

# China's New Development Model (NDM): Implications for African Countries

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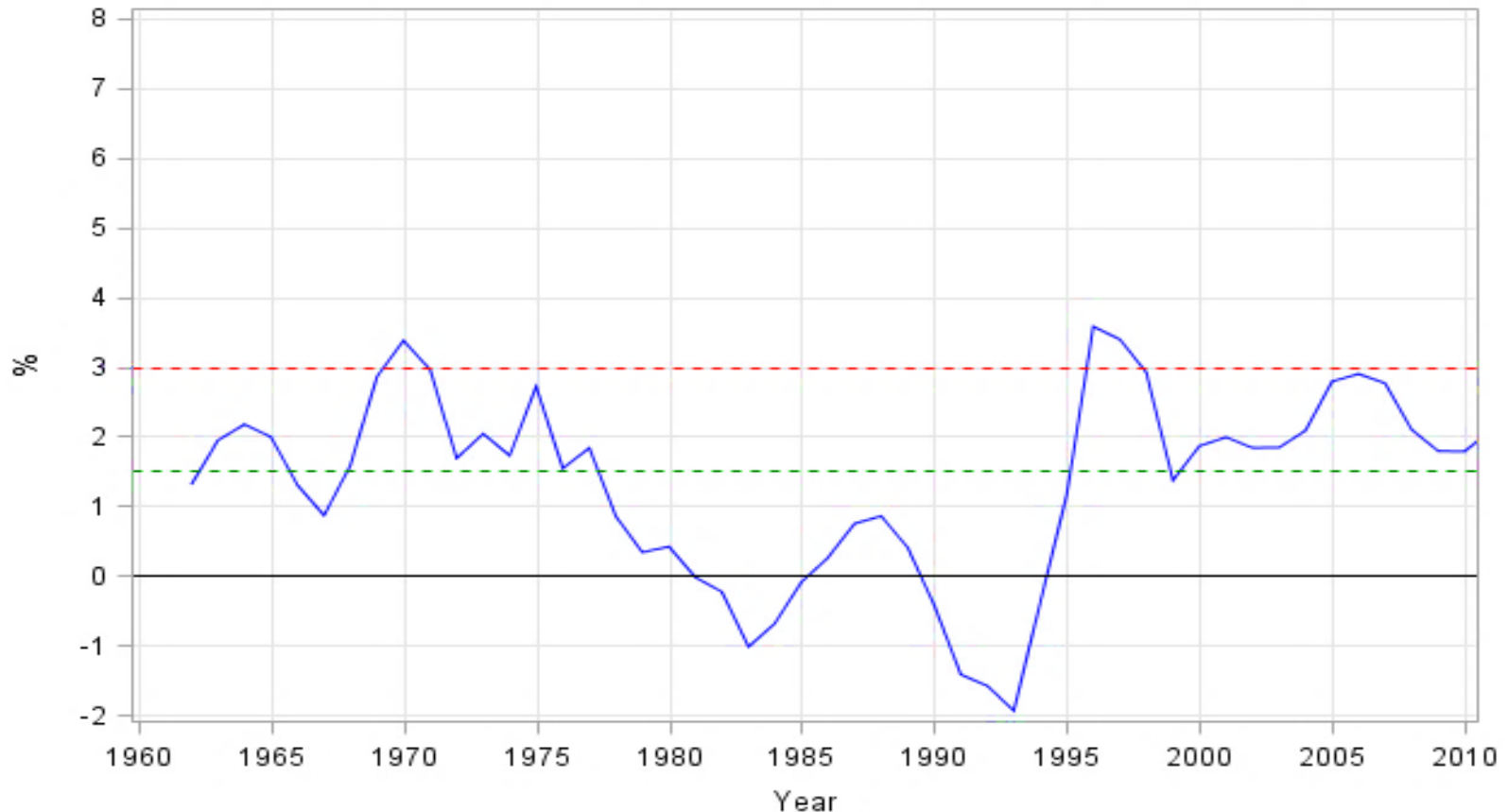
and University of North Florida

# Outline

1. Distinguishing between growth and economic transformation (growth with DEPTH)
2. Trade and FDI
3. Rare earth metals
4. ATR 2014: key messages
5. Impacts of China's NDM

# Growth in SSA: Déjà Vu?

Sub-Saharan Africa: Growth in Per Capita GDP  
(3-Year moving average, 1960-2012)



Data Source: World Bank Development Indicators

Source: African Transformation Report (ATR), ACET, 2014.

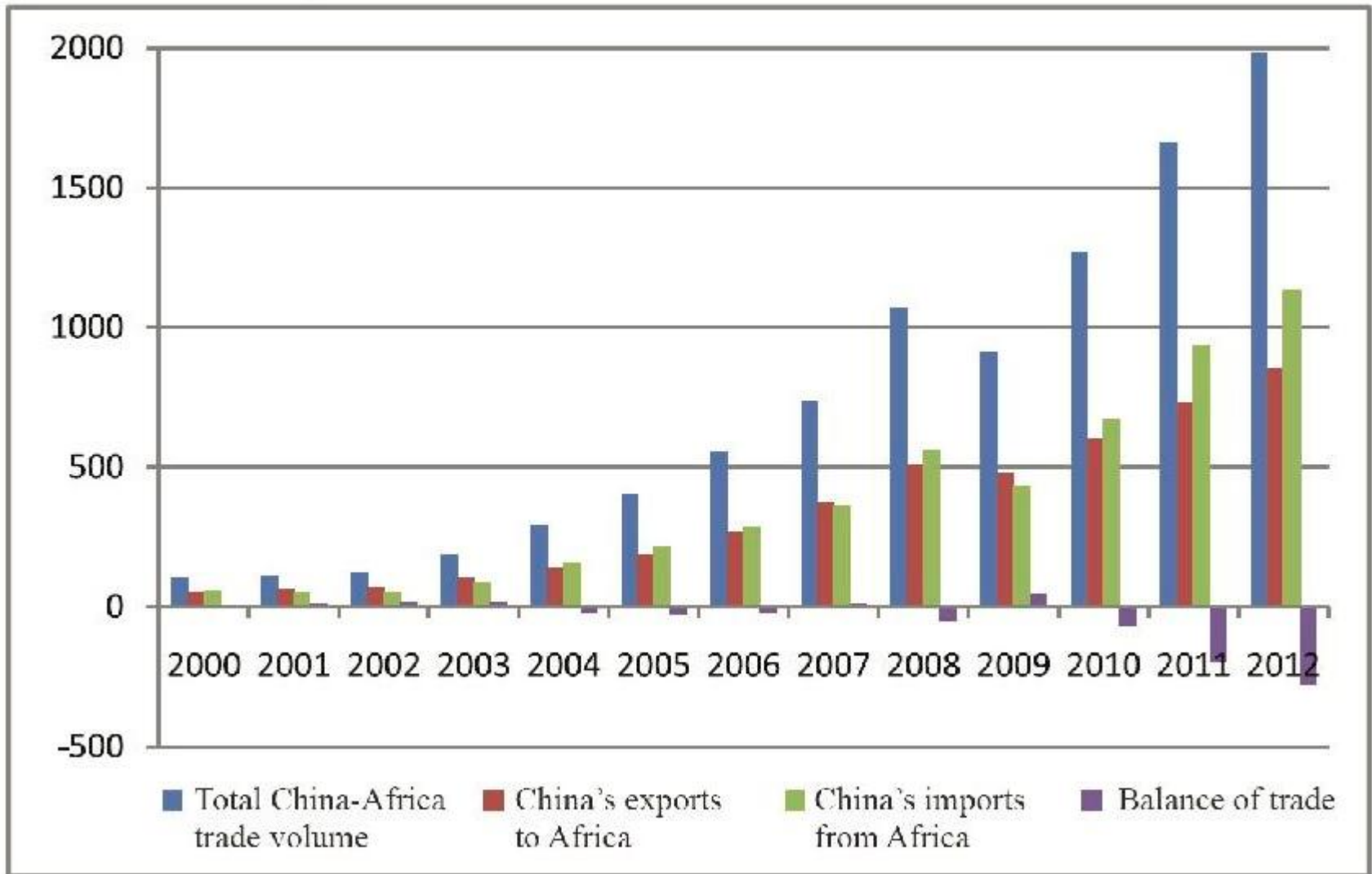
**ATR (ACET, 2014):**

**Economic Transformation = Growth built on solid foundations  
= Growth with DEPTH**

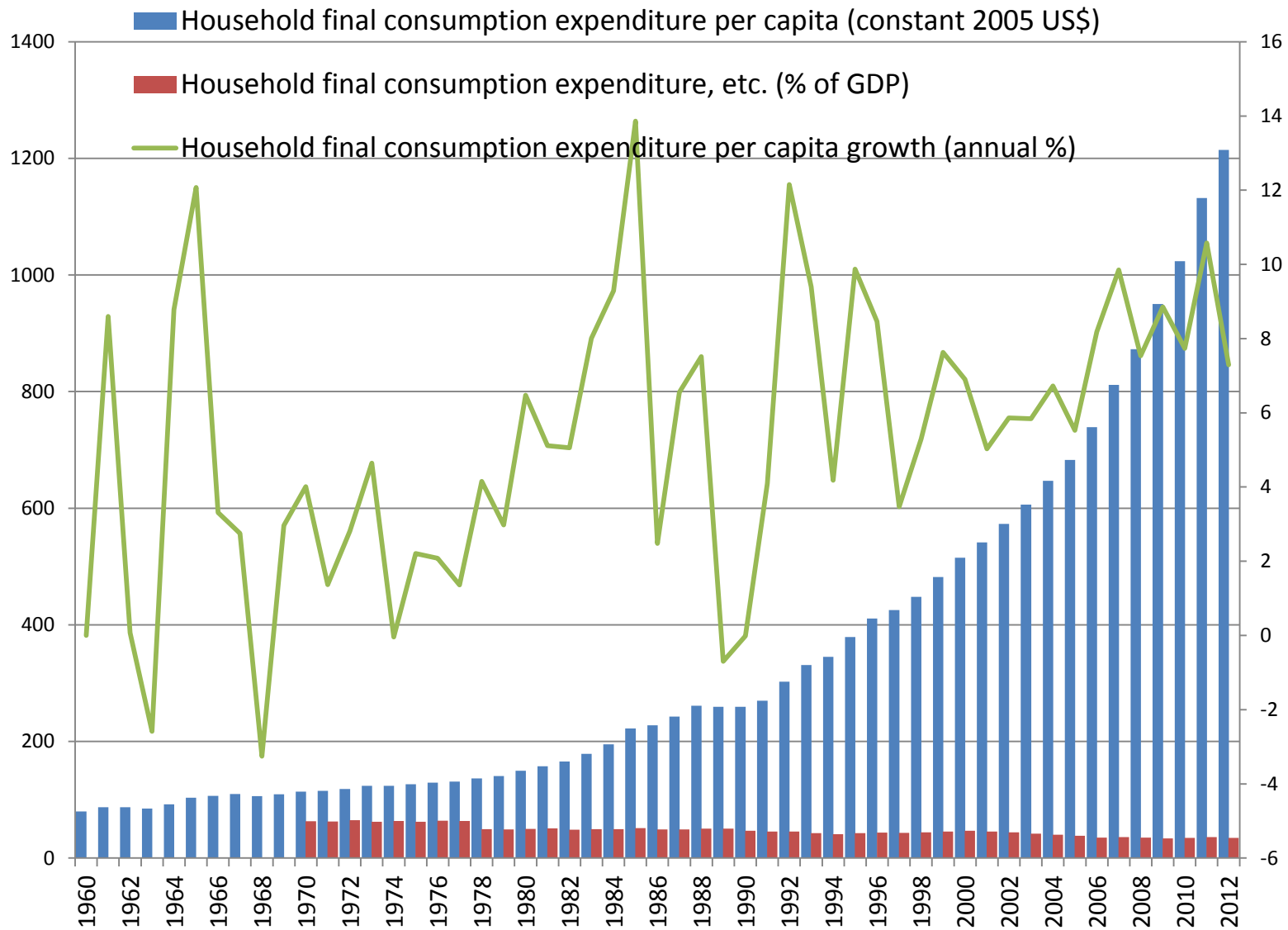
- **D**iversification of economic production and exports
- **E**xport Competitiveness
- **P**roductivity increases
- **T**echnological upgrading
- **H**uman wellbeing improvement

# Figure 1: China-Africa Trade Volume (2000-2012)

(Unit: US\$100 million)

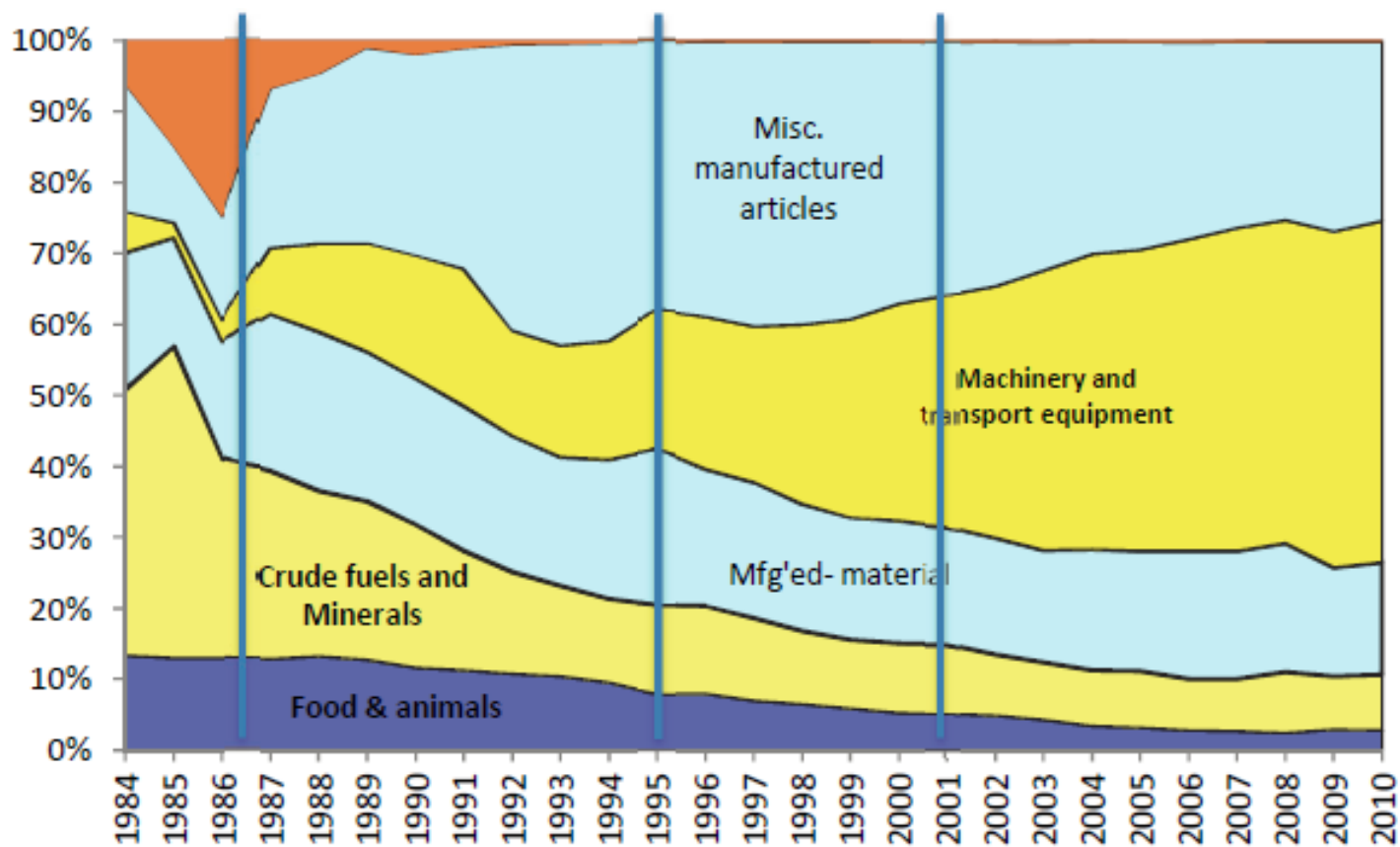


Source: Information Office of the State Council, The People's Republic of China (2013)



Source: World Development Indicators database online (World Bank, 2014)

China's export structure: from raw material in the 1980s to labor intensive manufacturing products in the mid-1990s



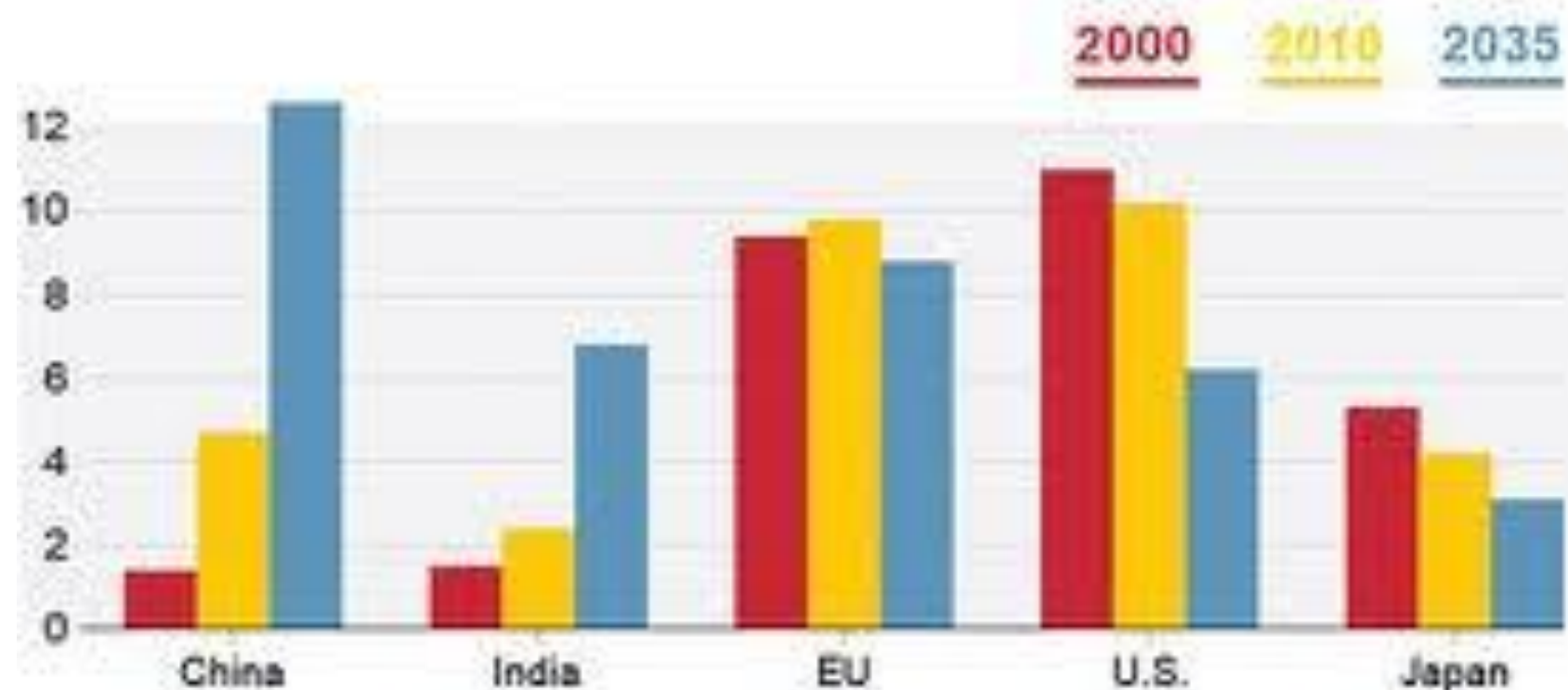
Source: Lin and Wang (2008) updated by Yan Wang using COMTRAD data.

Note: Mfg'ed materials for manufactured materials.

Source: Justin Lin and Yan Wang (2014, WIDER Working Paper 46 )

## China Rising

China's oil imports are projected to skyrocket through 2035



Note: Projections based on IEA's New Policies Scenario

Source: IEA World Energy Outlook 2011



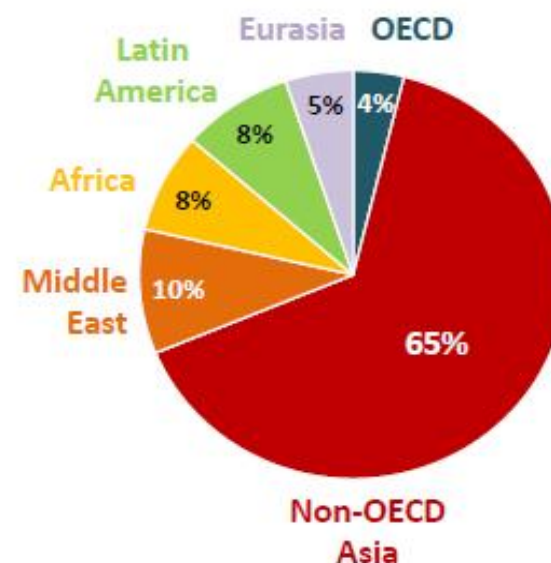
# The engine of energy demand growth moves to South Asia

WORLD  
ENERGY  
OUTLOOK  
2013

## Primary energy demand, 2035 (Mtoe)



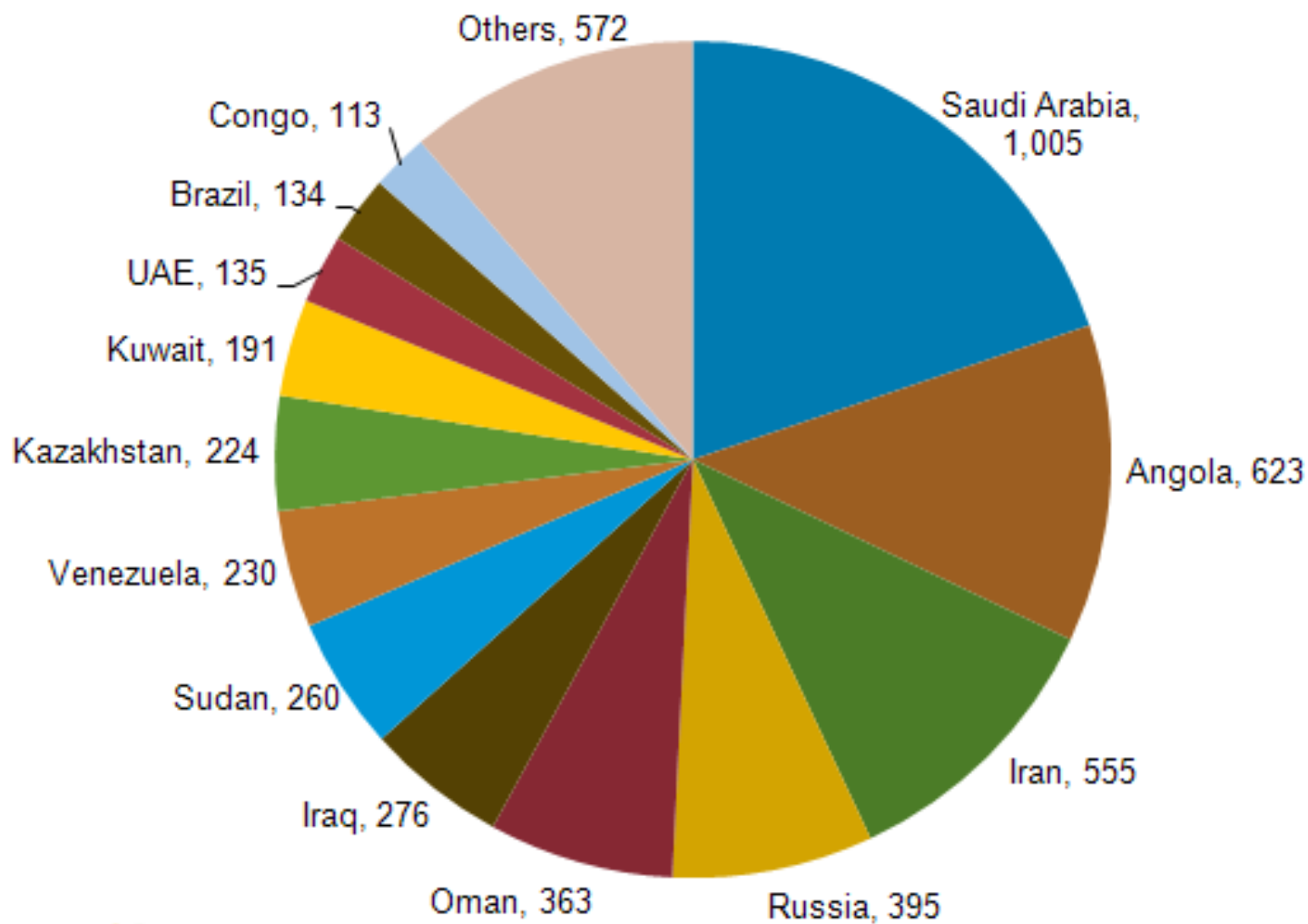
## Share of global growth 2012-2035



*China is the main driver of increasing energy demand in the current decade, but India takes over in the 2020s as the principal source of growth*

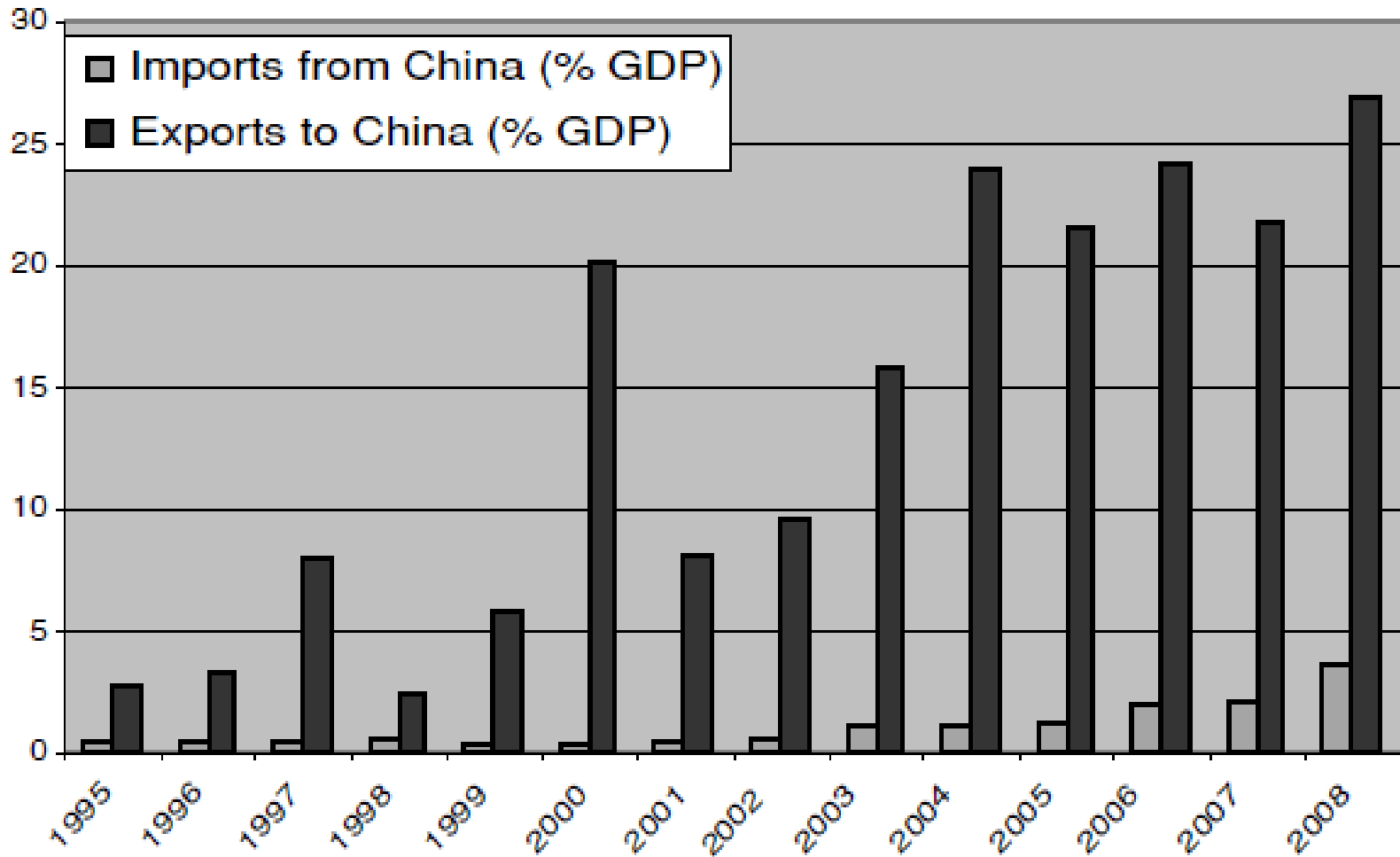
# China's crude oil imports by source, 2011

thousand barrels per day



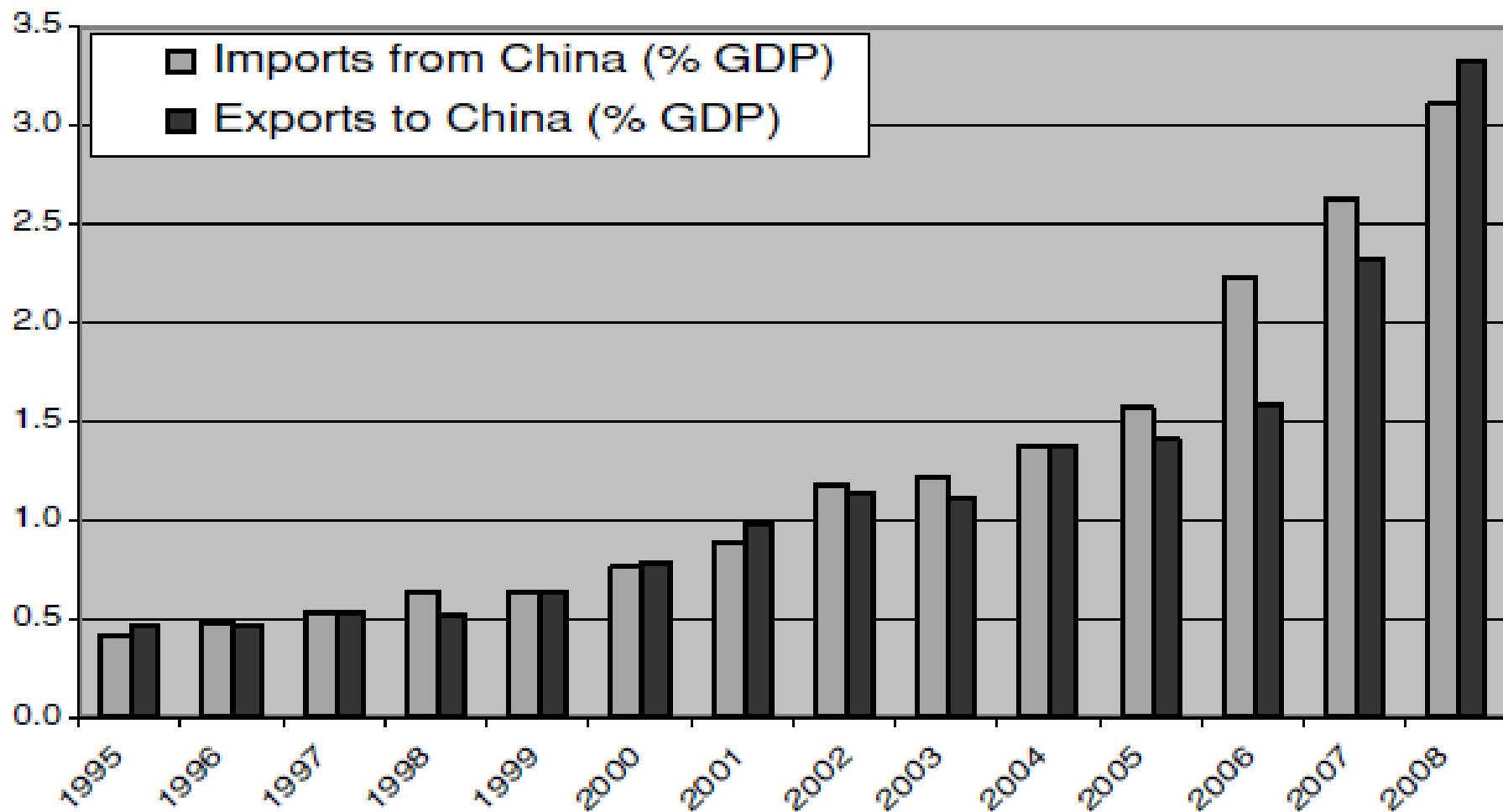
Source: FACTS Global Energy

# Angola's trade with China



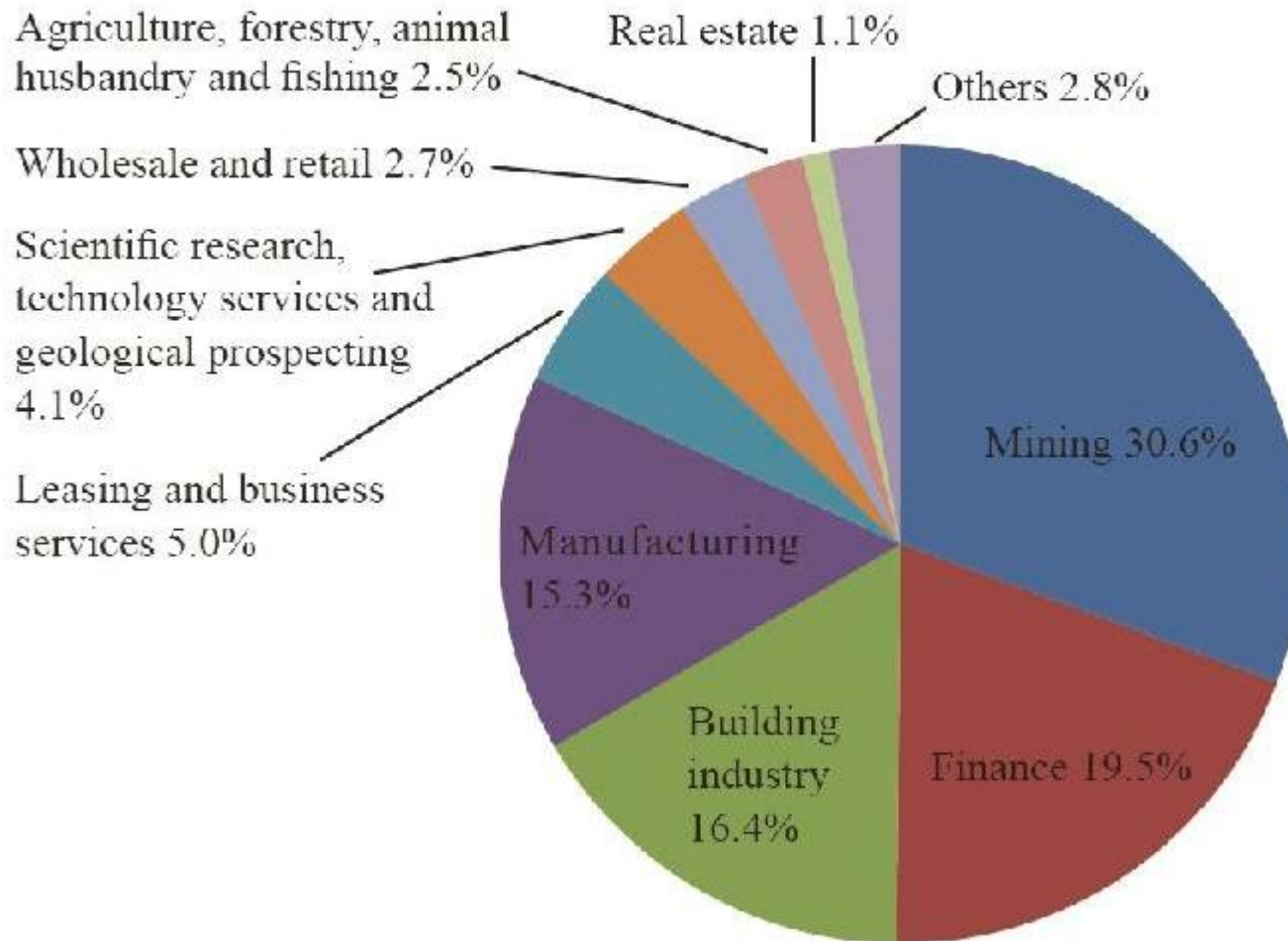
Source: Balamoune-Lutz, 2011

# South Africa's trade with China



Source: Balamoune-Lutz, 2011

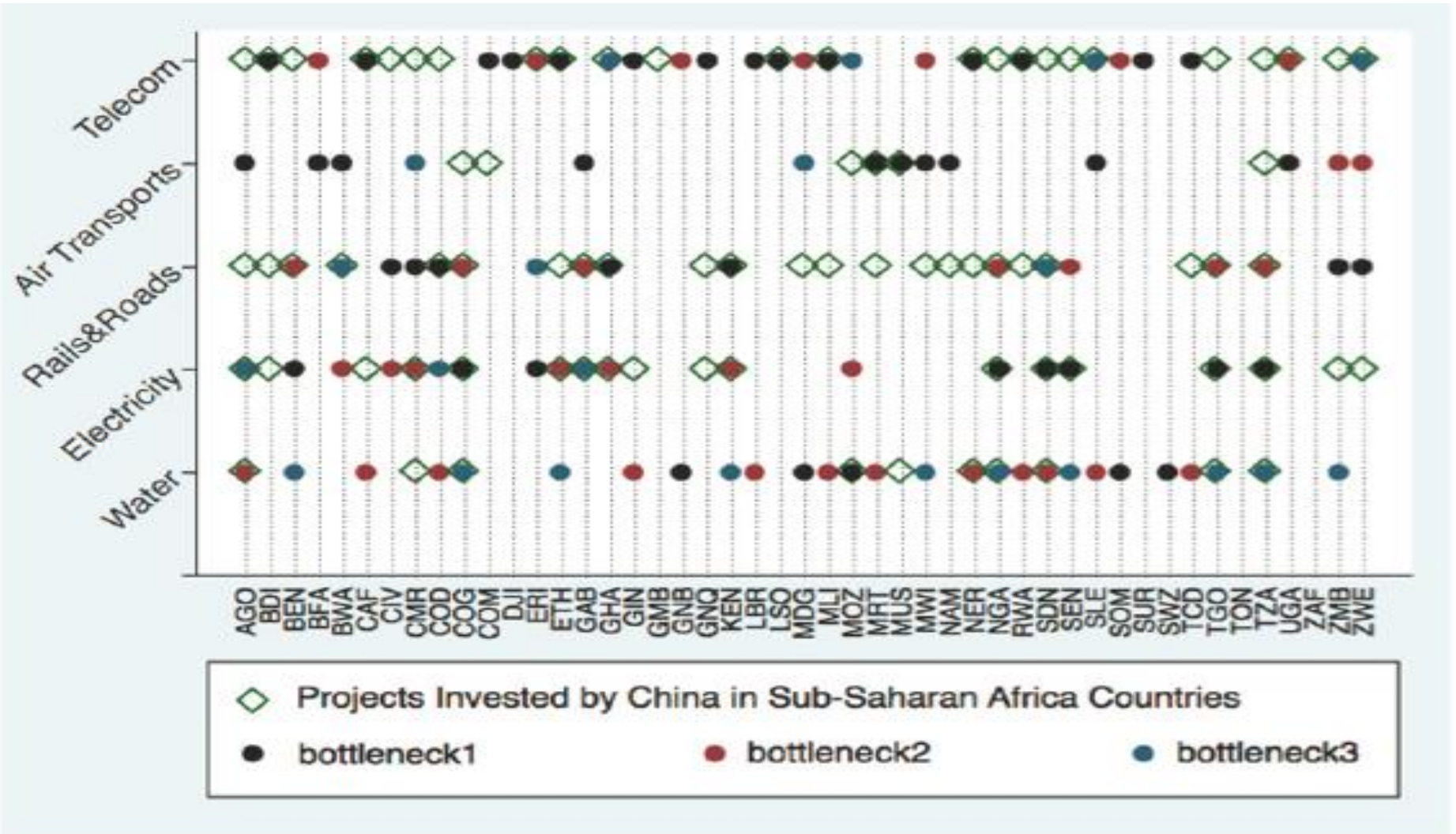
**Figure 2: Distribution of China's Direct Investment in Africa (by the end of 2011)**



Source: Information Office of the State Council, The People's Republic of China (2013)



# Are China-financed projects releasing bottlenecks in SSA?

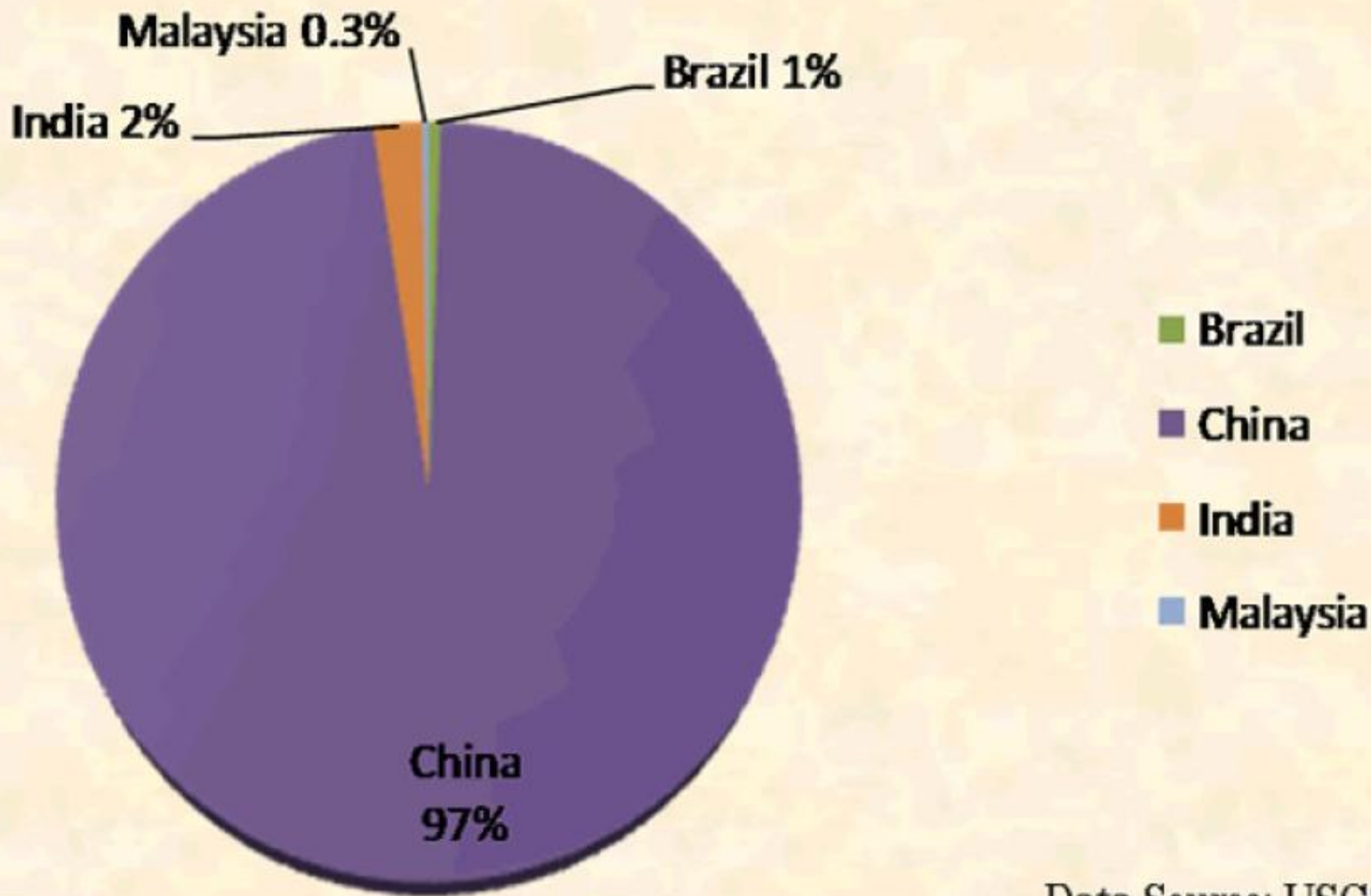


Source: Authors, by merging the 2 steps using country code.

Note: Probabilities of China-financed projects hitting the bottlenecks are calculated.

Source: Justin Lin and Yan Wang (2014, WIDER Working Paper 46 )

# Global Rare Earths Production, 2009



Data Source: USGS

# RARE EARTH METALS



## WHAT IS IT?

- ▶ Mineral group which contains 17 chemical elements; scandium, yttrium and 15 lanthanide elements
- ▶ Not as rare as the name implies, but is difficult to find in concentrations high enough for economical extraction
- ▶ Used in the production of many devices including LCD screens, computer chips, optical media, rechargeable batteries, mobile phones, magnets, and car components

## 2011 PRODUCTION in thousand metric tons



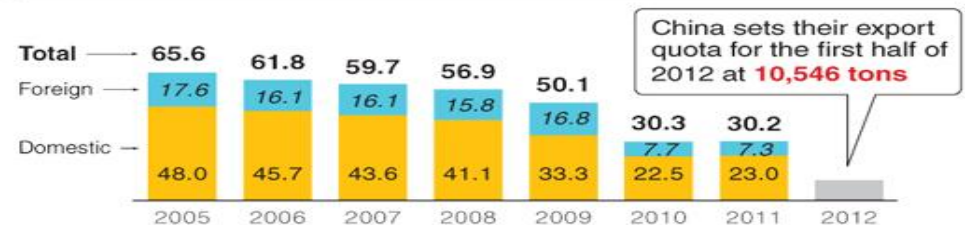
CIS= Commonwealth of Independent States (Former Soviet Union states)

## WORLD RESERVES in million metric tons



Japan and U.S. import the largest amount of rare earth metals for their tech and auto industries

## CHINA EXPORT QUOTAS in thousand metric tons



Sources: USGS, China Ministry of Commerce

REUTERS



# ATR 2014: KEY MESSAGES

## Four Pathways to Transformation



Labor-intensive manufacturing



Agro-processing



Managing oil, gas, and minerals



Tourism

## Impacts of China's NDM on various dimensions

		Focus	Opportunities	Threats
Recent trends and Developments	Urbanization	Infrastructure	More Chinese investment	China's demand for resources may lead to higher prices
		Urban consumption	Supply and price of Chinese products	Competition with Chinese consumers
		Fertility	Quality of children (health, education) [e.g., computers from China]	Competition with Chinese consumers
	Rising middle class (in many African countries)	Infrastructure (esp. ICT and transportation)	More Chinese investment and know-how	China's demand for resources may lead to higher prices <b>Control of rare earth metals</b>
		Middle-class consumption	Supply and price of Chinese higher-end products	Competition with Chinese consumers
		Education (lower supply of cheap labor), human capital	Lower price and supply of computer and other ICT...	Competition with educated Chinese, causing higher prices
				<b>China's manufacturing may prevent the creation of African manufacturing sector</b>

## Impacts of China's NDM on various dimensions (cont.)

		Focus	Opportunities	Threats	
Challenges	Food security (transformation of agriculture)	Land	More Chinese investment	Land grab?	
		Inputs	Aid and grants, supply of fertilizers	Will output remain mainly in Africa of go to China?	
		Mechanization	Imports of capital goods from China		
		Farmers (skills)	Technical expertise Innovation		Chinese farmers in Africa?
		Infrastructure	Chinese FDI/know how (irrigation/roads)		
			<b>Overall: learning from China's experience!</b>		
	Unemployment/ youth bulge	Youth bulge		demographic dividend	
		Youth unemployment		Trade with, FDI and knowledge transfer from China can help	Concentration of trade and FDI on mining/minerals : capital intensive industries
Regional integration	Regional infrastructure		Chinese FDI and expertise	Does China want regional integration in Africa?	

## Possible impacts of China's NDM on various dimensions (cont.)

		Focus	Opportunities	Threats
<b>Challenges</b>	Climate change, sustainability and renewable energy	Investing in green economy	Chinese FDI and expertise	China's position on climate change  <b>Control of rare earth metals</b>
	Low economic transformation	<b>Diversification</b>	China's shift from input-driven growth to productivity-driven growth	Trade concentrated on primary commodities
		<b>Export competitiveness</b>		China's manufacturing sector
		<b>Productivity</b>	China's shift from manufacturing to service sector exports	China's demographic trends (changes?)
		<b>Technology</b>		<i>Shallow growth?</i>
<b>Human wellbeing</b>	Chinese FDI and expertise	China's demand for food and other consumer goods		

# Homi Kharas on ATR

[http://blogs.worldbank.org/futuredevelopment/  
depth-africa-s-transformation](http://blogs.worldbank.org/futuredevelopment/depth-africa-s-transformation)



**A Chinese worker looks on as locals cross a construction site in Viana, Angola (REUTERS/Siphw e Sibeko)  
[Cited in <http://www.oxan.com/Analysis/DailyBrief/Samples/china-africaties.aspx>]**