520
Denmark	495	502	492	493	496	493	503	499
United Kingdom	494	491	491	503	492	506	492	514
Hungary	494	501	496	489	497	487	490	503
Portugal	489	488	487	496	492	488	487	493
Macao-China	487	493	488	481	488	481	525	511
Italy	486	482	490	482	489	476	483	489
Latvia	484	476	484	492	484	487	482	494

COUNTRY	INCOME OF THE RICHEST 10% OVER THE POOREST 10%	INCOME OF THE RICHEST 20% OVER THE POOREST 20%	GINI COEFFICIENT
Australia	12.5	7	35.2
Austria	6.9	4.4	29.1
Belgium	8.2	4.9	33
Brazil	51.3	21.8	57
Canada	9.4	5.5	32.6
China (PRC)	21.6	12.2	46.9
Denmark	8.1	4.3	24.7
Finland	5.6	3.8	26.9
France	9.1	5.6	32.7
Germany	6.9	4.3	28.3
Greece	10.2	6.2	34.3
India	8.6	5.6	36.8
Israel	13.4	7.9	39.2
Italy	11.6	6.5	36
Japan	4.5	3.4	24.9
South Korea	7.8	4.7	31.6
Mexico	24.6	12.8	46.1
Netherlands	9.2	5.1	30.9
New Zealand	12.5	6.8	36.2
Norway	6.1	3.9	25.8
Russia	12.7	7.6	39.9
South Africa	33.1	17.9	57.8
Spain	10.3	6	34.7
Sweden	6.2	4	25
Switzerland	9	5.5	33.7
Turkey	16.8	9.3	43.6
United Kingdom	13.8	7.2	36
United States	15.9	8.4	40.8



Graph 1: Labour Share in OECD Countries, 1960-2000



Labour participated fully in rising productivity in the pre-globalization era, but under globalization productivity gains and trends have first and foremost benefited capital - eroding labour shares in industrialized countries.

Source: Gasolina (2006), based on OECD STAN database.

What Does All This Mean for the US Economy Post –Crisis

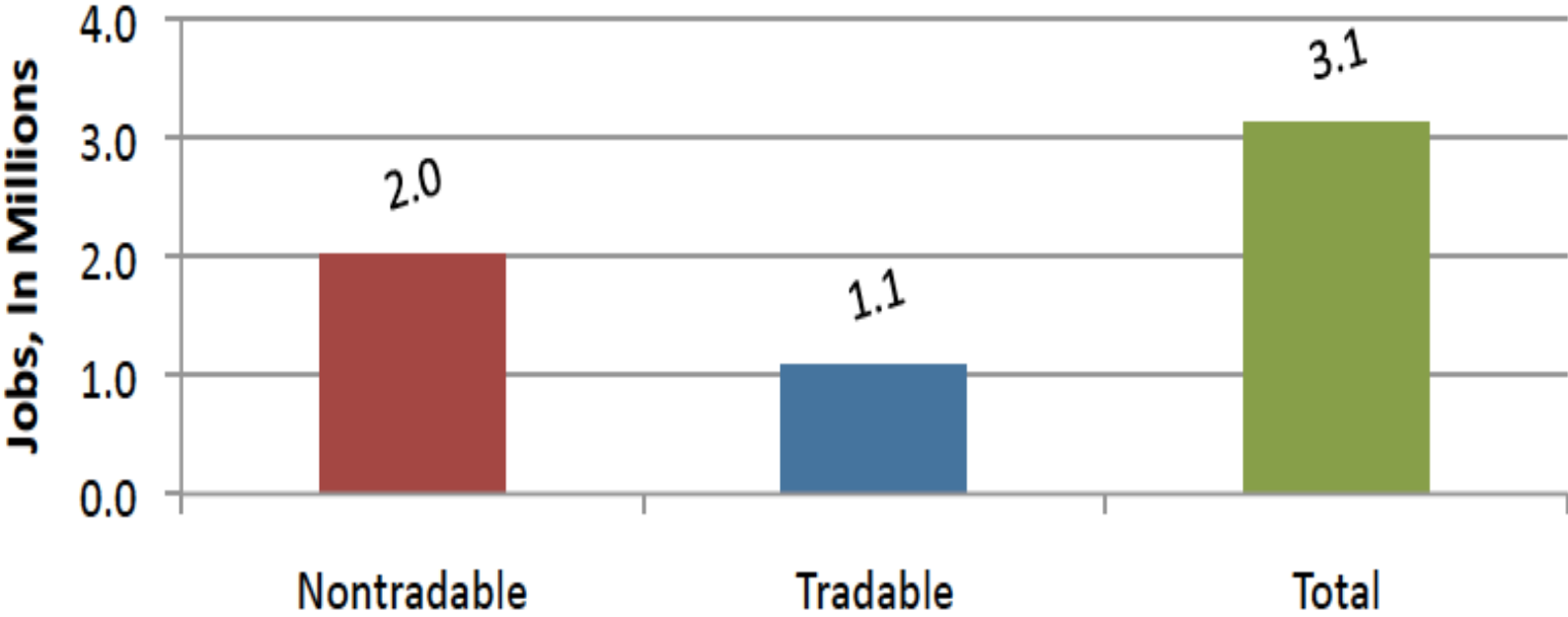


- Growth engines
- Employment engines
- Deficit reduction path and stimulus
- Domestic aggregate demand shortfall is permanent
- To restore growth requires structural change and expansion of the scope of the tradable sector

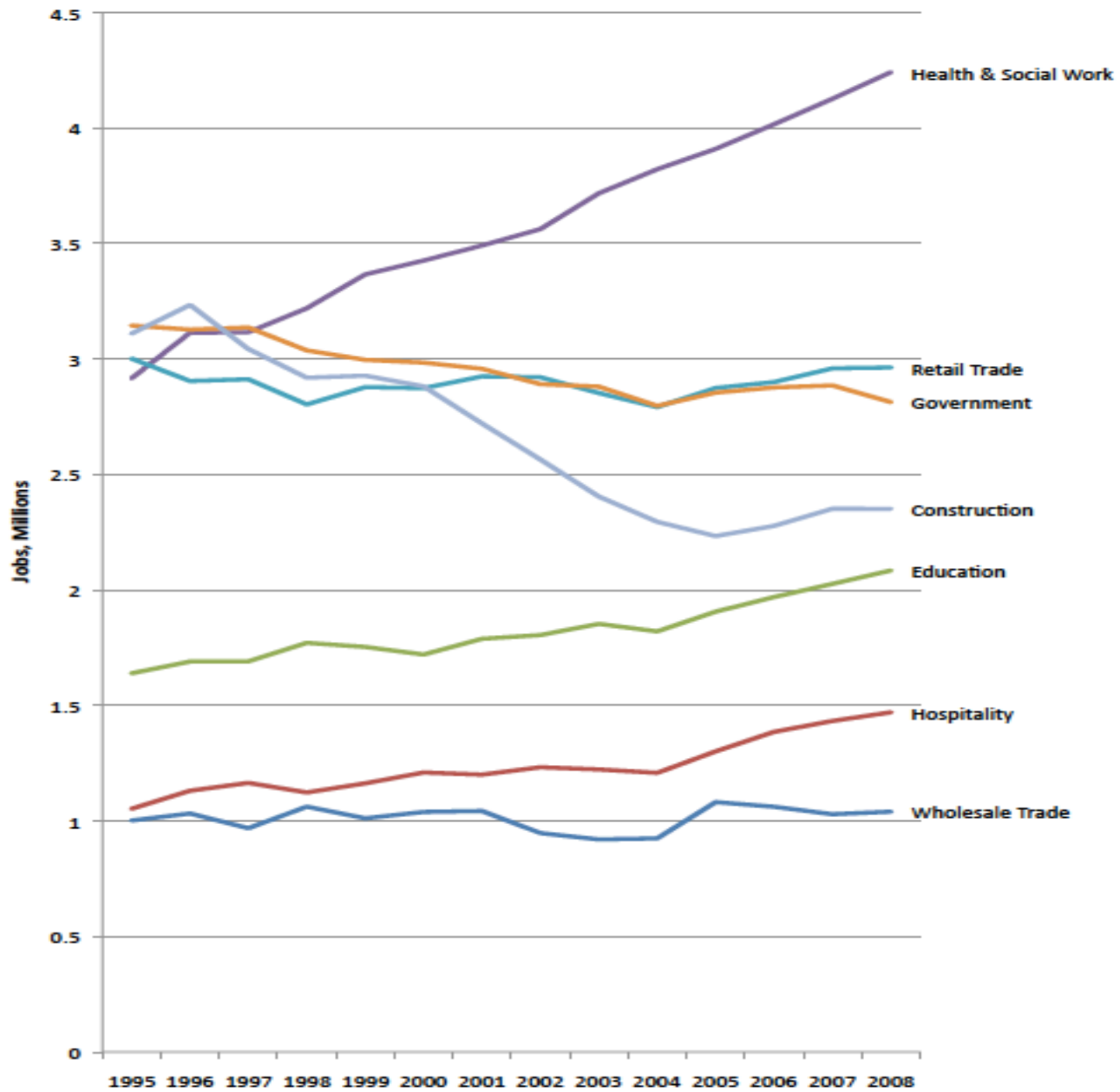
Germany



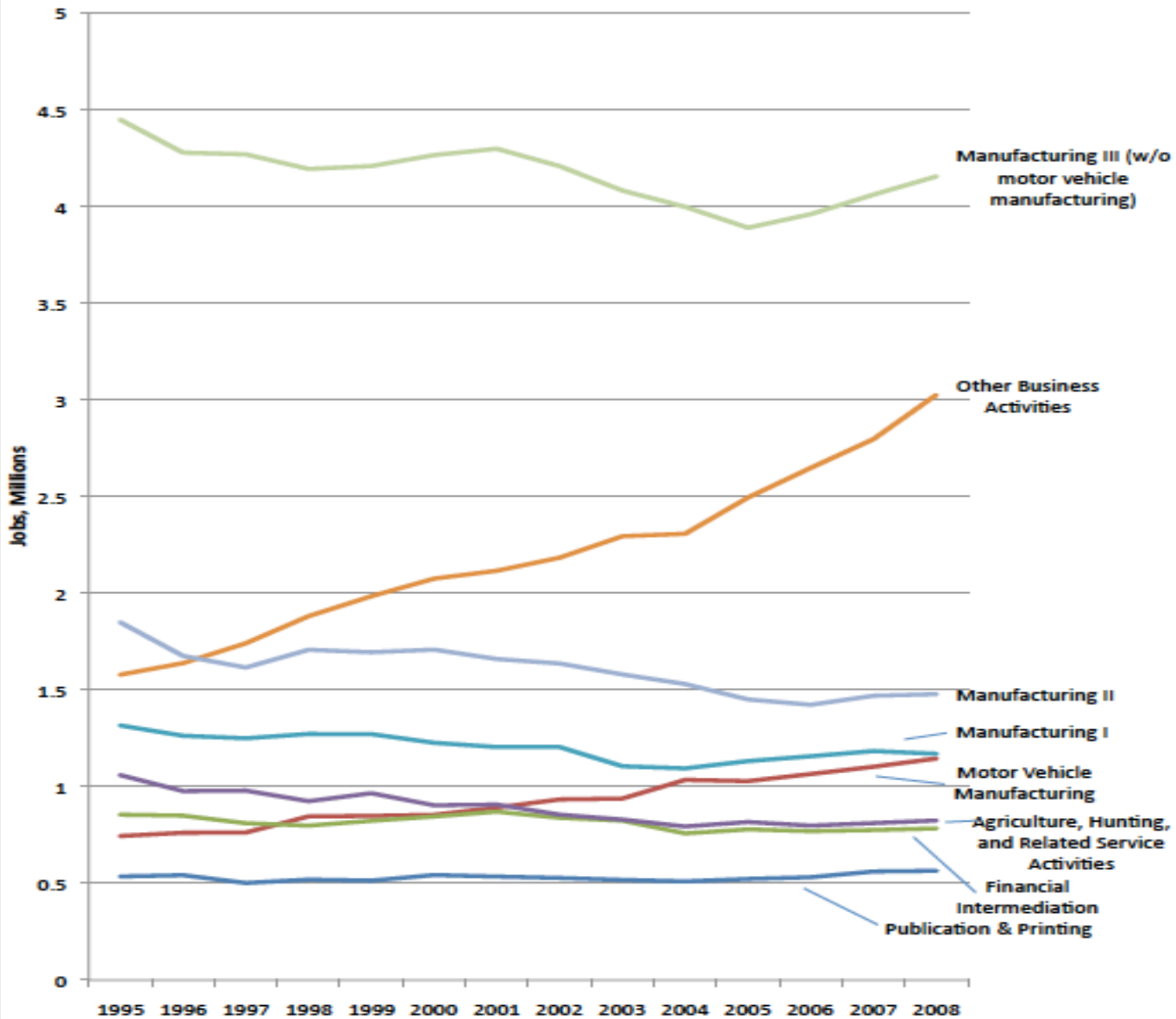
Net Change in Employment, 1995-2008



Nontradable Employment, 1995-2008 (Majors)

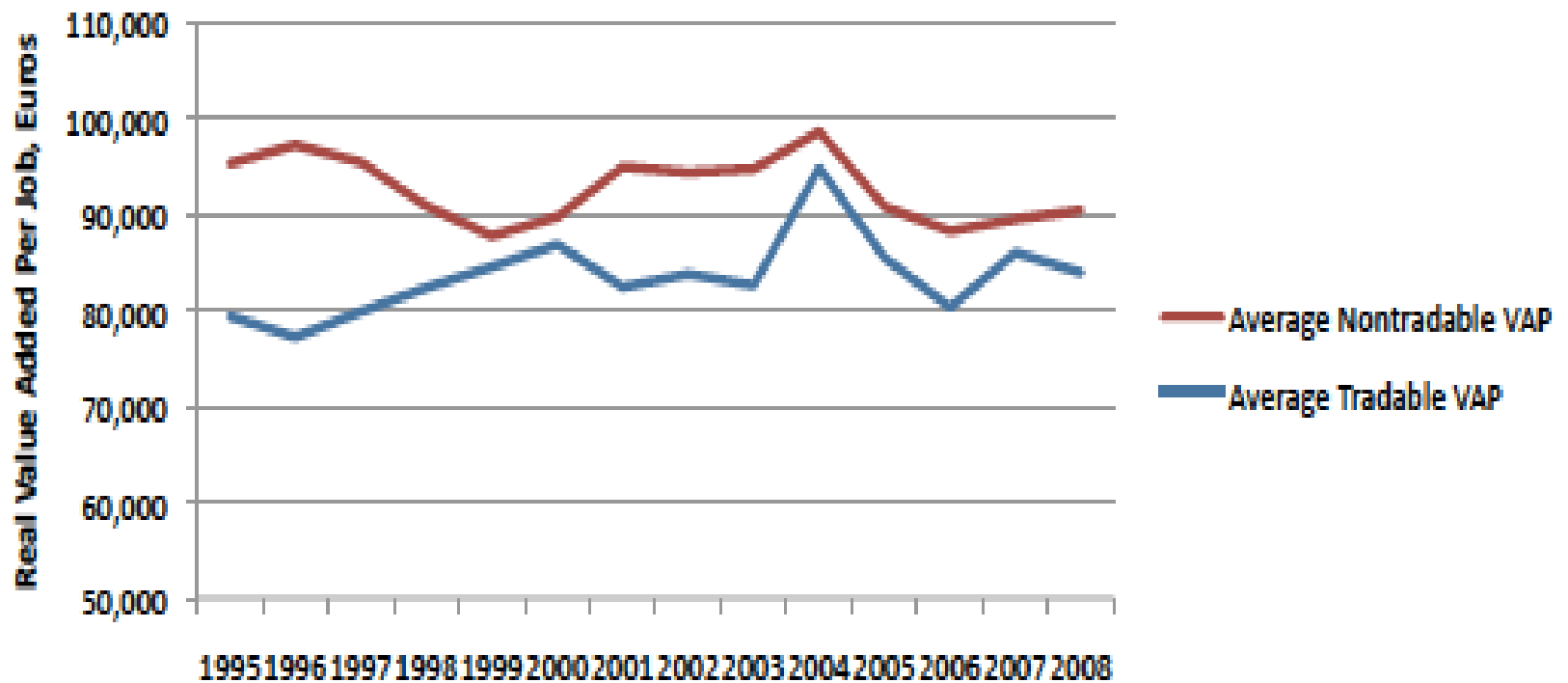


Tradable Employment, 1995-2008 (Majors)



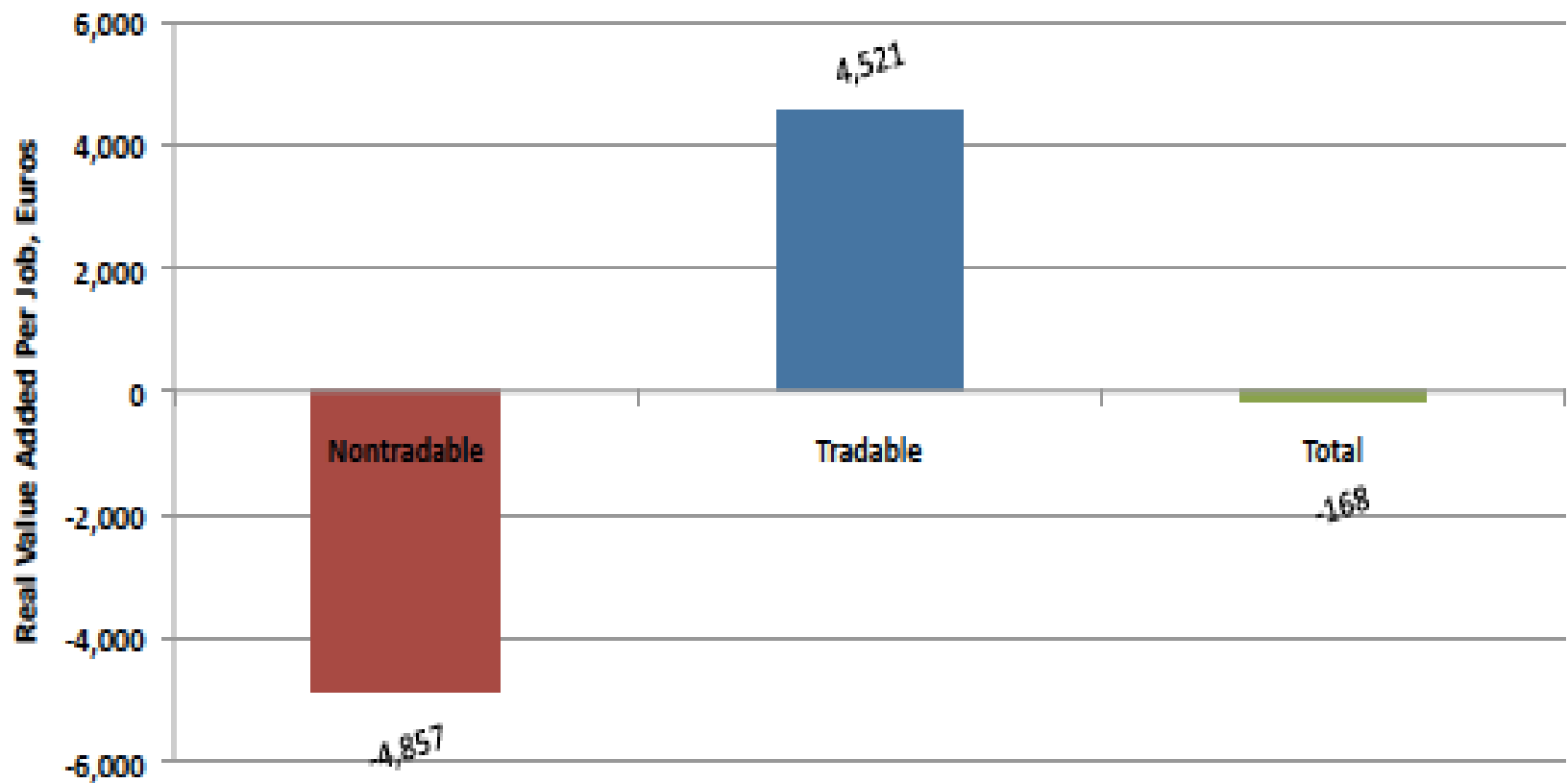


Value Added Per Job, 1995-2008





Net Change in Average Real Value Added Per Job, 1995-2008



The Long Term Sustainability Challenge



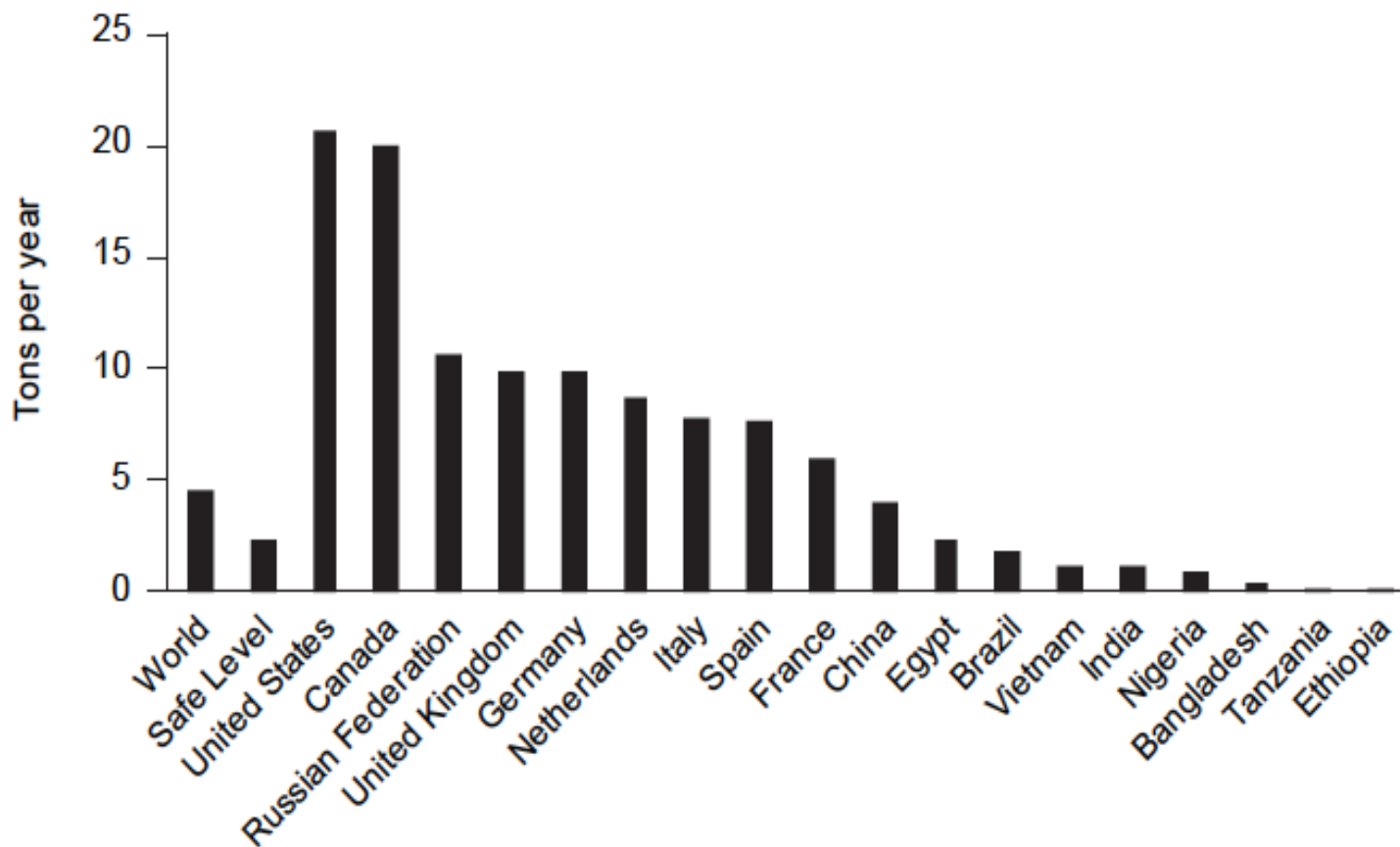
- Relative sizes and power
- But absolute size matters even more
- Global economy will triple in next 25 years
- Almost all the growth in absolute terms will be in Asia
- Contains the two future economic giants, China and India
- The old growth model will not scale
- Lifestyles and new growth patterns

Carbon Mitigation



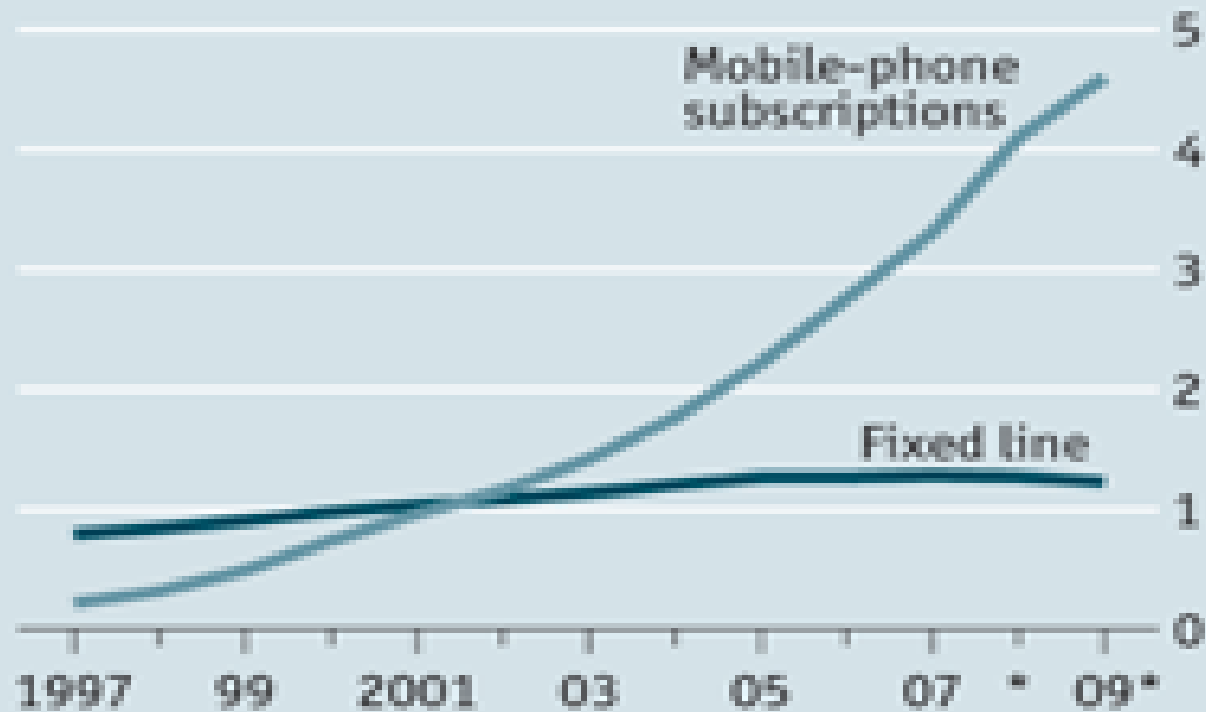
"Sorry, Harold, but I'm reducing our carbon footprint."

Figure 1. CO₂ Emissions per Capita



Ubiquitous by any name

Telephones, bn



Source: International
Telecommunication Union

* Estimate

Cell Phones as Percentage of the Population

