



Rebalancing China's Economy

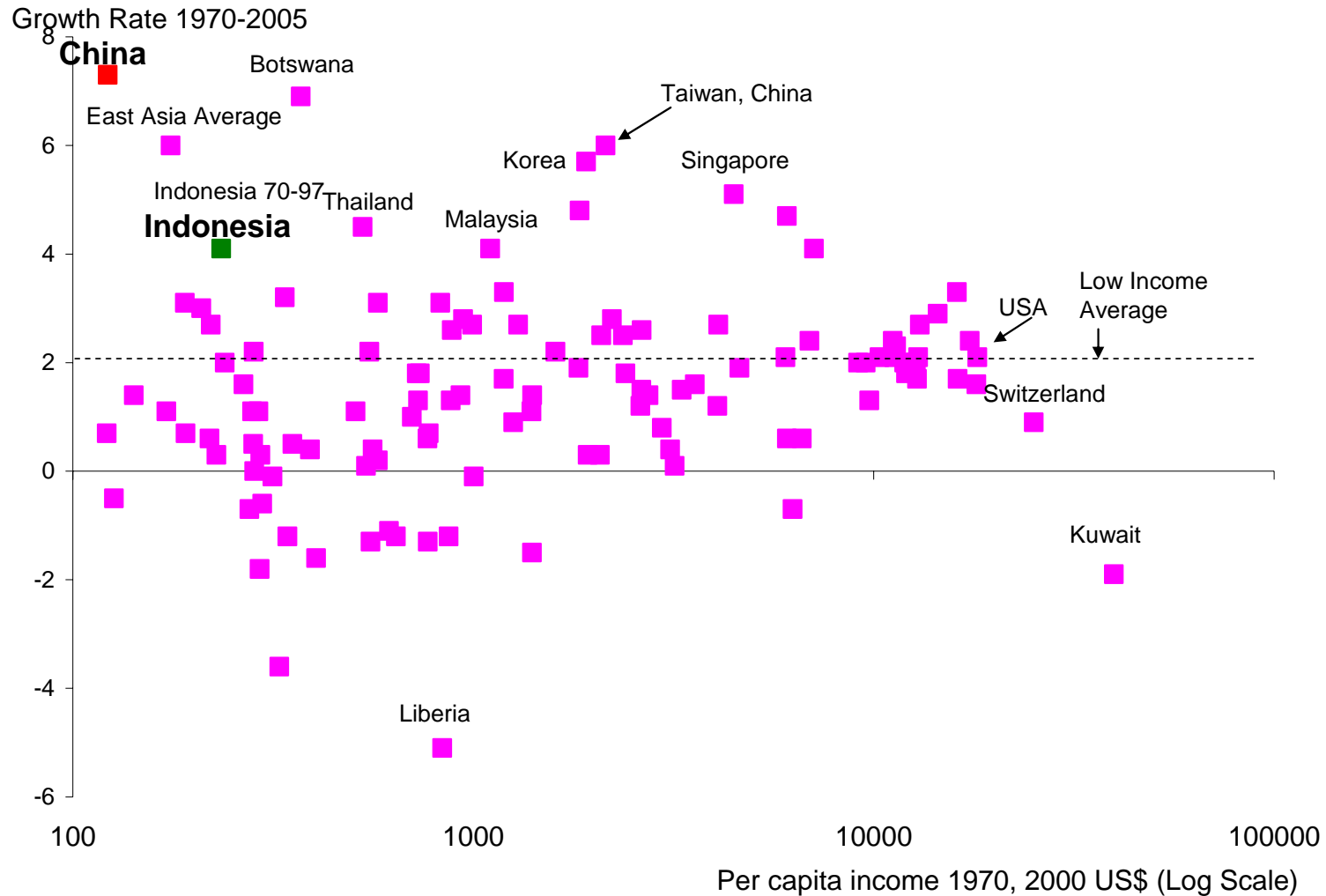
Presentation at the Peterson Institute of
International Economics

Conference on

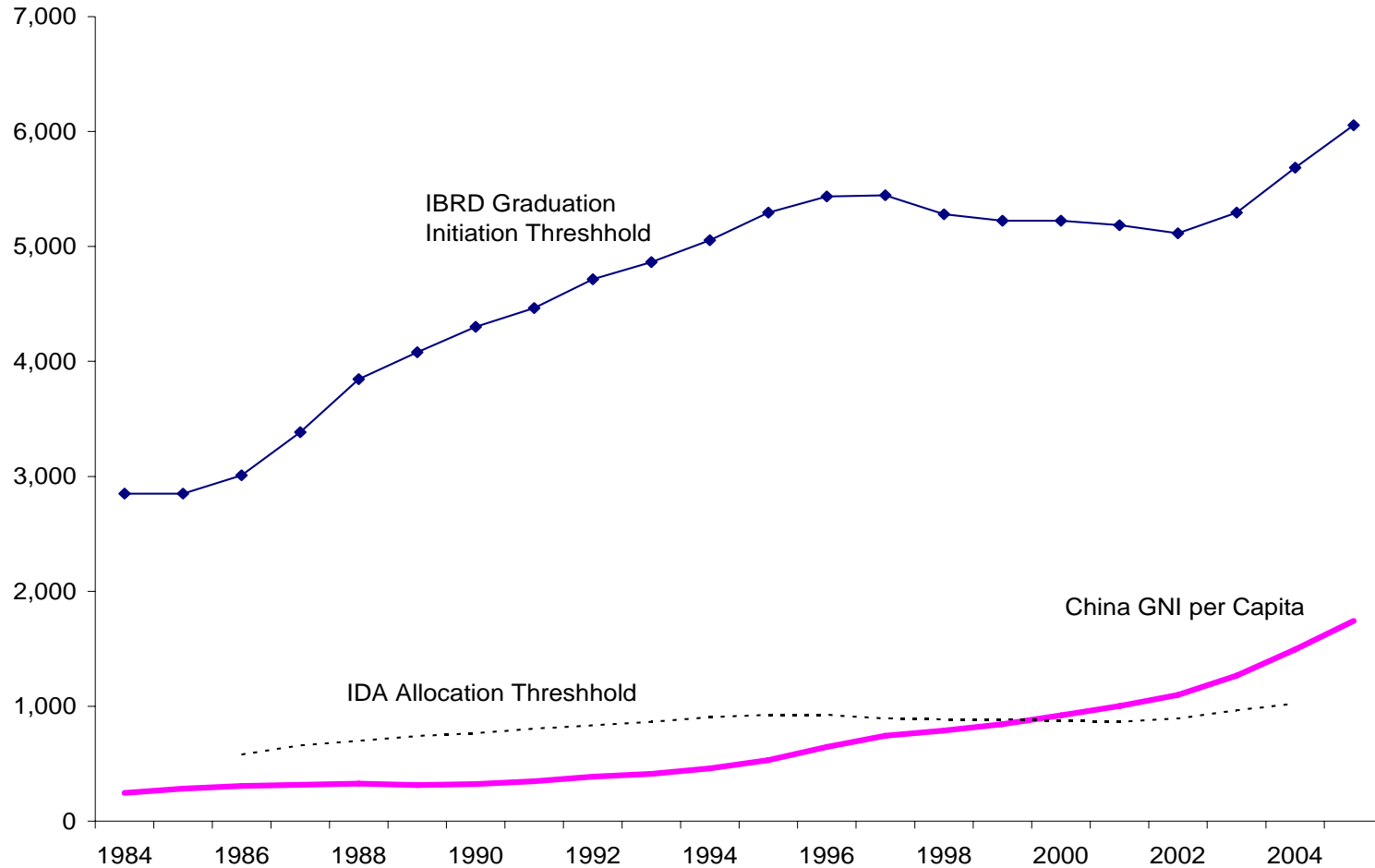
China's Exchange Rate Policies

Bert Hofman and Louis Kuijs, World Bank

China's growth in a league of its own



But still a long way to go to richness



How China Grew

*
(average annual increase, in percent)

	1978-93	1993-2005
GDP	9.7	9.6
Employment	2.5	1.1
Labor productivity	7.0	8.4
From TFP	3.3	2.8
<i>of</i> from reallocation of labor b/t	1.3	1.1
From increasing	0.5	0.2
From increasing K/L	3.2	5.3
Memorandum items (in		
Investment/GDP ratio (period	29.9	36.8

Source: He and Kuijs

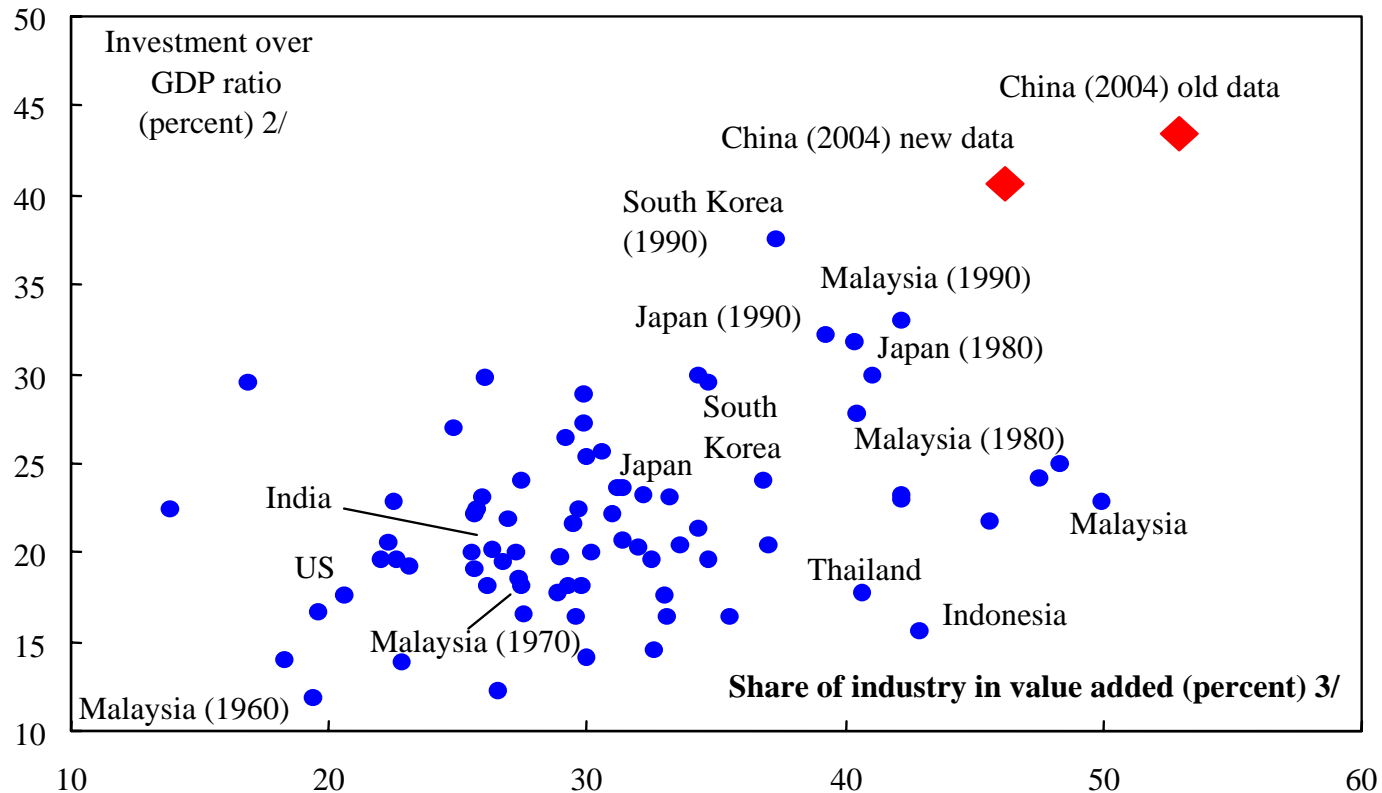
China's Key Challenges



- How to get more balanced growth?
- How to keep growth environmentally sustainable?
- How to distribute growth more evenly?

China's heavy reliance on industry requires a lot of investment

Industry share in GDP and Investment over GDP



Sources: World Development Indicators, NBS (for China), and staff estimates.

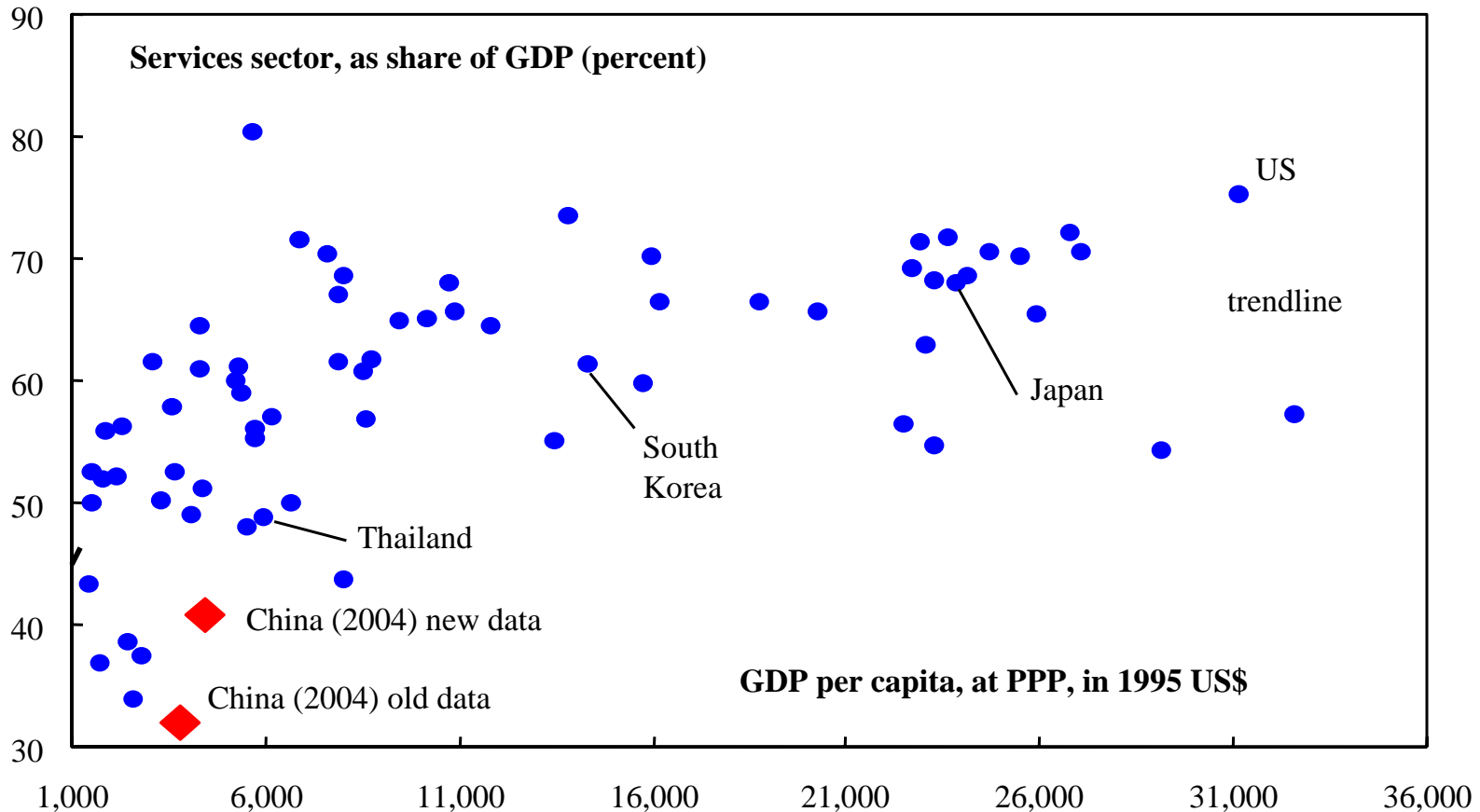
1/ Using data in current prices. Data for 2001, unless otherwise indicated.

2/ Assuming that, of the revision of GDP, 85 percent is contributed by consumption, and 15 percent by investment.

3/ Including construction, as is the case in most countries.

China's services sector is underdeveloped

GDP per capita and services share in GDP

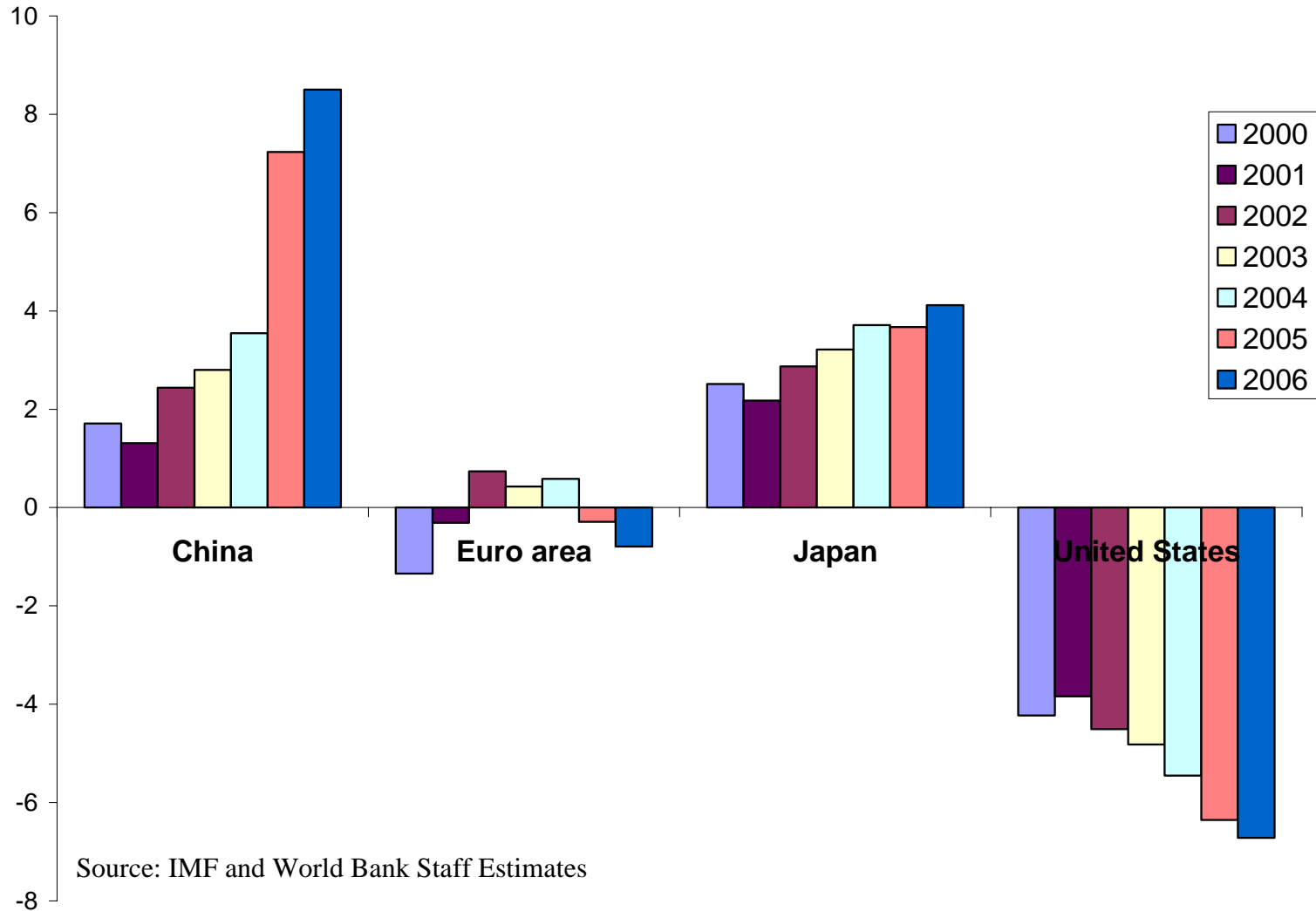


Sources: World Development Indicators and NBS (for China).

1/ Using data in current prices. Data for 2001, unless otherwise indicated.

Global Imbalances

Current account balances, *percent of GDP*



Source: IMF and World Bank Staff Estimates

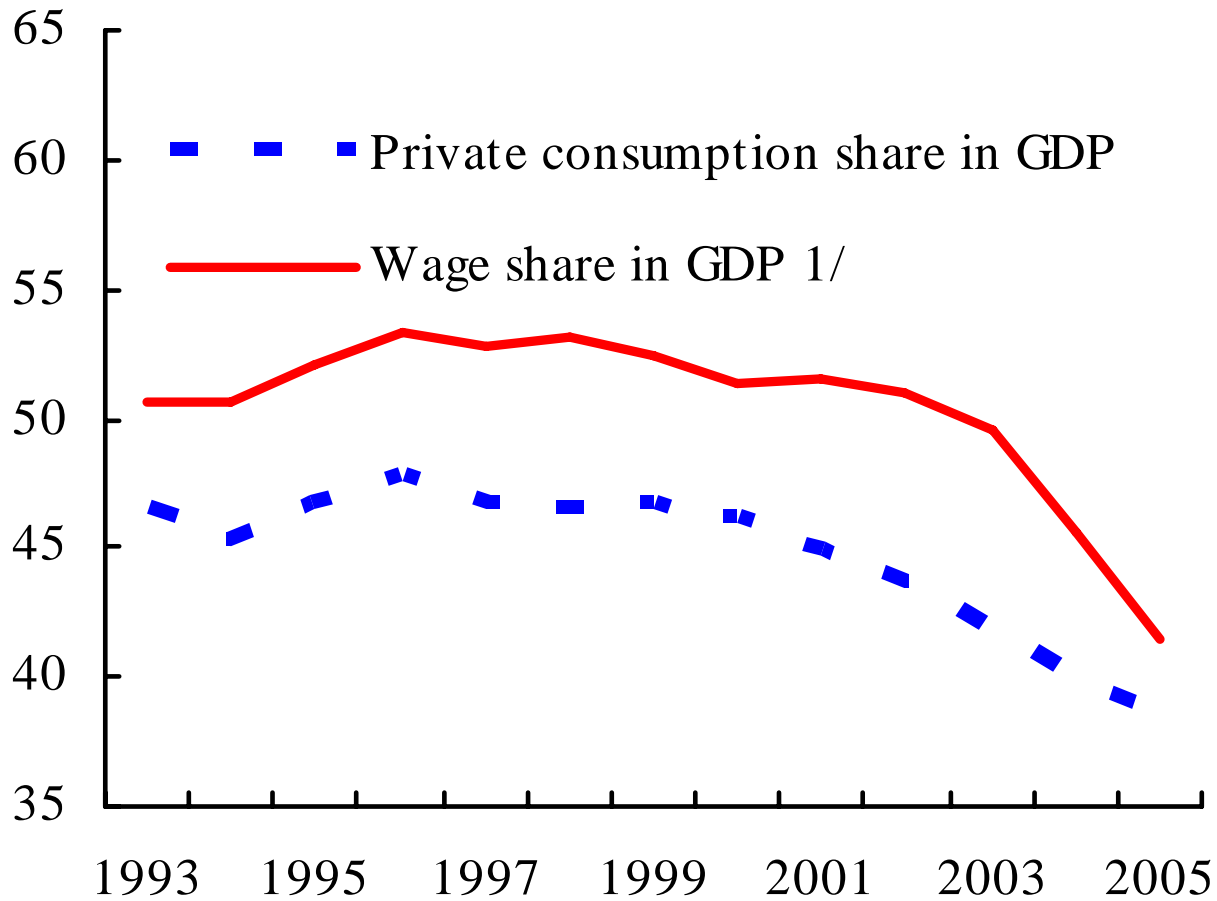
Domestic Imbalances

Saving, Investment, and the current account in China

	(% of GDP)				
	<u>1996</u>	<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>
Gross domestic saving 1/	40.6	36.8	37.6	43.0	50.6
Households	20.1	14.8	16.3	15.4	15.3
Enterprises	15.6	15.3	14.4	19.8	28.3
Government	5.0	6.8	6.9	7.8	7.0
Gross capital formation	40.4	35.1	37.9	43.3	44.9
Net Factor Income + net transfers	-1.2	-0.7	-0.1	1.0	1.0
GNS (above the line)	39.5	36.1	37.4	44.0	51.6
discrepancy	1.8	0.7	2.9	2.8	2.8
GNS (below the line)	41.3	36.8	40.3	46.8	54.4
Current account	0.8	1.7	2.4	3.6	9.5

Source: NBS data and authors' estimates

Waiting for consumption



The Growth Challenge Ahead

	1993-2005	On past trends			
		2005-15	2015-2025	2025-35	2035-45
GDP growth 1/	9.6	8.3	6.7	5.6	4.6
Total employment growth	1.1	0.1	-0.5	-0.9	-1.1
Labor productivity growth	8.4	8.1	7.2	6.6	5.7
From TFP growth	2.8	2.5	2.2	1.9	1.6
From higher K/L	5.3	5.3	4.7	4.4	3.8
From higher human K/L	0.2	0.3	0.3	0.3	0.3
Investment/GDP ratio (period av.)	37	44	49	55	60
Share industry in GDP (eop)	49	50	50	51	...
Share employment in agriculture (eop)	45	38	36	33	...
Urbanization rate (eop)	43	50	52	55	...
Urban-rural income disparity (eop) 2/	3.8	4.0	4.4	4.6	...

Key Challenges



- How to get more balanced growth?
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China's path to development...

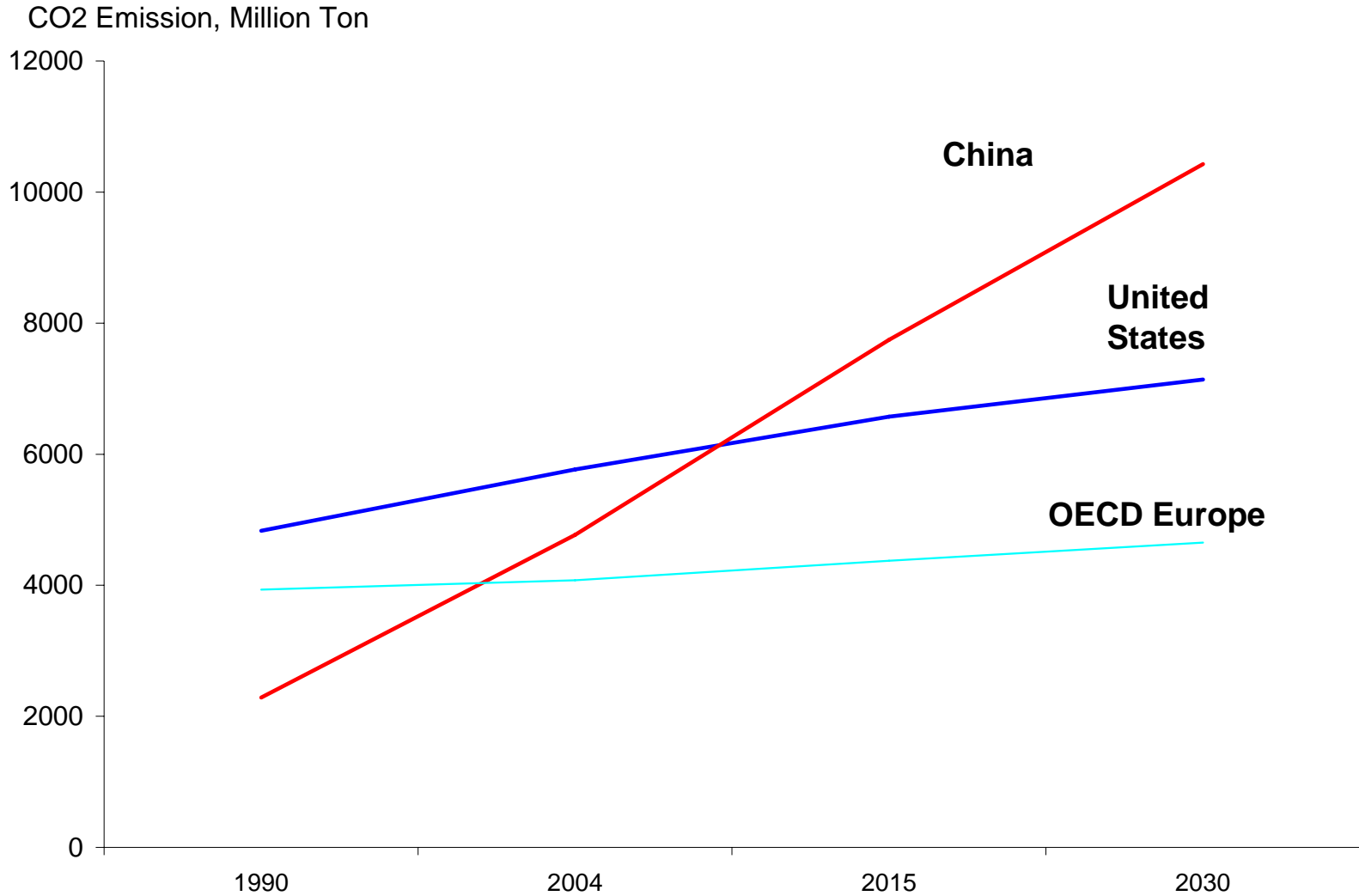


China is not meeting its own environmental targets

(mln. ton)

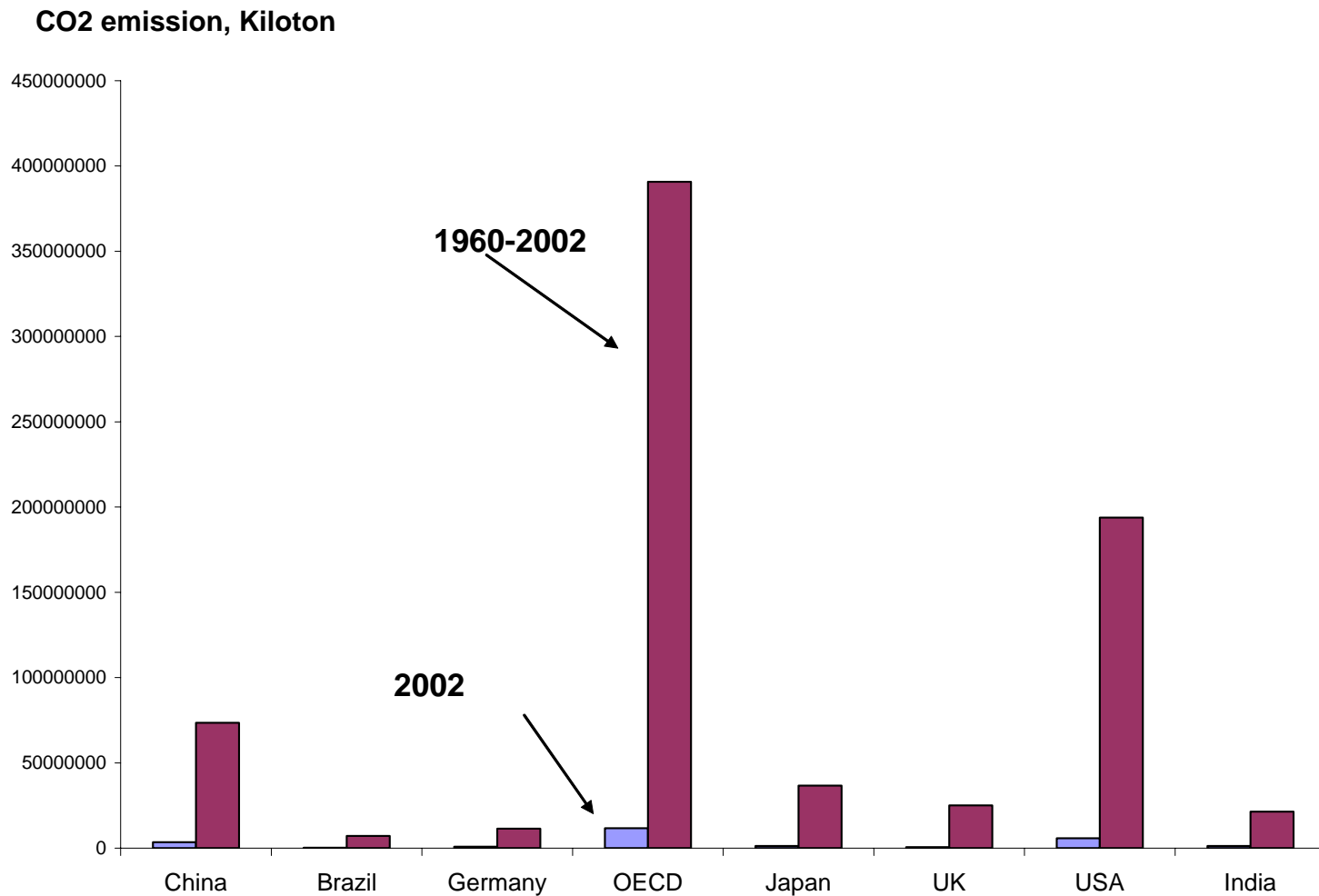
Indicators	Actual 2000	Planned 2005	Actual 2005	Comparison with planned 2005 (+/- %)
<u>A. Air Pollution:</u>				
SO ₂ emissions	19.9	17.9	25.5	42
Industry	16.1	14.5	21.7	50
Domestic	3.8	3.5	3.8	9
Soot Emissions	11.7	10.6	11.8	11
Industry	9.5	8.5	9.5	12
Domestic	2.1	2.1	2.3	10
Industrial Dust Emissions	10.9	8.98	9.1	1
<u>B. Water Pollution:</u>				
COD discharge	14.5	13.0	14.1	8
Industry	7.0	6.7	5.5	-18
Domestic	7.4	6.5	8.6	32
Ammonia Nitrogen	1.8	1.65	1.5	-9
Industry	0.8	0.7	0.525	-25
Domestic	1.1	0.9	0.973	8

Which is also a global problem

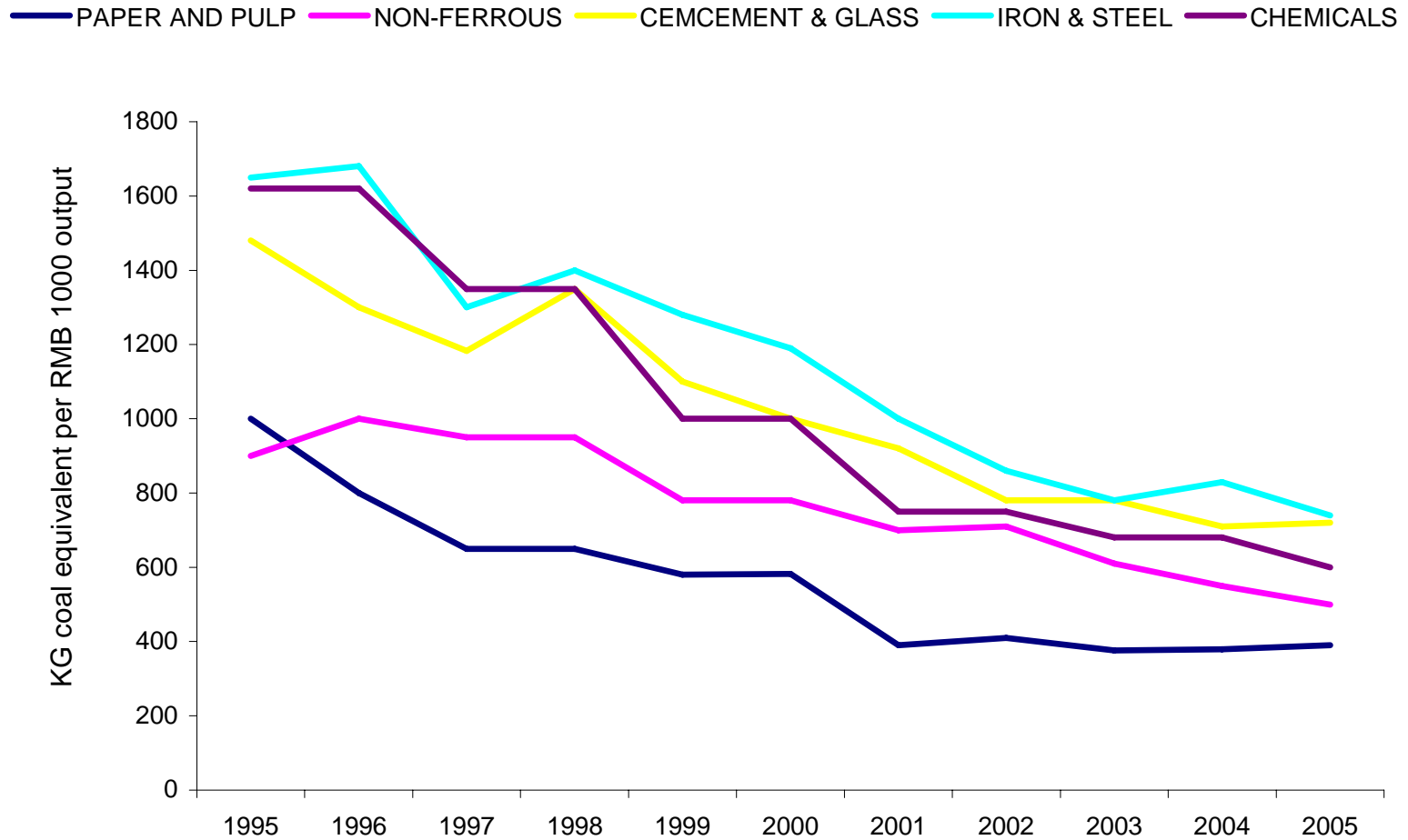


Source: World Energy Outlook, 2006, Reference Scenario

Although China is only catching up with others



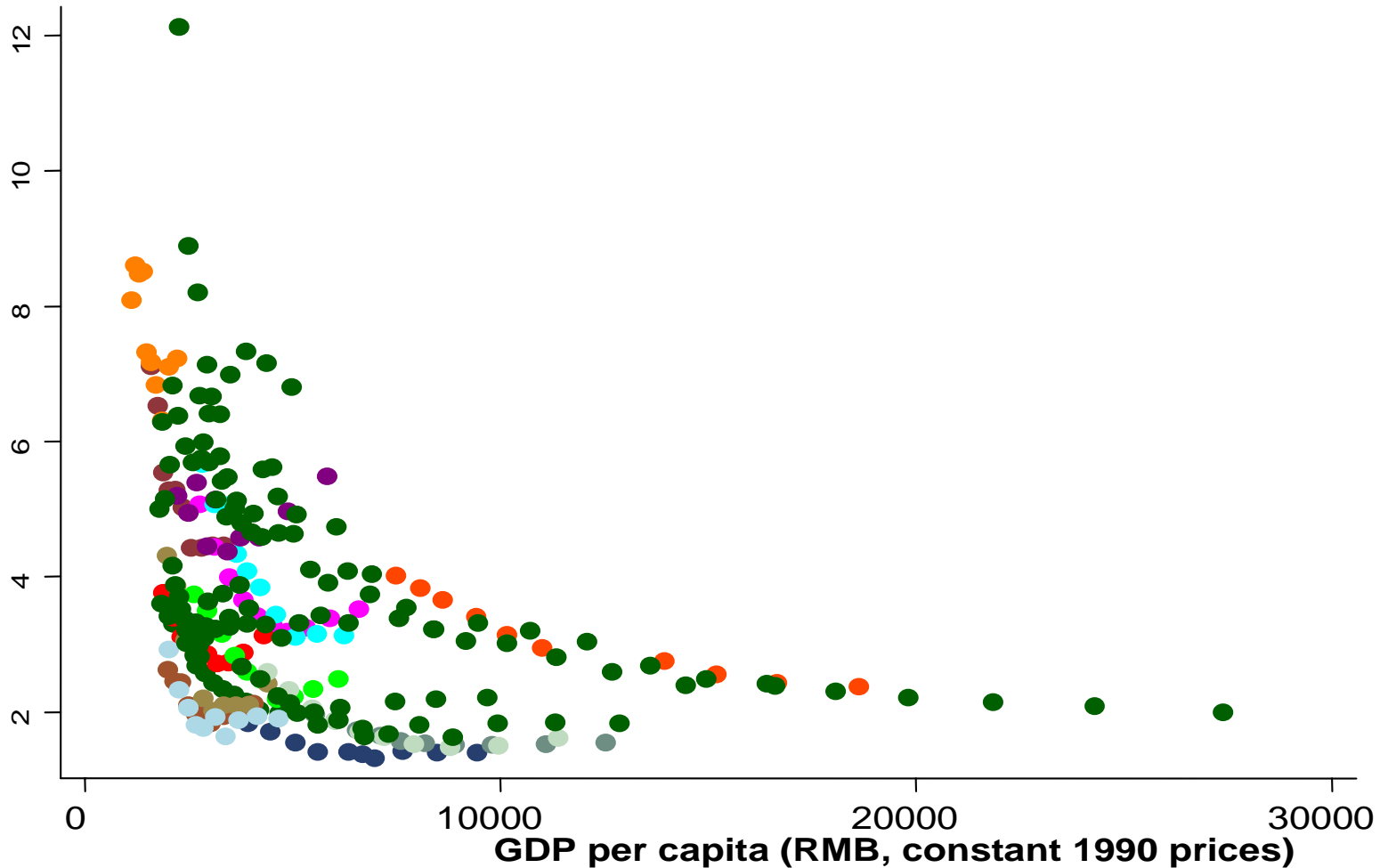
Industries are getting more energy efficient...



Source: Rosen and Houser 2007

...and energy intensity drops with higher income

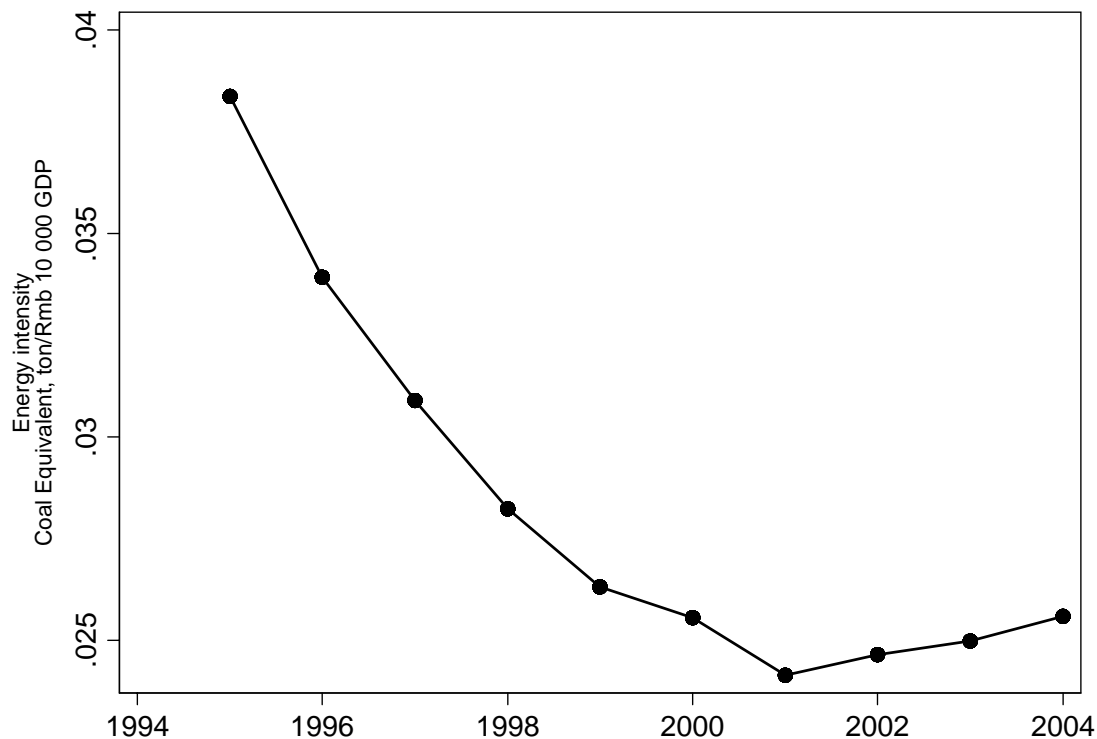
Energy Intensity (ton coal equivalent per RMB 10,000 GDP, 1990 prices)



Source: Hofman and Labar 2007

But energy intensity rebounded in 2002-4

China's Energy Intensity 1995-2004



Source: China Energy Yearbook, Various issues, and NBS (2006)

Note: the figure uses China's revised GDP numbers released in December 2005 by NBS and revised energy use numbers from China Energy Yearbook 2005.

Industrial share to remain high on past trends

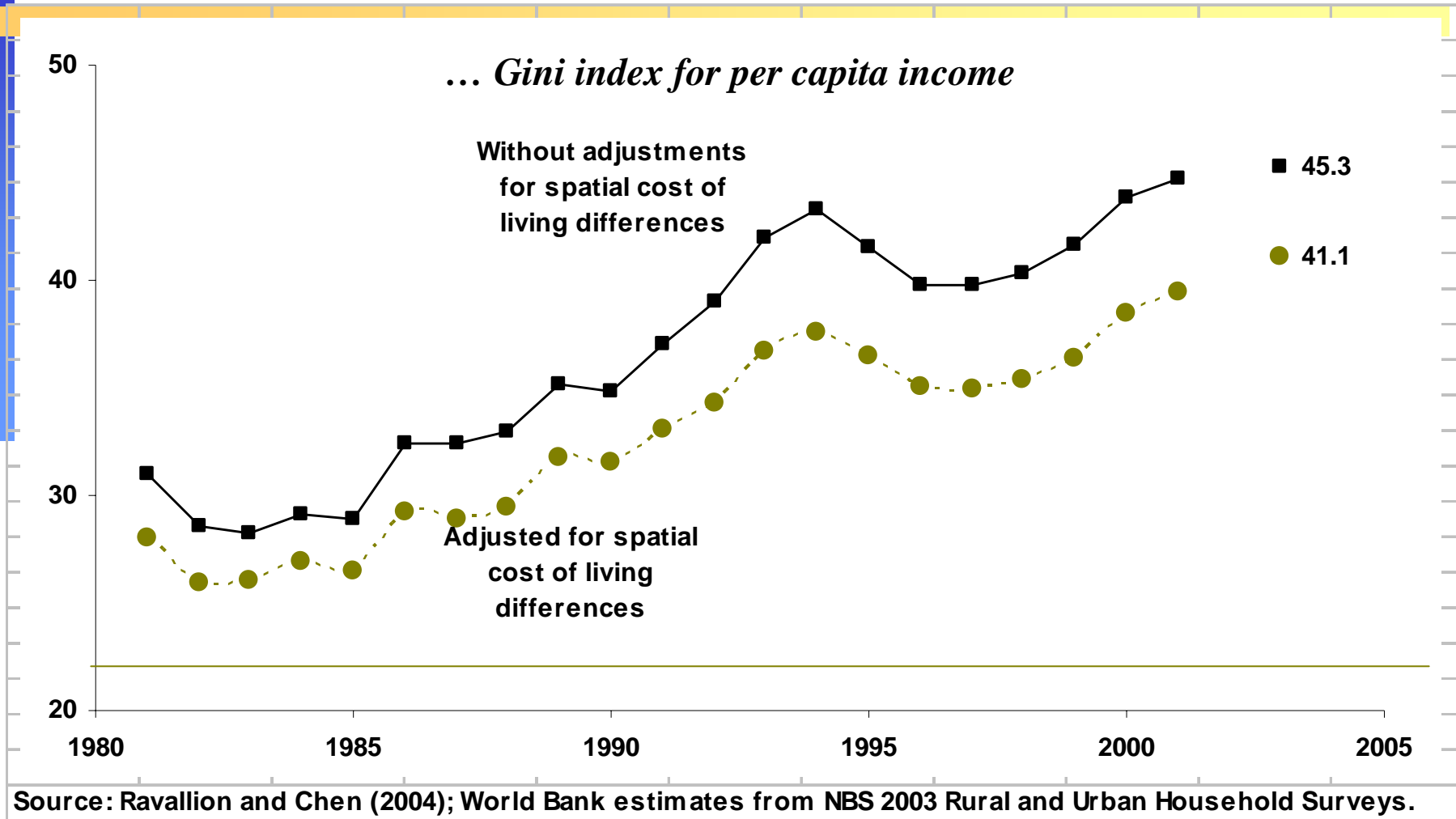
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Structural Challenges

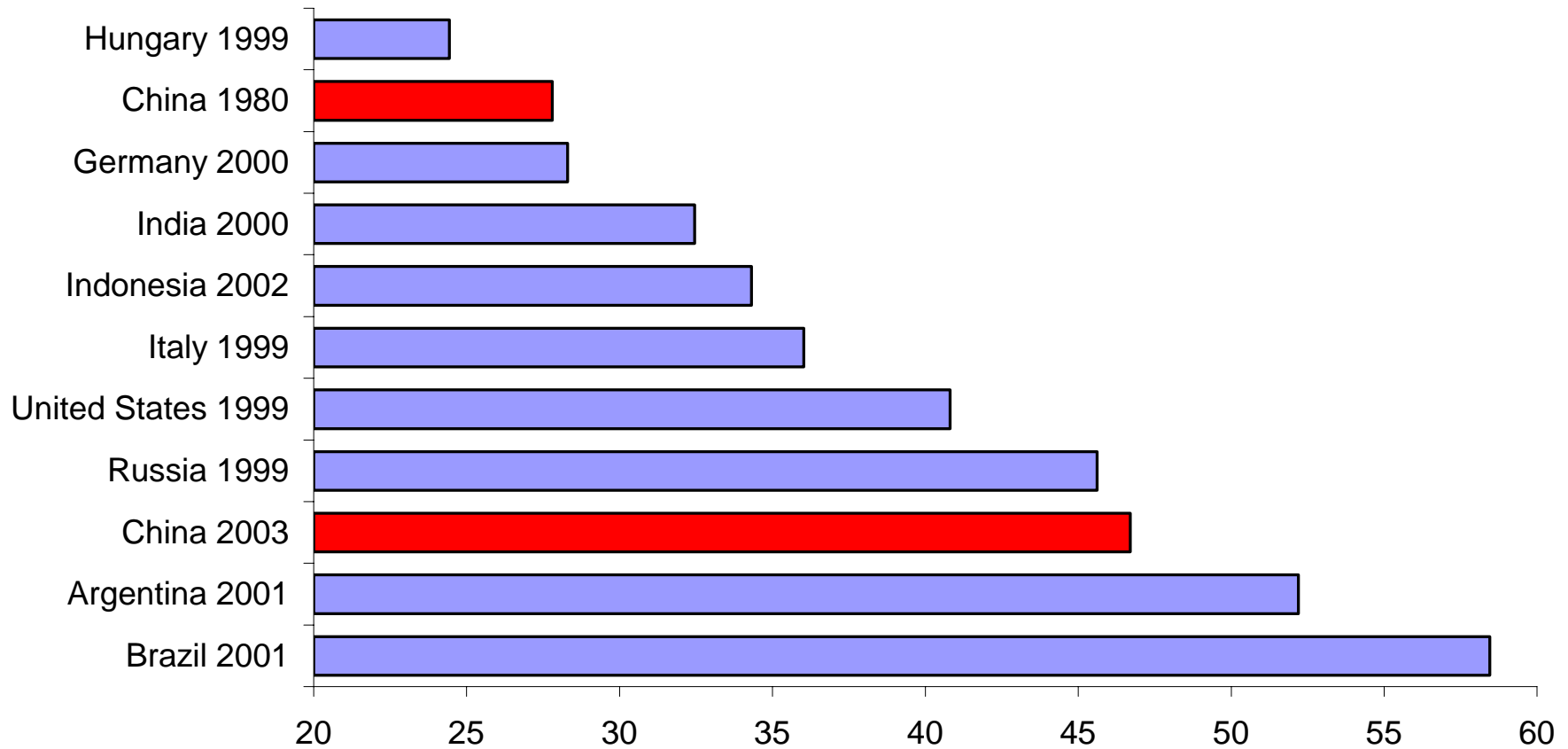


- How to get more balanced growth?
- How to keep growth environmentally sustainable?
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Rising Income Inequality

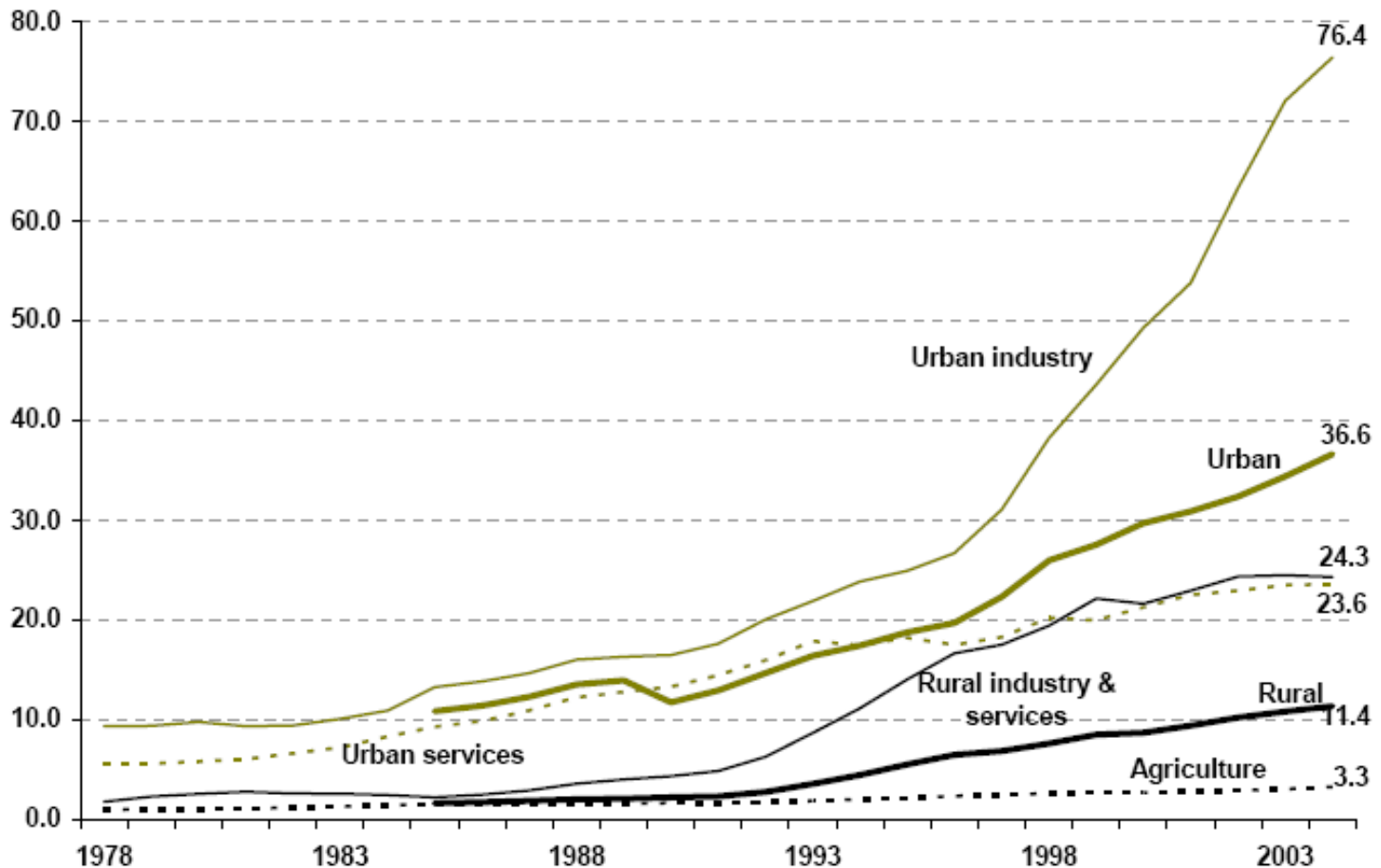


China's inequality compared



Sectoral productivity differences driving inequality

Figure 2.25 : Labor productivity differentials between sectors and rural and urban areas
(Index of labor productivity: 1978 labor productivity in agriculture=1)



Source: Poverty Assessment, World Bank forthcoming

More inequality to come on current trends

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China's 11th Five Year Plan



- Harmonious Society
- Five Balances
- Scientific approach to development
- Adds up to more balanced, sustainable, and equitable growth.
- Specific targets on energy intensity, water intensity, SO_x, NO_x Emissions

Policy Measures to Rebalance



- Internalize externalities
 - Tax energy use
 - Price land at value
 - Price water at opportunity costs
 - Remove tax preferences for foreign investment
 - Subsidize energy saving technology
- Reduce savings
 - Impose dividends on State Enterprises
 - Spend more on education, health, social welfare
 - Increase flexibility of RMB

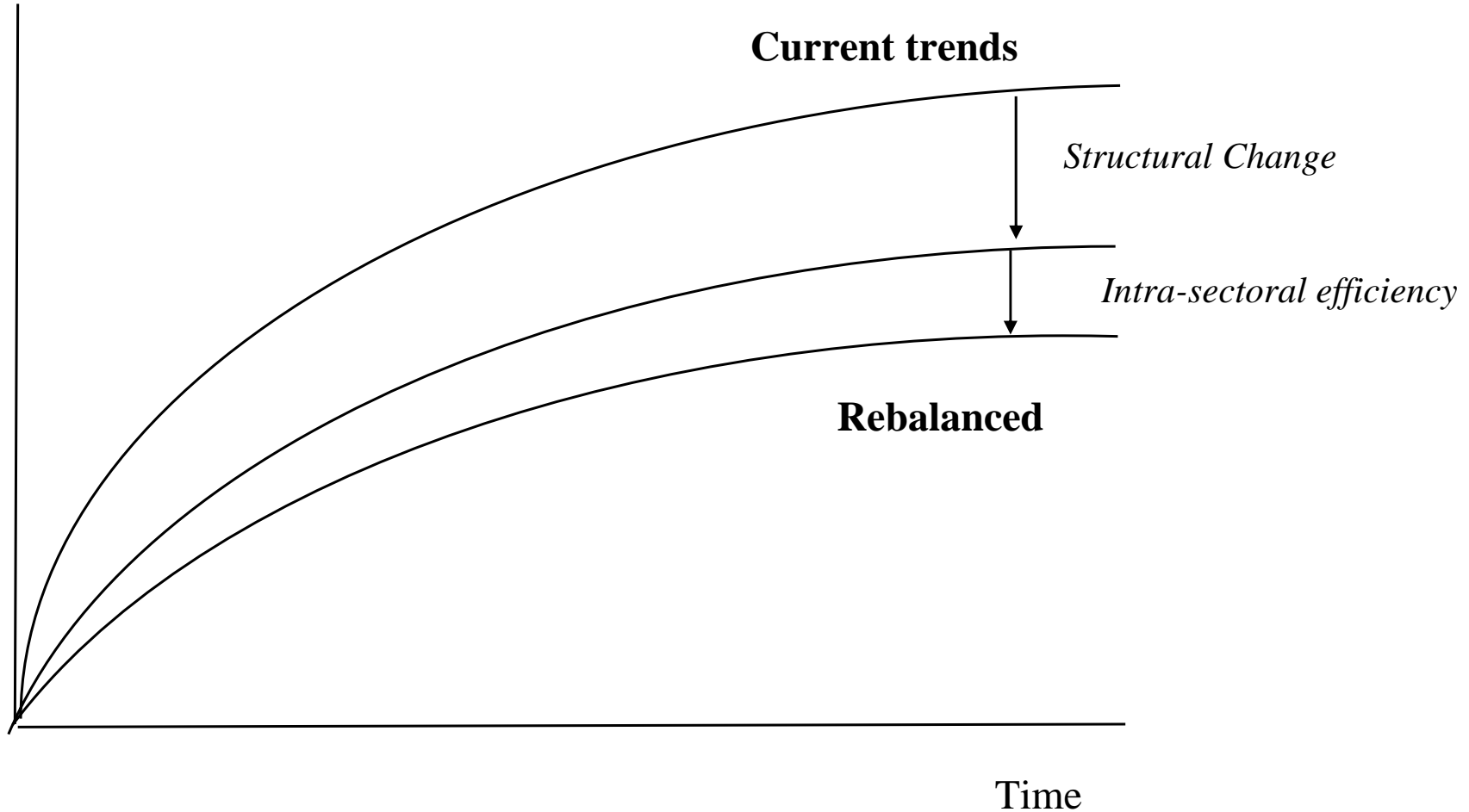
Policy Measures to Rebalance



- Encourage labor intensive growth
 - Remove Hukou
 - Reduce payroll taxes
 - Increase competition in services
- Tighten administrative controls
 - City planning
 - Building norms
 - Land use (national and local)
- Revise political incentives at local level

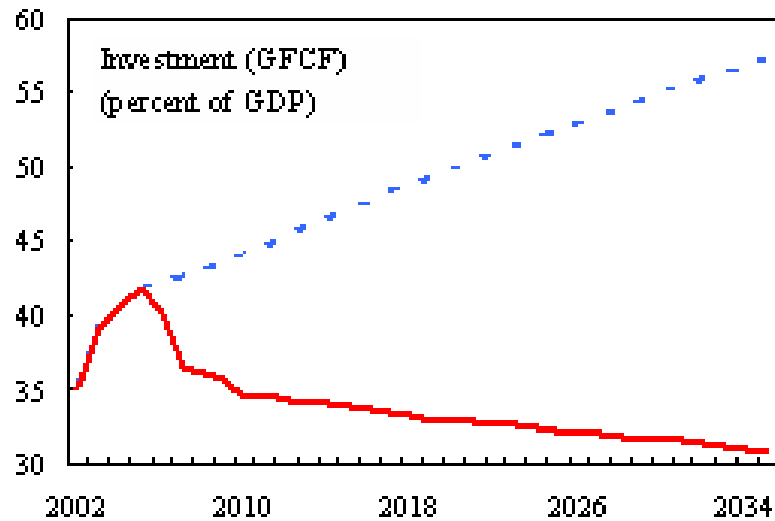
Conceptual results

Resource Use

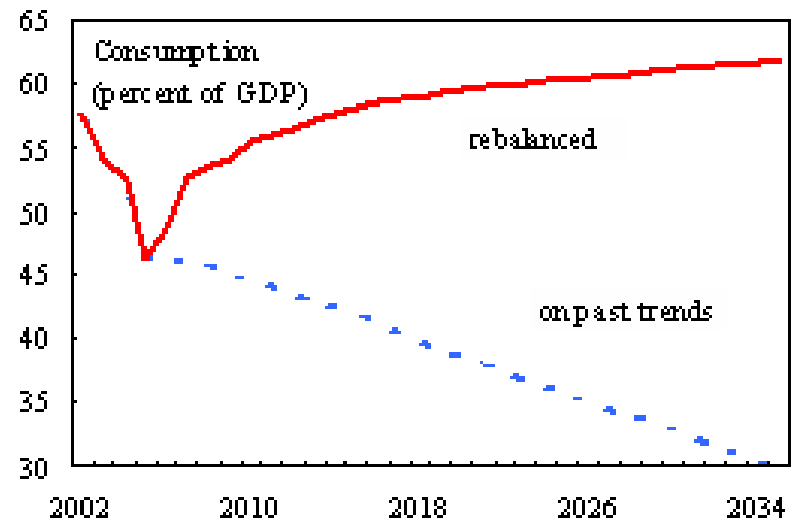


Model Simulations: Investment and consumption

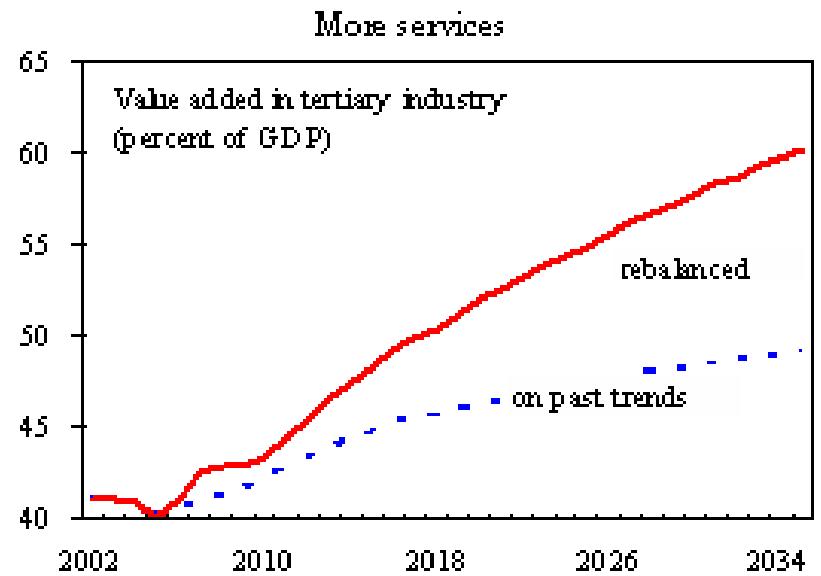
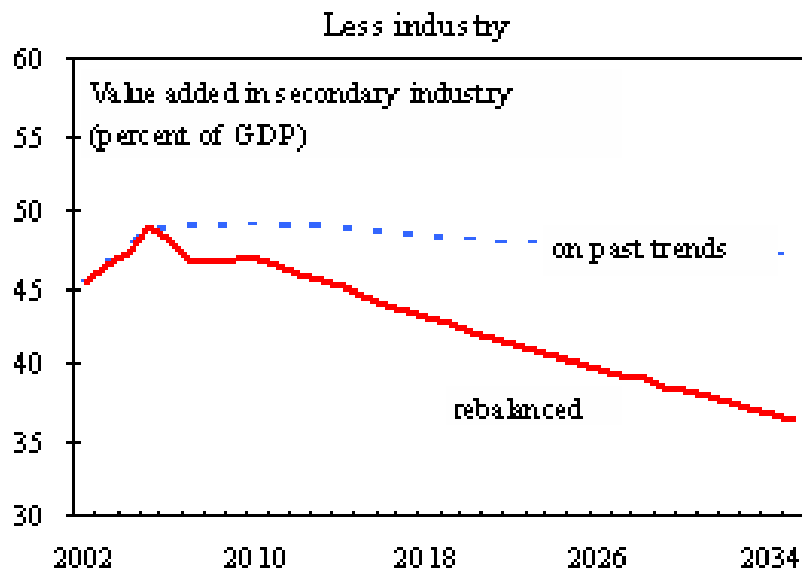
Less investment



More consumption

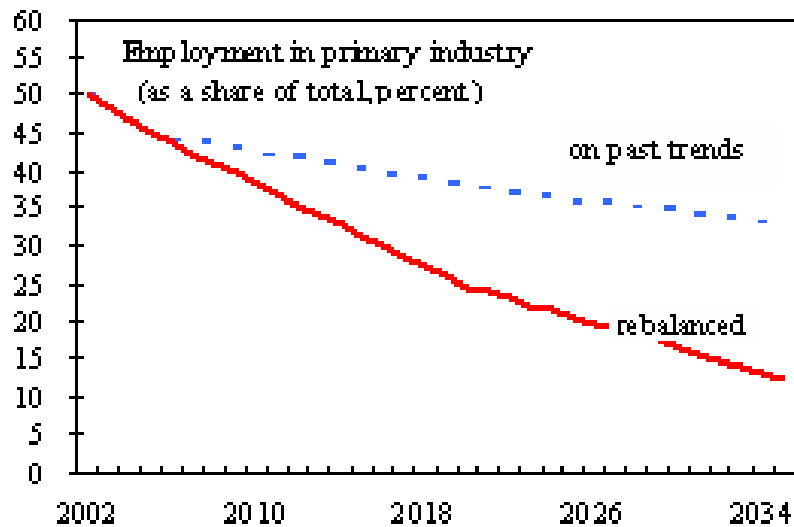


Model Simulations: Sector Shares

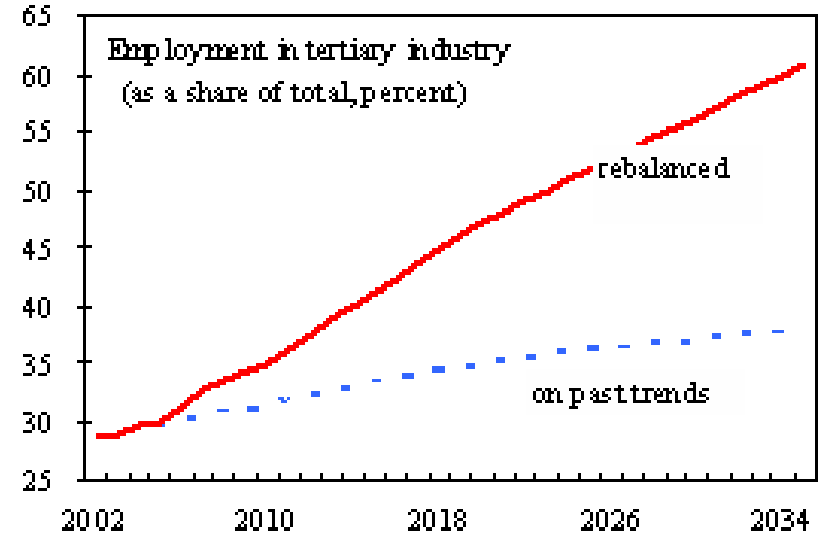


Model Simulations: Labor

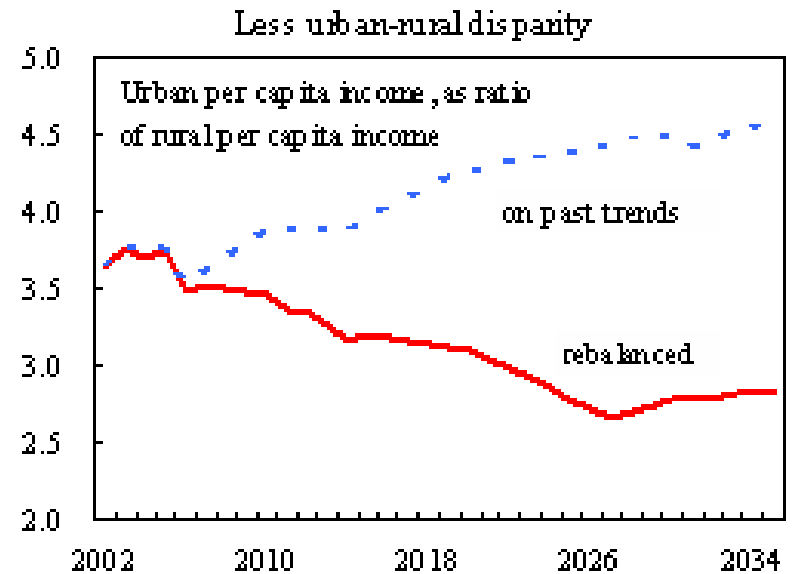
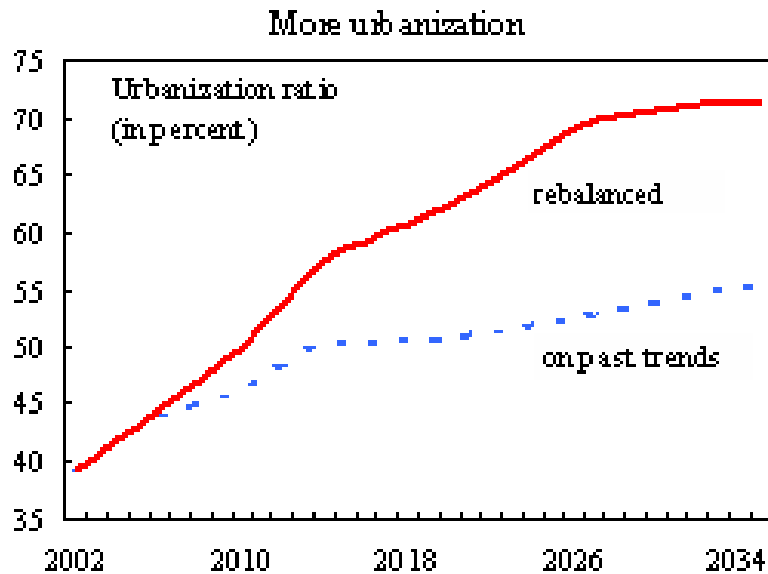
More absorption of excess labor from agriculture ...



... largely because of more employment in services



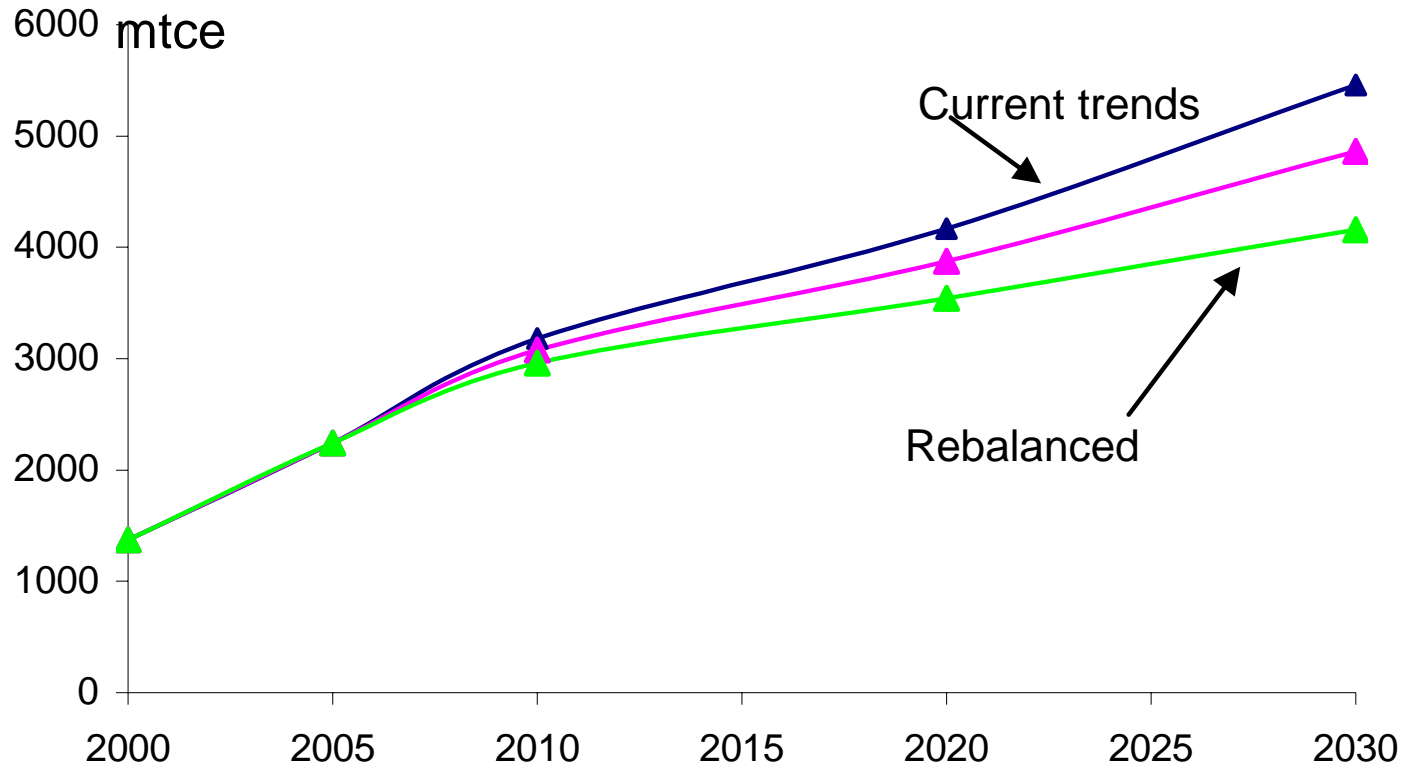
Model Simulations: Urbanization and Inequality



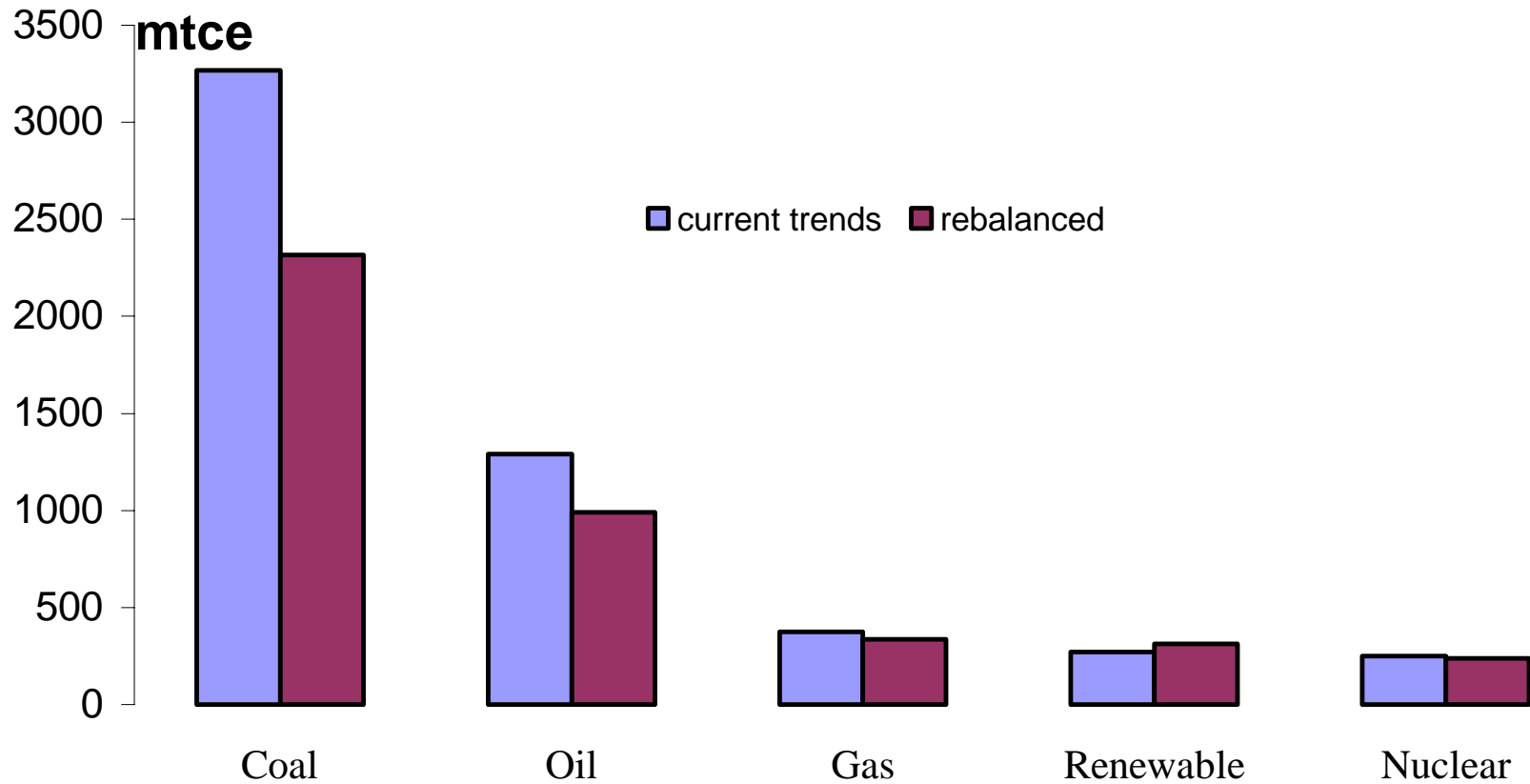
Model simulation: Industrial Structure

	<u>2002</u>	<u>2035</u>	
		on past trends	rebalanced
Agriculture	13.6	3.8	3.5
Coal mining	1.9	1.1	0.7
Chemicals	4.8	4.1	3.7
Metal smelting	3.1	3.2	2.3
Electronics	2.2	2.7	2.2
Construction	5.4	7.8	4.0
Finance	3.8	2.6	3.4
Education, Science, and Technology	5.5	11.3	14.2

Energy Use



Composition of primary energy use



Greenhouse gas emission

