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Analysis of business cycle in China and its impact on the rest of the world





Outline of the presentation

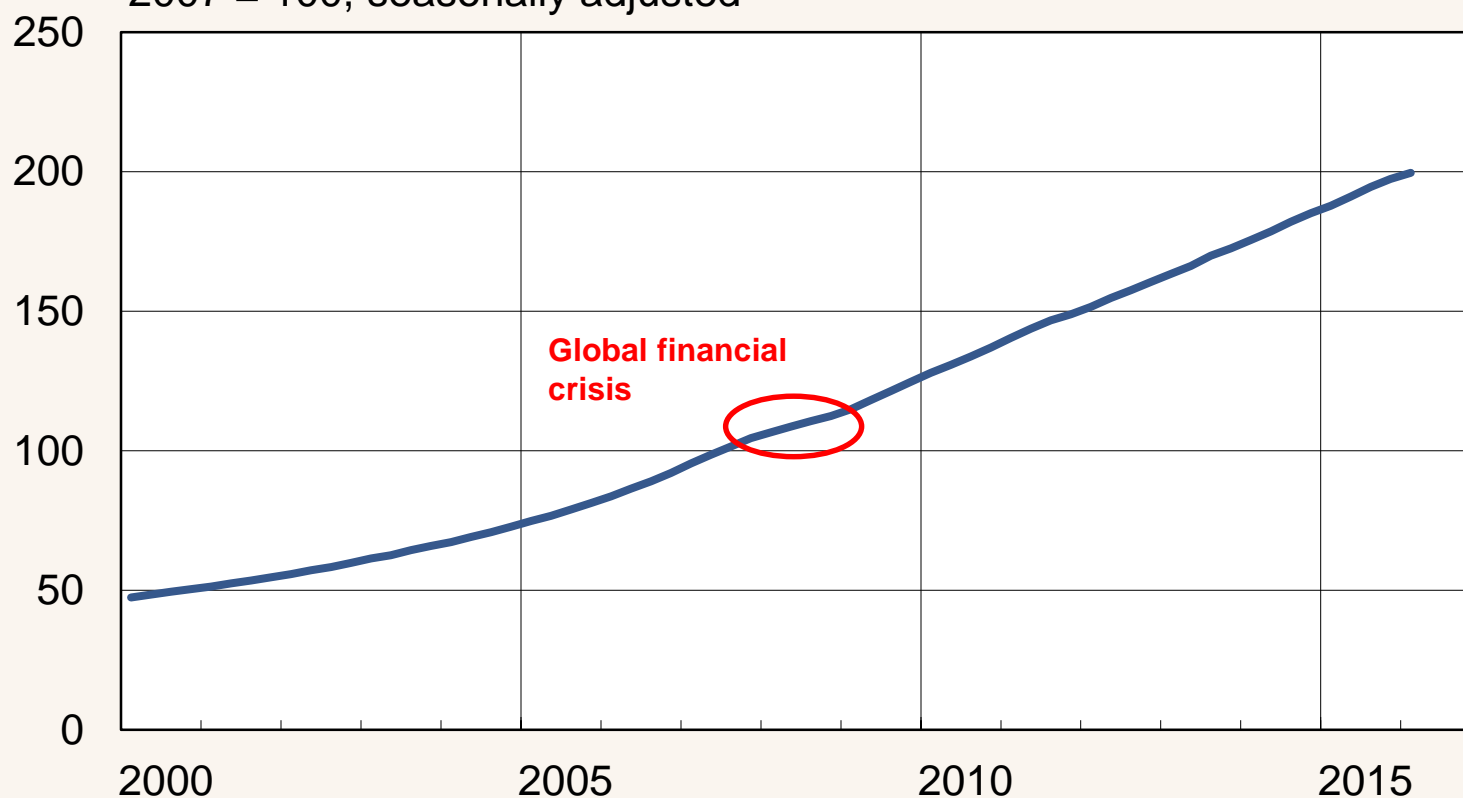
- Some features of Chinese business cycle
- Correlation of Chinese business cycle with other countries' cycles
- Channels of influence
- What happens to the rest of us if/when China rebalances?
- Financial opening up



Cycle? What cycle?

China, quarterly real GDP

2007 = 100, seasonally adjusted



Source: China National Bureau of Statistics and BOFIT.



OK, maybe there is a cycle?

China real GDP



Source: China National Bureau of Statistics



Fidrmuc and Korhonen (2016): Meta-Analysis of Chinese Business Cycle Correlation

- We collected all in all 43 Chinese and 31 English language papers between 2000 and 2013
- The Chinese-language papers were collected from 中国知网 (CNKI, www.cnki.net), which is the largest publication database online in China (中国知网)

东亚	经济周期	协调	中国
East Asia	Business cycle	Synchronisation	China
货币联盟	经济一体化	东盟	同步性
Monetary Union	Economic integration	ASEAN	Co-movement

- ~~Difference between Chinese 'core journals' and others~~
- English-language papers were searched in *Google Scholar*, *IDEAS* and *ScienceDirect*
- All papers report correlation coefficient(s) of *something*



Metaregressions

- We use Fisher transformation of the reported correlation coefficients as the dependent variable

$$\frac{1}{2} \log\left(\frac{1 + \rho_{ij}}{1 - \rho_{ij}}\right) = \tilde{\rho}_i + \sum_{k=1}^K \beta_{ijk} D_{ijk} + \varepsilon_{ijk}$$

- Country dummies ρ_i tell the average correlation coefficient for country i , controlling for K factors (e.g. publication year, variable, methodology, sample size, frequency, author affiliation, journal or not) in publication j

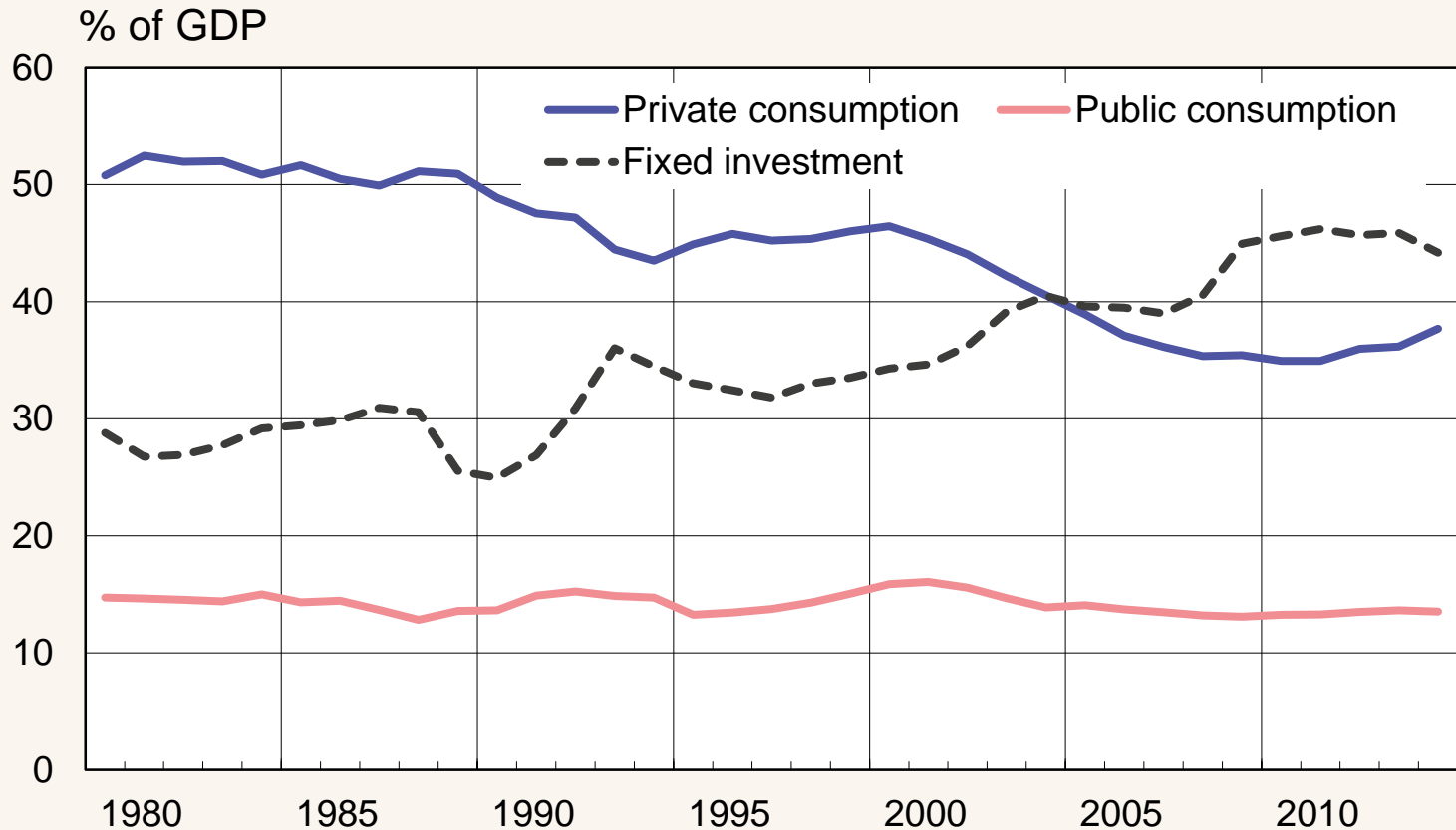


Country correlations (GDP) from metaregressions

USA	0.284*** (0.064)	0.333*** (0.050)	0.291*** (0.071)	0.324* (0.188)	0.318 (0.481)	0.262*** (0.056)
Hong Kong	0.295*** (0.070)	0.362*** (0.055)	0.299*** (0.076)	0.338* (0.189)	0.342 (0.482)	0.317*** (0.037)
Taiwan	0.196*** (0.068)	0.255*** (0.049)	0.207** (0.090)	0.239 (0.196)	0.256 (0.484)	0.233*** (0.045)
Philippines	-0.068 (0.095)	0.034 (0.092)	-0.059 (0.083)	-0.061 (0.193)	-0.066 (0.483)	-0.045 (0.081)
Thailand	0.191** (0.085)	0.225*** (0.061)	0.203** (0.082)	0.224 (0.190)	0.267 (0.482)	0.210*** (0.042)
Indonesia	0.088 (0.097)	0.139** (0.066)	0.096 (0.082)	0.132 (0.193)	0.143 (0.483)	0.111 (0.113)
Malaysia	0.161** (0.077)	0.218*** (0.068)	0.168** (0.080)	0.174 (0.190)	0.169 (0.482)	0.184*** (0.042)
Japan	0.059 (0.087)	0.093 (0.073)	0.061 (0.076)	0.099 (0.190)	0.081 (0.482)	0.048 (0.060)
Korea	0.136* (0.073)	0.234*** (0.054)	0.143* (0.076)	0.248 (0.189)	0.160 (0.481)	0.158*** (0.046)
Singapore	0.236*** (0.090)	0.272*** (0.072)	0.247*** (0.078)	0.251 (0.189)	0.260 (0.482)	0.258*** (0.035)
Brunei	-0.071 (0.155)	0.039 (0.100)	-0.082 (0.154)	0.040 (0.225)	0.028 (0.494)	0.037 (0.067)
Cambodia	0.101 (0.116)	0.162** (0.076)	0.110 (0.172)	0.158 (0.234)	0.164 (0.498)	0.194*** (0.039)
Myanmar	-0.018 (0.232)	0.158 (0.105)	0.014 (0.148)	0.071 (0.223)	0.024 (0.493)	0.088 (0.084)
Laos	0.416** (0.201)	0.390*** (0.122)	0.427*** (0.148)	0.327 (0.223)	0.250 (0.493)	0.508*** (0.171)
Vietnam	0.556*** (0.202)	0.705*** (0.152)	0.576*** (0.144)	0.741*** (0.220)	0.766 (0.492)	0.652*** (0.163)
Germany	0.269*** (0.078)	0.317*** (0.080)	0.272 (0.410)	0.324*** (0.094)	0.309 (0.558)	0.303*** (0.019)
New Zealand	0.509*** (0.050)	0.584*** (0.041)	0.516 (0.554)	0.597*** (0.183)	0.573 (0.658)	0.511*** (0.026)



What happens to "us" (i.e. world outside China) if China's growth slows down and/or rebalances?



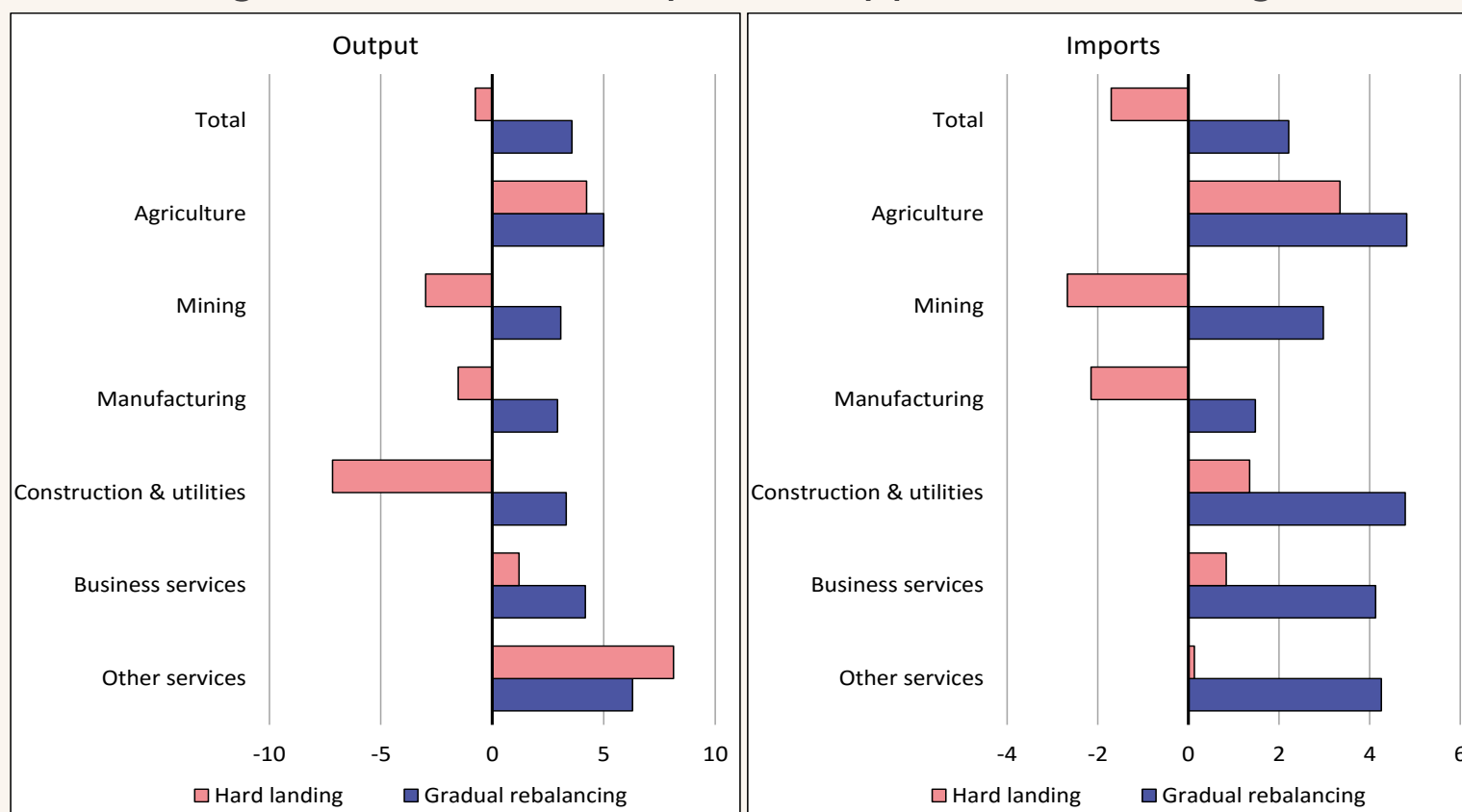
Source: CEIC, Macrobond.



Two scenarios – Trade in value-added and input-output table data used

Hard landing=share of consumption in GDP +5 pp

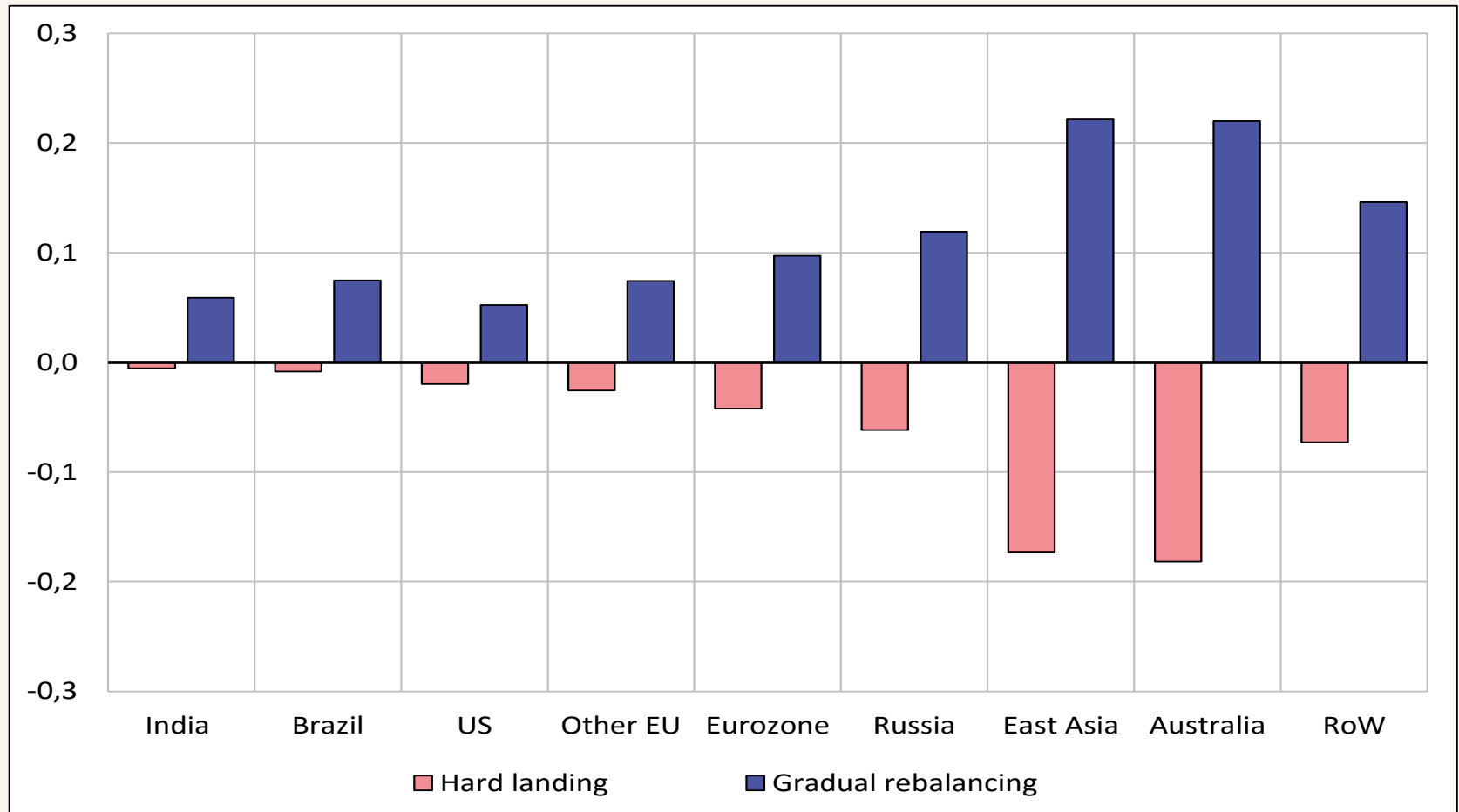
Rebalancing=share of consumption +1 pp and 5% GDP growth



Source: Simola (2015)



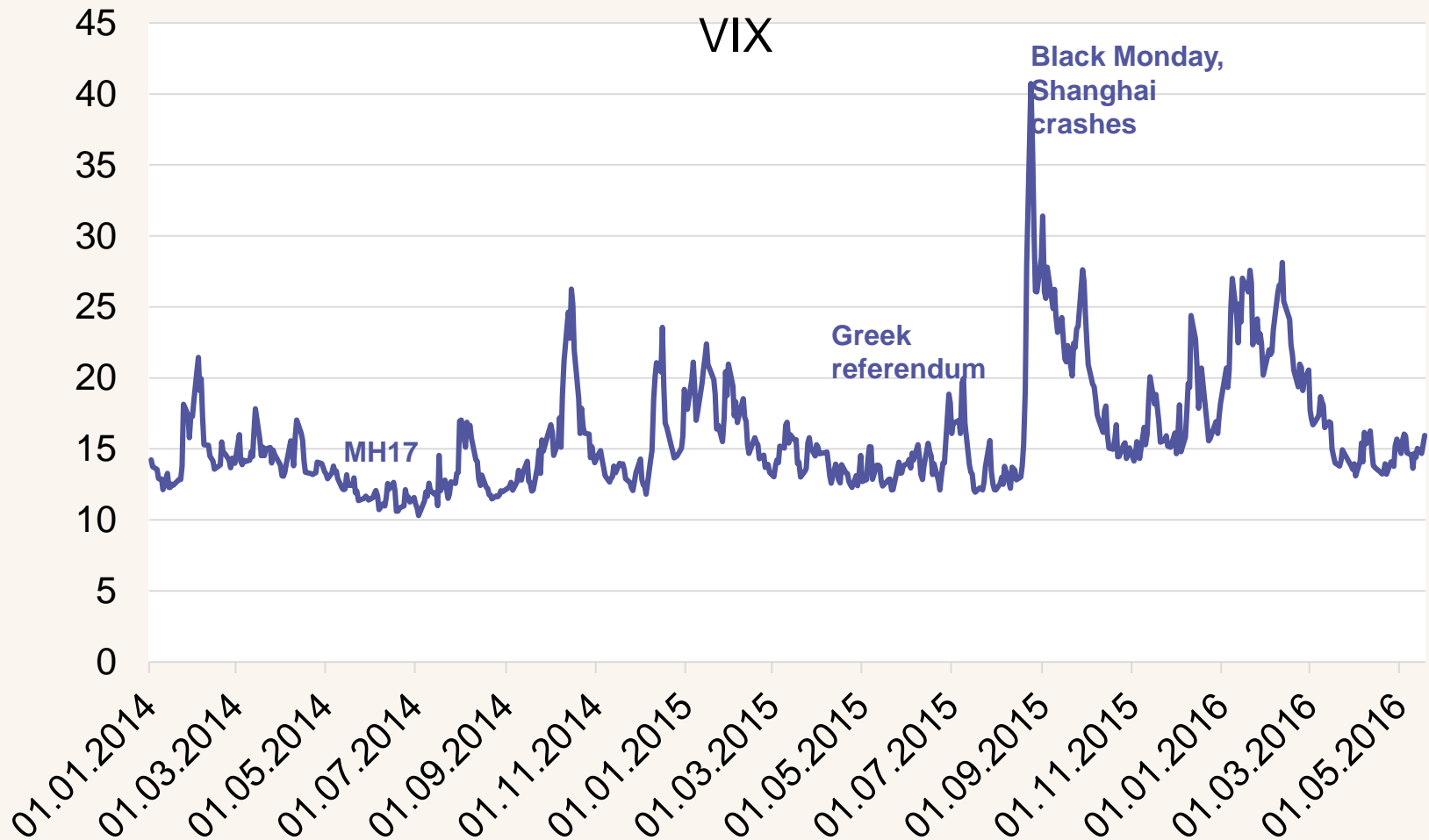
Change in output in different regions of the world



Source: Simola (2015)

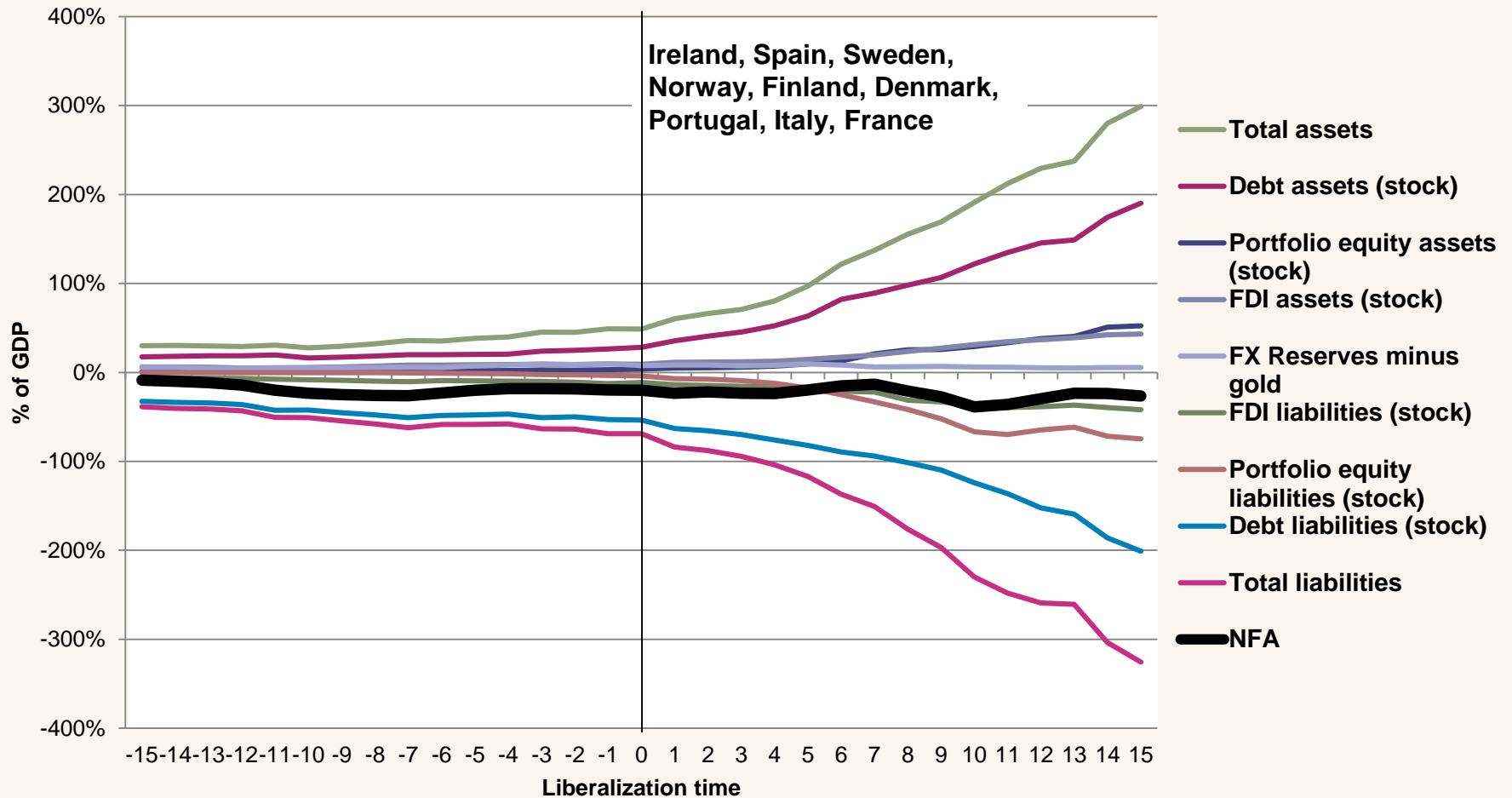


What about finance channel?





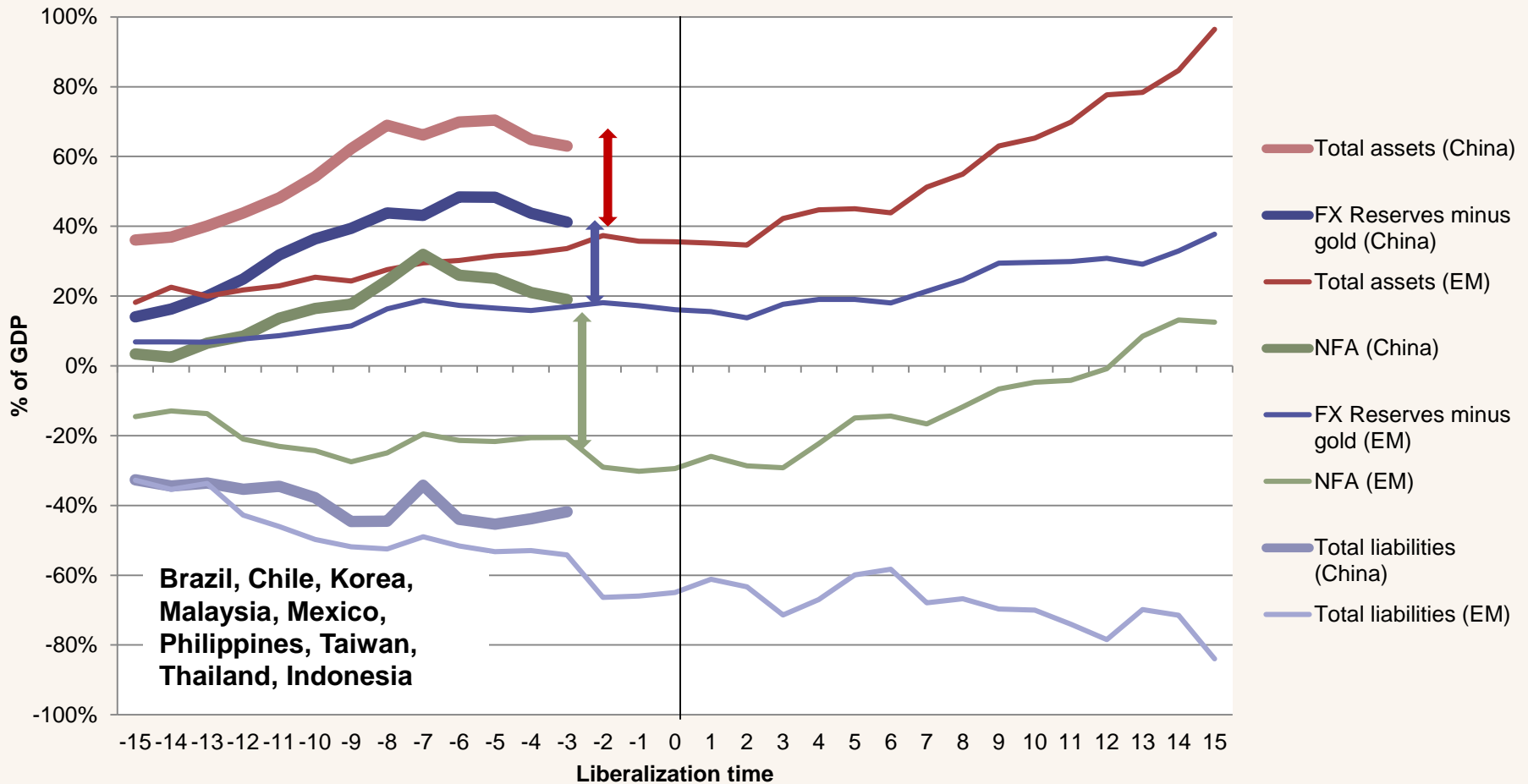
What happened to OECD countries' international investment positions when they liberalized?



Sources: Lane ja Milesi-Ferretti (2013), Kaminsky and Schmukler (2003) and own calculations



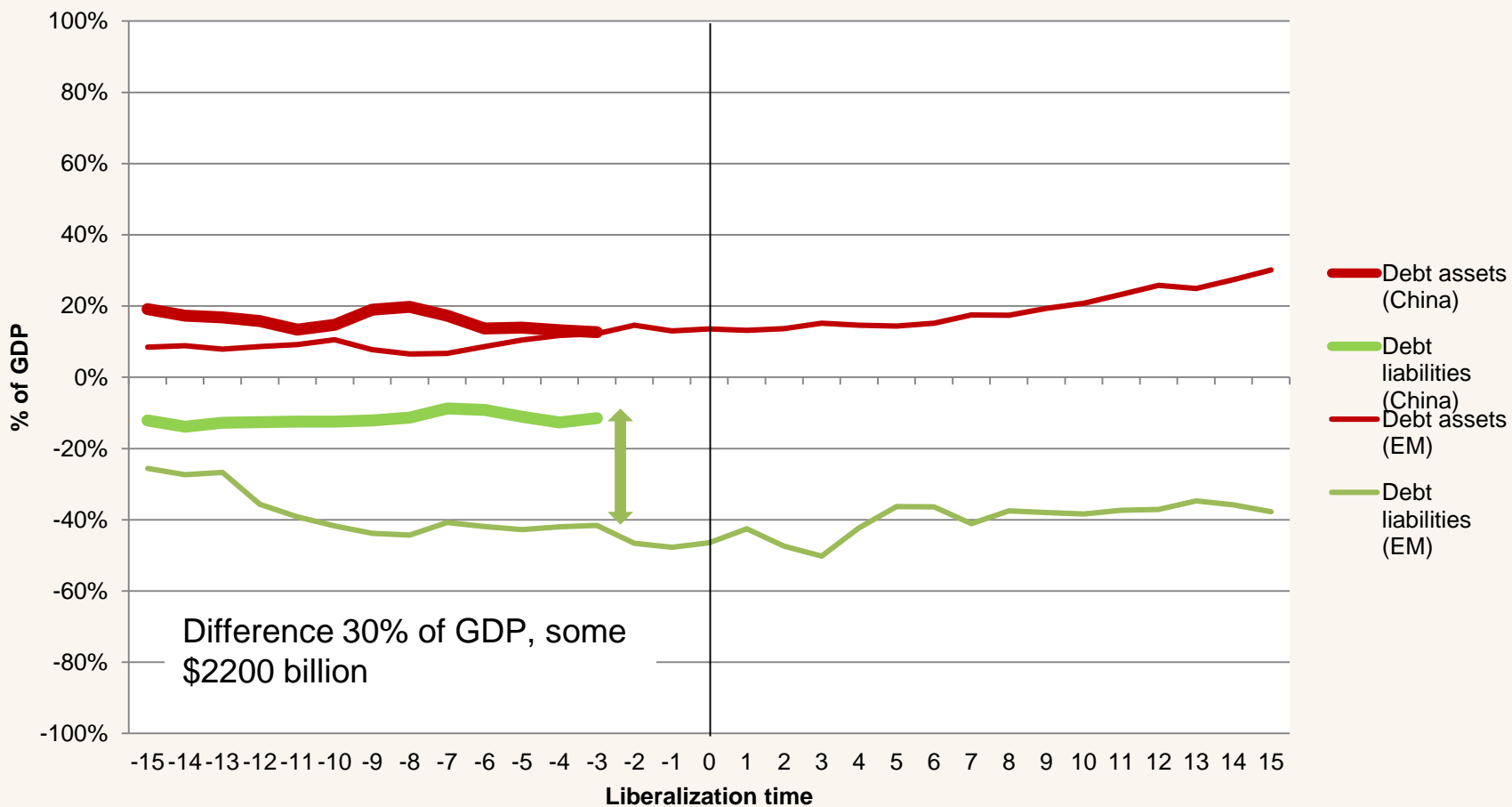
What happened to emerging markets' international investment positions when they liberalized?



Sources: Lane ja Milesi-Ferretti (2013), Kaminsky and Schmukler (2003) and own calculations



World wants Chinese assets, especially Chinese debt assets?



Sources: Lane ja Milesi-Ferretti (2013), Kaminsky and Schmukler (2003) and own calculations



Concluding remarks

- China's business cycle is correlated with other countries, especially the US and Asian countries
- China's rebalancing will mean different things for different countries and sectors, but as long as China keeps on growing, everyone will be better off
- Even hard landing would not mean a catastrophe, if one looks only at the trade channel
- However, some type of financial contagion from China to the rest of the world is a real possibility already now, and financial linkages are only set to increase



EXTRA SLIDES



Distribution of correlation coefficients

