GROWTH IN ADVANCED AND EMERGING ECONOMIES
GROWTH, RESILIENCE, IMPACT, TAPERING, INVESTMENT

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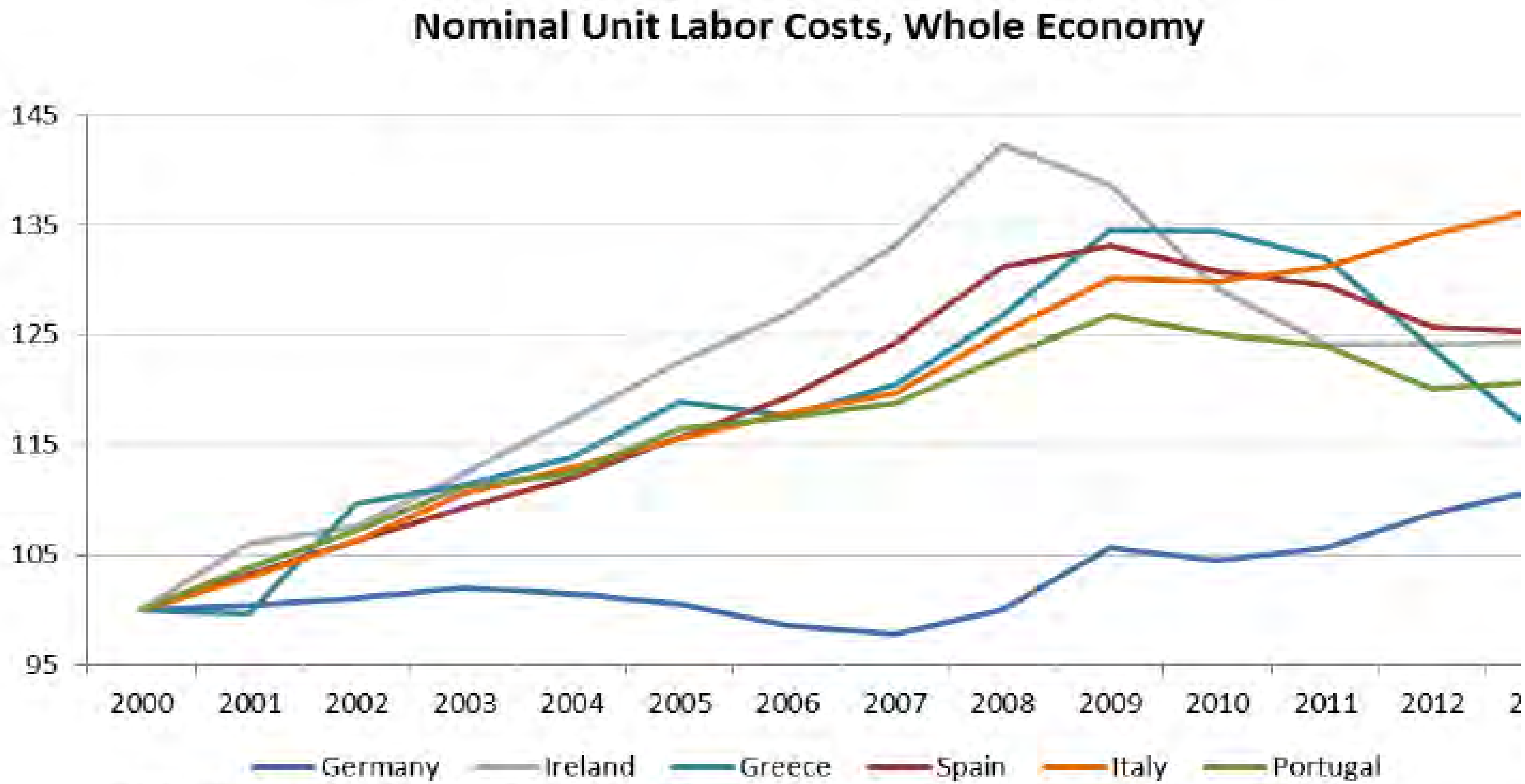
Background

- Developing country growth patterns and structural change
- Defective growth models and recovery patterns when the defective growth pattern fails
- Technological and global market forces and their impact on developing and advanced economies
- Specifically how balance sheets and the level and composition of domestic aggregate demand affects the sustainability of growth trajectories

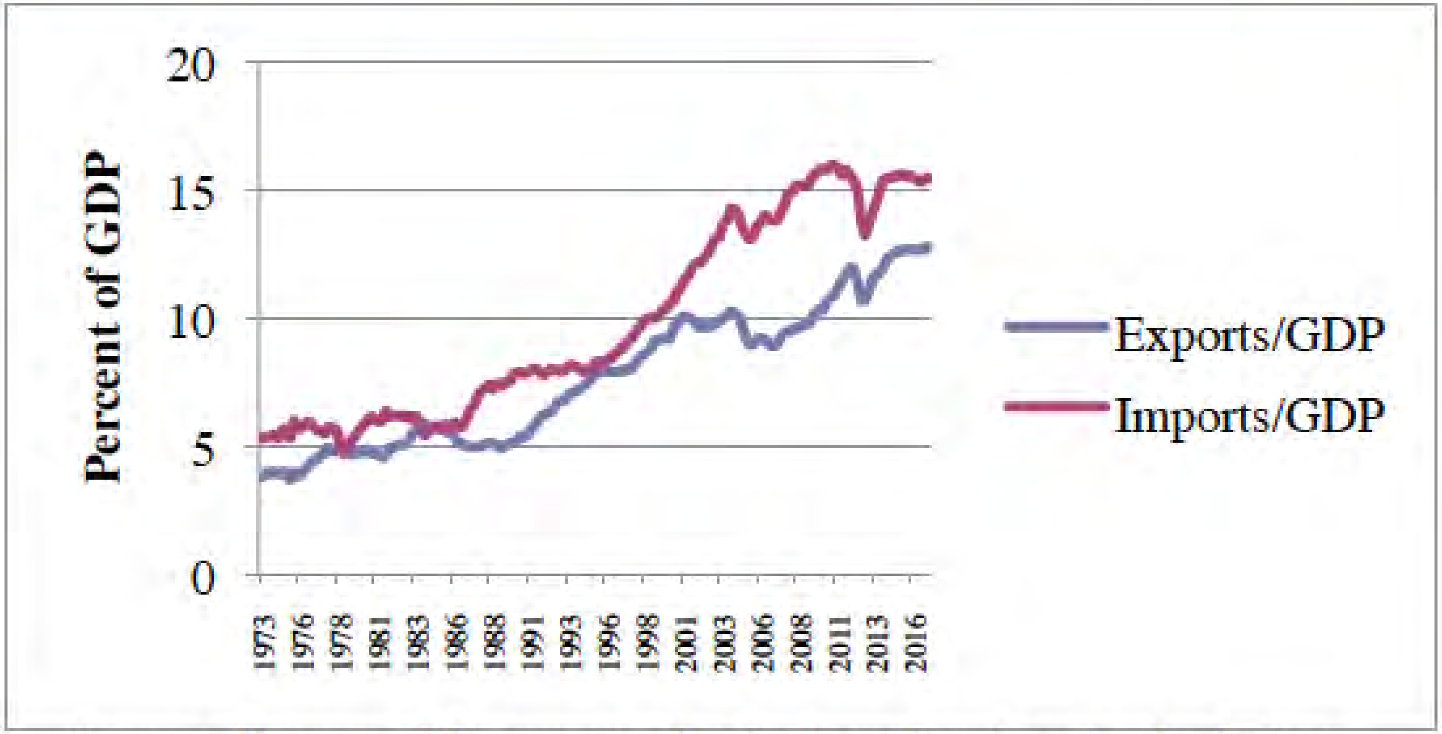
Europe



Source: Eurostat. Figures are normalized to 100 in 2000.

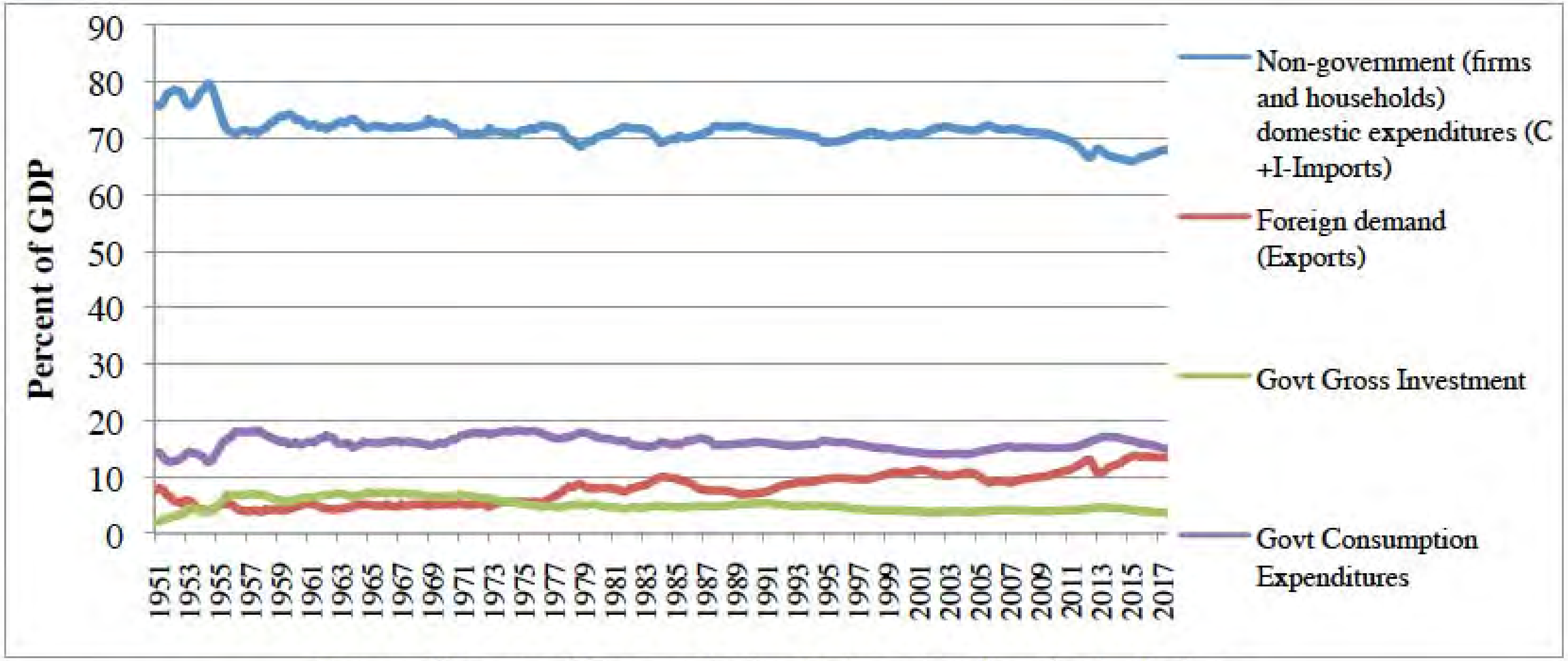
USA

Figure 1: Exports and Imports, Q1:1969 to Q2:2013 (Percent of GDP)



Source: Bureau of Economic Analysis and authors' calculations.

Figure 2: Components of Demand for the Domestic Supply Side, Q1:1947 to Q3:2013 (Percent of GDP)



Source: Bureau of Economic Analysis and authors' calculations.

Key Elements in Emerging Economy Growth Dynamics

- Open economy model
  - leveraging global economy technology and huge potential market

- Very high levels of investment (30% of GDP or above)

- Investment funded largely from domestic saving

- Partially open but carefully managed capital account and exchange rate

- Structural flexibility and mobility of factors of production

Middle Income Transitions

- The middle income growth models are more complex – and fundamentally different in growth drivers
- Innovation, structural change, higher value added sectors and generating enough domestic aggregate demand (tradable and especially non-tradable) are all key
- Network structure: connections to other economies sector by sector matters

Major Trends

- Developing countries more than half of the global economy
- Network structure of the global economy is "diversifying" away from the advanced economies
- Tradable aggregate demand and growth shifting to emerging economies
  - Middle income consumers in China going from 230M now to 630 M ten years from now
- Majority of emerging economy GDP is in countries in or approaching the middle income transition
- Advanced economies in low/negative growth for unknown period of time
- Macro risk and growth prospects heavily dependent political and policy choices and circuit breakers (or their absence)
  - Latest example is tapering and volatility in exchange rates and int'l capital flows
- Sovereign credit risk shifted from developing to advanced economies
  - Maybe it shifting back?

Trends 2

- Global Supply Chains
  - Atomizing or fragmenting, becoming more complex and distributed
  - No longer run from east to west only
  - Expansion of the tradable sector of global economy
- Emerging economies partially decoupled and increasingly resilient
  - Partial decoupling means from advanced countries and increasingly coupled to each other
  - Calibration of partial de-coupled
  - Importance of China
- Labor saving technology and shifting global supply chains
  - Forcing structural change in advanced economies
  - Shifting income and wealth upward in the income distribution
  - Prospect of re-localization of manufacturing
  - Threatens growth model of early stage developing countries
- Trend breaks
  - Global investment rates – reverse downward trend of the postwar period (26 → 20%) and head up rapidly
  - Relative prices – commodities, manufactured goods

Chinese Economy is Half the Size of the USA or EU

It is also Almost as Big as the Other BRICS Plus Mexico and Indonesia Combined

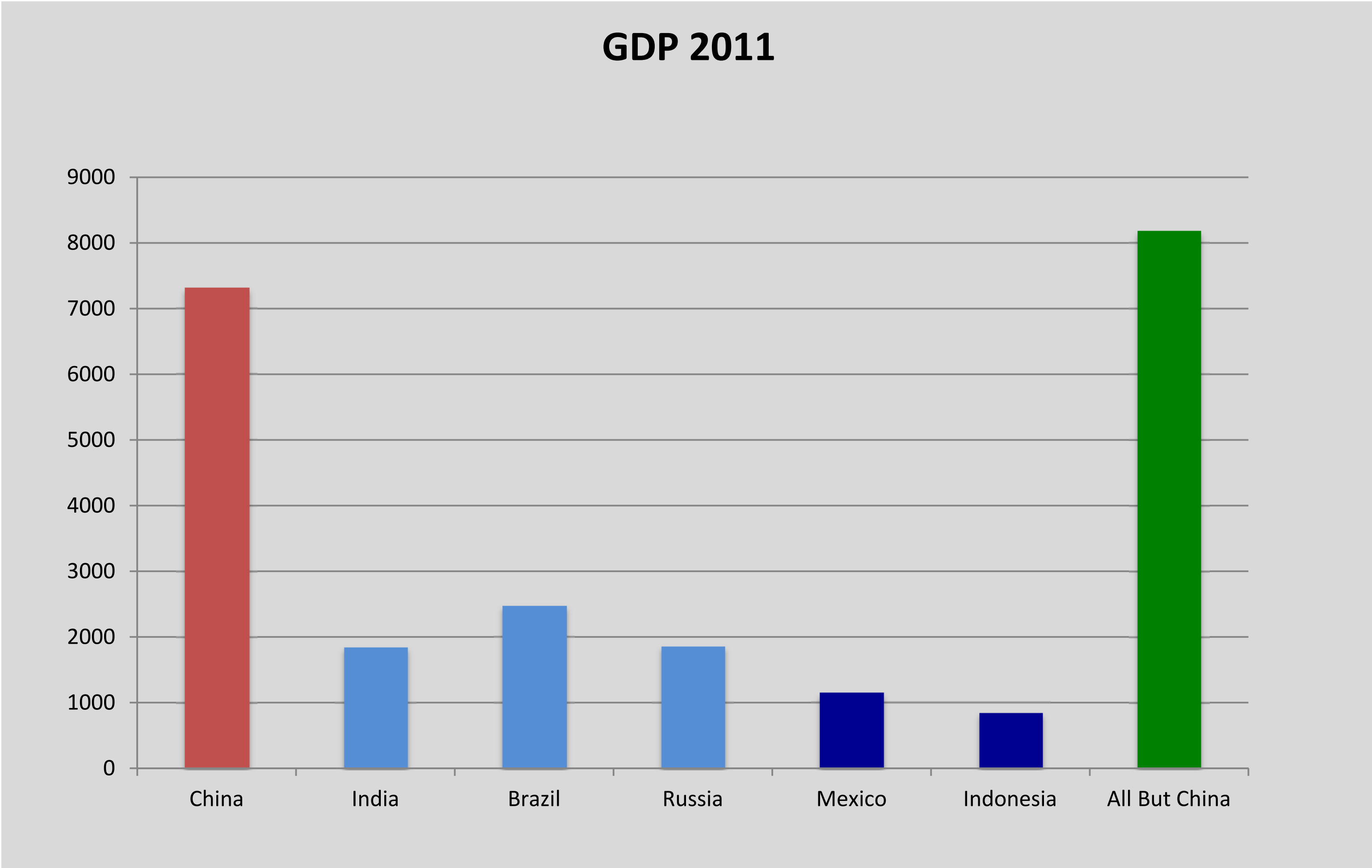
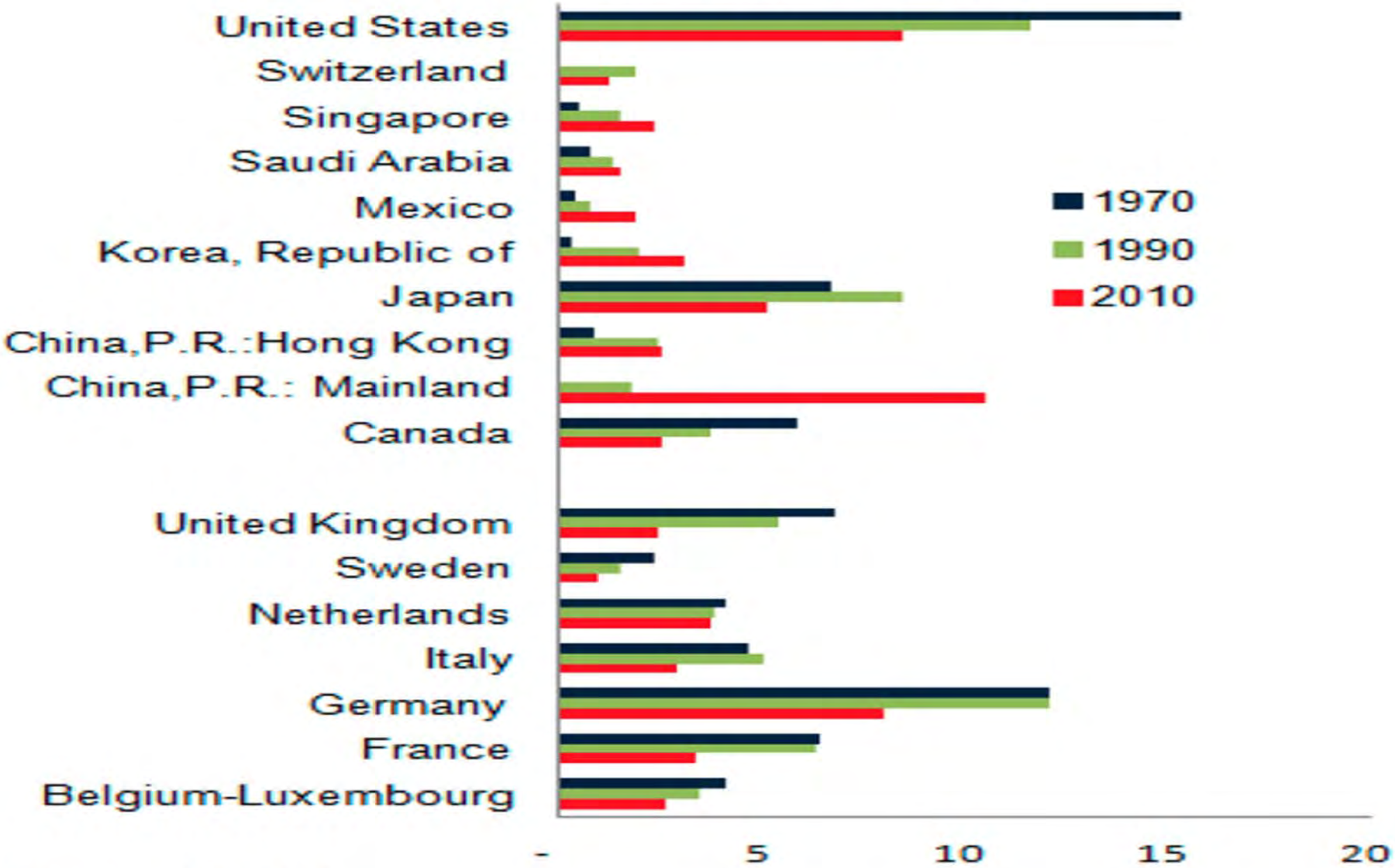


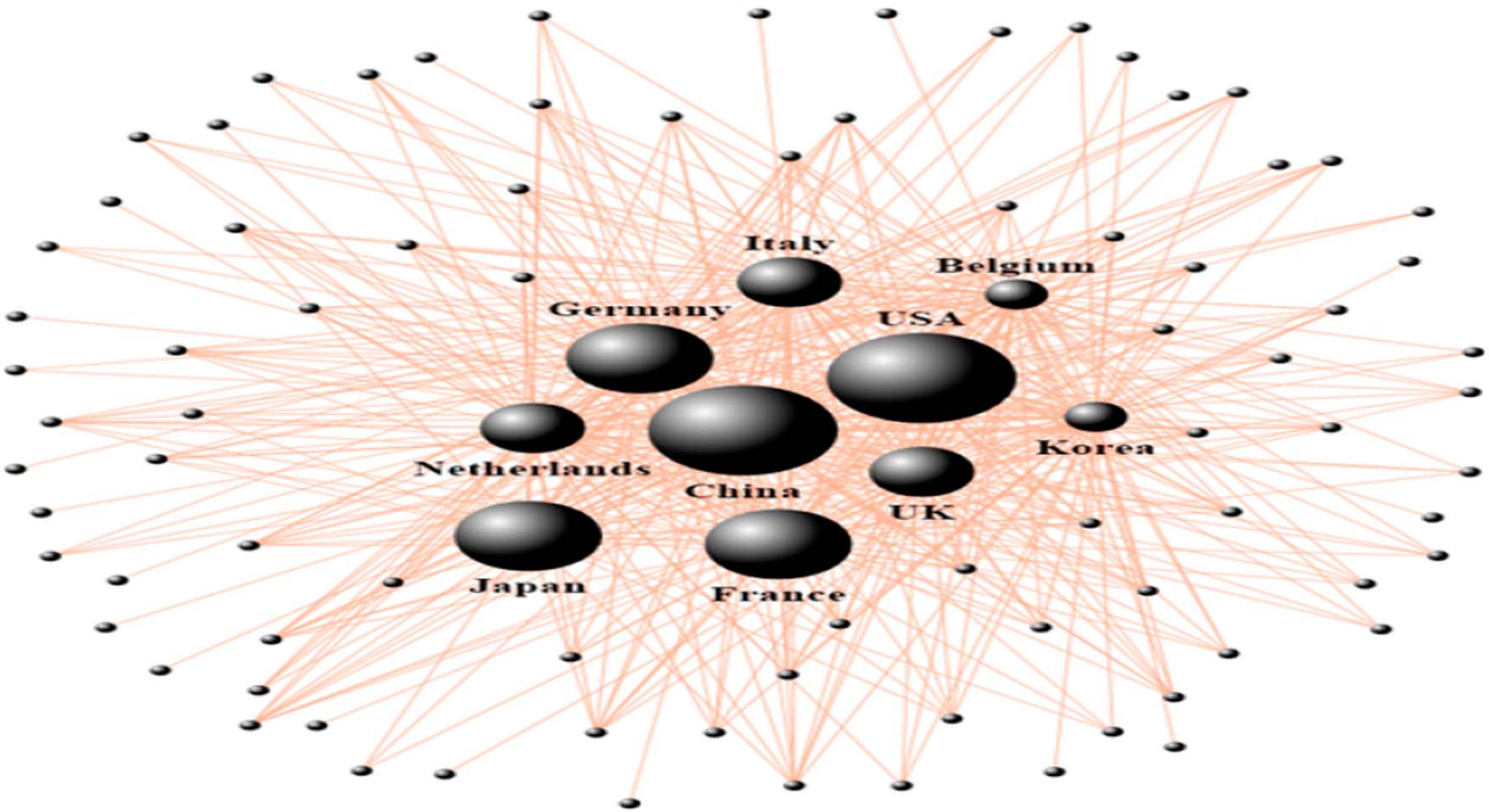
Figure 2. Exports of Key Players in International Trade
(Percent of World Trade)



Source: DOTS.

Multi-polar Network Structure

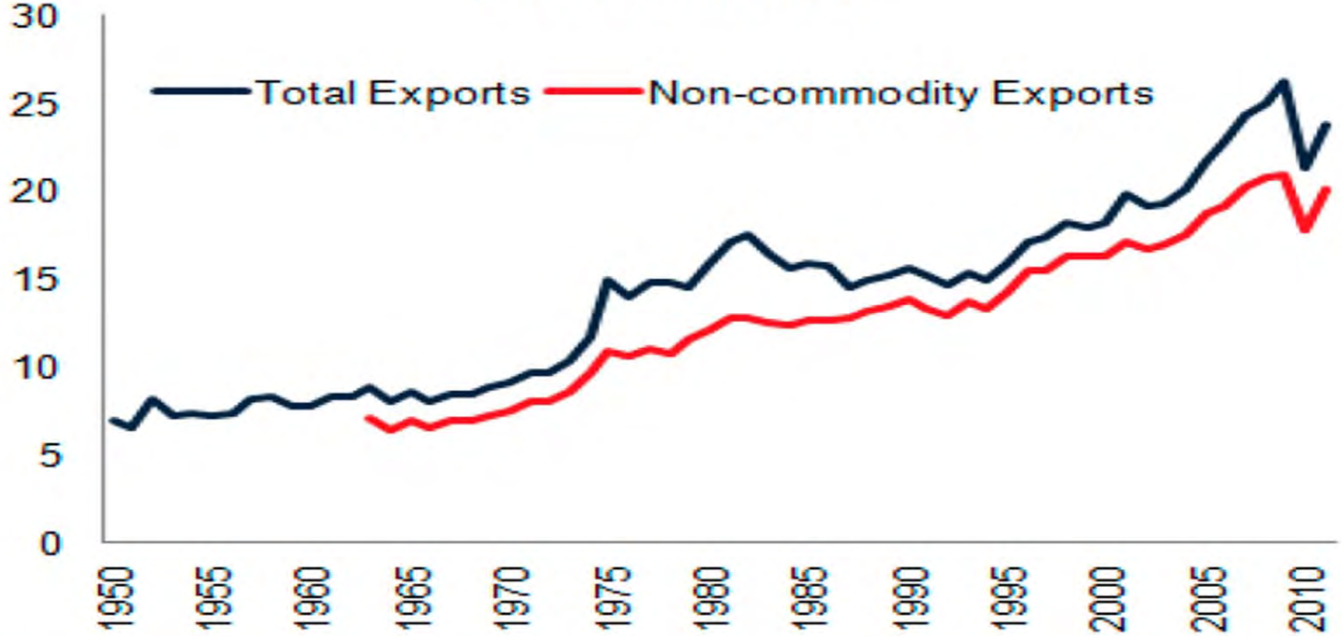
Box Figure 1.1. The Global Trade Network, 2009



Source: DOTS and Fund staff estimates.

The Share of the Tradable Part of the Global Economy is Growing

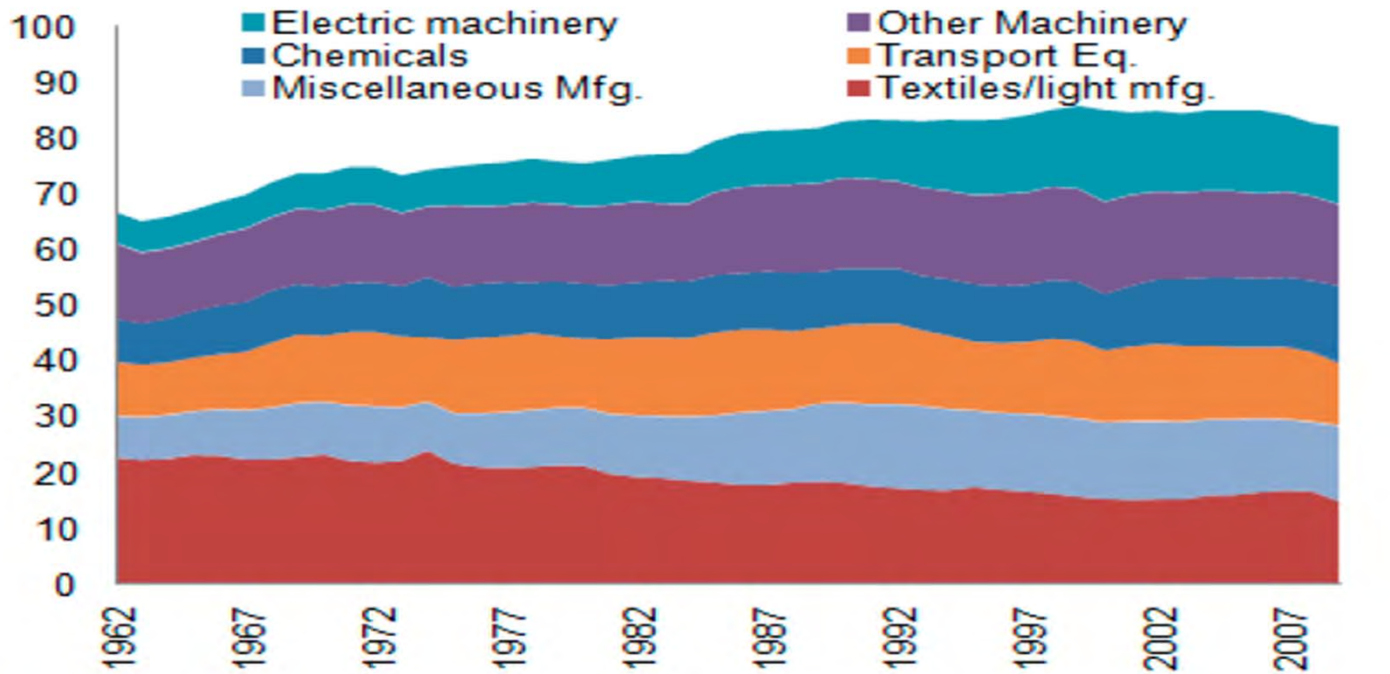
Figure 1. World Exports Relative to Production
(Percent of GDP)



Source: DOTS, WEO and UN Comtrade. The ratio for 1949-61 is calcuated based on 15 major exporters.

Changing Patterns of Global Trade
Strategy, Policy and Review Department, IMF, June 2011

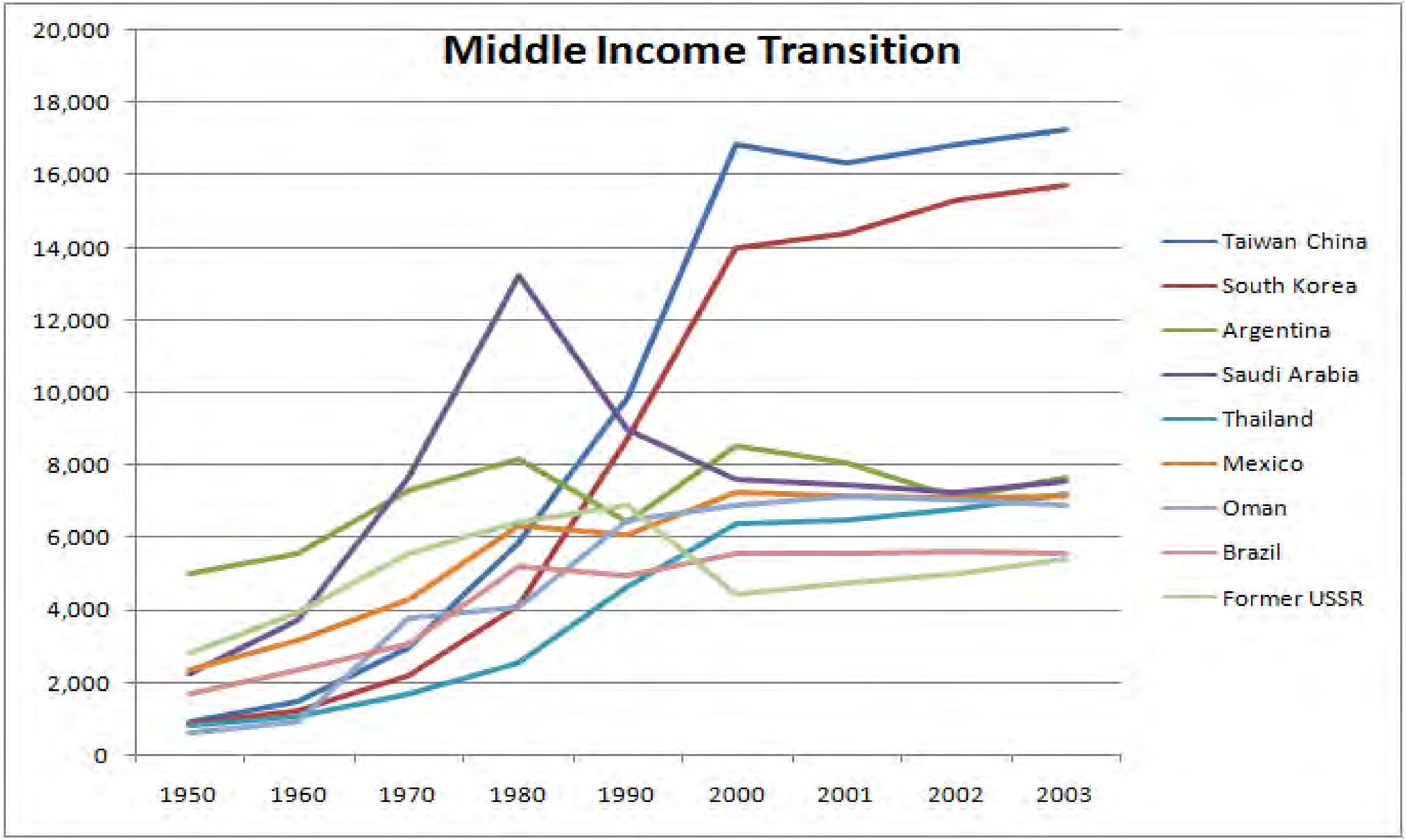
Figure 4. World Manufacturing Exports and Their Composition
(Percent of total world exports)



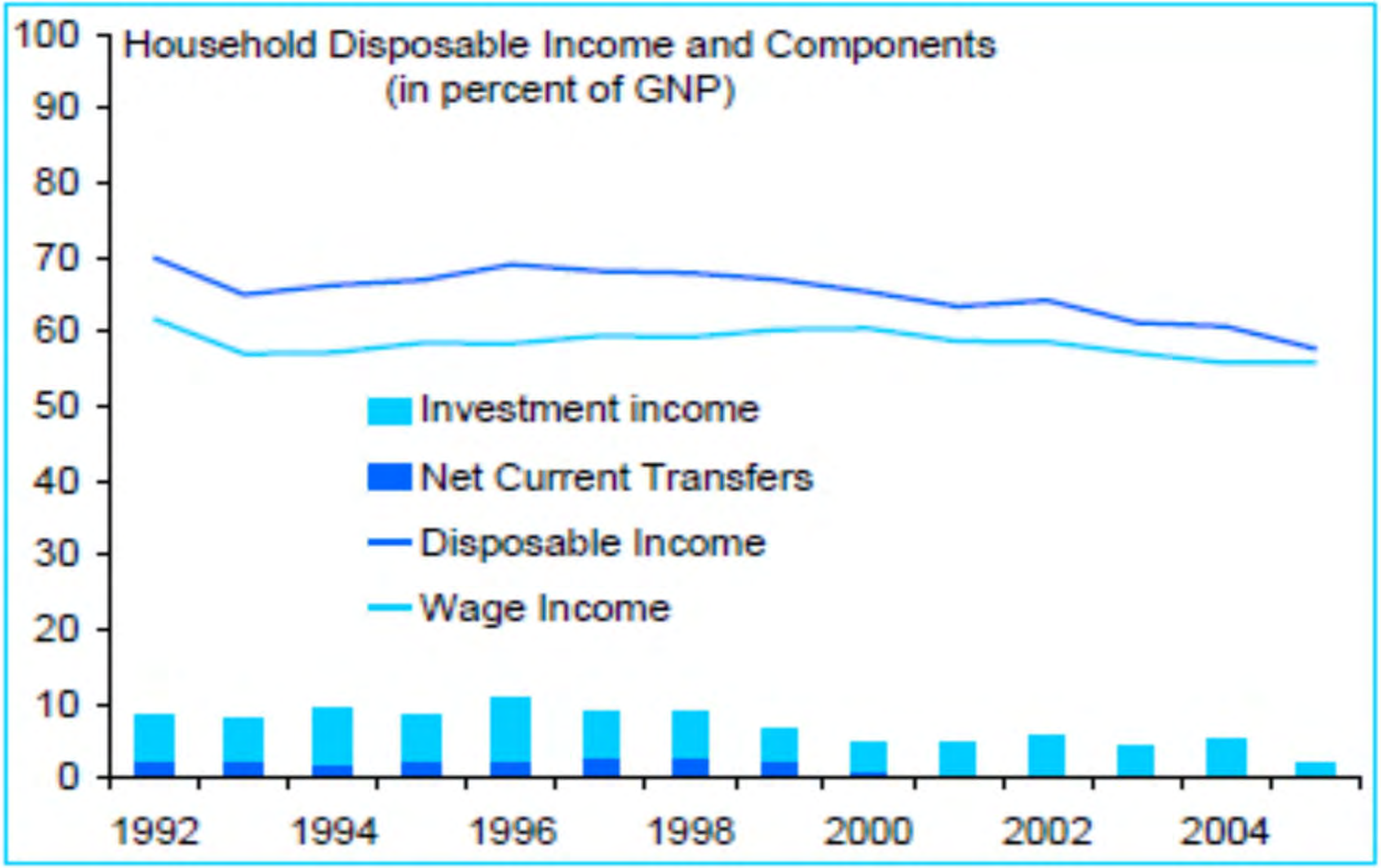
Source: UN Comtrade.

- Plus huge and hard to measure growth in services trade – including intra-company

Middle Income Transition is Difficult



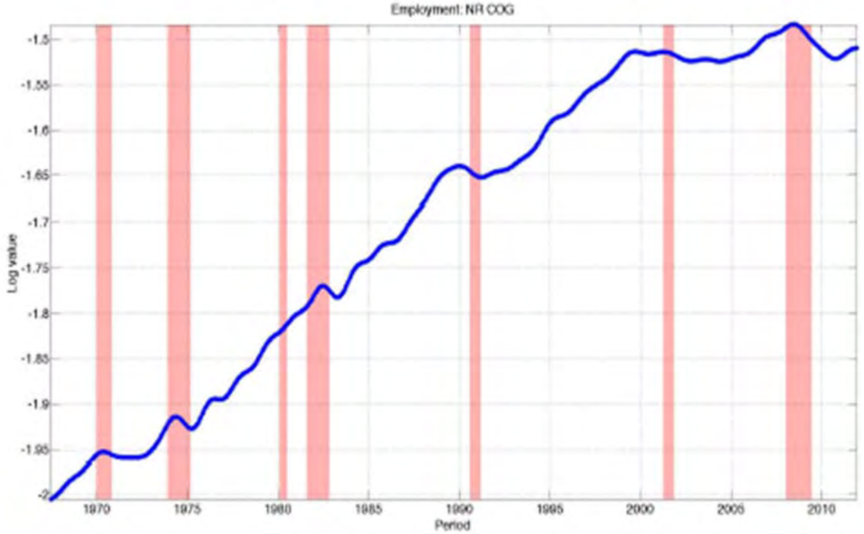
China: Disposable Income Declining Percentage of National Income
Combined with Household Savings at 30%
Consumption is below 40% of GDP



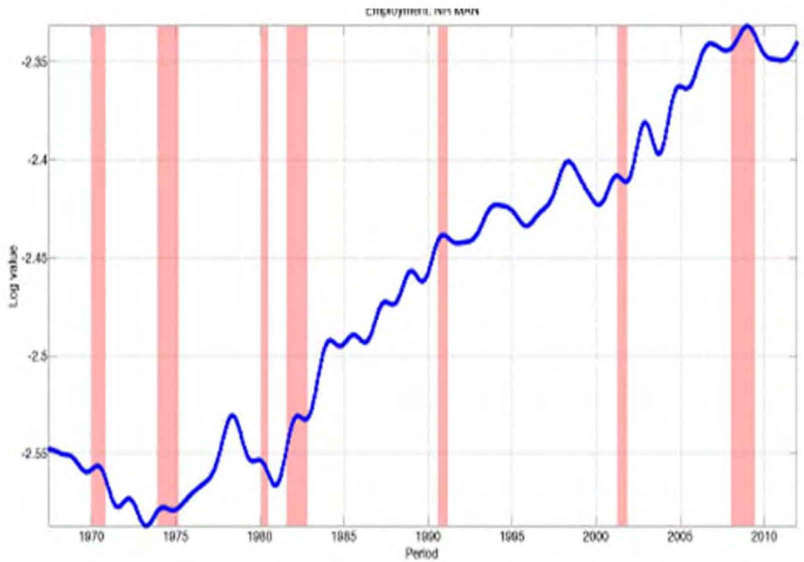
Explaining China's Low Consumption:
The Neglected Role of Household Income

Jahangir Aziz and Li Cui

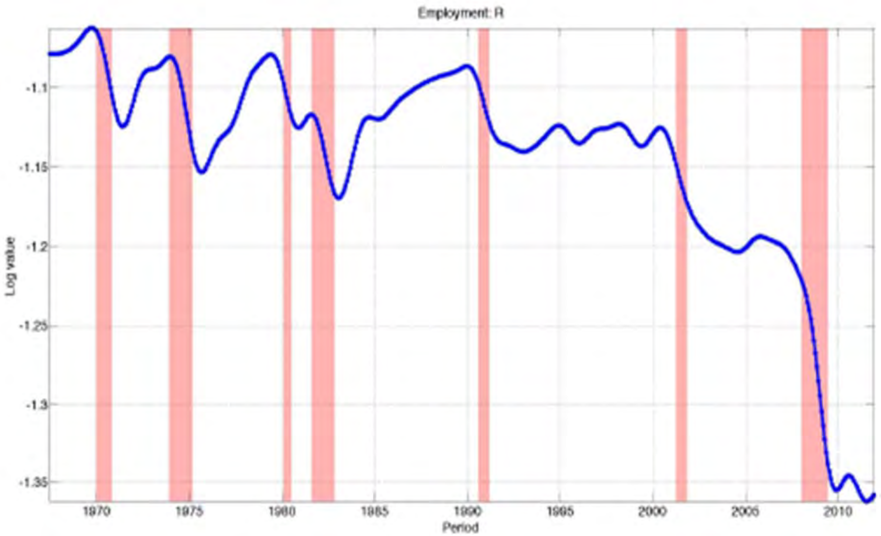
IMF WORKING PAPER 2007



Non-Routine Cognitive



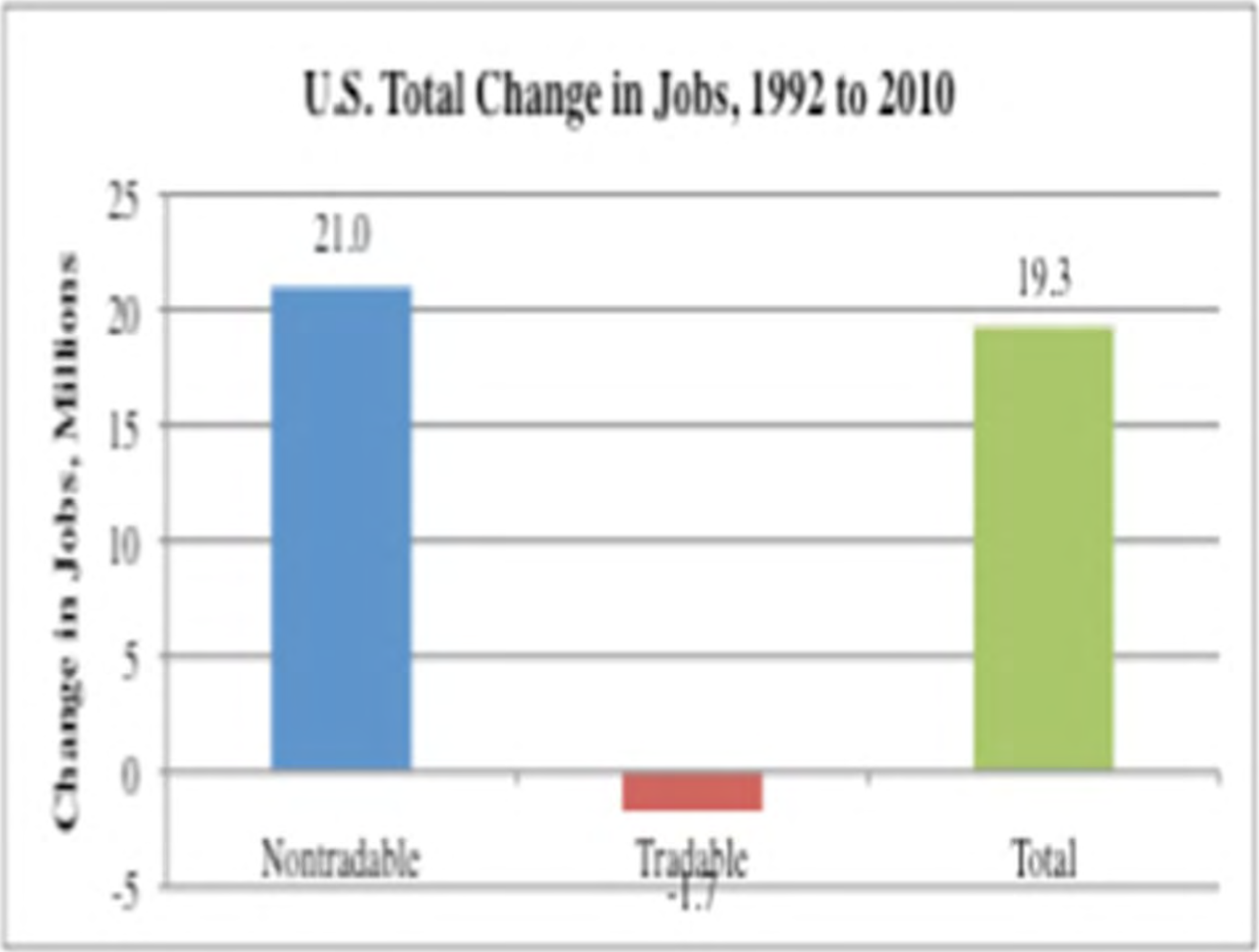
Non-Routine Manual



Routine – Manual and Cognitive

THE TREND IS THE CYCLE:
JOB POLARIZATION AND JOBLESS RECOVERIES

Nir Jaimovich
Henry E. Siu


U.S. Total Change in Jobs, 1992 to 2010
Change in Jobs, Millions
25
20
15
10
5
0
-5
21.0
-1.7
19.3
Nontradable
Tradable
Total

Questions

- Will the convergence of developing economies via sustained high growth continue?
- Was developing country growth an artifact of abnormal post-crisis monetary policy?
  - Or perhaps of unbalanced pre-crisis growth models in advanced countries with unsustainably high levels of consumption, based on leverage
- Is the slowdown of the “fragile five” permanent or a transition?
  - India, Brazil, Indonesia, Turkey, South Africa
- China’s middle income transition
  - Will it be successful?
  - Is it affected by tapering?
  - Will the “shadow banking system” derail it?
  - If not then on what does it depend?
- Growth Prospects are highly correlated
  - In particular they are all highly dependent on China

Policy Externalities

- Except for the immediate post-crisis period, monetary and fiscal policy is set with a domestic target impact
- The external impacts are large and distortionary
  - Especially in financial flows
  - Best response is not known as this is uncharted territory
  - But it is certainly not “keep doing what you were doing before”
- EM’s with relatively open capital accounts
  - Received abnormal inflows of funds seeking yield
  - Drove up currency
  - Current account deficit
  - Dependence on foreign capital to finance investment
- Tapering reversed the pattern
  - Have to raise interest rates, raise domestic saving to cover investment
  - It will take time and it will slow them down
- Reserves and the “openness” of the capital account

Investment Implications

- Market valuation trends have been diverging from underlying economic realities
  - Presumably this cannot be a permanent condition
- Tapering will not disrupt the growth dynamics in USA
  - Even if asset prices reset downward
  - The wealth effect is not the core of what is driving the recovery on the demand side
- The US REER declined and helped the tradable sector take up the slack created by the negative domestic demand shock
- Tapering will likely strengthen the dollar – with a positive effect on European growth potential

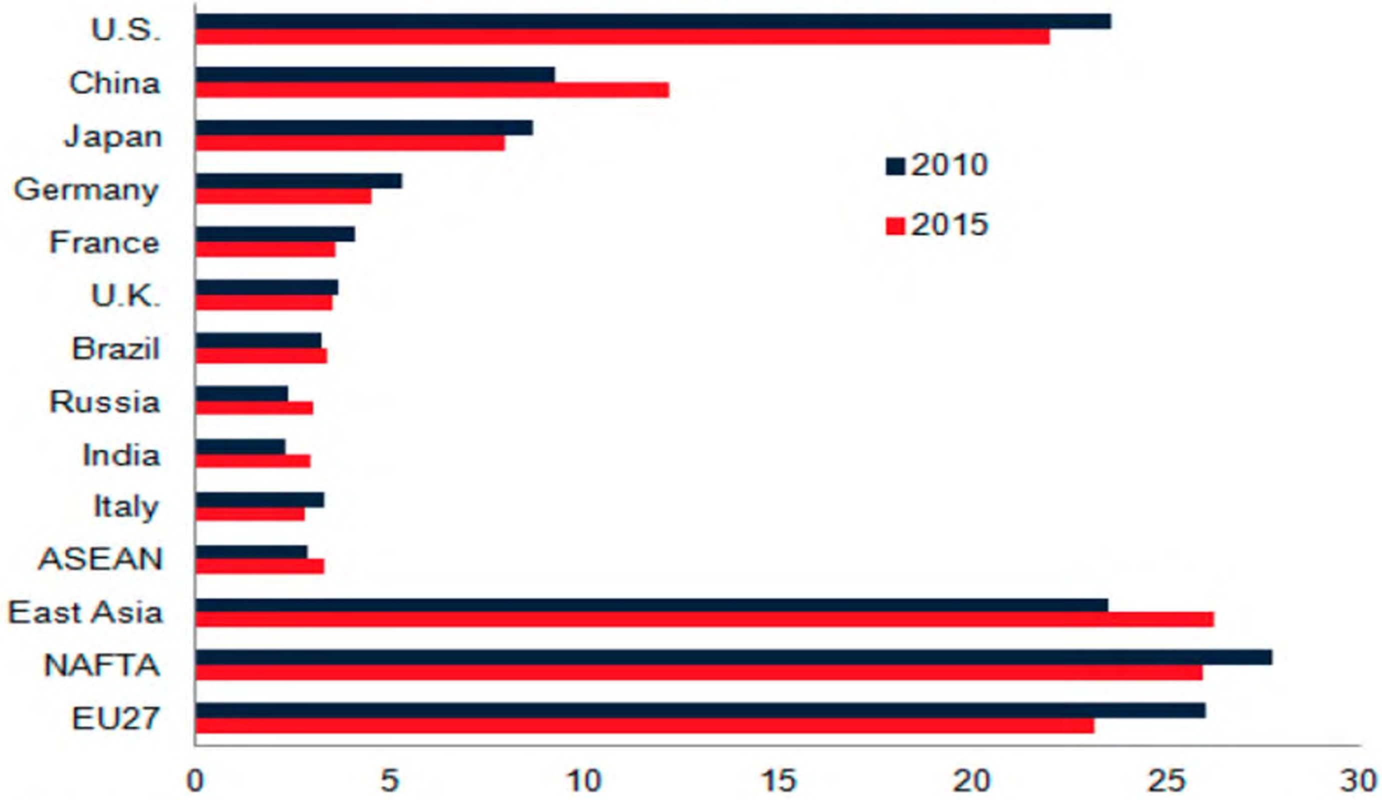
EM Growth

- EM’s with current account deficits will experience a transitory growth slowdown as they rebalance the growth patterns and then restore growth
- Market incentives and dynamics will produce an overshoot in the exodus of capital – complicating the EM adjustments but creating investment opportunities
- The shadow banking sector in China will not derail the growth
  - The balance sheet of the stated owned banks that dominate the financial system is really the balance sheet of the state – which is huge
  - Counterparty risk is limited
- China may experience a transitory growth slow down as the growth engines associated with domestic demand kick in
  - And the policy makers avoid over use of leverage and public sector investment

ASSET CLASSES IN EM'S

- For me there are few natural asset classes in the developing country world
  - You have a set of growth models with common elements, that go with the various stages of development/ income levels/ shifting comparative advantage
- Beyond that – things get country-specific pretty quickly
  - India and China often lumped together
  - But they are completely different in terms of key elements of reform, binding constraints to growth, and exposure to external imbalances and shocks

Figure 18. Three Trading Blocks and Top Export Markets by 2015
(Share of world nominal GDP)

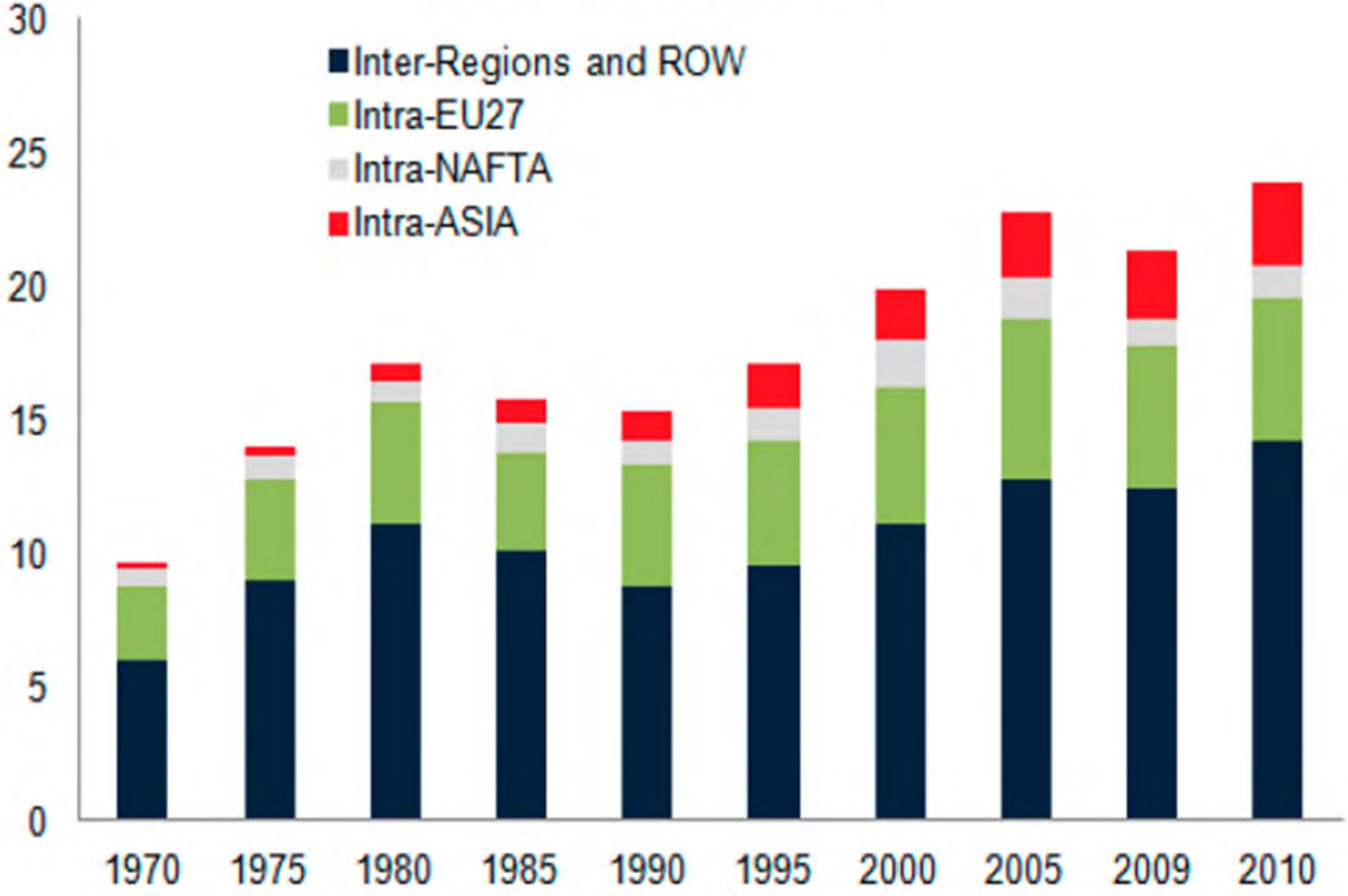


Source: WEO.

East Asia = ASEAN + Taiwan Province of China + Hong Kong SAR. + China

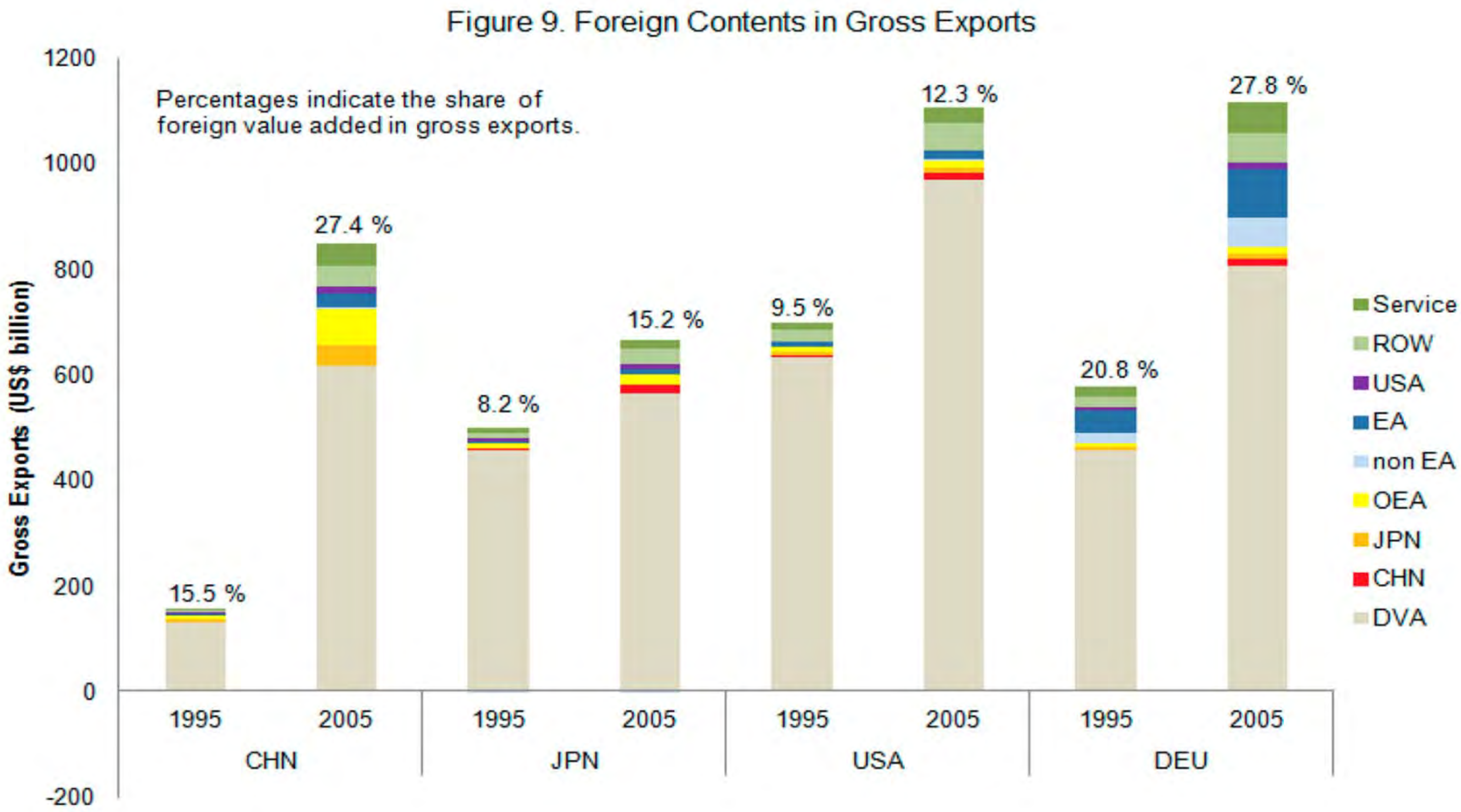
- Multilateralism is giving way to a blizzard of bilateral FTA’s
- There is a benign and a less benign version of this trend

Figure 3. Inter- vs. Intra-Regional Connectedness of Major Exporters
(Percent of World GDP)



Source: DOTS, WEO, Fund staff estimates.

Atomization of Global Supply Chains



Source: Fund staff estimates using OECD Input-Output Tables, UN Comtrade and OECD STAN data.

Overall Growth Prospects

- Low in US in the short and medium terms
  - But improving due to deleveraging (except in public sector) and expanding competitiveness on tradable side
  - Non-tradable is demand constrained and government is not playing a reverse Keynesian role
- Negative in Europe in short run, then low medium term
- Japan – probably low with some upside potential
- EM's: high with a short 1 to 2 year hiatus
  - With China in the lead position

Short-Medium Term Growth Prospects in Developed Economies

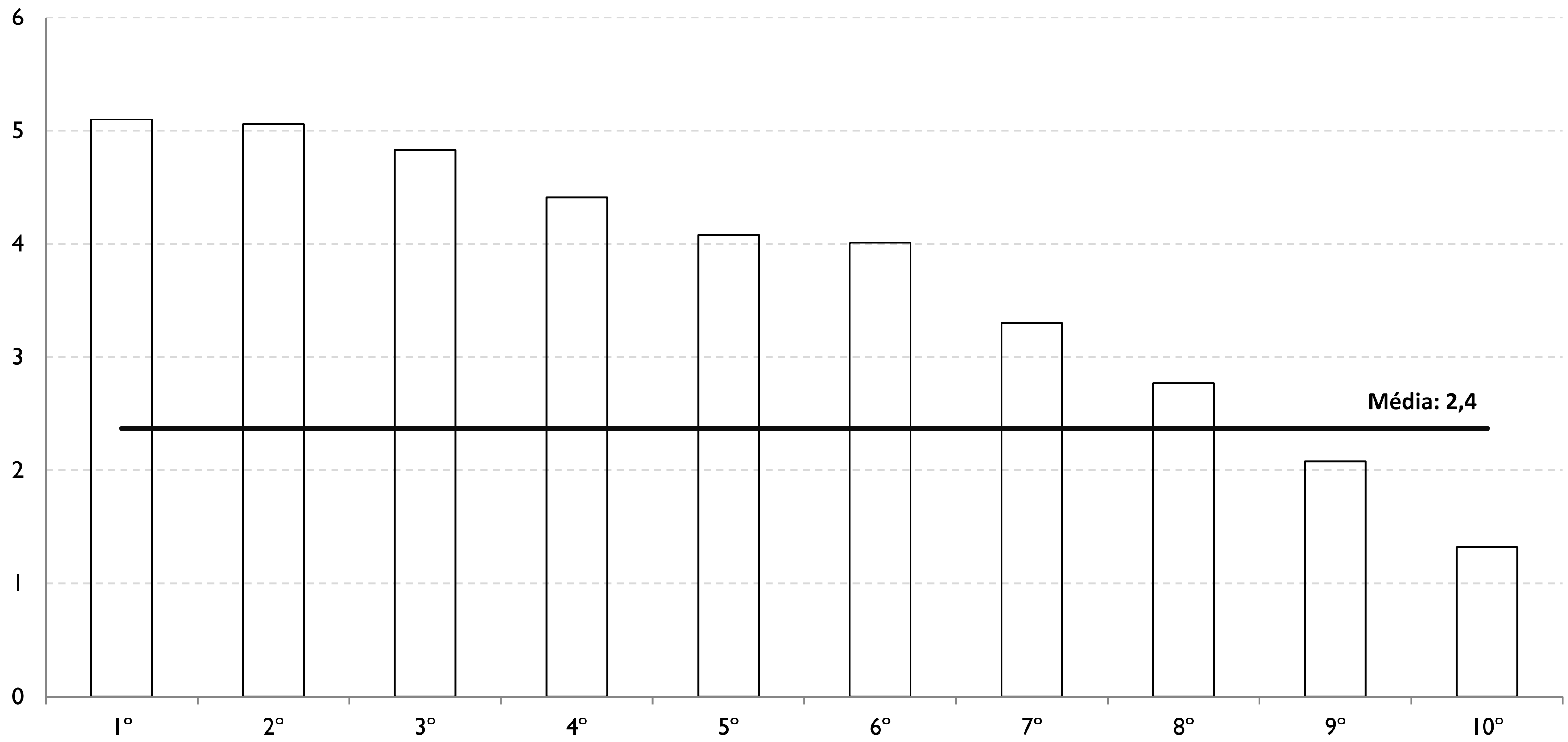
- Deleveraging (private and public) and Negative Aggregate Demand Shock
- This is demand constrained growth
  - Leaves non-tradable side demand short and stalled – or worse
  - Tradable side also impaired
  - The tradable side can grow with exposure to EM's
  - But it's only 1/3 of an advanced economy and not big enough to make up for the non-tradable shortfall – in the short to medium terms
  - Even if it did in terms of growth, the tradable side is not an employment engine (even in successful economies like Germany)
- Structural adjustment to a sustainable growth patterns
  - Takes time
  - Requires higher levels of investment
  - Speed and effectiveness affected by policy reform and public sector investment
  - These will be delayed by the deleveraging process – and probably also by lack of agreement on the role of the state in sustaining growth and employment
- Even when all this is complete, there will be difficult distributional issues to deal with
  - Design problem: achieve socially acceptable distributional outcomes with minimal damage to static and dynamic efficiency
  - Nordic countries evolving social protection mechanisms worthy of careful study

Major EM Growth

- Looks good or promising
- Indonesia 6%
- Brazil - growth slowdown but growth is inclusive
- India – impact of Europe and self-inflicted wounds
- Mexico
- Turkey
- Many African Countries
- China
  - Is the main event
  - I will come to it shortly

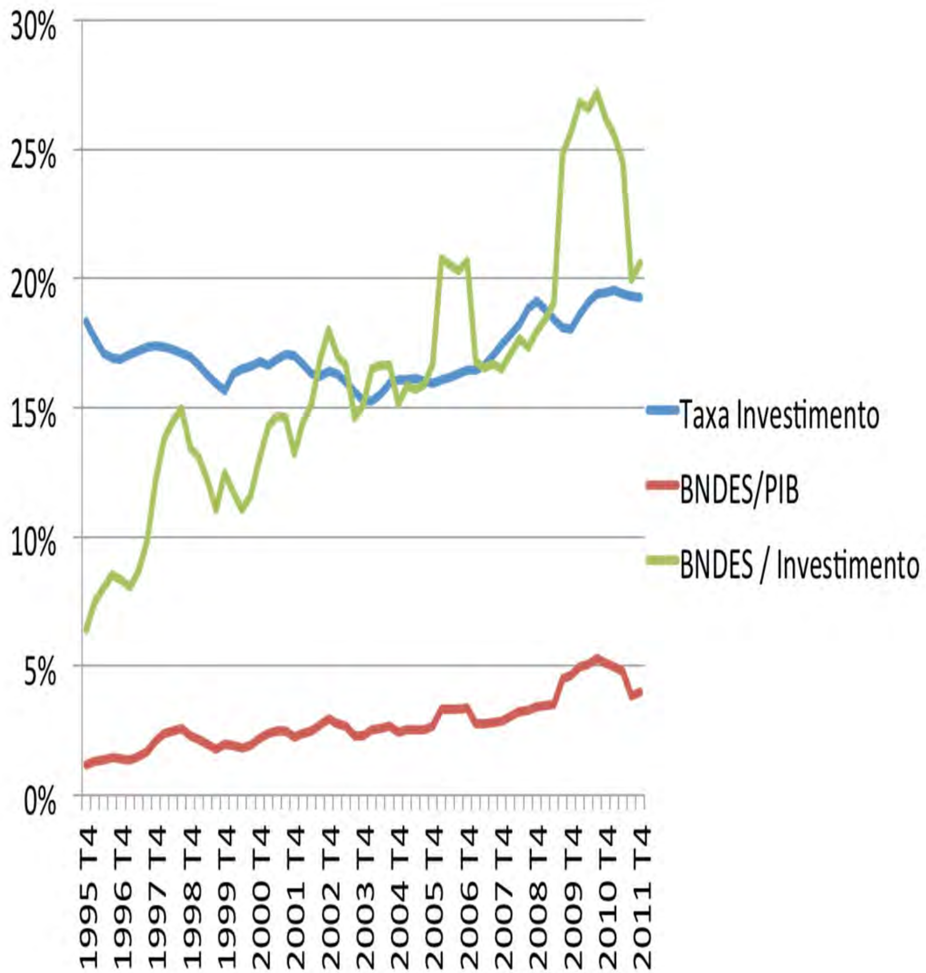
Brazil: Average Annual Real Growth Rate Of Household Per Capita Income, 1999-2009

Taxa média anual de crescimento da renda real domiciliar per capita, por décimos da distribuição de renda,1999-2009 (%)



BRAZIL'S INVESTMENT RATE:RECENT EVOLUTION AND COMPARISON WITH OTHER L.A. COUNTRIES

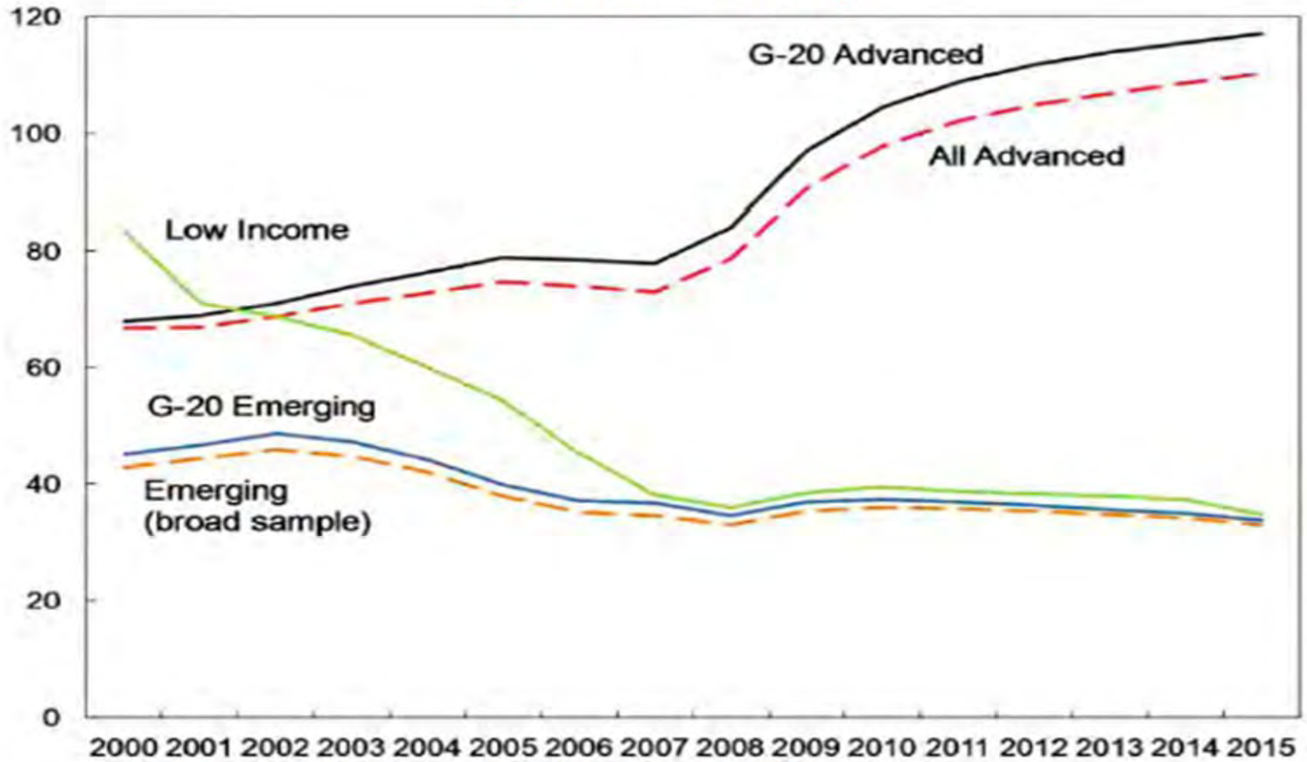
Argentina	23.6
Bolivia	15.9
Brazil	18.7
Chile	22.5
Colombia	22.7
Ecuador	25.4
Mexico	25.2
Panama	24.3
Paraguay	18.3
Peru	22.8
Uruguay	19.6
Mean	**21.7**



Resilience Partial Decoupling

- Post crisis evidence -
- Key is aggregate demand and its composition
- What is new is that EM's are large enough and rich enough to generate enough demand (that matches comparative advantage) to sustain high growth
  - Size (50% of global economy)
  - Middle income levels
  - Trade within the group
  - The network structure of the global economy is becoming more complex and is less developed country centric
  - Fiscal stability and capacity to invest
- But they cannot make up for a large drop in developed country demand – hence the negative short run impact of Europe – via the China channel
- Also not immune to systemic risk coming from developed countries

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



Source: IMF, *Fiscal Monitor*, May 2010

- What you see here is the leveraged growth model in the advanced countries and the learning and rebalancing in emerging economies following the 97-98 crisis and contagion

Sources of Actual or Potential Systemic Risk

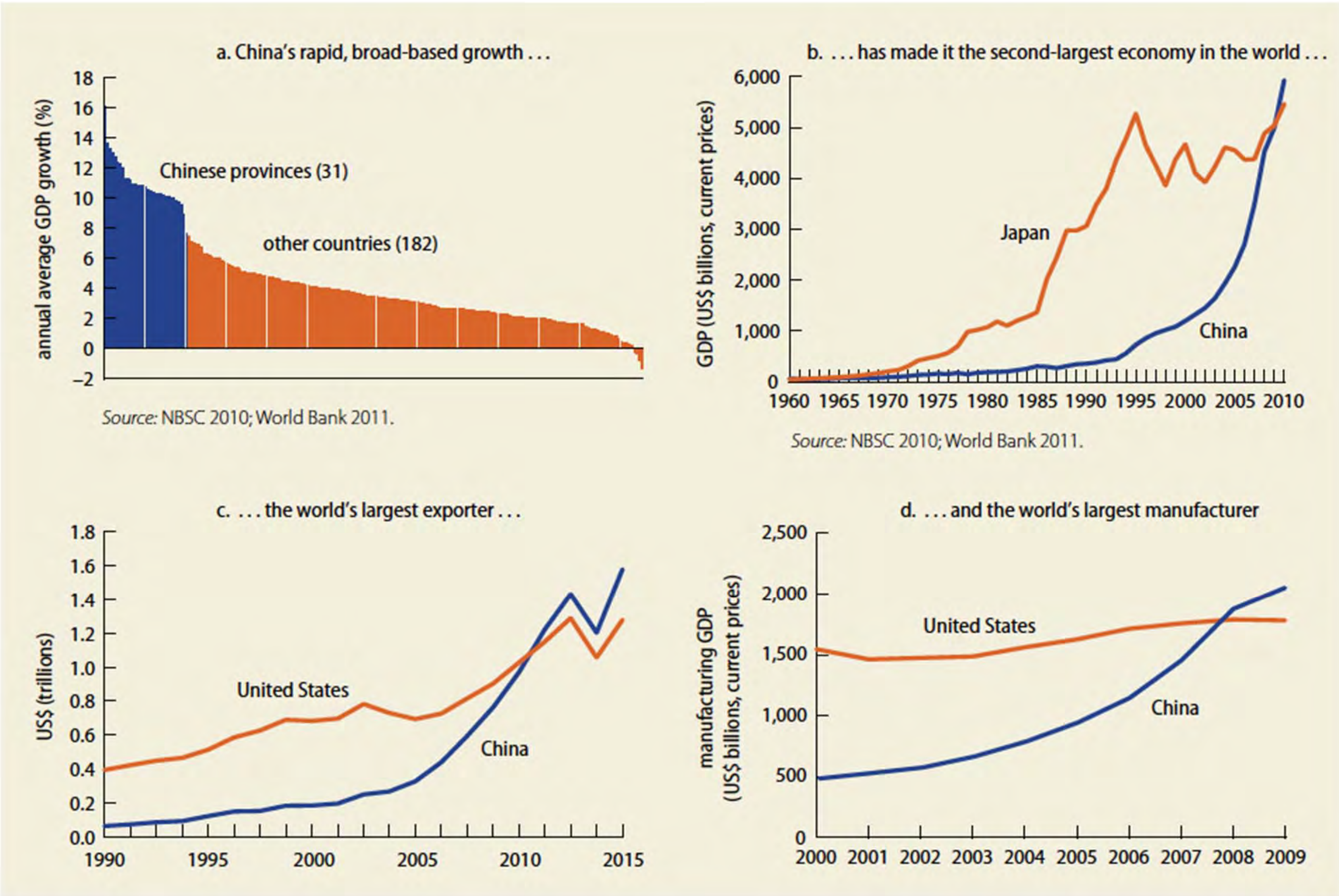
- Europe
  - Eurozone's multiple Equilibrium Structure
  - Forced convergence with almost complete decentralization of policies that affect relative productivity
- USA
  - Political and policy dysfunction
  - Unwise experiments with budgets, leveraged growth models and under-appreciation of the key roles of government
  - Excessively rapid fiscal consolidation
- China
  - Leadership transition done
  - Implementation of system reforms that support the structural change in the 12th five year plan
- Japan: new growth model
  - Public debt to GDP = 220%, Growth Low, Populations declining
  - Not a sustainable trajectory – intergenerationally
  - Even with self-imposed financial repression

Defective or Unsustainable Growth Models with Built In Decelerators

- Import substitution model
- Excess economic diversification model (the “old Canada” versus Sweden)
- Natural resource distortions model
- Leveraged excess consumption model (private or gov’t or both)
  - Deficient investment
  - Usually excess debt
  - Excessive reliance on domestic demand for growth and employment
  - USA, UK, Ireland, Italy, Spain, Greece, Portugal
- Excess investment/deficient consumption model
  - Low return trap
  - China
- The vanishing government model
- The dominating government model
- More generally growth models deployed beyond their useful life
- Systemic risk can arise from defective growth models where the decelerators operate with lags, and are hard to detect with conventional models and frameworks
- Fixing these requires structural adjustments on the demand and supply side of the economies

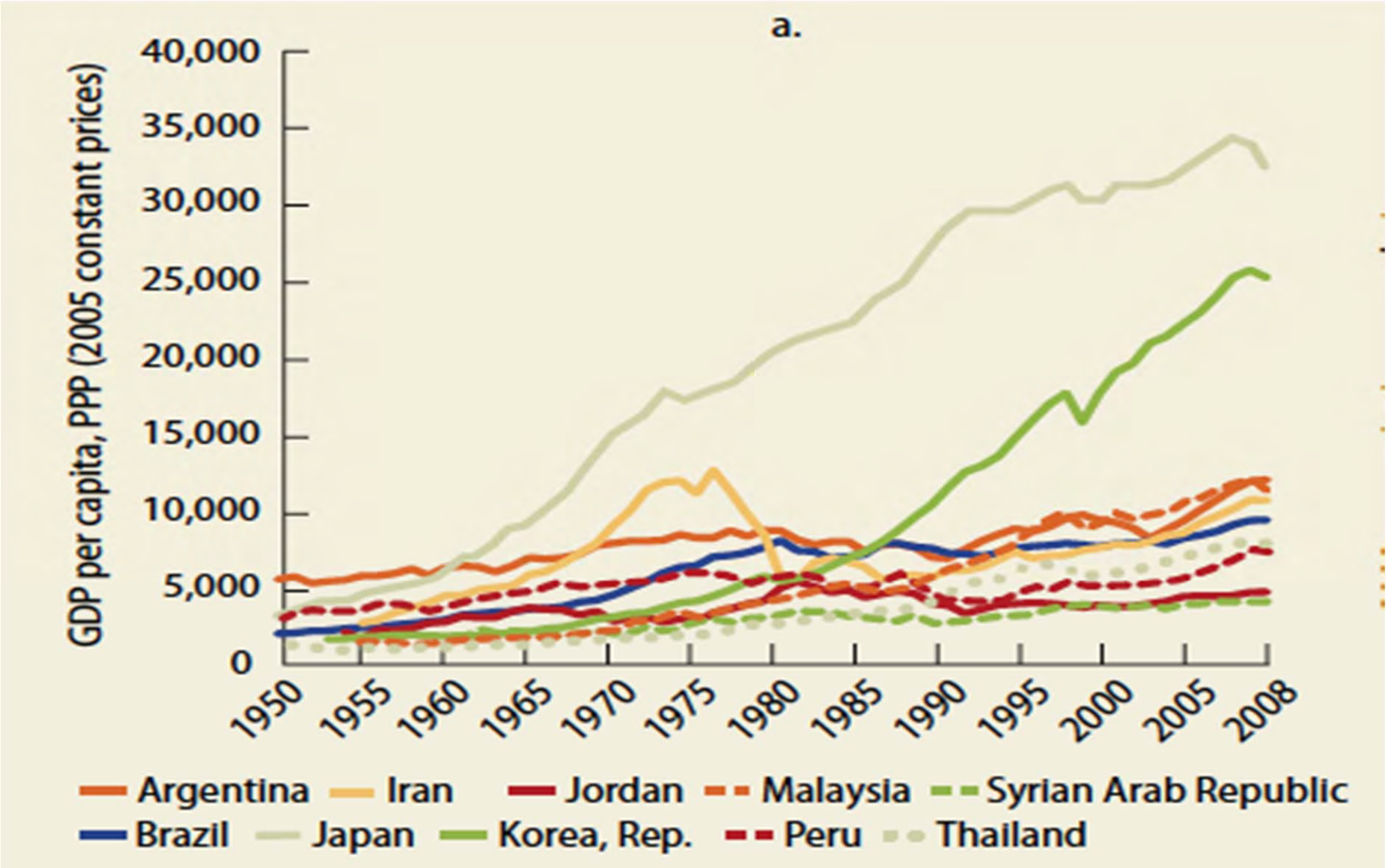
China and the Middle Income Transition

- Third largest economy if Europe is counted as a unit
- About half the size of US or Europe
  - Will be same size in 10-15 years
  - When it grows at 8% real - that is the equivalent of 4% growth in Europe or North America
- Leading export market for India, Brazil, Japan, Korea, Australia, most of east Asia, in the near future, Africa
- Huge amount at stake
- The growth model for first 30 years yielded impressive results, but has reached the end of its useful life
- The most common developing country mistake is to find a successful strategy for growth and do it too long
- Despite the high growth, there is widespread consensus (internally and externally) that reform momentum declined seriously in the past decade – and that a reversal of that trend is critical to alter and then sustain the growth pattern at this level of income



China 2030 World Bank and NDRC

The Middle Income Transition



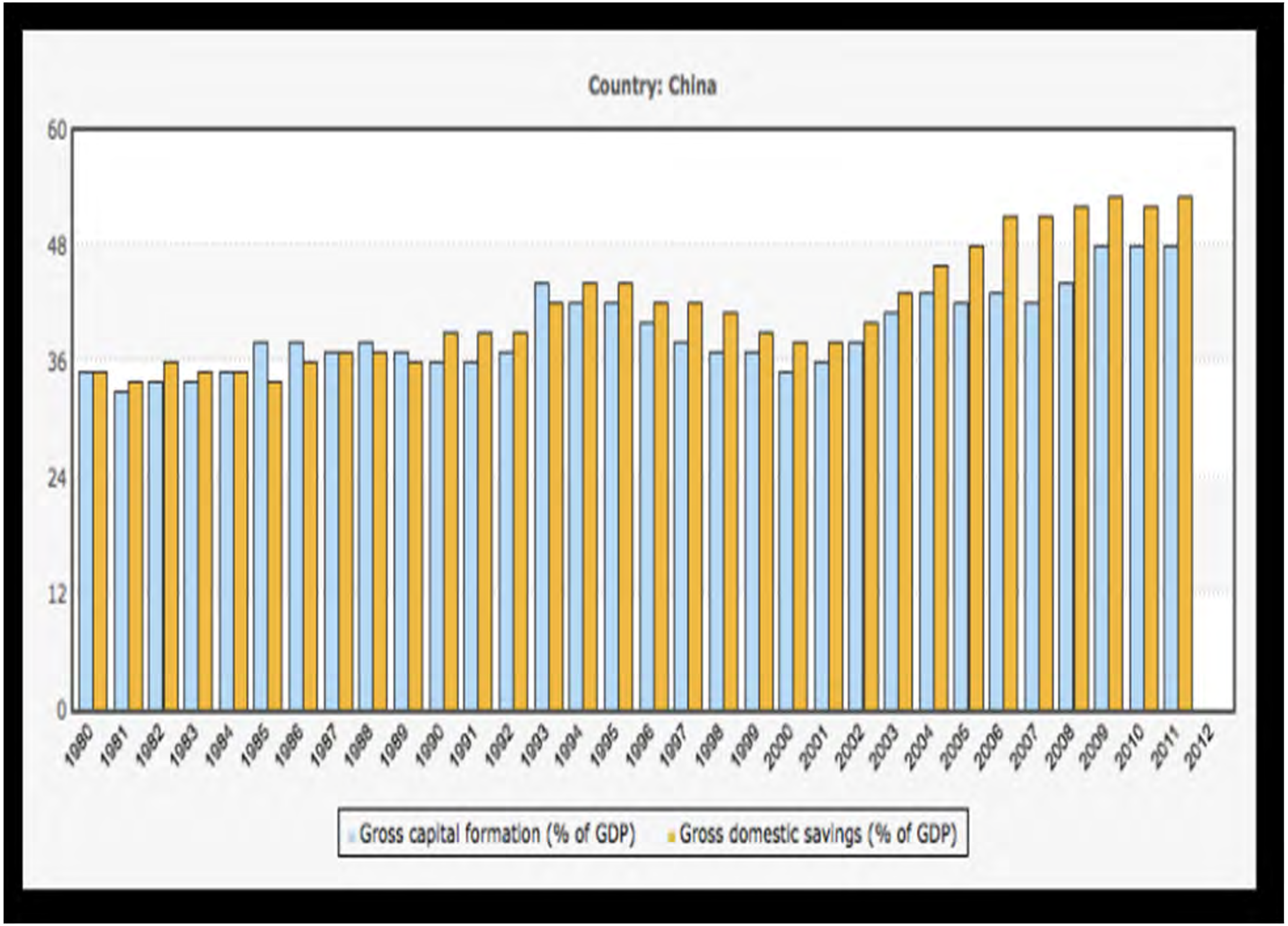
China 203 World Bank and CDRF of the State Council

Five High Speed Transitions

- Japan
- Korea
- Taiwan/China
- Hong Kong/China
- Singapore

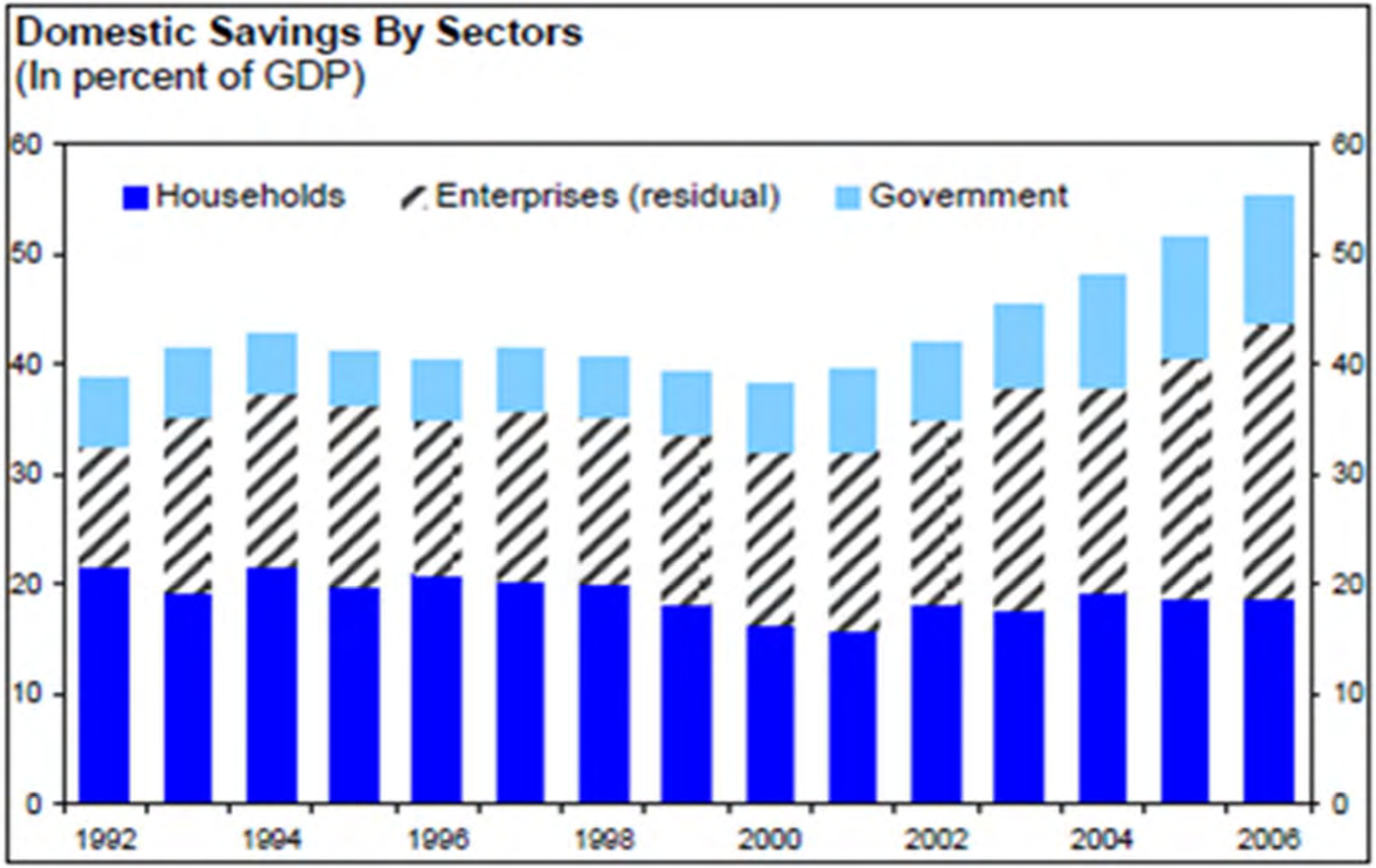
- None at China's scale
- None with strong global economic headwinds
- No predecessor was systemically important

- Most importantly – China's growth depends on no slippage in generating domestic aggregate demand
  - Unlike earlier cases (Korea, Taiwan. China, Japan)
  - One way to do that is high and rising investment levels – but that will drive investment returns (private and social) down and is not a sustainable growth pattern
  - This is all well understood in China – so the challenge is to shift the mix to consumption and high return investment – and that takes major system reforms



World Bank database

Components of Savings: The Increase is in the Corporate Sector
Built in bias in the system to investment without adequate risk adjusted return filters



Requirements

- 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
- Competition and innovation
  - Expansion of market side of economy
  - SOE's transitioned fully into private sector – with competition, removal of privilege market access, and altered corporate governance
- 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
- Management of public assets
  - They will not shrink the state balance sheet replicating the western model
- Social insurance and services – focus on inclusion
- Urban service sector will take over from labor intensive process manufacturing as main entry level employment engine

China Has to Climb the Valued Added Ladder

- To support the Income Growth
- That means structural transformation
  - The lower value added parts of the tradable sector will go to earlier stage developing countries (or be eliminated by technology)
- Keys to Implementation
  - More household income
    - Lower household savings
  - Less low return investment (public and SOE)
  - More market lead diversification and innovation, less state
  - Supporting policies
    - Competition policy
    - Human capital and technology
    - Financial sector development
- Major implementation risk
  - Vested interests cloaked in ideological differences, equity issues and (deliberate misinterpretation of) failures in the west
  - SOE's and competition
  - Reform momentum and the governance structure

The Multispeed World and the Convergence Pattern will Hold for Some Time

- The return to sustainable growth patterns will be slow but we will get there
- Convergence internationally will be accompanied by divergence within countries
  - In incomes, opportunity etc
  - The employment problem will become a distributional one
- Managing the distributional aspects of rapid technological change and globalization will be major challenge for the next decade or more
- Longer term – if we get there – the global economy will triple in size (or more) and the natural resource base of the planet will not support it – not that is on the existing growth models

Investment in EM's

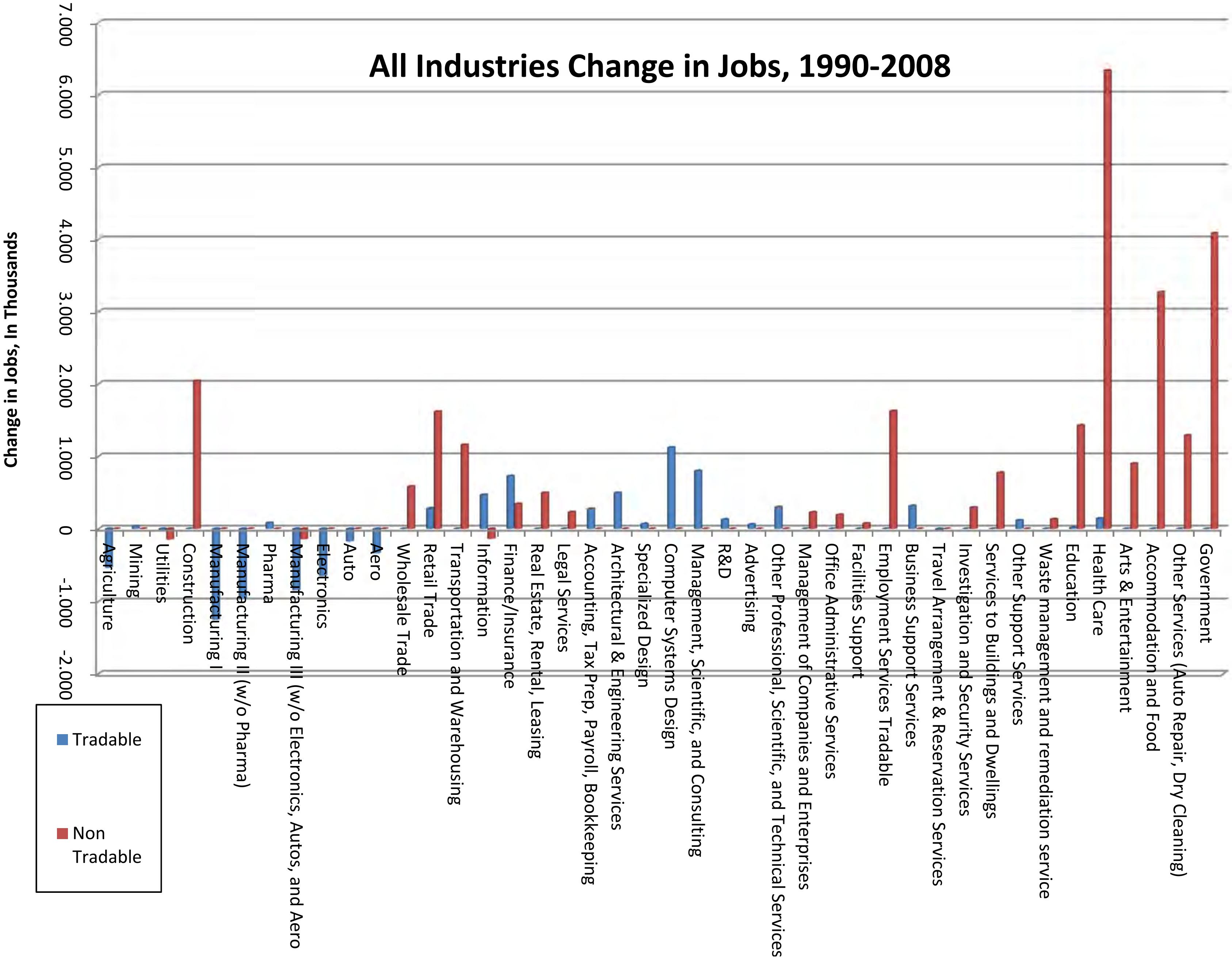
- Tailwinds in terms of growth
- Especially in middle income consumer categories with high income elasticities (autos, consumer appliances and electronics e.g.)
- Investment in infrastructure
- Capital equipment
- Capital markets vary considerably in openness and accessibility across countries
  - China for example is high growth and systemically important but not yet an accessible investment environment for external investors
  - But there are indirect channels including via countries and companies that are networked to the Chinese growth engine via trade or FDI
- Multinationals with access to EM's is one avenue
- Not all assets are overpriced – but detailed country specific knowledge is required

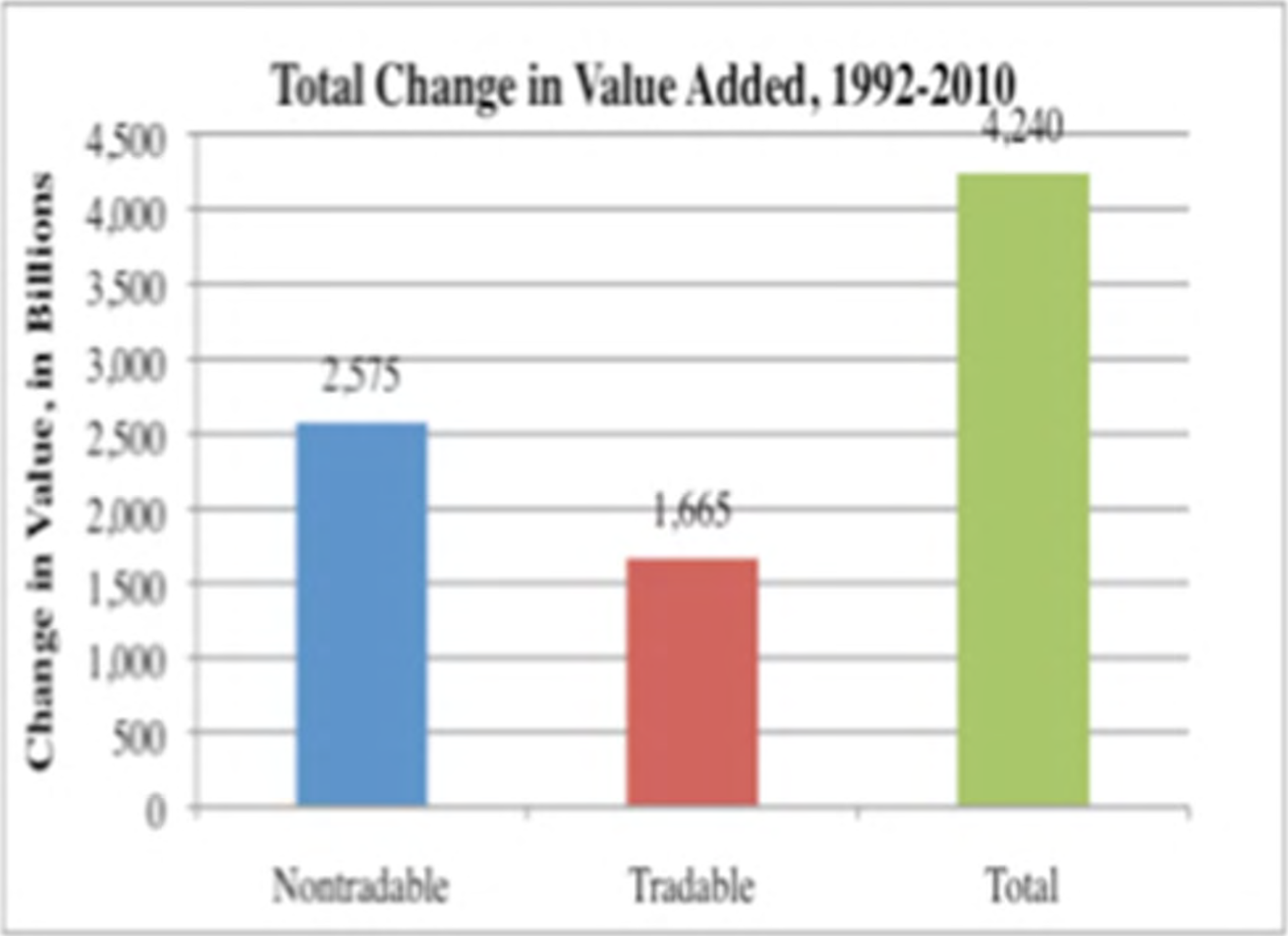
Continued

- Indirect Channels
  - Taking a broad perspective through the lens of the network structure of the global economy, and the increasing competitiveness in tradable sectors of several economies
  - Countries, sectors and companies that are position to participate in EM Growth
- Massive investment book coming from EM growth and urbanization
- If China is successful,
  - it will "export" up to 100 million lower skill jobs in the labor intensive process manufacturing and assembly parts of the tradable sector
    - These will go to earlier stage developing countries
    - In that component of the frontier markets – there is a huge opportunity – and the challenge is to figure out who will take advantage of it.
  - It will produce 400 Million new middle class consumers in 10 years

Structural Adjustment Challenges in the Developed Economies

- Growth
  - Deleveraging
  - Structural and competitive adaptation to "new normal" aggregate demand
  - Governments out of fiscal ammunition
- Employment
  - Two powerful forces
  - Labor saving technology (blue and white collar)
  - Technology assisted globalization
  - Driving employment to non-routine on the non tradable side and high value added on the tradable side
  - Technology and The Employment Challenge - January 2013


All Industries Change in Jobs, 1990-2008
Change in Jobs, In Thousands
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0
-1.000
-2.000
Agriculture
Mining
Utilities
Construction
Manufacturing I
Manufacturing II (w/o Pharma)
Pharma
Manufacturing III (w/o Electronics, Autos, and Aero
Electronics
Auto
Aero
Wholesale Trade
Retail Trade
Transportation and Warehousing
Information
Finance/Insurance
Real Estate, Rental, Leasing
Legal Services
Accounting, Tax Prep, Payroll, Bookkeeping
Architectural & Engineering Services
Specialized Design
Computer Systems Design
Management, Scientific, and Consulting
R&D
Advertising
Other Professional, Scientific, and Technical Services
Management of Companies and Enterprises
Office Administrative Services
Facilities Support
Employment Services Tradable
Business Support Services
Travel Arrangement & Reservation Services
Investigation and Security Services
Services to Buildings and Dwellings
Other Support Services
Waste management and remediation service
Education
Health Care
Arts & Entertainment
Accommodation and Food
Other Services (Auto Repair, Dry Cleaning)
Government
Tradable
Non Tradable


Total Change in Value Added, 1992-2010
Change in Value, in Billions
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
2,575
1,665
4,240
Nontradable
Tradable
Total

Value Added per Worker

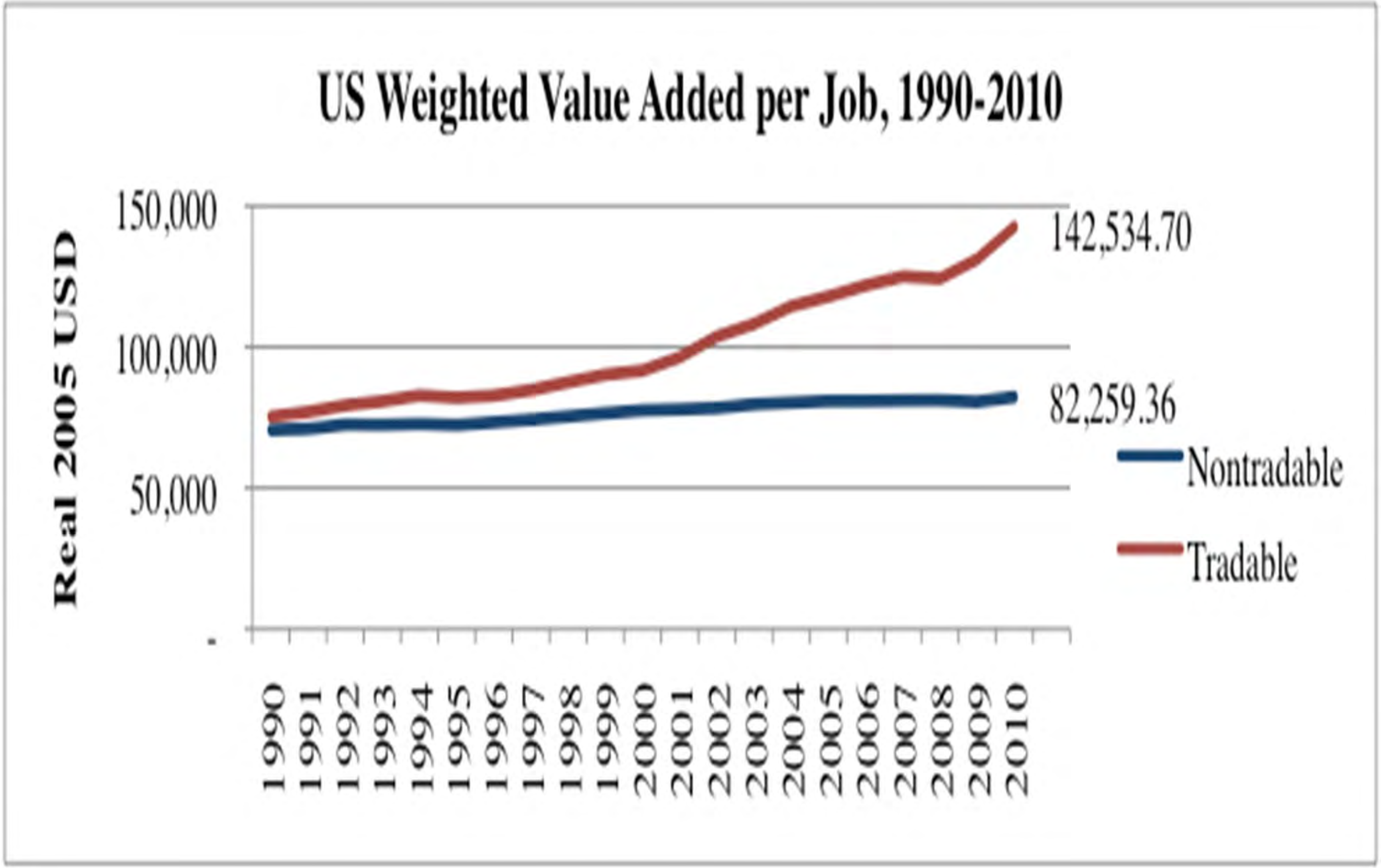
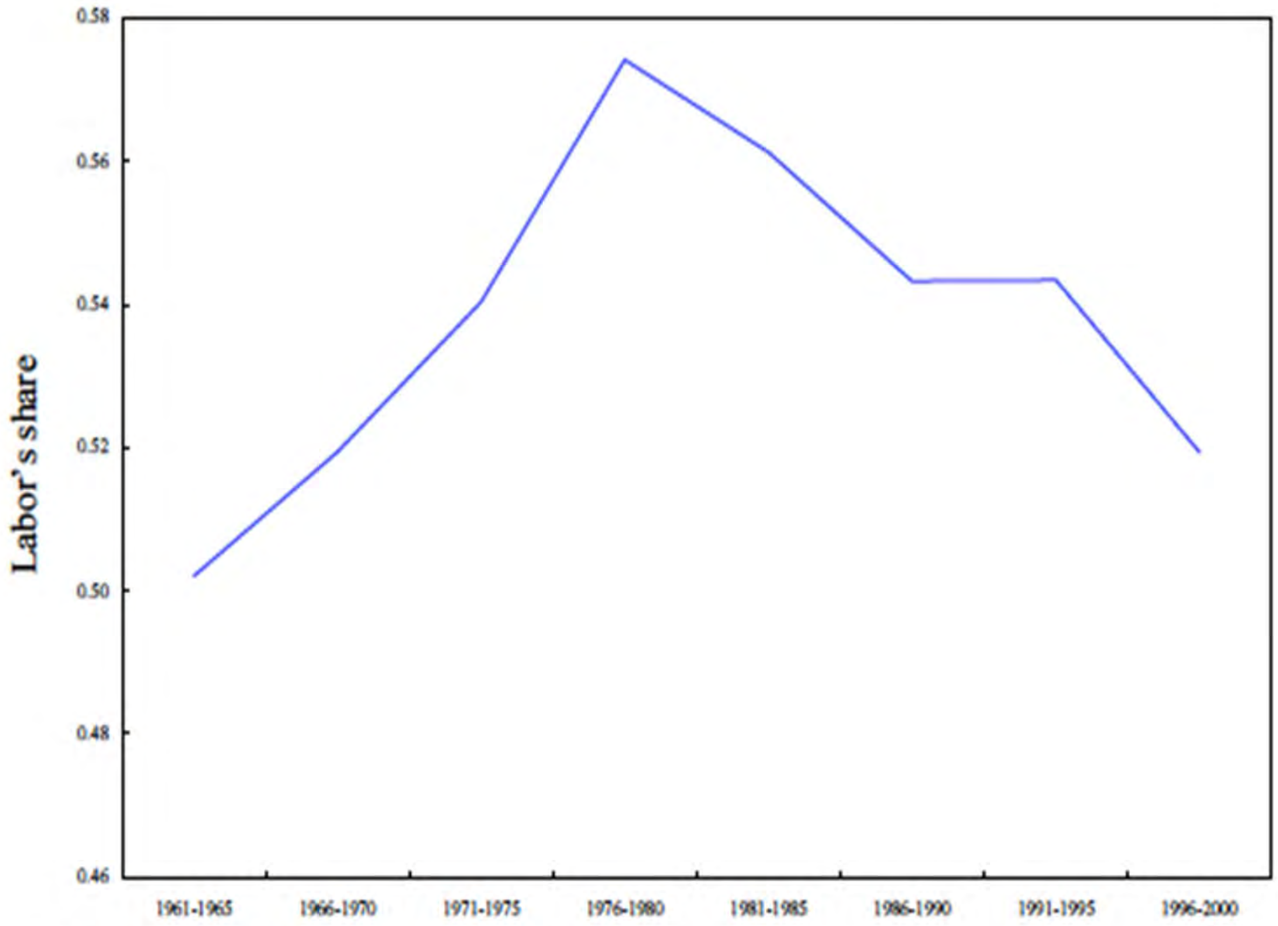


Figure 1. Cross-Country Average Labor's Share in National Income
(Ratio of labor income to national income)



Source: OECD, Structural Analysis Database.