

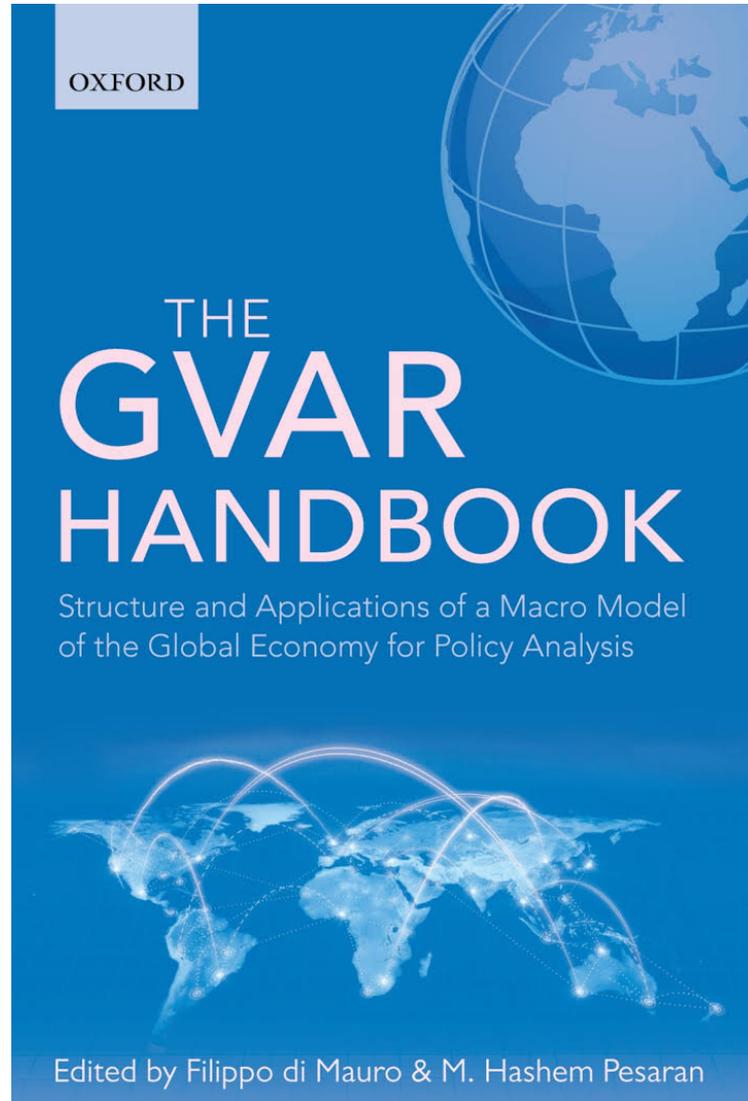
Assessing the impact of a China hard landing (and Brexit) on Emerging Asia: A GVAR approach

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Will draw from the GVAR literature



- **Book with Hashem Pesaran**
- **Articles with colleagues at the ECB**

Main ideas

- We are in a new world of modest growth, including for China
- The global economy baseline has been corrected substantially, and risks to the outlook are not overwhelmingly gloomy.
- Brexit has actually occurred and a China hard landing is unlikely, though the fragility of its banking sector is a major concern
- We concentrate on international transmissions, and use a GVAR to assess the global and regional impacts, should a “China event” occur nevertheless
- Shocks include: 1) lower GDP, as well as 2) contagion/confidence (“risk-offs”)
- Main results:
 - selected Asian economies are rather severely impacted by small deterioration of the China GDP outlook, given the tight trade links
 - “Risk-offs” scenarios appear to be damaging for the Asia region and also globally, more than for China itself

Baseline scenario

- The Chinese slowdown has been paralleled by a sharp drop in the growth of world trade since the Great recession and, most recently, a drop in commodity prices
- Such developments have been also accompanied by substantial readjustments in demand and structural policies – including financial regulation – across the globe and including China, which have corrected imbalances, but have most likely further reduced overall growth potential
- The global economy which has emerged is therefore one characterised by a rather contained recovery pace (also because of Brexit), but possibly one which is less prone to sudden readjustments
- The China baseline I am considering encompasses orderly (Government orchestrated) absorption of overcapacity, with growth slowing from 7% in 2015 to 6% in 2017

- Triggers of a “China event”
- Most likely channels of transmission (trade, financial, confidence)
- GVAR simulation results
 - GDP
 - Several ‘risk-offs’ events
- Growth shortfall in Europe following Brexit
- Conclusions

Triggers for Chinese further slowdown

1. Sharper turnaround of the foreseen mild real estate market recovery
2. Higher excess capacity in the industrial and mining sector spilling over to the rest of the economy
3. Too aggressive corporate restructuring leading to an unintended sharp deleveraging
4. Too abrupt capital account liberalisation causing sudden outflows
5. Insufficient policy response to all of the above.

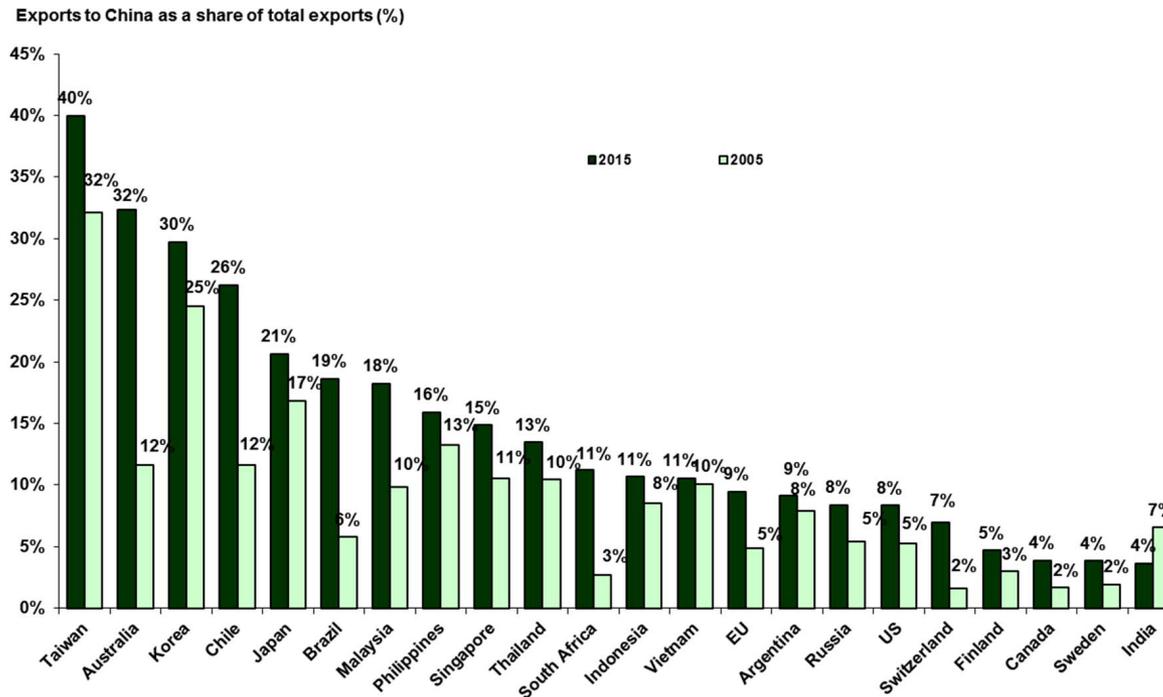
Three channels for international transmission

1. Trade, certainly the most prominent;
2. Financial linkages; and
3. Market contagion, which has shown to be increasingly critical, as of recently.

Overall the most affected region would be the **ASEAN** one, though repercussions would be not irrelevant across the globe, and certainly much higher that would have been just a decade ago. For every percentage point decrease in Chinese growth, there is a half percentage point less of growth – on average – for global economy according to our estimates

Trade exposure

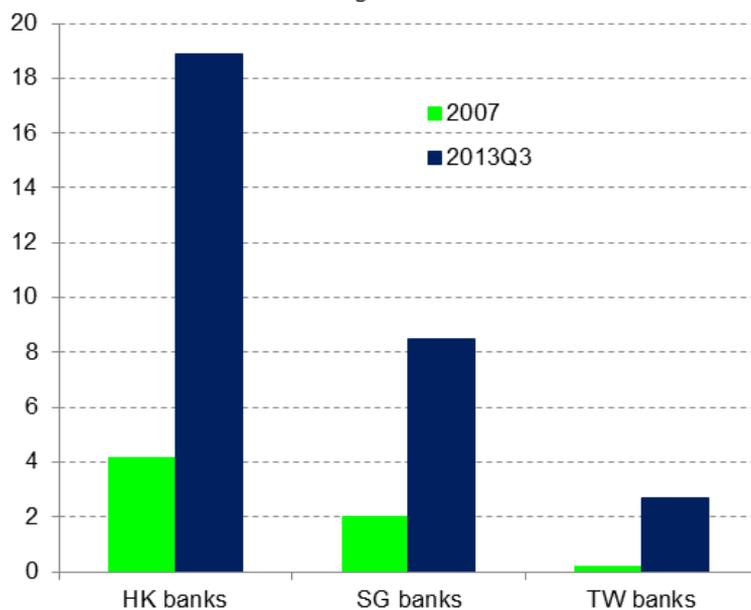
- Countries most exposed to China, from the trade side, are its neighbours and the major commodity exporters in Latin America and Africa
- Dramatic increases of such exposure in the last decade



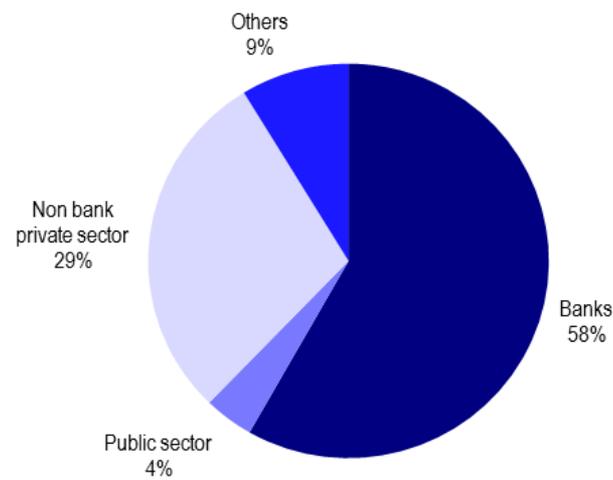
Low capital linkage but extensive FX exposure

- Given the extensive capital controls, China has rather limited financial linkages with the rest of the world
- However, there is an over-concentration of overseas FX exposure to Chinese entities in Hong Kong, Singapore, and Taiwan, especially since the global financial crisis

Claim on China as a % of banking asset

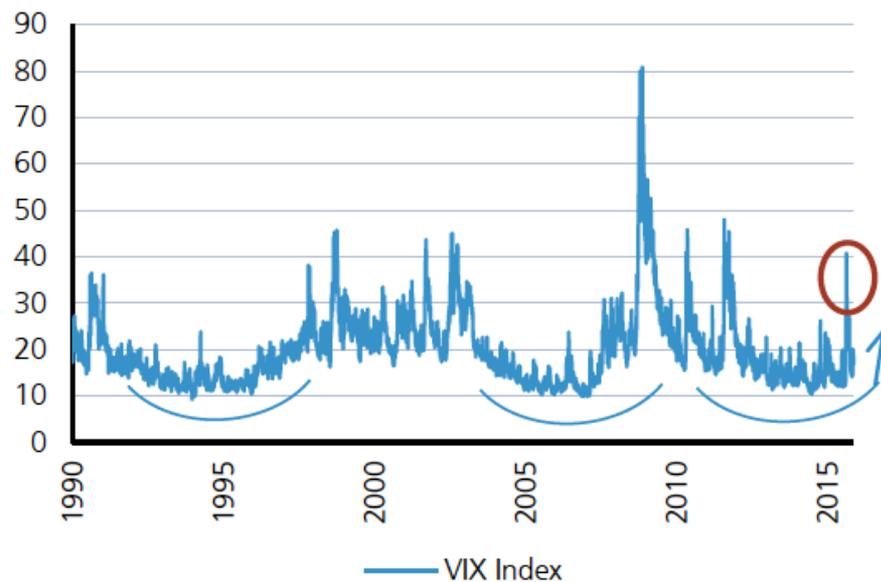


Overall FX lending to China, Q313



A “risk-off” situation

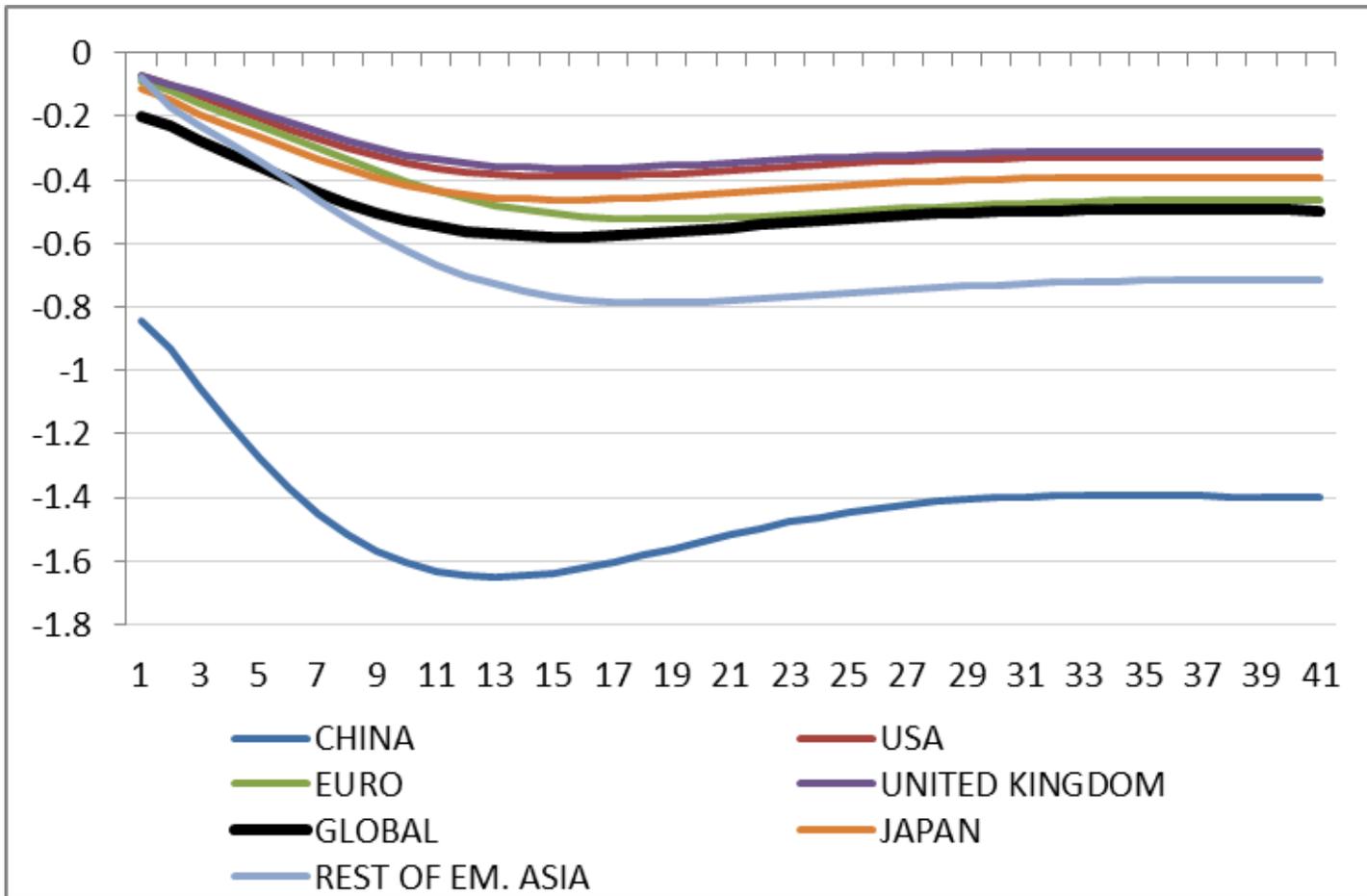
- Despite the adjustments implemented following the 1997 Asian crisis, a financial contagion from China could affect directly the US and EU financial markets, as, for instance, during the RMB devaluation in 2015
- The most likely transmission would be a “risk-off” situation: market volatility increases drastically amid a major shock to sentiment causing a sell-off in global equity markets, particularly in the US



Global Vector Autoregressive (GVAR) model

- Over the past several decades global economic and financial interlinkages have increased dramatically
- As result it became essential to take into account spillovers between economies
 - In traditional macroeconometric approaches it is difficult due to the shortness of available time series (specially for emerging economies)
- The GVAR approach (see di Mauro&Pesaran, 2013) helps overcoming this problem. Instead of including each variable from every foreign country, it aggregates those variables using trade links as weights.
- GVAR estimation proceeds in two steps: 1) by estimating VARs for each individual economy; 2) combining country-specific VARs into a single global model

China GDP shock (-1% for 4 quarters)



China GDP shock (-1% for 4 quarters)

- Impact (**.5 pp globally**) is highly diversified across countries:
 1. The economies of the rest of Asia - driven by strong trade linkages - experience sizeable and permanent effects
 2. EU countries are also subject to adverse spillovers, but much less
- Asia countries impacts are also highly diversified:
 - Indonesia, Singapore, Malaysia and Thailand are the most affected, in line with their high trade interactions, including global value chains
 - In sharp contrast with Japan, Korea is the least affected, possibly because of production organisational patterns – less Asia centric – and destination markets – more heavily concentrated towards developed economies
 - Impacts on India GDP are actually positive (not shown)

China GDP shock (-1% for 4 quarters)

- We use Dees and Vansteenkiste (2007) to decompose trade (direct and indirect) and other effects

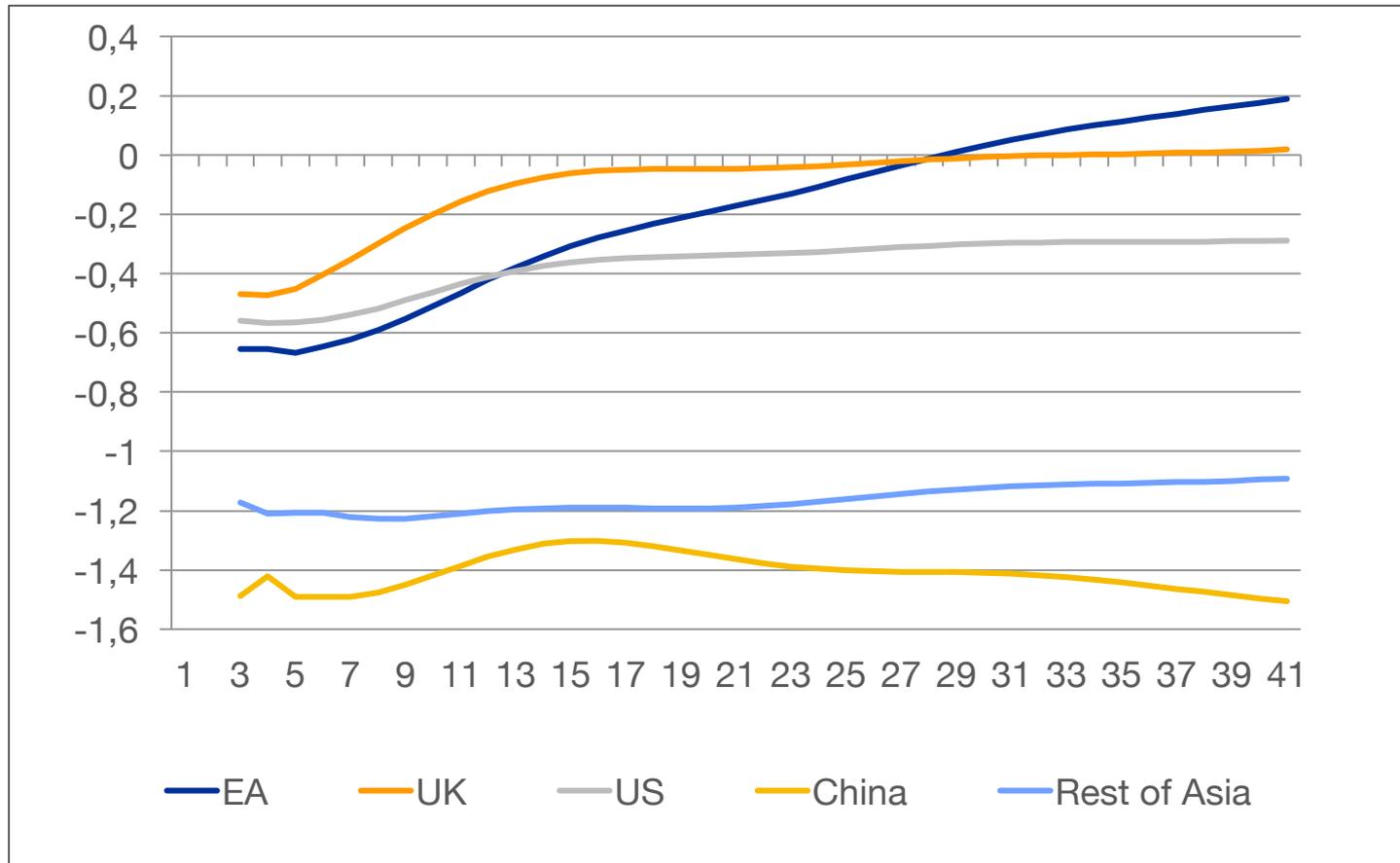
	Direct trade effects	Total trade effects	Total impact
China	1.00	1.02	1.25
Japan	-0.07	-0.09	-0.24
Rest of emerging Asian	-0.12	-0.19	-0.34
Euro area	-0.03	-0.10	-0.21
United States	-0.01	-0.04	-0.21

- Trade effects explain about 60% of the total impact on Emerging Asia
- About 20% for the US, and less than 30% for Japan

Simulating a risk-off situation

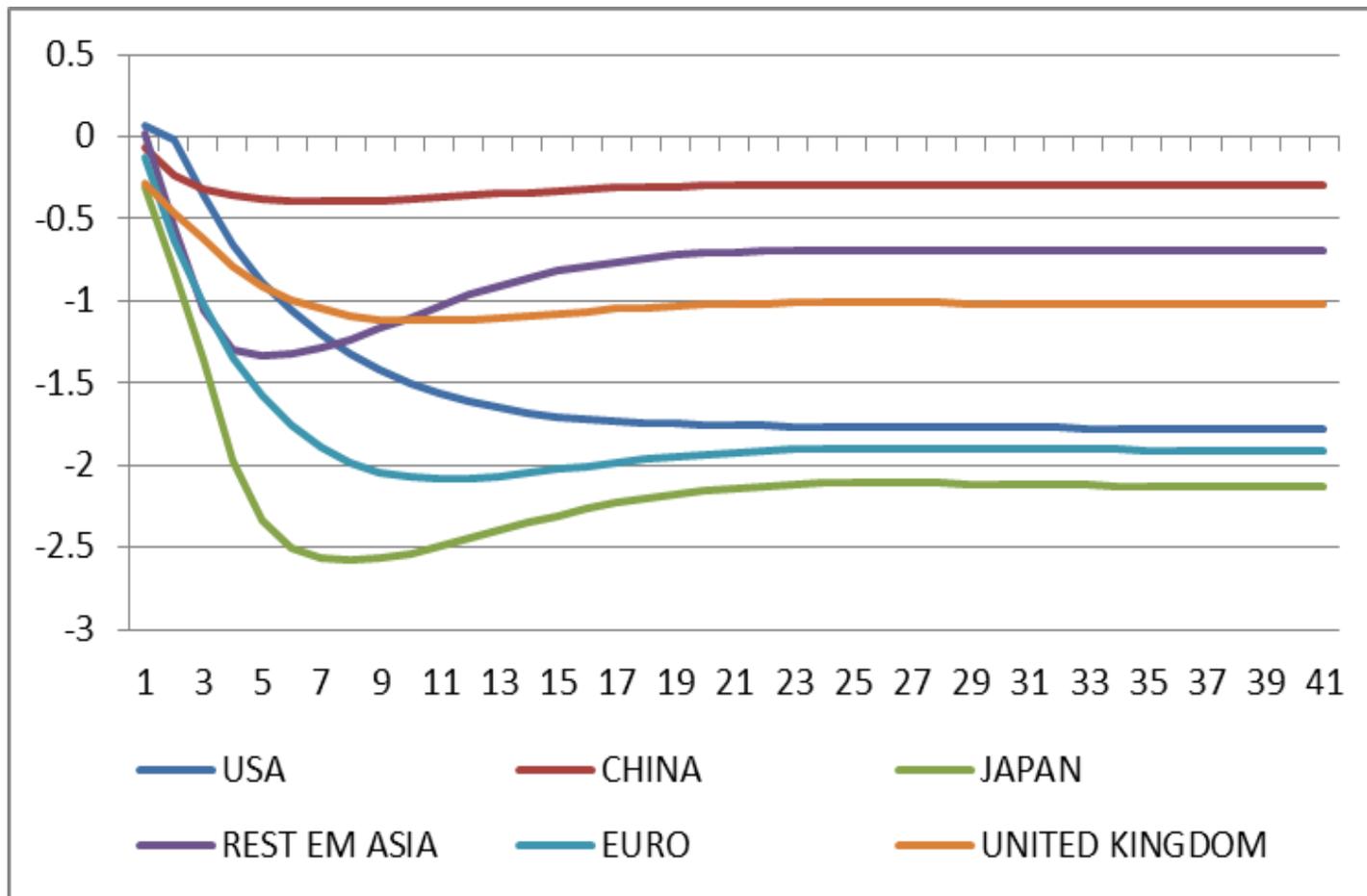
- Following the global impact the RMB depreciation had in summer last year, the materialisation of a “China event” could be a combination of financial markets confidence shocks amid high volatility.
- To proxy this with the GVAR we have combined a number of negative shocks to:
 1. Asian asset prices
 2. Depreciation of RMB and other Asian currencies
 3. Negative demand shocks (or “confidence shocks”)

Risk premium shock – impact on real GDP



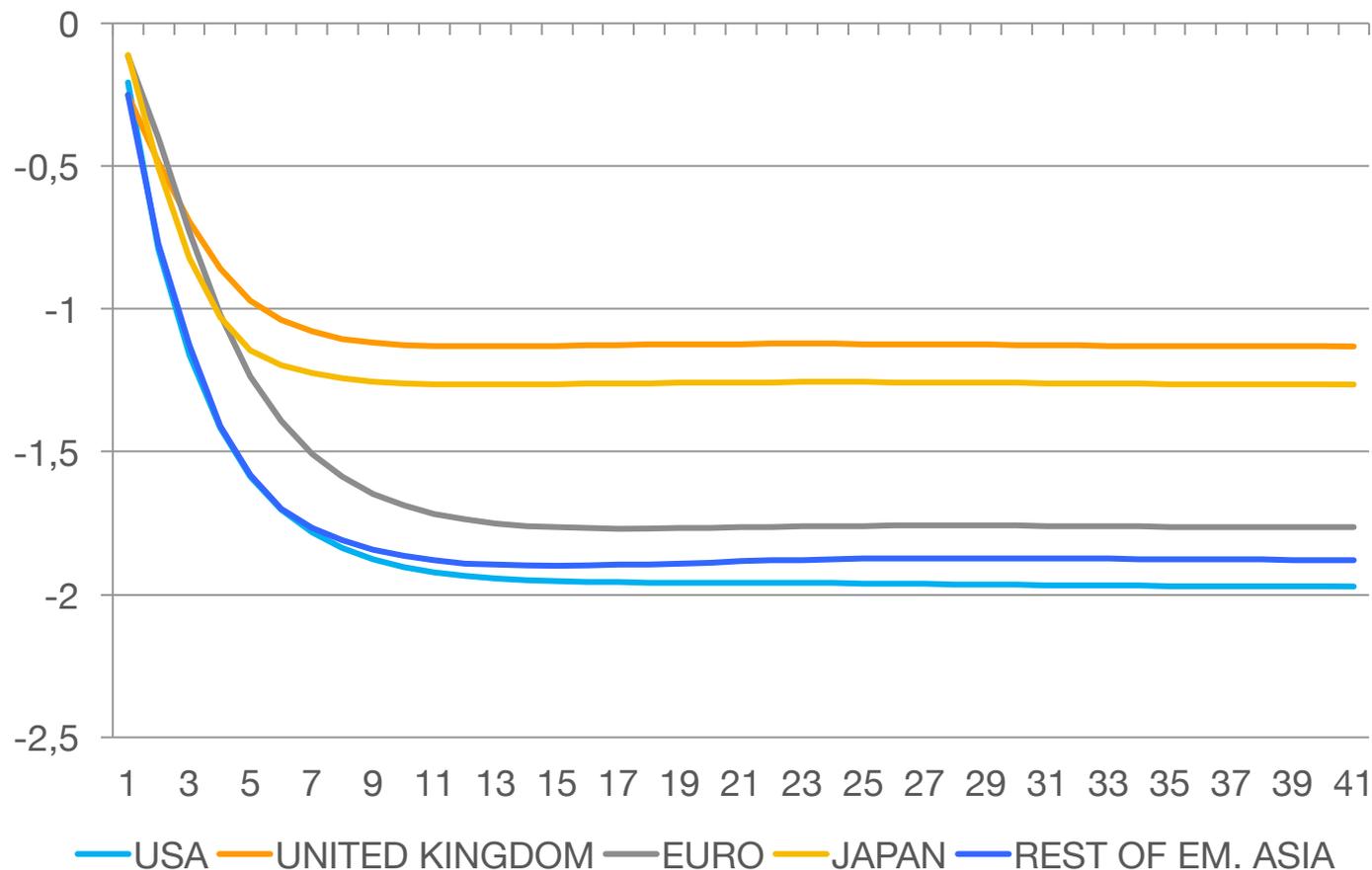
- Small real impact outside Asia, if the shock is limited to Asia financial markets
- ...but strong on Asia, despite the positive impact of the devaluation on exports

VIX shock – impact on real GDP



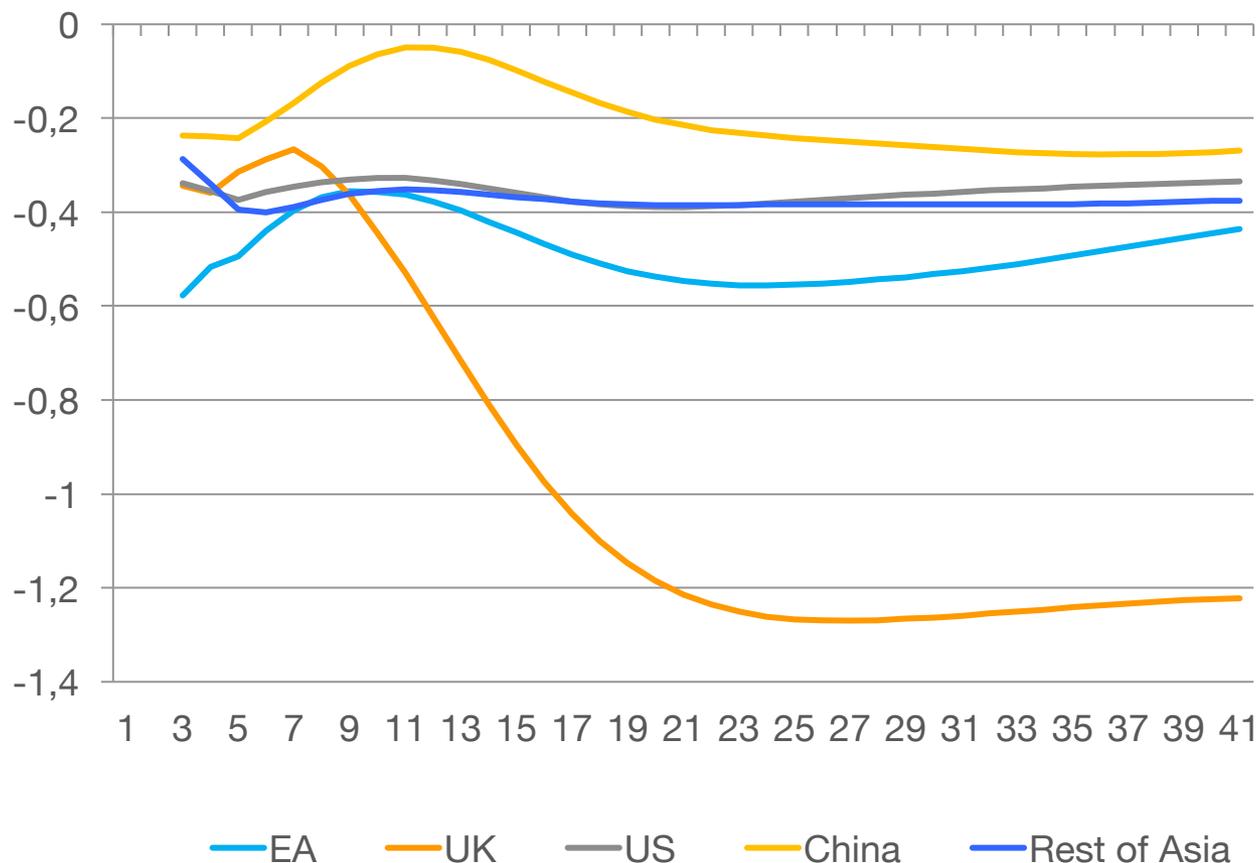
- China's GDP response is relatively muted, owing to its rather closed financial market
- Strong impact on Japan, US and Euro area

GDP responses to US equity shock (-15 pp for 4 quarters)



- Consistent with the high integration between Asian and US financial systems, a 15 percent shock on US equities has virtually the same impact on emerging Asia than in the US

GDP responses to negative GDP shocks in Europe



The simulation has the most subdued impact on China, while impacts are the strongest on the UK and only marginal – but higher than on China - on the US and rest of Asia.

→ As long as EU issues do not spread into global asset prices or confidence, they have little impact on China and rest of Asia

Conclusions

- Although preoccupations among observers are increasing on the potential systemic fragility of its banking system, a China hard landing scenario is judged as a low probability event, considering the substantial downward revisions already incorporated in a “benign consolidation” growth baseline
- This notwithstanding - amid a fragile and fragmented credit system and a (too high) revision upwards of Government growth objectives - the balance of risks may be gradually tilting to the negative side
- Our model simulations show that Asian economies may be effected in a non-trivial fashion should even a small deterioration of the China GDP outlook take place, given their tight trade links
- The paper also investigates alternative channels of transmission
 - As the recent increase in volatility after a China event showed, worsening confidence and increasing uncertainty are increasingly important for shock transmission to the rest of the world (even more than for China itself)
- This is “enhanced global dimension of China” is obviously a new situation, not entirely accommodated by existing models, which deserves the outmost research attention going forward

Thanks for your attention!

