



Fixed or floating: A case study of Denmark's former colonies

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The Nordic countries



GREENLAND



ICELAND



FAROE ISLANDS

NORDIC COUNCIL



DENMARK

Monetary regimes

Denmark – fixed exchange rates since 1982 (DM) and 1999 (euro)

Finland – euro since 1999

Iceland – floating exchange rate

Norway – floating exchange rate

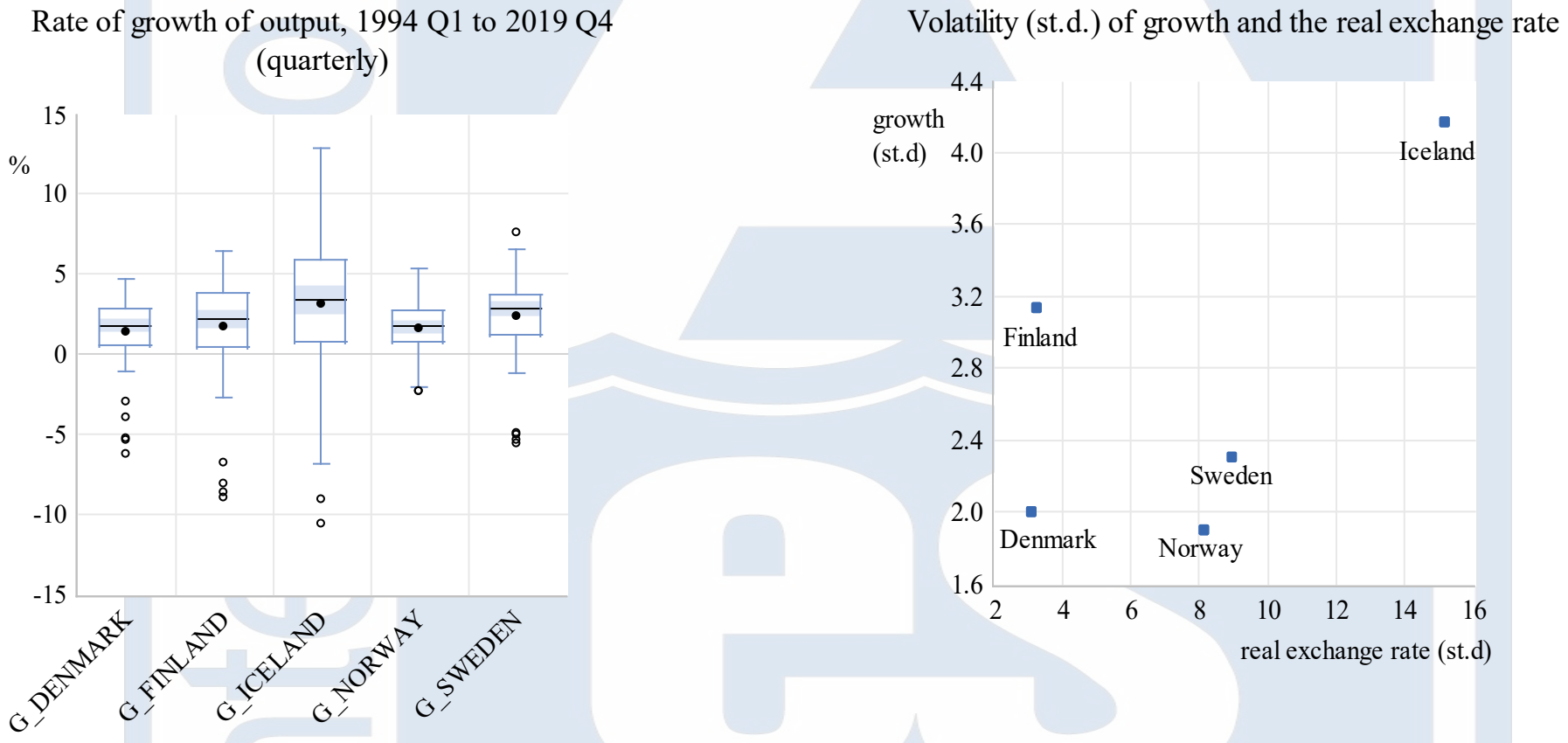
Sweden – floating exchange rate

Faroe Islands – Danish krona

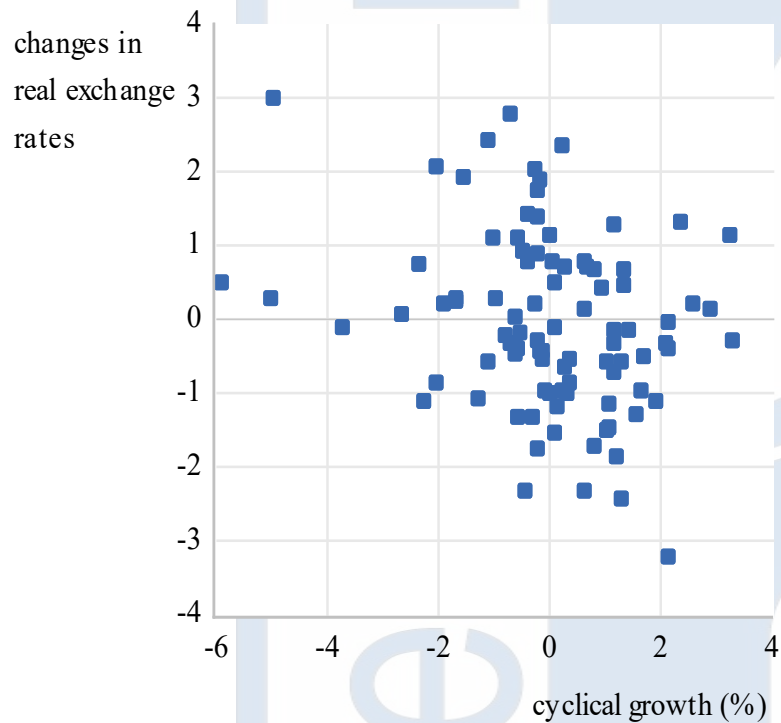
Does the monetary regime affect the magnitude of the business cycle?

Does a floating exchange rate insulate an economy against shocks?

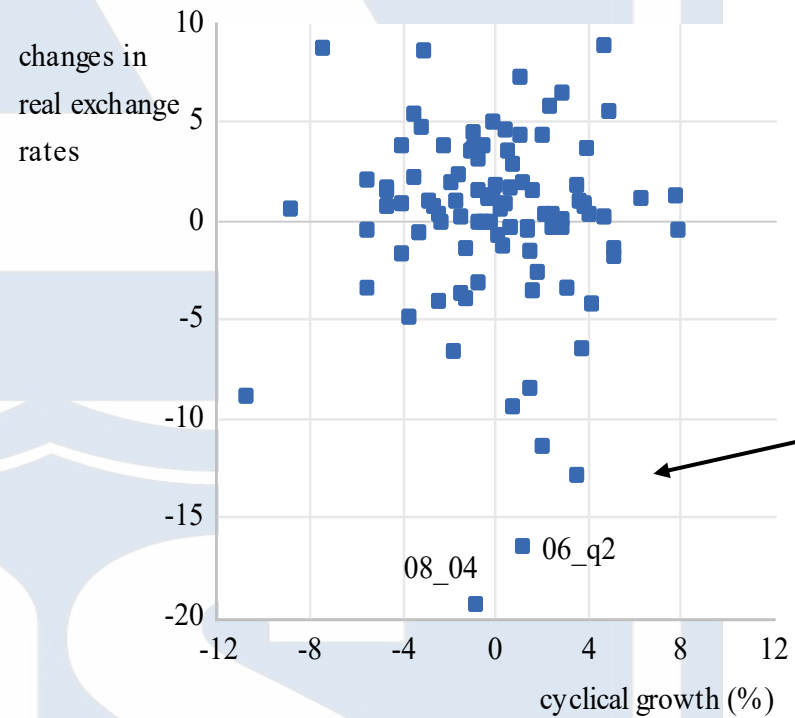
Does exchange rate flexibility bring more output stability?



Denmark
Cyclical growth and changes in real exchange rates (1996Q1 2019Q4)



Iceland
Cyclical growth and changes in real exchange rates (1996Q1 2019Q4)



Capital outflow episodes.

Cyclical growth found as the difference between actual growth and a H-P filtered trend.

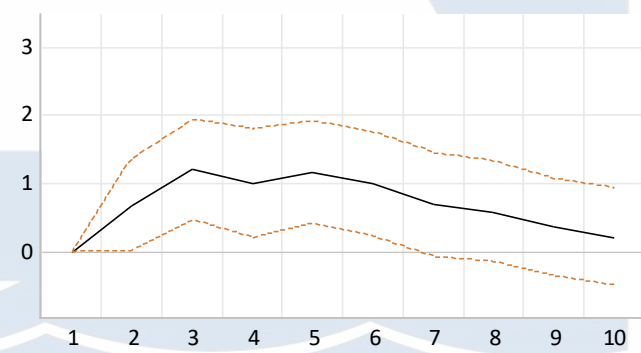
Impulse response functions for real exchange rates and output growth Iceland

Response to Cholesky One S.D. (d.f. adjusted) Innovations
± 2 analytic asymptotic S.E.s

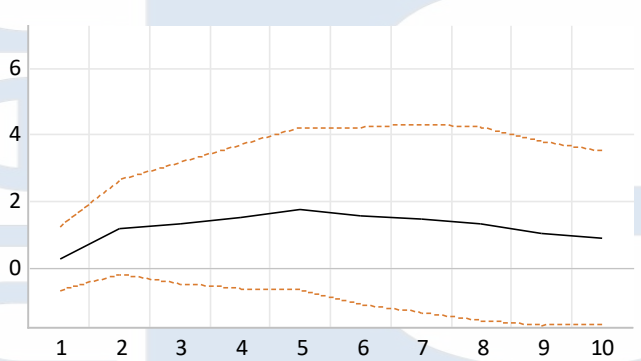
Response of GROWTH_ICE to GROWTH_ICE Innovation



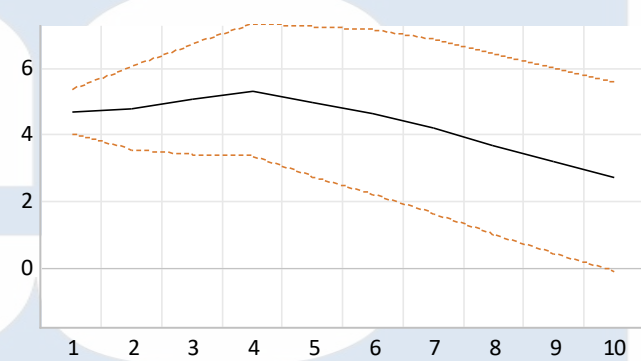
Response of GROWTH_ICE to RER_ICE Innovation



Response of RER_ICE to GROWTH_ICE Innovation



Response of RER_ICE to RER_ICE Innovation



Real exchange rate appreciation causes positive output growth.

Destabilizing effect – capital inflow.

Positive output growth causes appreciation of real exchange rate.

Stabilizing effect.

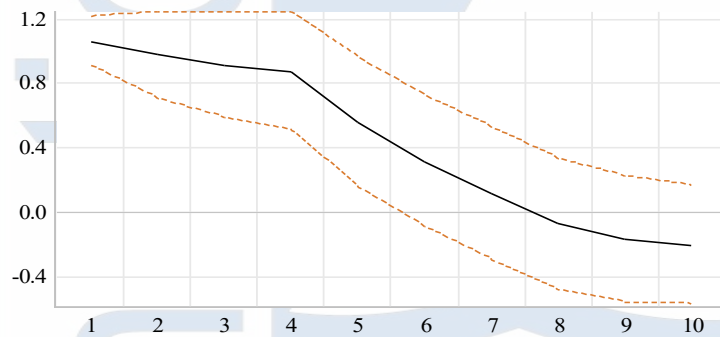


Impulse response functions for real exchange rates and output growth

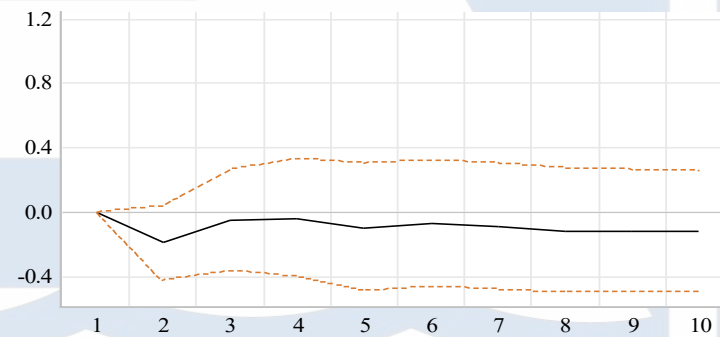
Denmark

Response to Cholesky One S.D. (d.f. adjusted) Innovations
 ± 2 analytic asymptotic S.E.s

Response of GROWTH_DEN to GROWTH_DEN Innovation

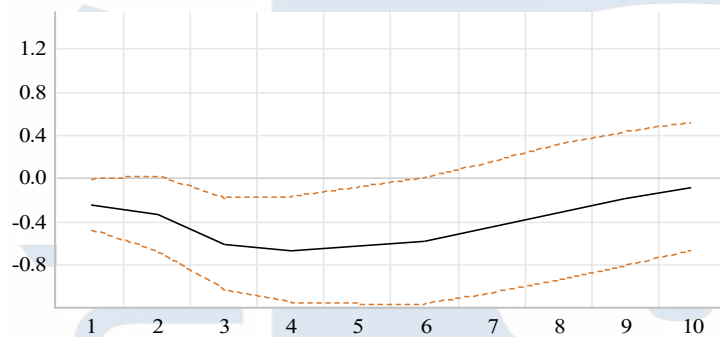


Response of GROWTH_DEN to RER_DEN Innovation



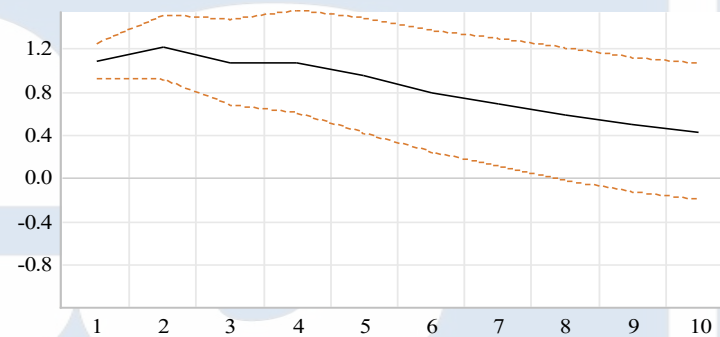
No significant effect.

Response of RER_DEN to GROWTH_DEN Innovation



No significant effect.

Response of RER_DEN to RER_DEN Innovation



Impulse response functions for real exchange rates and output growth

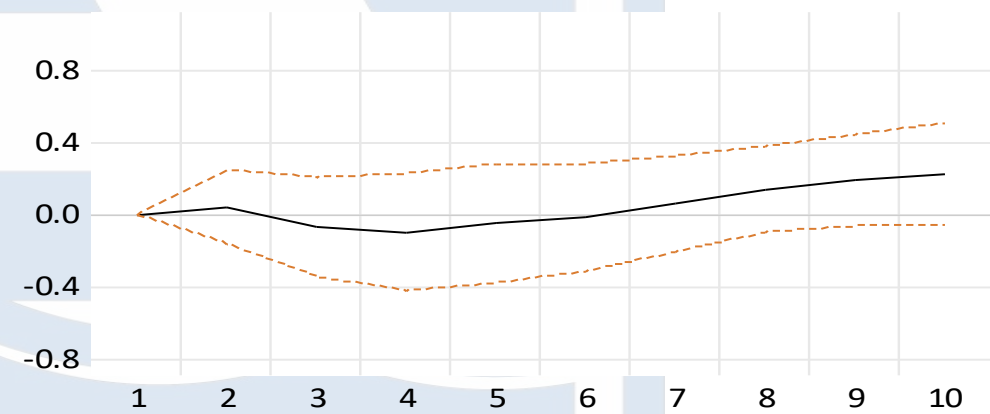
Sweden

Response to Cholesky One S.D. (d.f. adjusted) Innovations
 ± 2 analytic asymptotic S.E.s

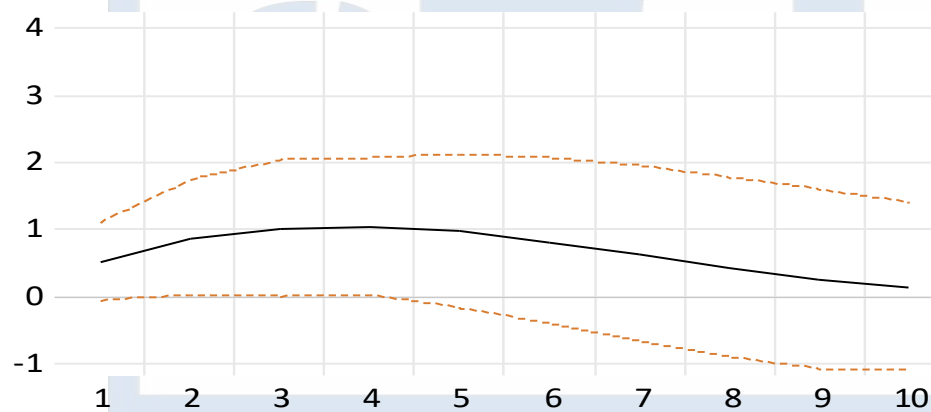
Response of GROWTH_SWE to GROWTH_SWE Innovation



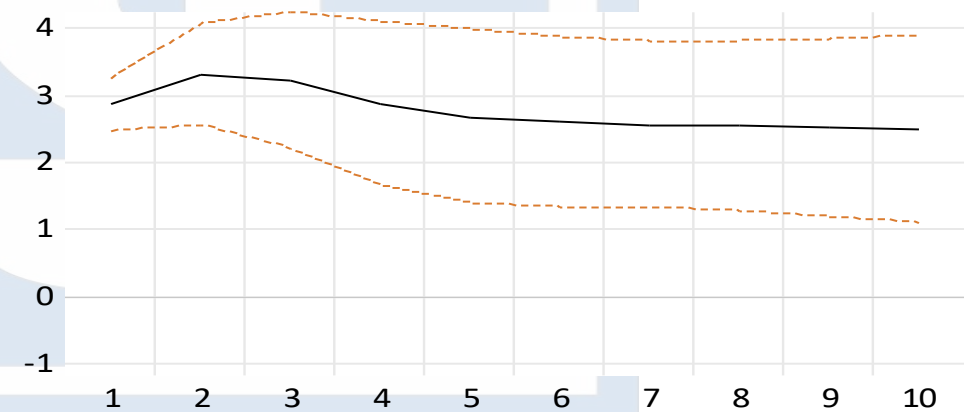
Response of GROWTH_SWE to RER_SWE Innovation



Response of RER_SWE to GROWTH_SWE Innovation



Response of RER_SWE to RER_SWE Innovation



Stabilizing effect

- **Bottom line:**

- Not much evidence that exchange rate flexibility has stabilized output growth in Iceland, nor for that matter in Sweden.
- Output growth not more volatile in Denmark.
- But
 - Denmark is a more diversified economy than Iceland, population 15 times larger.
 - Instead of comparing Iceland to Denmark, we can compare it to the Faroe Islands, which have home rule but are part of the Kingdom of Denmark, outsource the foreign service, university, financial supervision and the central bank to Denmark.

Two island economies with limited diversification of industries



	Faroe Islands	Iceland
Population (000s)	52.9	400
GDP per capita (000 dollars)	69.01	68.73
Life expectancy (years)	83.1	82.8
Unemployment (%)	0.6	3.3
Fish exports (% of total)	88	
Fiscal transfers from Denmark (% of total gov. revenues)*	8.8	



* Fixed monetary sum – not cyclical

Faroe Islands



Iceland



= approximately 70 dollars

No central bank
Danish krona used
Fixed exchange rates against euro

Independent central bank
Monetary policy committee
Inflation targeting
Floating exchange rates

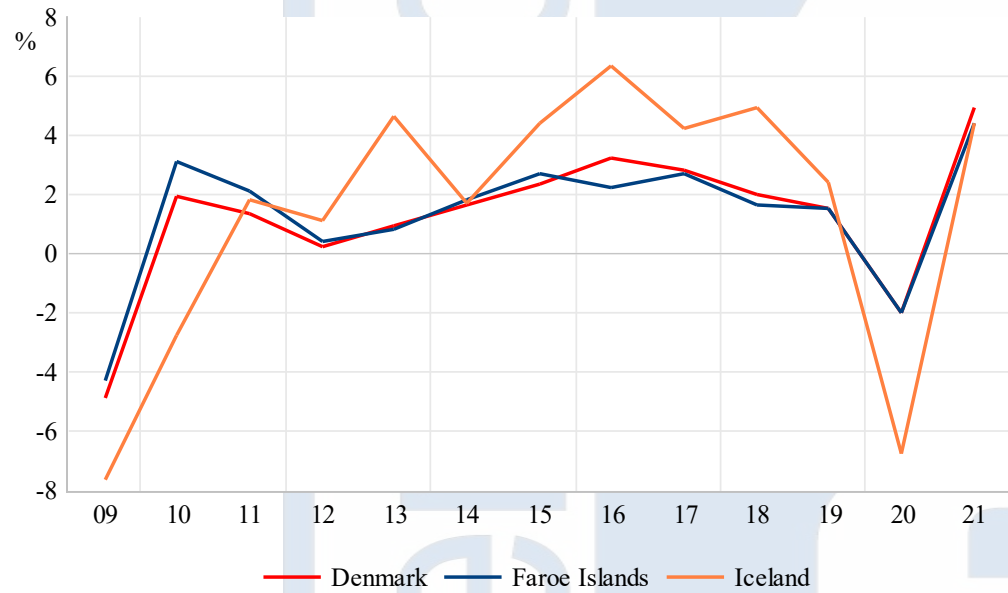
Optimal currency areas with EU?

Asymmetric shocks

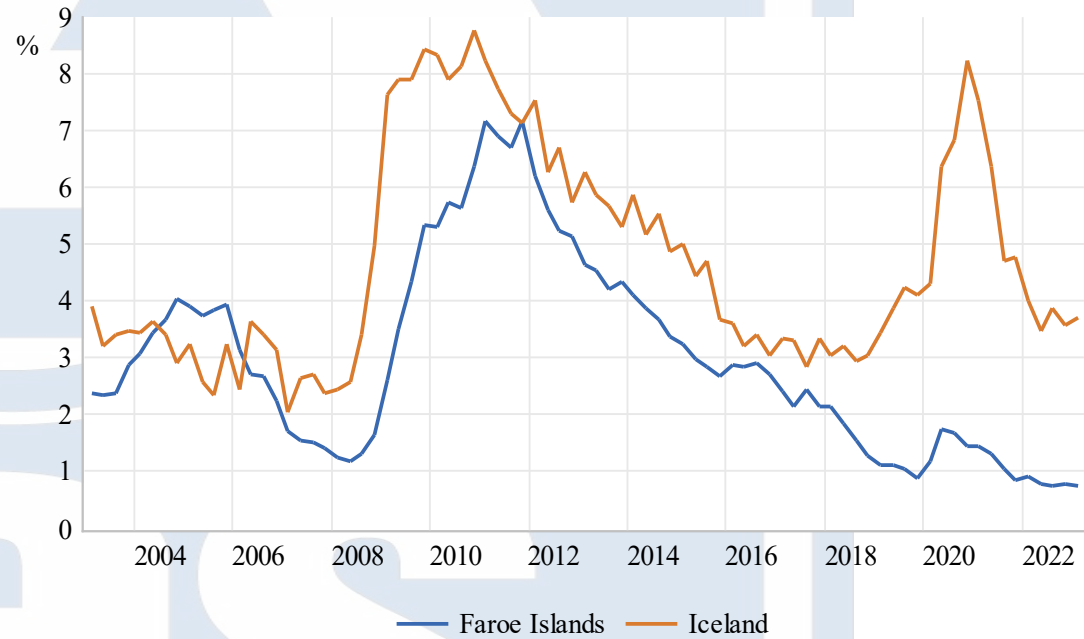
Wages and prices rigid, but both countries are part of a common European labour market

Output and unemployment

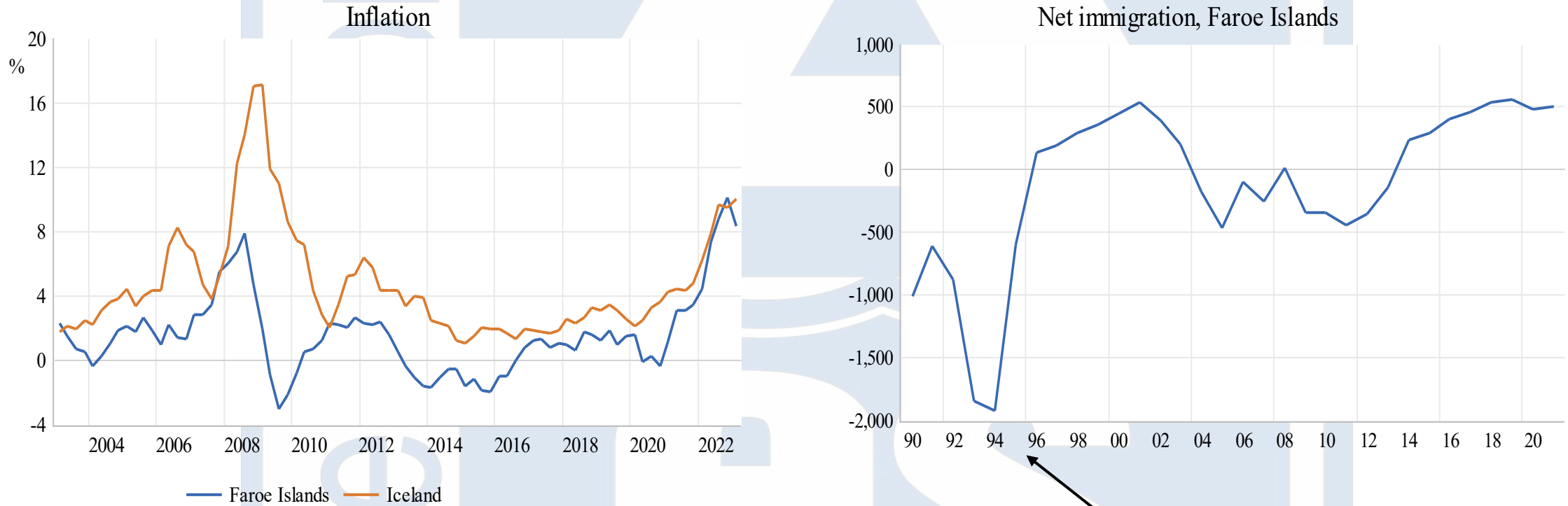
Real economic growth



Unemployment

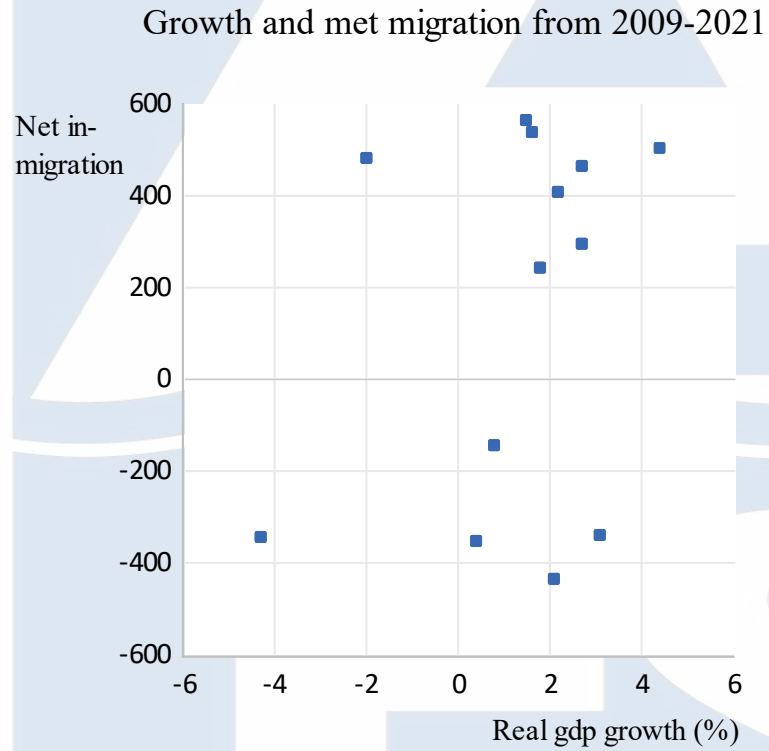


Inflation and net immigration



Financial crisis in 1994 –
sovereign debt crisis, bailed out
by Denmark.

Relationship between growth and net migration to the Faroe Islands



- **Bottom line:**

- Not much evidence that exchange rate flexibility has stabilized output growth in Iceland in comparison to the Faroe Islands.
 - More volatile output growth in Iceland
 - More volatile unemployment in Iceland
 - More inflation in Iceland
- However, following a financial crisis, output and unemployment recover sooner due to exchange rate depreciation.
 - Ireland took longer to recover than Iceland post 2008... unemployment remained higher for longer.
 - But the crash in Iceland had a lot to do with a floating currency and capital mobility.

Downside of flexible exchange rates in a tiny open economy

- Incomplete risk diversification.
 - Pension fund assets valued at two year's GDP only partially invested abroad.
 - Shocks to local economy affect the value of pension assets.
- Limited foreign direct investment.
 - All foreign investment not part of the domestic currency area.
- Exchange rate fluctuations reduce trade.
- Inflation expectations not well anchored.
 - Higher interest rates.

- **Benefits of fixed exchange rates in Denmark.**

- Backed by the ECB making it more stable.
- Nominal anchor for economy.
 - Fiscal policy.
 - Wage agreements.
- Own currency, bond market more stable than in the eurozone.
- If disaster strikes, devaluation possible, in contrast to the eurozone.