Structural Change and Growth: The Old and the New

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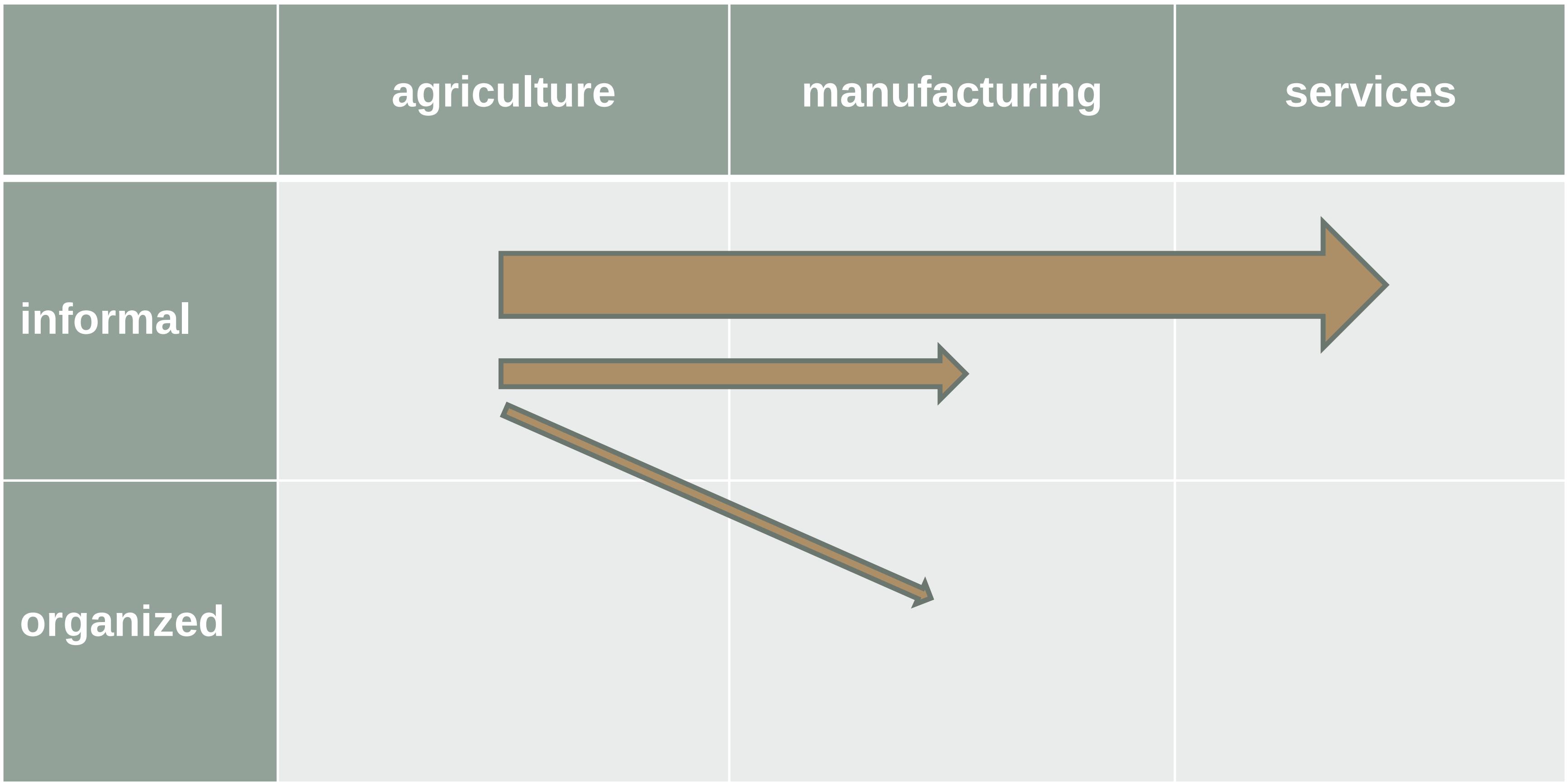
Patterns of structural change

	agriculture	manufacturing	services
informal			
organized			

Patterns of structural change: East Asia and advanced countries

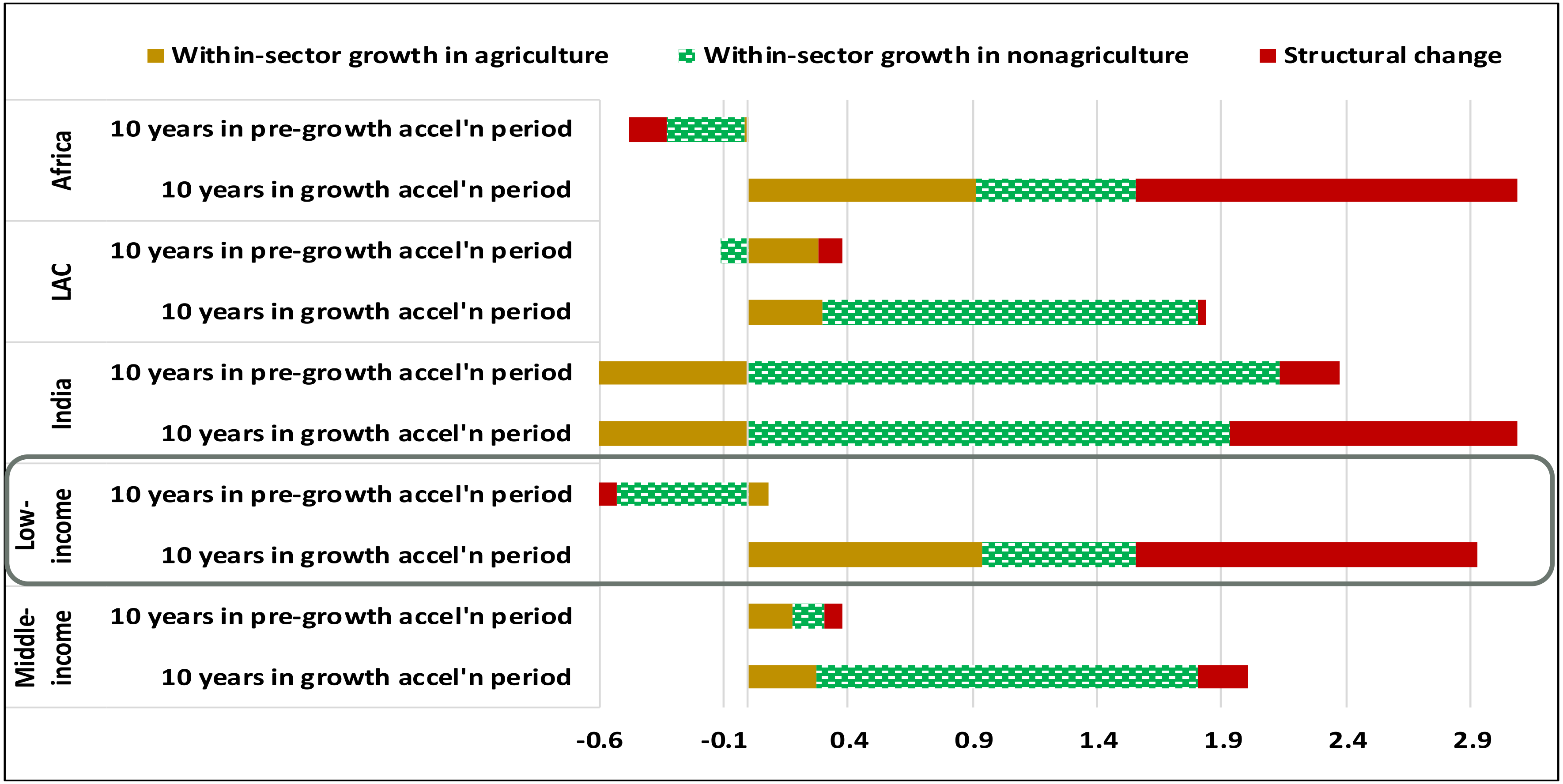
	agriculture	manufacturing	services
informal			
organized			

Patterns of structural change: low-income countries today



The paradox of rapid structural change, despite absence of industrialization

(Labor Productivity Growth within Agricultural and Nonagricultural Sectors and due to Structural Change, in Pre- and Post-Growth Accelerations, annual growth rates, percentages)



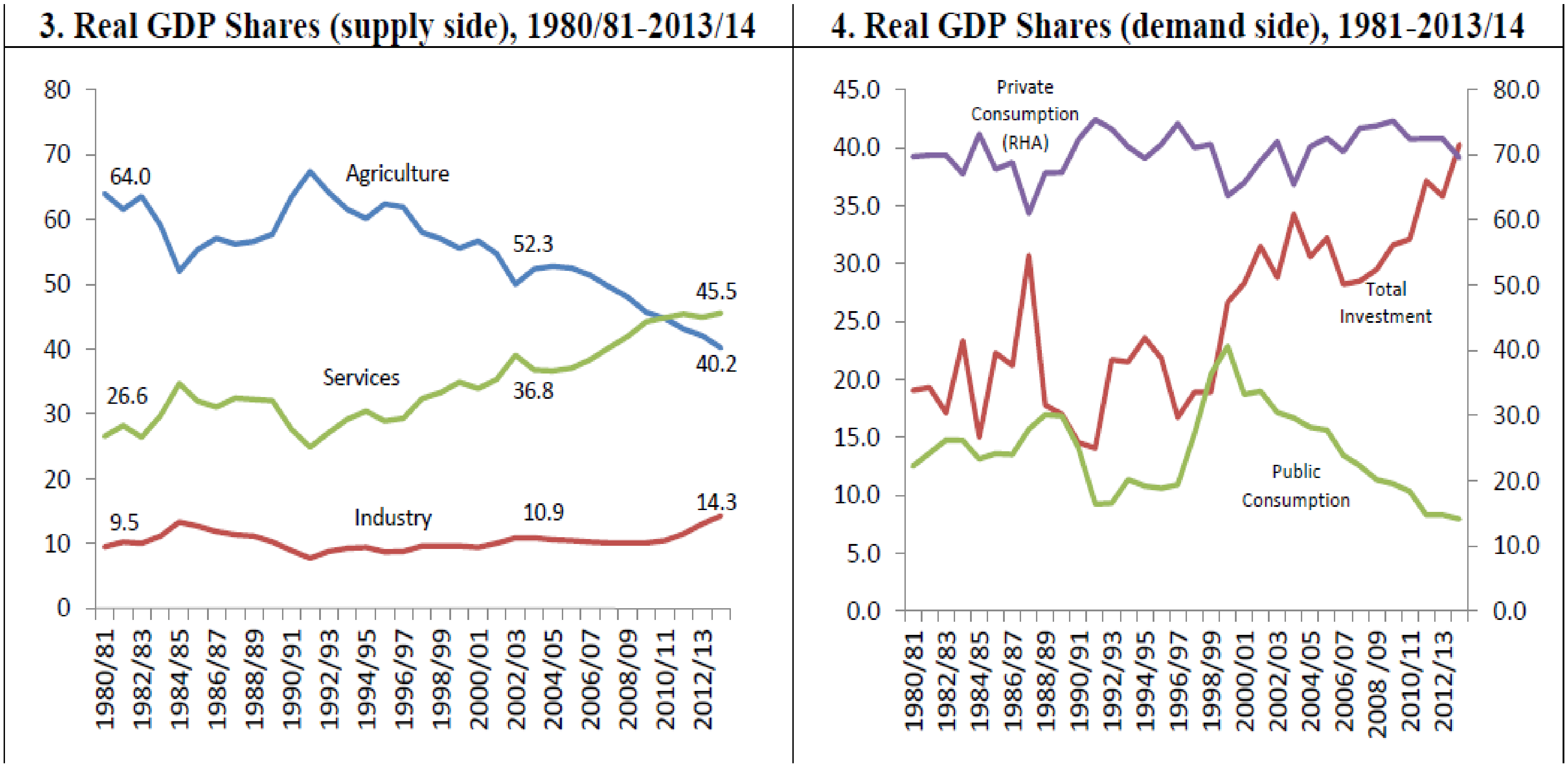
Source: Diao, McMillan, and Rodrik (2017)

Recent high-growth episodes

Country	Initial year of growth acceleration (t)	Growth in pre-accel'n period (t-6, t)	Growth in post-accel'n period (t, t+6)	Differences in pre- & post-accel'n periods	Whether GDP pc in post-accel'n period >= max in pre-accel'n period	Growth after 7-years' growth acceleration (t+6, 2014)
	(1)	(2)	(3)	(4)	(5)	(6)
ETH	2000	1.13	3.71	2.59	Yes	7.95
GHA	1984	-5.23	2.02	7.25	Exceeded in 1999	2.85
KEN	2003	-0.34	2.08	2.42	Exceeded in 2004	3.04
MWI	2002	-1.51	3.60	5.11	Exceeded in 2006	0.35
NGA	2000	0.30	7.61	7.31	Yes	3.21
SEN	1995	-1.65	2.23	3.88	Exceeded in 1999	0.98
ZAF	2001	0.98	3.10	2.12	Yes	0.83
TZA	1998	0.67	3.50	2.83	Yes	3.13
ZMB	2000	0.64	3.77	3.13	Yes	4.60
IND	1983	1.52	3.59	2.07	Yes	4.93
ARG	1992	-0.54	2.80	3.34	Yes	2.98
BRA	2002	0.50	3.00	2.50	Yes	2.90
CHL	1988	2.66	6.25	3.59	Yes	3.02
COL	2001	-0.79	3.66	4.45	Exceeded in 2003/04	3.19
MEX	1996	-0.12	2.28	2.40	Exceeded in 1997/98	0.92
PER	2002	0.76	5.47	4.71	Yes	4.17
VEN	2001	-1.11	4.20	5.31	Exceeded in 2005/06	-0.18
BOL	2003	0.34	2.93	2.59	Yes	3.77
CRI	2002	2.59	4.76	2.17	Yes	2.60

Source: Diao, McMillan, and Rodrik (2017)

Ethiopia: public investment

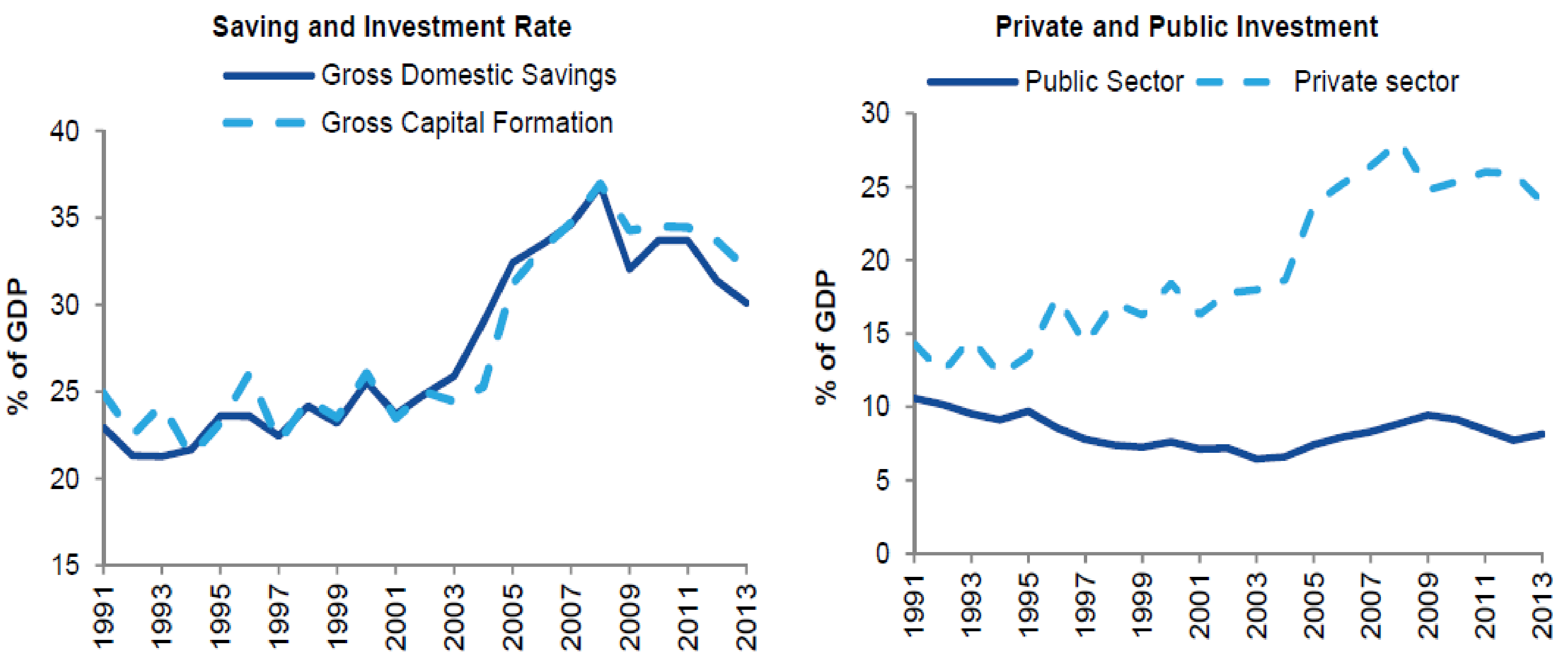


Source: World Bank (2015)

GDP growth of more than 10% p.a. over last decade, due in large part to increase in public investment, from 5% to 19% of GDP.

India: private investment

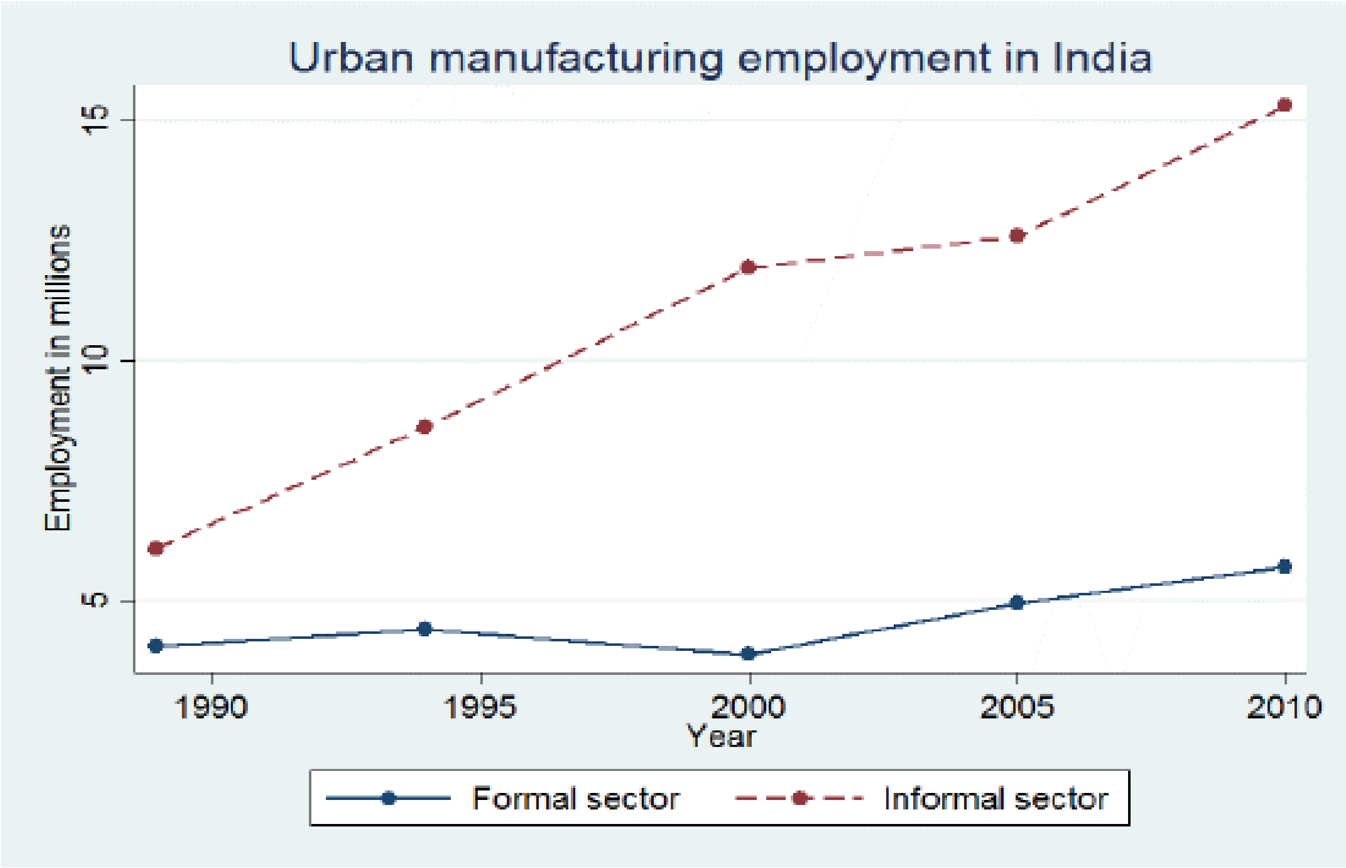
Figure 3: After Increasing Impressively in the mid-2000s, Savings and Investment Ratios have declined, and Rebound is not yet in Sight (data for fiscal years)



Source: Central Statistical Office, India

Source: World Bank (2015)

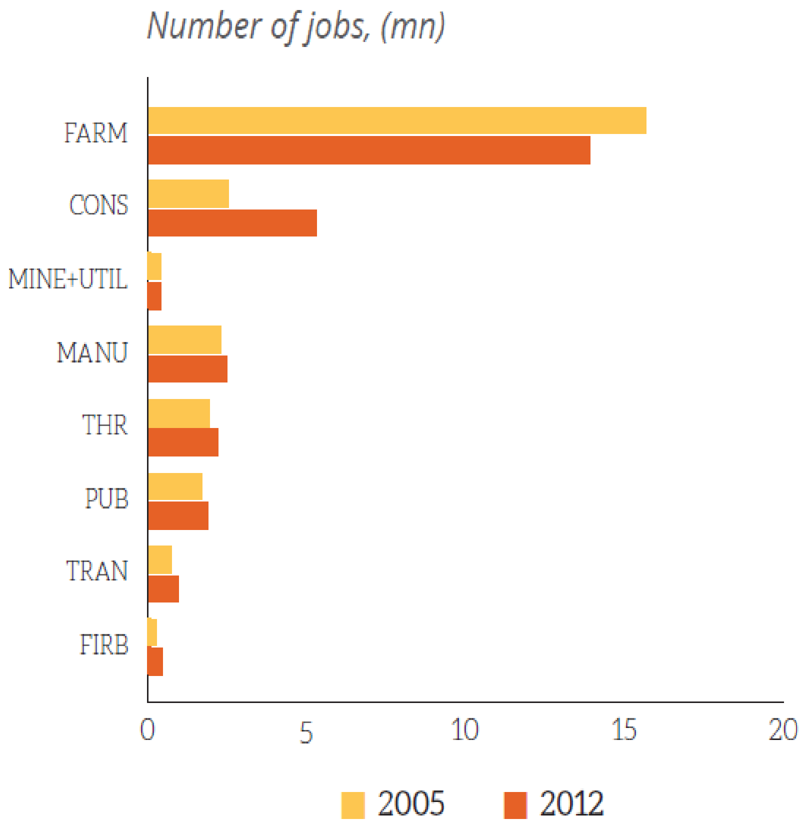
India: formal manufacturing employment has barely increased



Source: Ghani, Kerr, Segura (2015)

Where the jobs are…

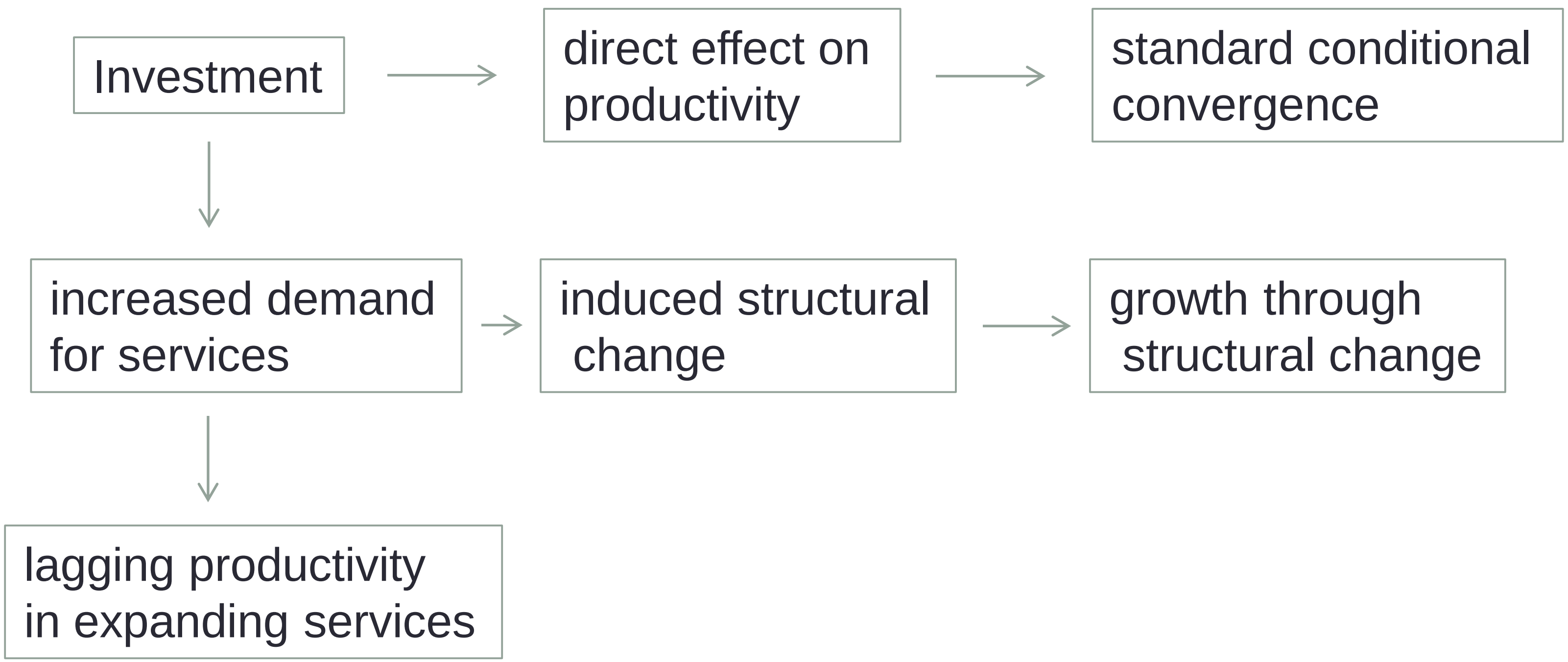
Construction drove job growth in Rajasthan after 2005



Annual job growth, 2005-2012 (%)

FARM	-2
CONS	11
MANU	1
THR	2
PUB	2
TRAN	4
MINE+UTIL	1
FIRB	8

The investment-led growth model

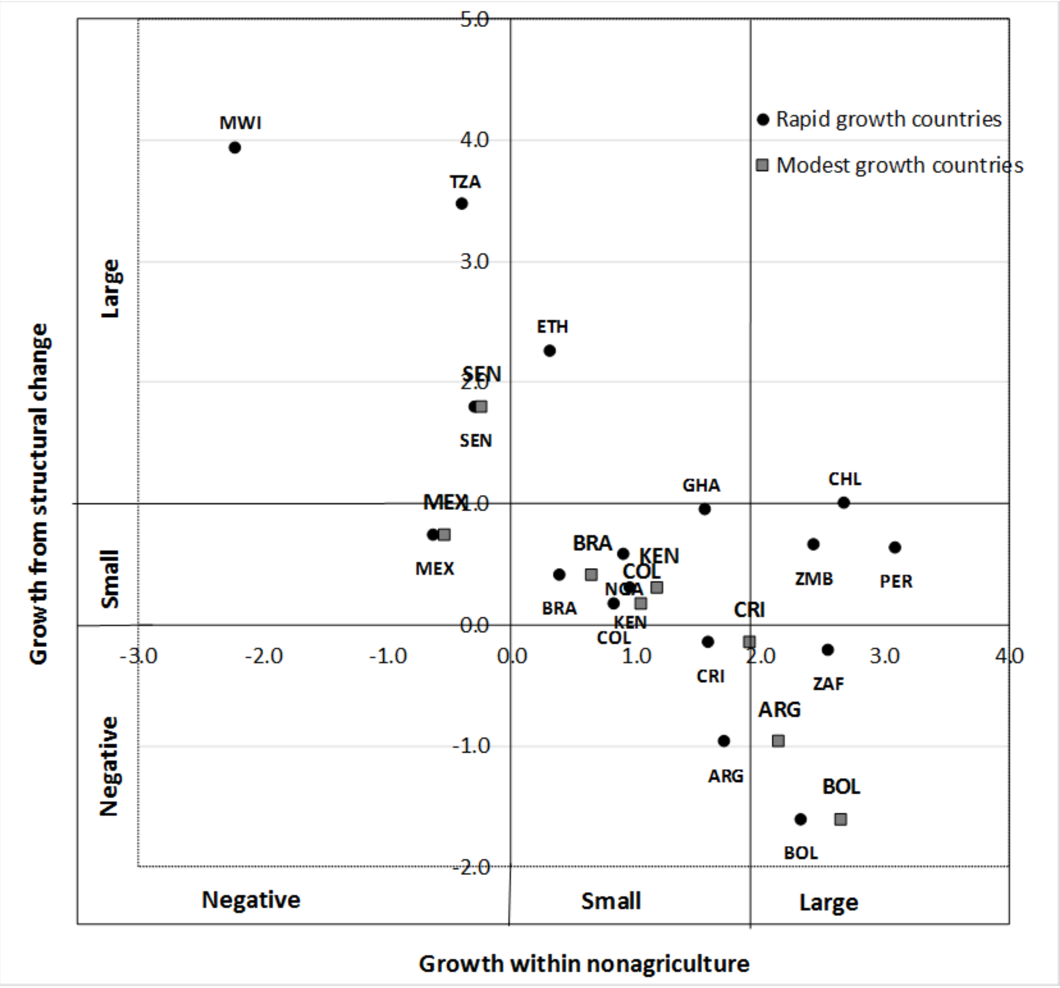


Services are not like manufactures

- Two types of services

1. High-productivity (tradable) segments of services cannot absorb as much labor
   - since they are typically skill-intensive
   - FIRE, business services
2. Low productivity (non-tradable) services cannot act as growth poles
   - since they cannot expand without turning their terms of trade against themselves
   - continued expansion in one segment relies on expansion on others
   - limited gains from sectoral “winners”
   - back to slow accumulating fundamentals & slow convergence

Relationship between structural change and productivity growth within modern sectors



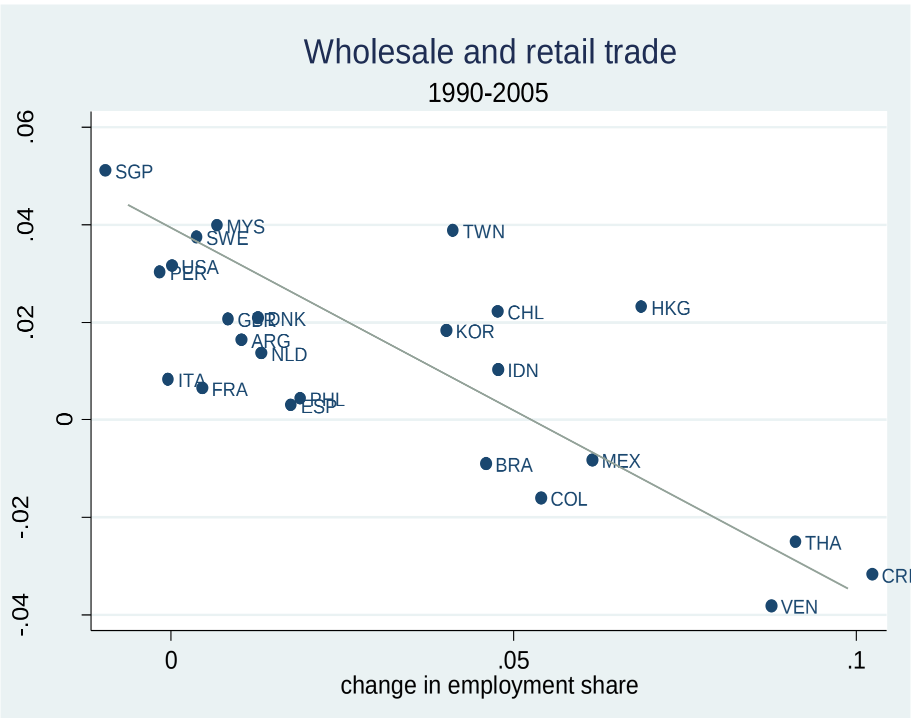
Countries where structural change contributed the most to overall growth also experienced the lowest productivity growth in modern (non-agr.) sectors.

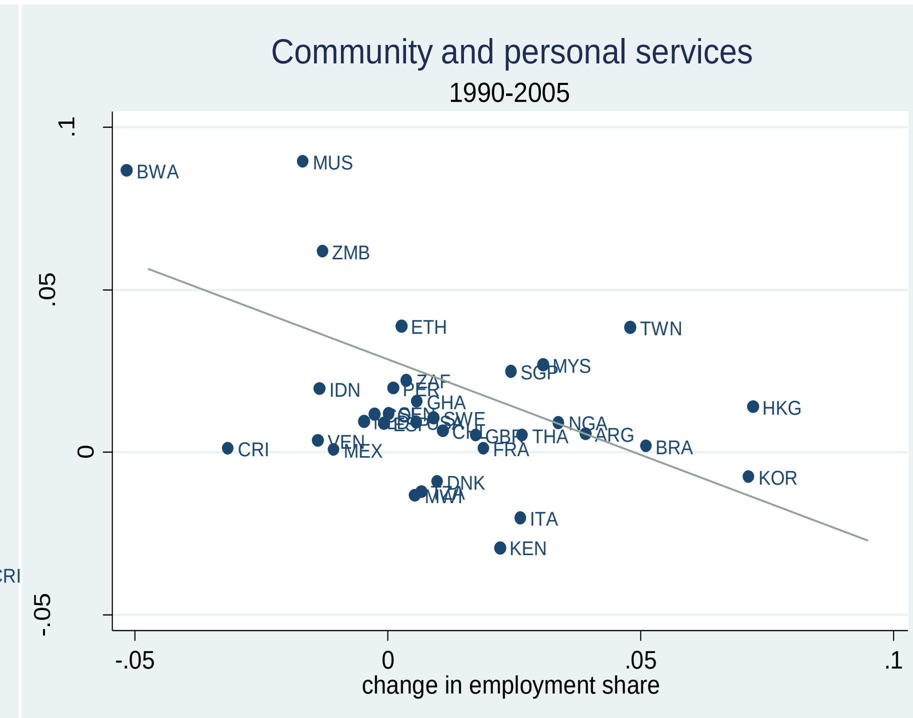
Notes: Both x-axis and y-axis are percentages that measure the economywide annual labor productivity growth rate in the 10-year period of growth accelerations.

The correlation value is -0.882 among the rapid growth countries, -0.901 among the modest growth countries, and -0.700 for all countries.

Source: Diao, McMillan, and Rodrik (2017)

Not many examples of productivity growth <u>and</u> employment expansion in services





Service sectors that have best productivity performance typically shed labor; labor absorbing sectors typically have worst productivity performance.

<u>Source</u>: Author’s calculations from GGDC data.

Bottom line

- Industrialization-based growth miracles are unlikely to be repeated in the future
- Recent rapid growth in developing countries appears demand-led, and impressive structural change in low-income countries is somewhat misleading