

Effects of TFP Shocks on China

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Introduction

- TFP growth is the main driving force of China's growth performance...
- TFP growth accounts for almost 50% of the China's 7.6% economic growth...
- After accession to WTO, by removing quotas China will attract more FDI, particularly in textile sector...

Motivation

- Analyze the possible effects of a increased TFP on China's economy and textile sector in particular...

Analysis

- Setting the WTO accession of China as a baseline;
- ✓ It's more complicated to decompose the effects of both shocks...
- ✓ Main aim is to focus on the TFP shock...

Literature

- **Determining the level of the annual shock;**

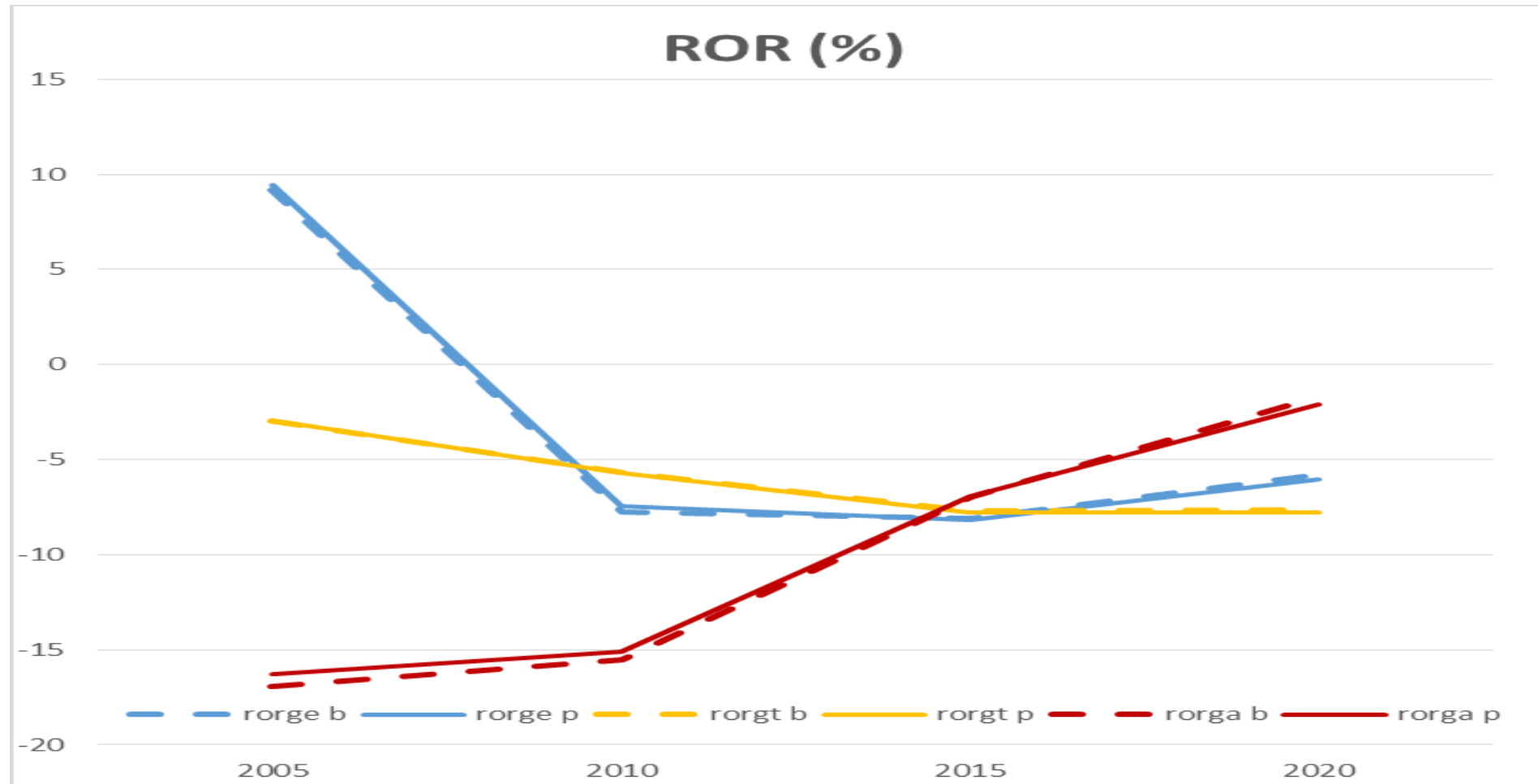
Previous Studies for China:

- Bosworth&Colins: 3.9%
 - Perkins&Rawski: 3.4%
 - Brandt&Zhu:3.9%
- **For Taiwan:**
 - Young: 3%

Annual TFP Shock

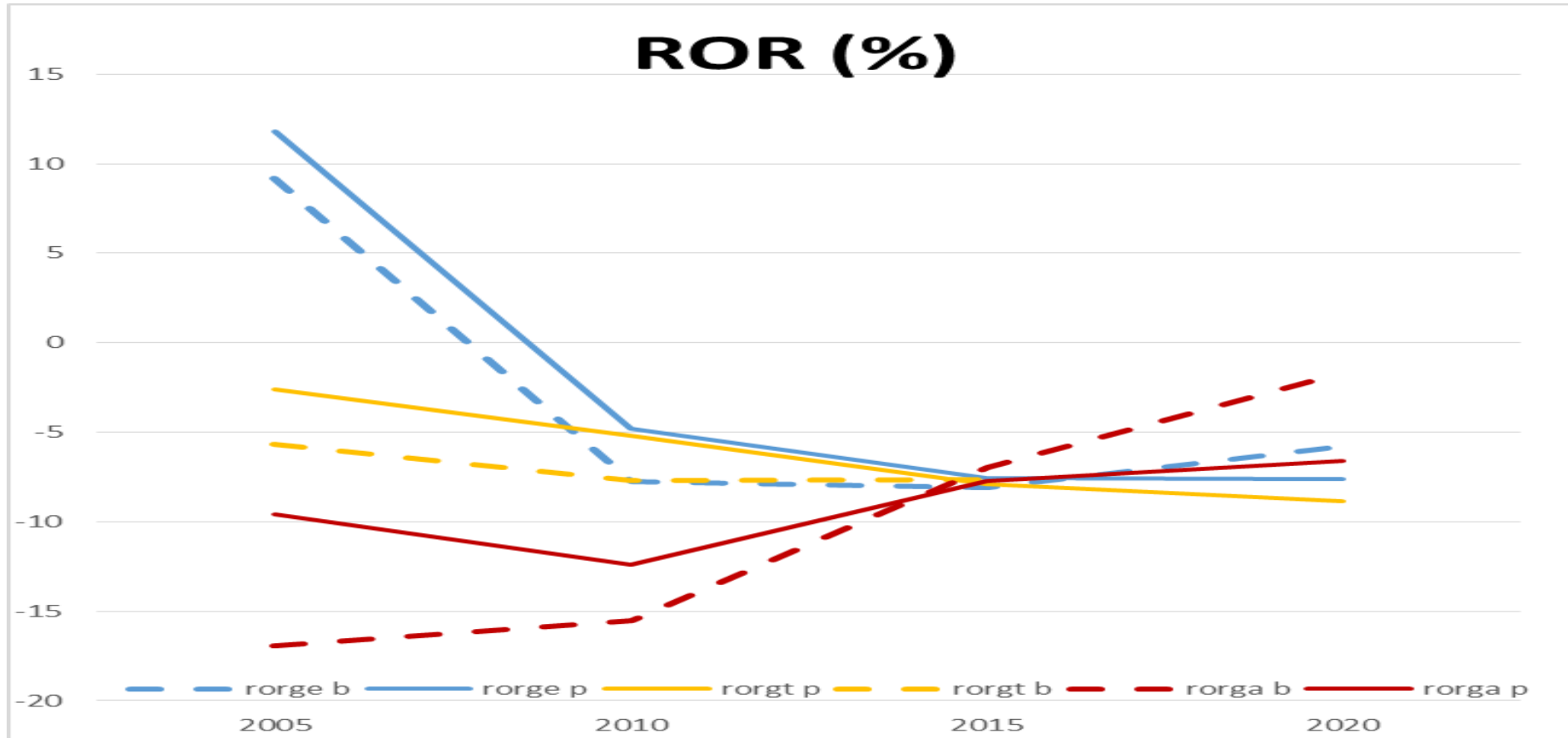
- In accordance with previous studies we impose a 3.5% annual TFP shock for overall economy...
- And we impose a 5% annual TFP shock for textile sector in particular...

Textile Sector



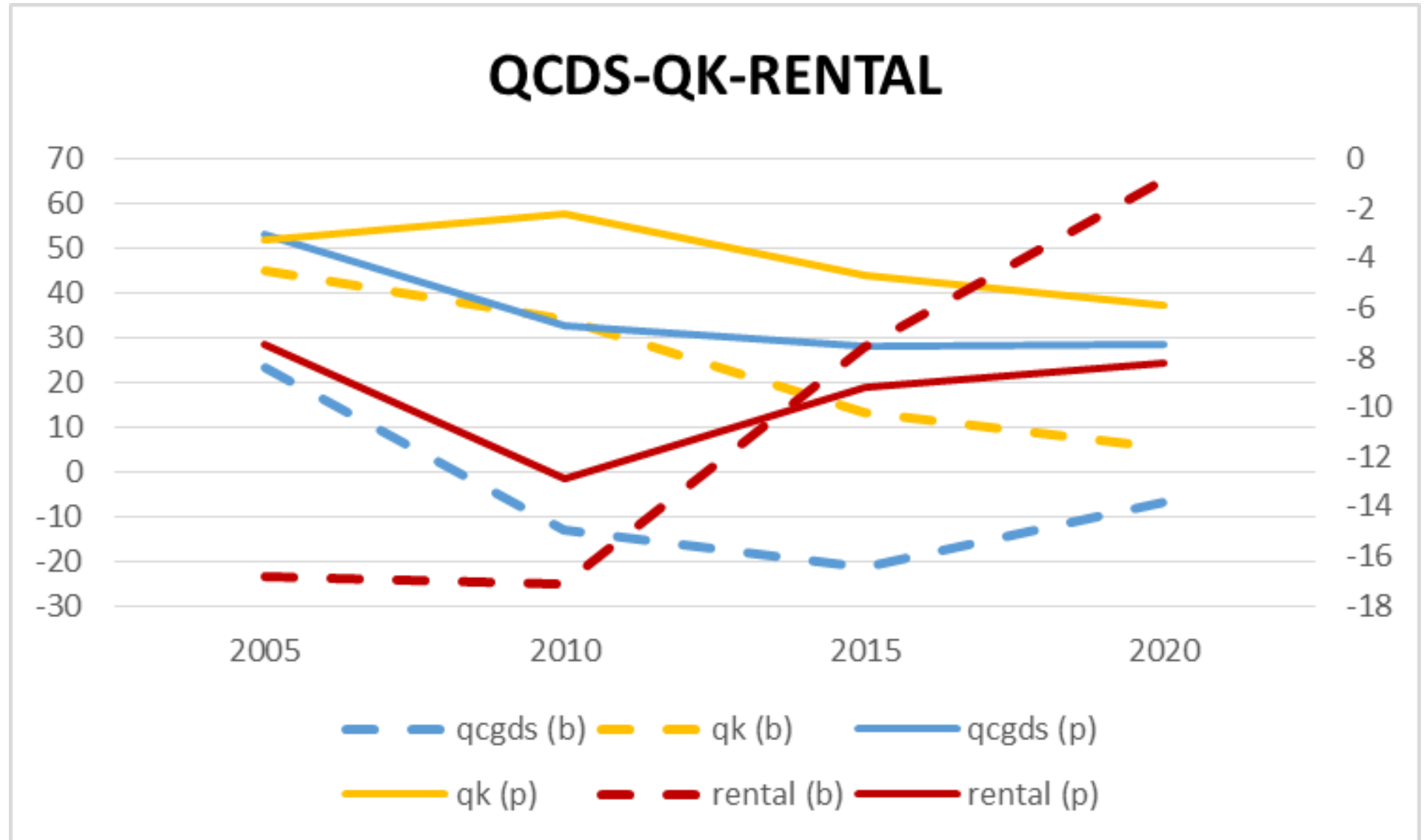
- Imposing sectoral based TFP shocks doesn't increase investment rates as total TFP shocks thus having little effect on macro dynamics...
- On the other hand a uniform shock across all sectors has little sectoral effect therefore we evaluate the effects of total TFP shocks on macro dynamics...

Shock across sectors



- In baseline; actual rate of return (rorga) increases whereas expected rate of return decreases...
- In policy; investment increases even in the last period...
- The increase in the rorga is the driving force of investment increase...

Time path



Dynamic Equations

CHN	2005	2020
ERRORORG	-0.226	0.071
rorge		
1 e1_RORGFLEX	-1.02	-5.9
2 e1_LAMBRORGE	18.1	-7.12
3 srorge	0	0
Total	17.1	-13
erg_rorg		
1 rorgt	-0.522	-1.77
2 rorge	-2.37	1.53
Total	-2.89	-0.248

CHN	2005	2020
rorge	11.8	-7.64
erg_rorg		
1 e1_RORGFLEX	-0.17	0.936
2 e2_RORGFLEX	-2.65	-0.951
Total	-2.82	-0.015
DKHAT		
1 e1_LAMBKHAT	-1.71	-0.139
2 SDKHAT	0	0
Total	-1.71	-0.139

Conclusions

- Productivity shock is supporting demand for value added and factor prices. Rental decline (due to capital accumulation) is less under the Policy in 2005. Overtime it is preventing the slowdown of capital accumulation and keeping the rental *decline* stable (and larger than in the baseline in 2020).
- The productivity shock as a smoothing effect on *rorga* and *rental*.
- With productivity increase CHN can preserve a growth in investment and a convergence of *qcgds* and *qk* at higher rates.

THANK YOU...