#### SEĐLABANKI ÍSLANDS





#### Outline



- Monetary policy and financial stability in financially integrated small open economies (SOFIES)
- Policy options
- Case of Iceland
- SOFIES and the international monetary and financial system (IMFS)

### Global financial integration and SOFIEs: theory



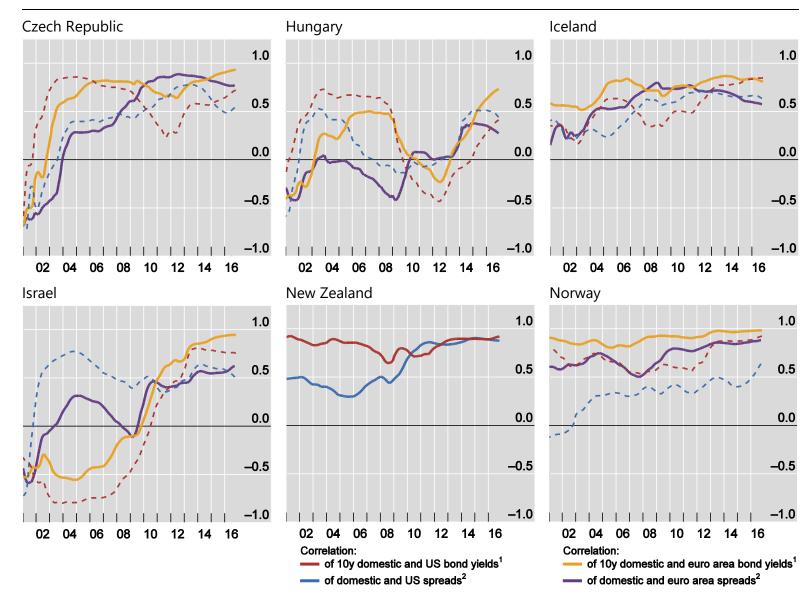
- Taking global financial integration to its economic extreme and assuming constant risk premia =>
- Long term rates in SOFIEs become determined by monetary policy in the big countries (core rate-setters)
- Inflation targets can still be reached through the exchange rate channel
- If exchange rates are "well behaved" and the financial sector sufficiently regulated and supervised =>
- A floating exchange rate and "keeping your own house in order" is sufficient for independent monetary policy and financial stability

#### Global financial integration and SOFIEs: empirics

- Data on long-term rates and spreads consistent with the story (and lot of other empirical work as well) – we are still some way from the theoretical limiting case
- Before the crisis, some argued that these patterns could be due to common shocks, spread of similar monetary policy frameworks (IT around 2% and CB policy rates as the main instrument), and increased credibility
- Case studies, comparisons of pre- and post-crisis periods, and other observations make it more and more plausible that GFI is the main driver
- It is also at play between big countries but less prominent (e.g. US versus EZ)

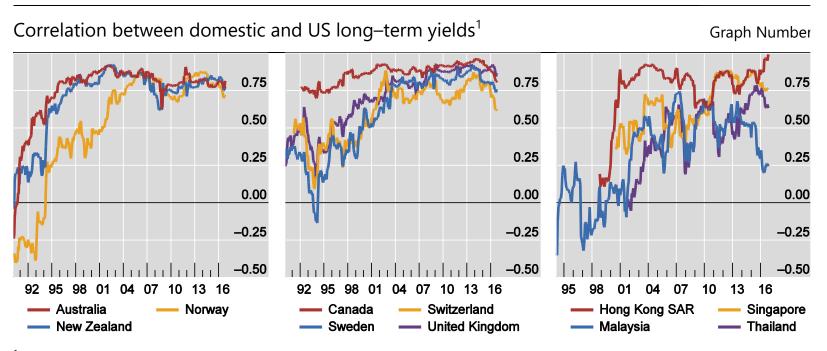
#### Evolving correlations between SOE and US/euro area sovereign yields

10-year rolling correlations, average monthly yields



<sup>&</sup>lt;sup>1</sup> Rolling correlations between the domestic SOE and US 10-year government bond yields. For European countries, also with euro area 10-year government bond yields. <sup>2</sup> Rolling correlation between the domestic SOE and the US and euro area short- and long-term sovereign spreads. The short-term interest rate is a 3-month market rate and the long-term yield is a 10-year government bond yield.

Sources: Bloomberg, Datastream, BIS, BIS calculations.



<sup>&</sup>lt;sup>1</sup> Monthly changes using a 36–month moving window; for Hong Kong SAR, Malaysia, Singapore and Thailand, 24–month moving window. Ten-year bond yields.

Sources= Bloomberg; national data.

#### GFI and SOFIEs: problems



- Exchange rates do not smoothly reflect fundamentals: UIP does not hold except in the long run, and then with sharp and disorderly corrections – carry trade
- Volatile capital flows driven by push factors (global financial conditions)
- Interaction with financial vulnerabilities; e.g., domestic currency mismatches
- Behind empirical conclusions that IMP is becoming more difficult in SOFIEs, irrespective of the exchange rate regime (e.g., Rey (2013))
- Still a trilemma but with trade-offs of variable severity (e.g., Obstfeld (2015))
- Is partly a permanent underlying phenomena (e.g. advanced SOFIES) but partly an on-off phenomena

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### Global financial integration and SOFIEs: conclusions

- A floating exchange rate is not sufficient for "safe" monetary policy independence
- It is becoming increasingly difficult for SOFIEs to conduct independent monetary policies without creating risks to financial stability
- Keeping your own house in order is not sufficient

#### Policy options

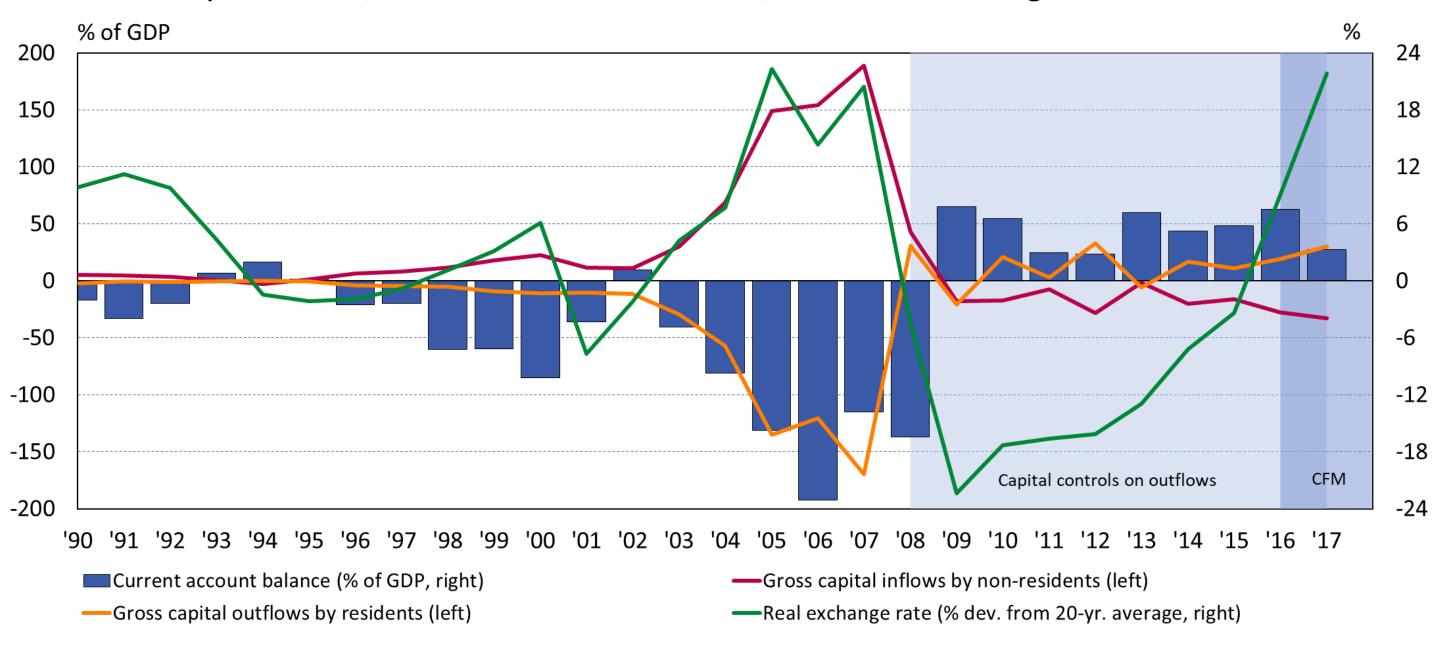


- Harmonisation of MP targets and frameworks helps but does not solve the problem – asymmetric shocks
- Give up independent monetary policy
- Live with it
- Adapt MP frameworks: a) FX intervention, b) more flexible IT, etc
- Increase resilience and ability to live with exchange rate fluctuations (reduce the fear of floating) – regulate FX risk on bank balance sheets, currency mismatches, etc.
- Additional tools: macroprudential and capital flow management

#### The capital flow problem in Iceland



Gross capital flows, current account balance, and real exchange rate 1990-2017<sup>1</sup>



<sup>1.</sup> Gross outflows by residents or net asset flows i.e. (negative of) changes in net foreign assets held by residents excluding effects of exchange rate movements and price changes. Gross inflows by non-residents or net liability flows, i.e. changes in net domestic assets held by non-residents excluding effects of exchange rate movements and price changes. Current account excluding the effect of failed financial institutions 2008-2015 and the pharmaceuticals company Actavis 2009-2012 on primary income. Also adjusted for the failed financial institutions' financial intermediation services indirectly measured (FISIM). Real exchange rate relative consumer prices (20-year average, 1998-2017). Sources: Broner, F., T. Didier, A. Erce, and S. L. Schmukler (2013). Gross capital flows: Dynamics and crises. Journal of Monetary Economics, 60, 113-133, National Economic Institute, Statistics Iceland, Central Bank of Iceland.

#### Policy reforms in Iceland after the crisis

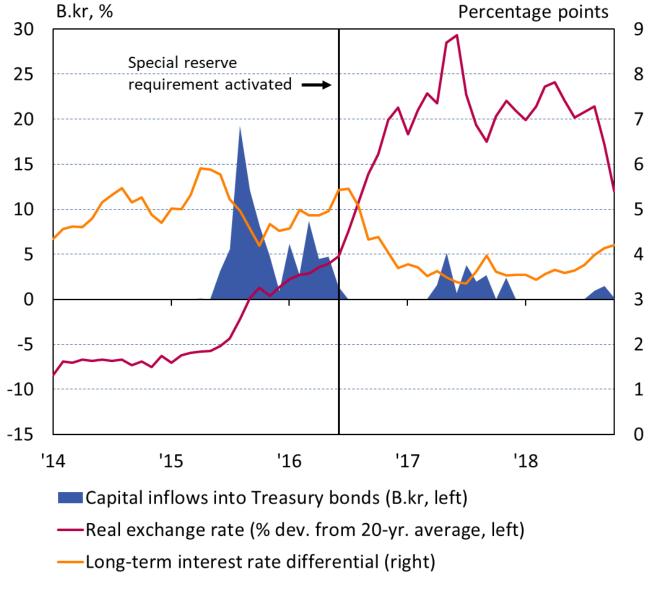


- More active use of FX interventions managed float instead of free float
- Tighter regulation of FX-risk:
  - LCR and NSFR in FX for banks
  - CB given powers to restrict FX lending to unhedged borrowers
- Macropru framework (FSC) and development and activation of "orthodox" macropru tools (e.g. countercyclical capital buffers and LTV)
- CFM: special non-renumerated reserve requirement on capital inflows into the bond market and high yielding deposits. Originally (June 2016) 40% for a year recently lowered to 20%.

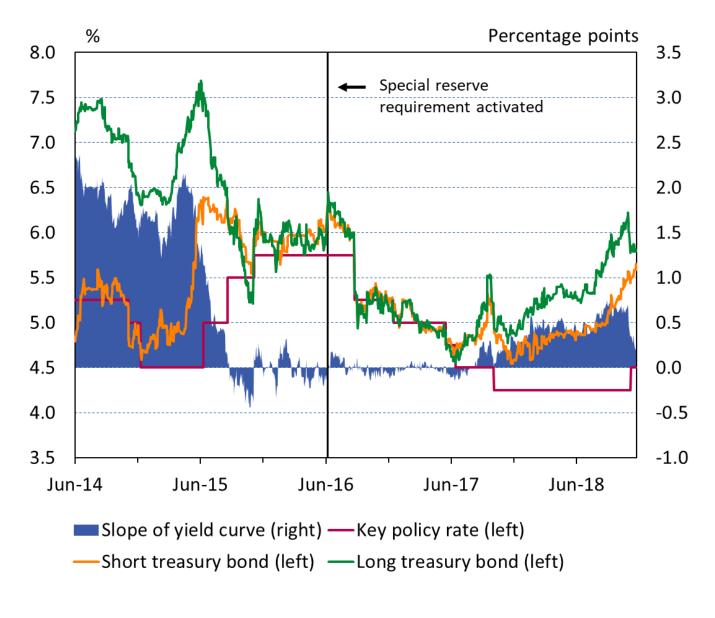
#### Capital inflow management in Iceland



## Capital inflows, interest rate differential, and real exchange rate<sup>1</sup> January 2014 - October 2018



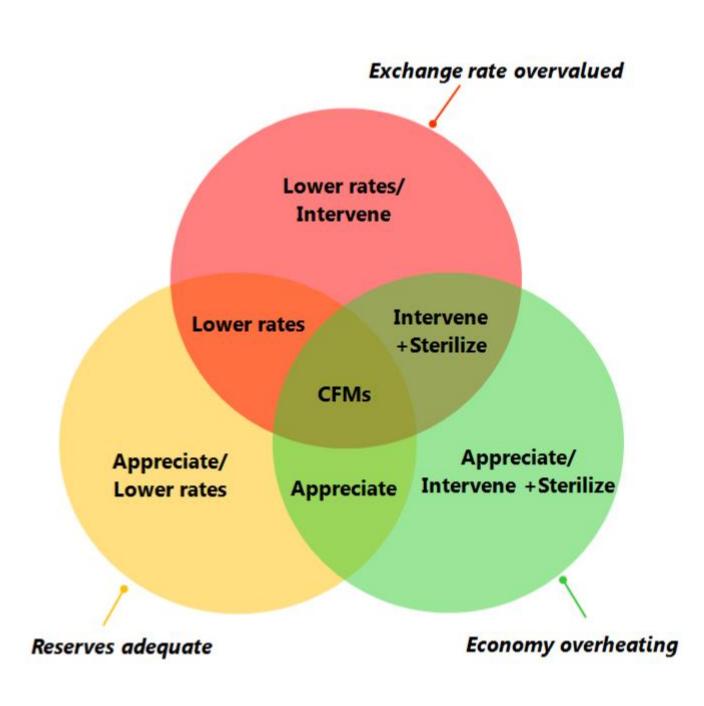
#### Central Bank policy rate and bond yields 1 June 2014 - 23 November 2018



<sup>1.</sup> Interest rate differential is the spread of 10-year Treasury bonds for Iceland versus equally weighted Treasury bond yields for the US and Germany. Real exchange rate relative consumer prices (20-year average, 1998-2017). Sources: Thomson Reuters, Central Bank of Iceland.



# Capital inflow management according to the Institutional View of the IMF



- CFM only used if there is an inflow surge
- Should not substitute for warranted macroeconomic policies
- Case of Iceland:
  - Inflow surge stopped in its infancy
    - prevention
  - Made warranted policies possible

#### IMFS and SOFIES



- Continue to adapt the IMFS to the realities of financial globalisation and challenges facing SOFIES
- Improving the global financial safety net will reduce the risks associated with free capital movements and reduce the fear of floating
- The application of the IV of the IMF needs to be more flexible and revised in light of experience going forward (eg Tharman Report)
- Other international organisations and treaties need to adjust to the experience of the crisis and new realities (eg OECD Code of Liberalisation)
- Over time we might develop new rules of the game

#### Conclusions



- Global financial integration without the matching development of official global arrangements have made it more difficult to preserve monetary and financial stability in SOFIES
- We need to employ more tools at the national level and adapt the IMFS
- For those with a flexible exchange rate the aim is to make the exchange rate more of a shock absorber and less of a shock amplifier
- We are currently climbing a learning curve and have to allow diversity