EUROPEAN CENTRAL BANK

EUROSYSTEM

(Indicators of) Financial Integration

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Introduction

This presentation

- ✓ Looks at various dimensions of financial integration;
- ✓ Introduces a set of measures of financial integration across different financial market segments.

Disclaimer: Any views expressed are only the speaker's own and should not be regarded as views of the European Central Bank or the Eurosystem.

Overview

1

Financial Integration

Definition of Financial Integration

Google “financial integration” and …

Financial integration

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From Wikipedia, the free encyclopedia

Financial integration is a phenomenon in which financial markets in neighboring, regional and/or global economies are closely linked together. Various forms of actual financial integration include: Information sharing among financial institutions; sharing of best practices among financial institutions; sharing of cutting edge technologies (through licensing) among financial institutions; firms borrow and raise funds directly in the international capital markets; investors directly invest in the international capital markets; newly engineered financial products are domestically innovated and originated then sold and bought in the international capital markets; rapid adaption/copycat of newly engineered financial products among financial institutions in different economies; cross-border capital flows; and foreign participation in the domestic financial markets.

“ … among many others!

Definition of Financial Integration

" … we define financial integration as a situation whereby there are no frictions that discriminate between economic agents in their access to – and their investment of – capital, particularly on the basis of their location. This means that financial integration is achieved when there is equal market access, de facto and de jure. … "

"*The way back to financial integration*", Speech by Benoît Cœuré, Member of the Executive Board of the ECB, Madrid, 12 March 2013

Definition of Financial Integration

For the ECB, the market for a given set of financial instruments and/or services is **fully integrated** if all potential market participants with the same relevant characteristics:

1. face a **single set of rules**;
2. have **equal access** to the set of financial instruments and/or services;
3. are **treated equally**.

- ECB, "*Financial integration in Europe*", May 2018
- Baele, L. et al., "*Measuring financial integration in the euro area*", ECB Occasional Paper Series, No 14, ECB, Frankfurt am Main, April 2004.

The Eurosystem and Financial Integration

The Eurosystem has a keen interest in the integration.

Financial integration

- fosters a smooth and balanced transmission of monetary policy throughout the euro area;
- It is relevant for financial stability;
- It is important for the Eurosystem's task of promoting well-functioning payment systems.

Without prejudice to price stability, the Eurosystem also supports the objective of completing the EU Single Market, including financial integration.

The Eurosystem mission and Financial Integration

Eurosystem mission

The Eurosystem, which comprises the European Central Bank and the national central banks of the Member States whose currency is the euro, is the monetary authority of the euro area. We in the Eurosystem have as our primary objective the maintenance of price stability for the common good. Acting also as a leading financial authority, we aim to safeguard financial stability and promote European financial integration.

https://www.ecb.europa.eu/ecb/orga/escb/eurosystem-mission/html/index.en.html

The role of the Eurosystem

The ECB and the euro national central banks – the Eurosystem – are legally mandated to support financial integration in Europe.

- Advising on the legislative and regulatory framework for the financial system
- Acting as a catalyst for private sector activities
- Providing central bank services that foster financial integration
- Carrying out in-depth analyses of the state of financial integration

ECB Report on “Financial integration and Structure in the Euro Area”

- In September 2005 the ECB published a first set of indicators of financial integration and a report assessing the state of euro area financial integration.
- Since then the work on financial integration has evolved and widened.
- ECB publishes now the analyses’ results every two years in a Report on Financial integration and structure in the euro area.

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Measures of Financial Integration

Measures of financial integration

https://www.ecb.europa.eu/stats/financial_markets_and_interest_rates/financial_integration/html/index.en.html

Measures of financial integration

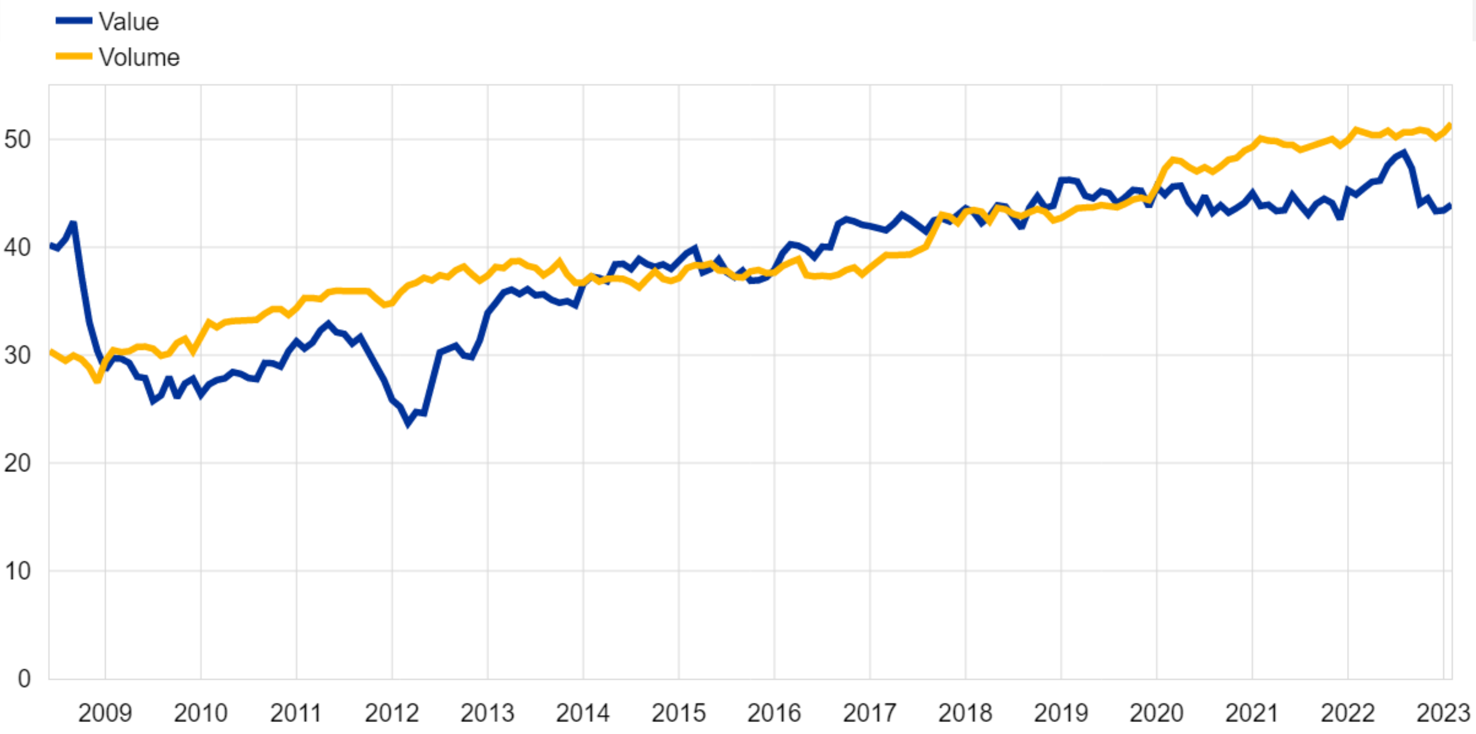
Since September 2005 the ECB has been publishing a set of indicators of financial integration for the euro area

- Price-based measures;
- Quantity-based measures.

The indicators allow an overall assessment of the degree of financial integration in the main financial market segments:

- money market;
- bond markets;
- equity markets;
- banking markets.

Share of cross-border activity in TARGET2



Sources: ECB

What is TARGET2?

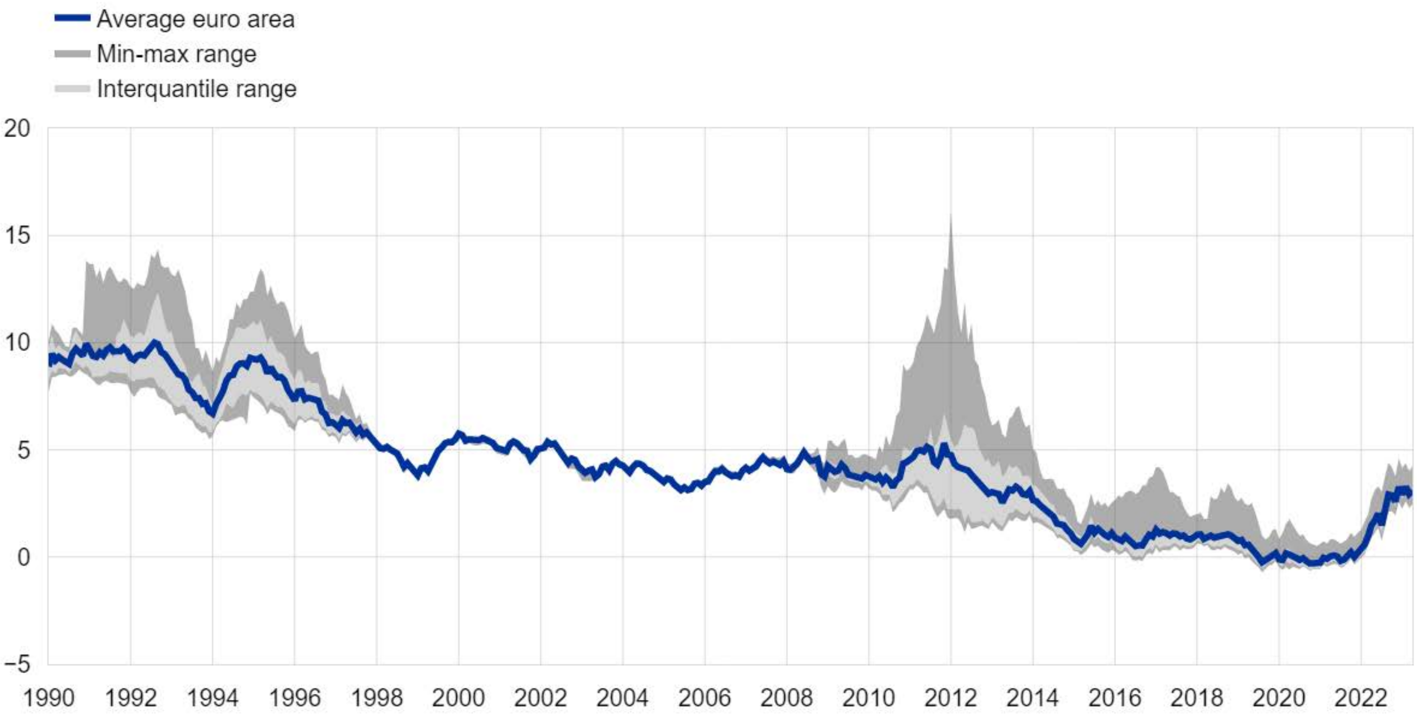
TARGET2 is the real-time gross settlement (RTGS) system owned and operated by the Eurosystem. Central banks and commercial banks can submit payment orders in euro to TARGET2, where they are processed and settled in central bank money, i.e. money held in an account with a central bank.

TARGET2 settles payments related to the Eurosystem's monetary policy operations, as well as bank-to-bank and commercial transactions.

Every five days, TARGET2 processes a value close to the entire euro area GDP, which makes it one of the largest payment systems in the world. More than 1,000 banks use TARGET2 to initiate transactions in euro, either on their own behalf or on behalf of their customers. Taking into account branches and subsidiaries, more than 52,000 banks worldwide and all their customers can be reached via TARGET2.

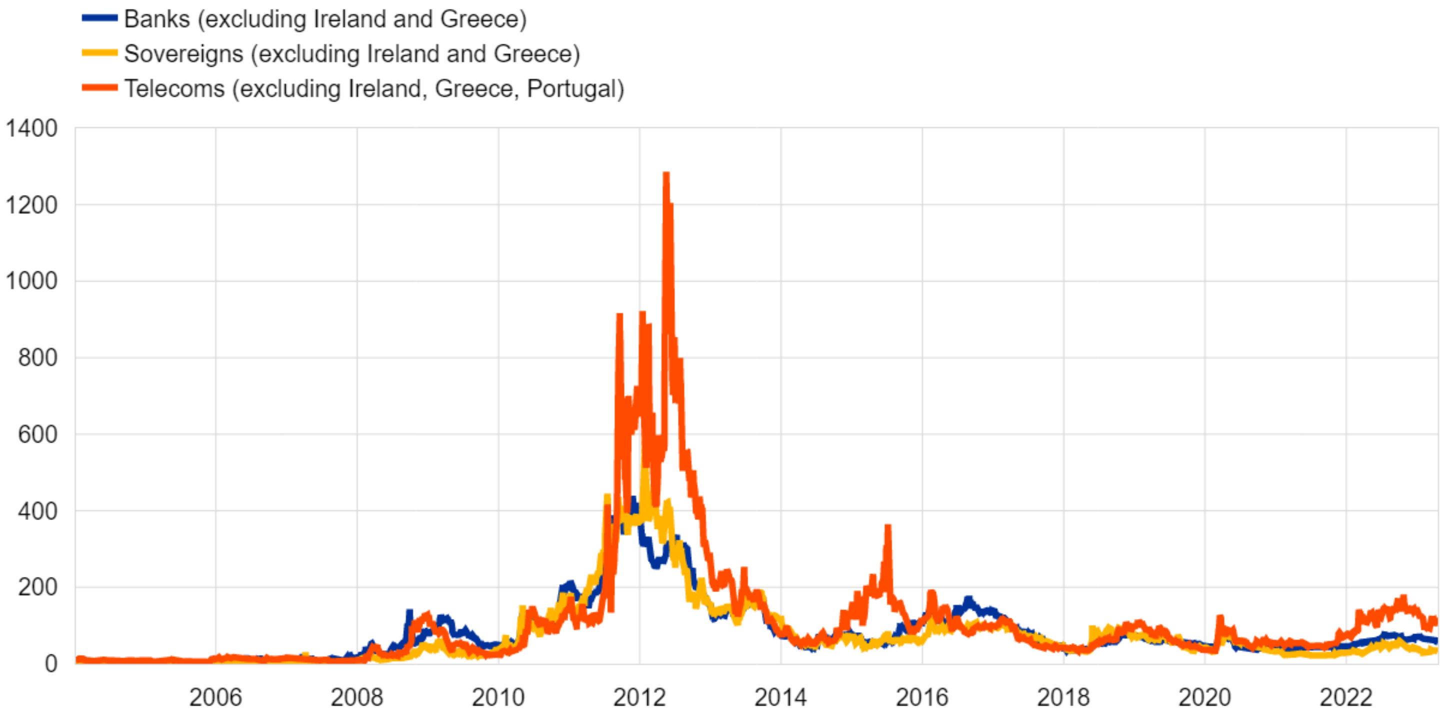
https://www.ecb.europa.eu/paym/target/target2/html/index.en.html

Dispersion of euro area ten-year sovereign bond yields



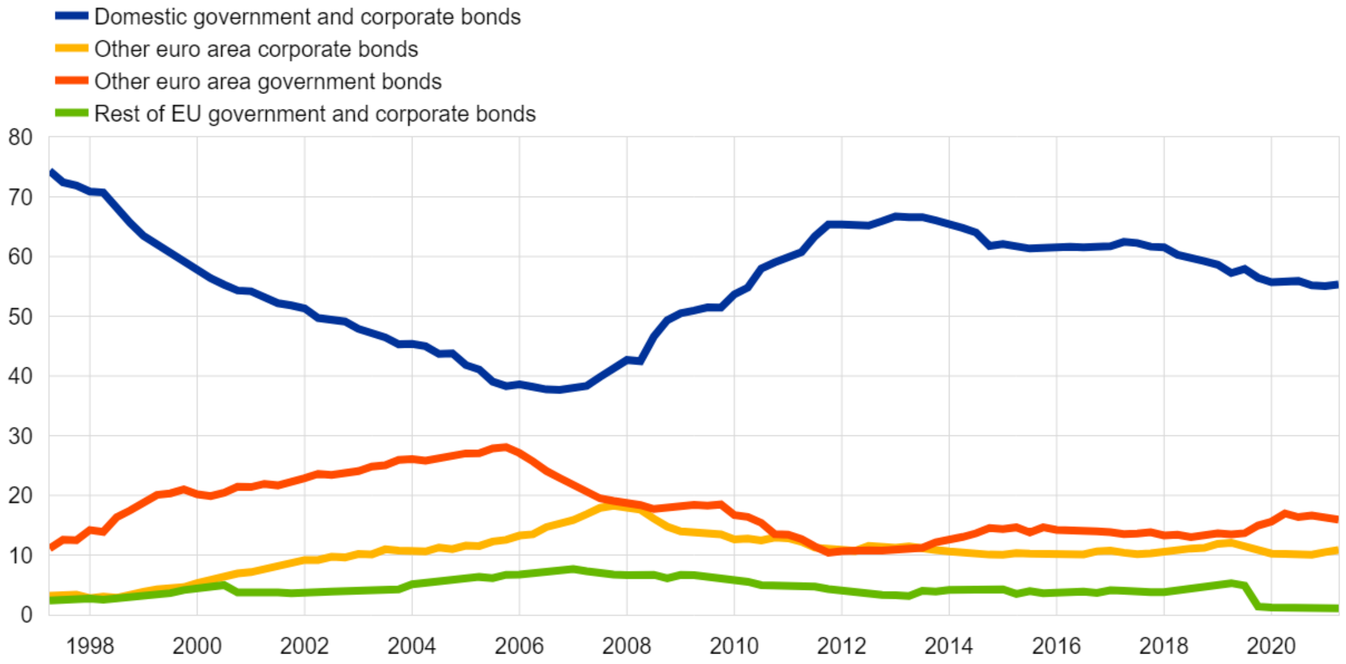
Sources: Bloomberg and ECB calculations.

Five-year CDS premia dispersion across the euro area



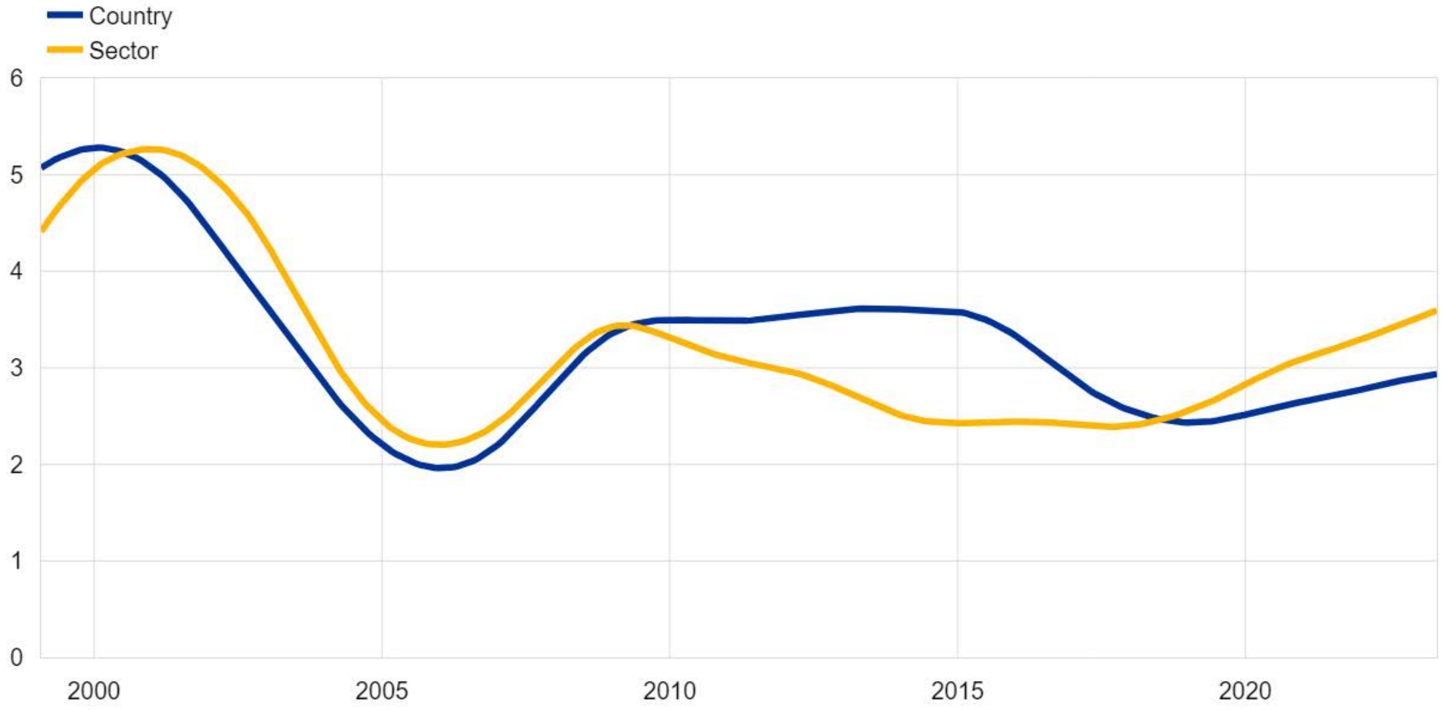
Sources: Refinitiv and ECB calculations.

Share of MFI cross-border holdings of debt securities issued by euro area and EU corporates and sovereigns



Source: ECB

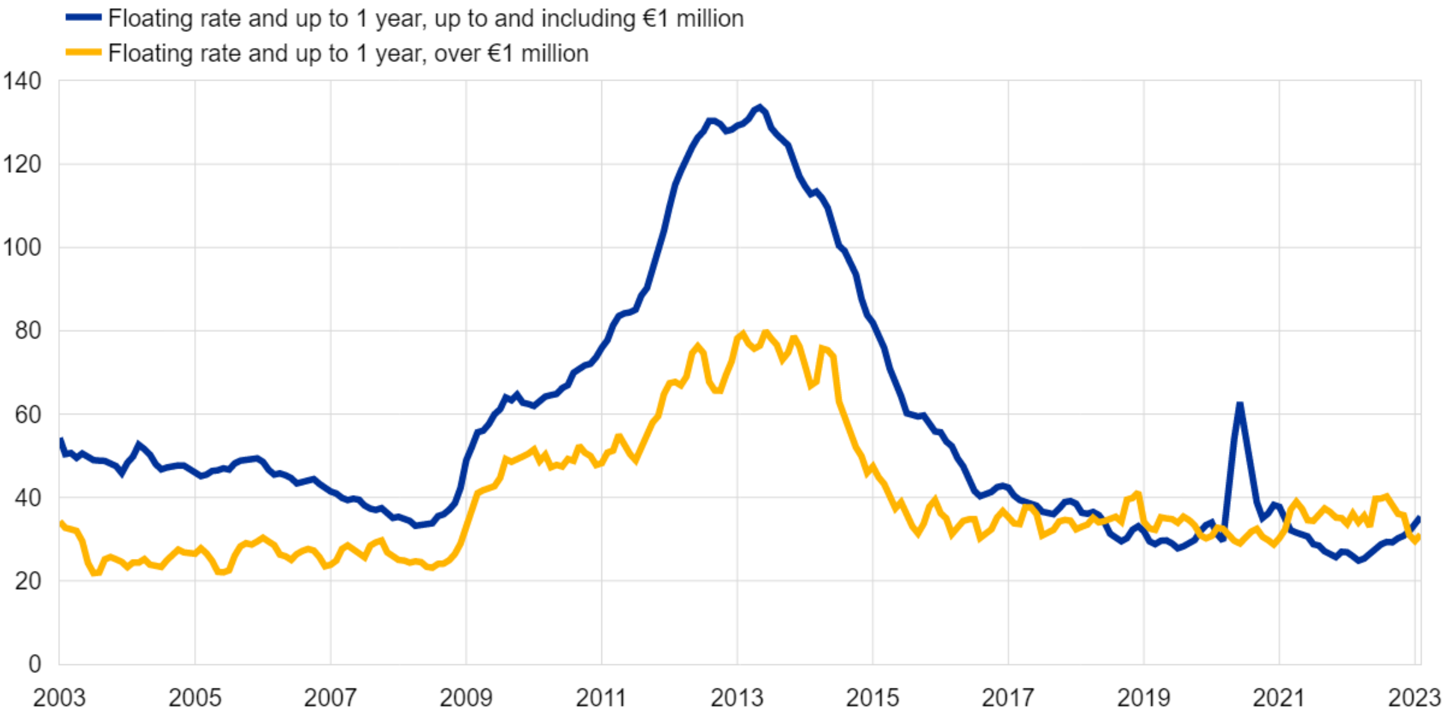
Country and sector dispersions in euro area equity returns



Sources: Refinitiv and ECB calculations.

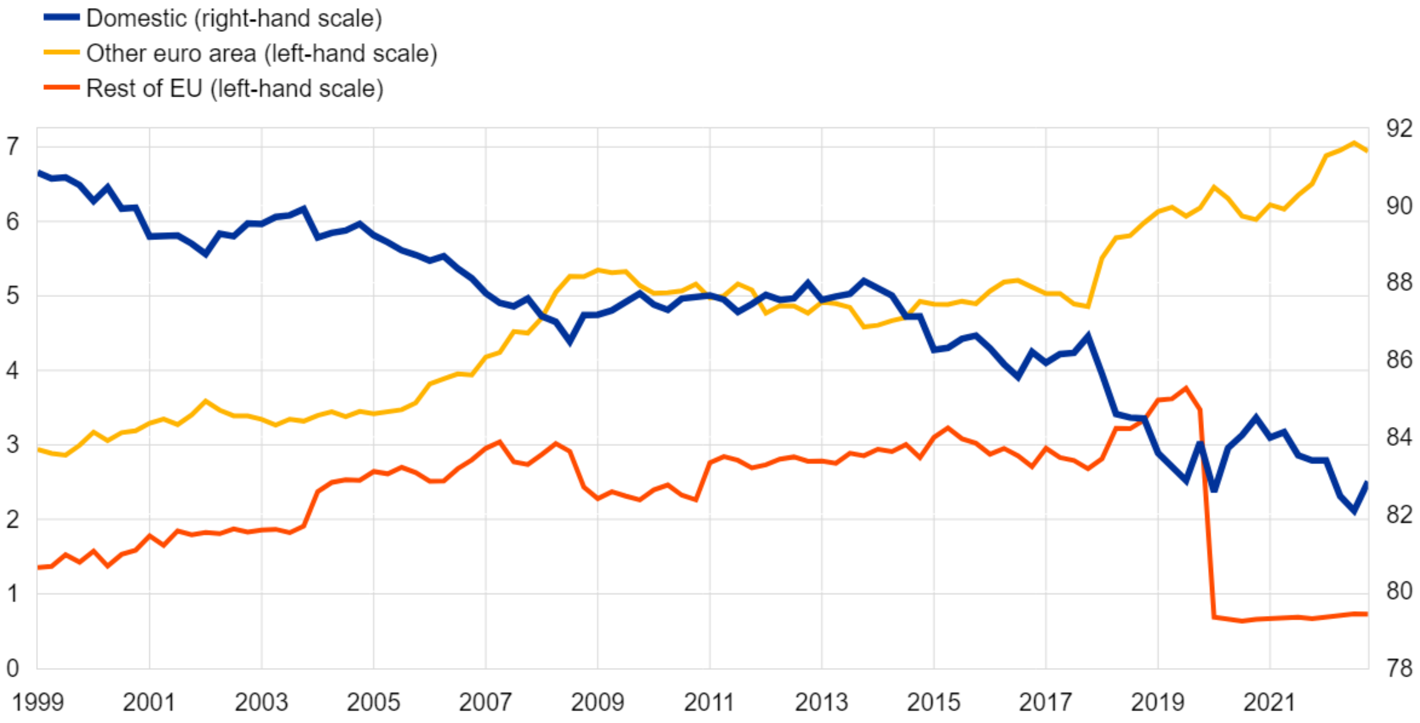
This indicator is derived by calculating the cross-sectional dispersions in both sector and country index returns for the euro area countries.

Cross-country standard deviation of MFI interest rates on new loans to NFCs



Source: ECB and ECB calculations.

MFI loans to non-MFIs: outstanding amounts by residency of counterparty



Source: ECB

Composite indicators of financial integration in Europe

- The price and quantity-based financial integration **composite indicators** aggregate data from a selection of market-specific indicators and provide a comprehensive overview of financial integration in the euro area;
- The indicators are bounded between zero (full fragmentation) and one (full integration).

Based on:

- Hollo, D., Kremer, M. and Lo Duca, M., "*CISS – A composite indicator of systemic stress in the financial system*", Working Paper Series, No 1426, ECB, March 2012
- Hoffmann, P., Kremer, M. and Zaharia, S., "*Financial integration in Europe through the lens of composite indicators*", mimeo 2015.

Price-based financial integration composite indicator

The price-based financial integration composite indicator is constructed from a set of indicators that cover the four main market segments:

- the money market;
- the bond market;
- the equity market;
- the banking market.

Price-based financial integration composite indicator

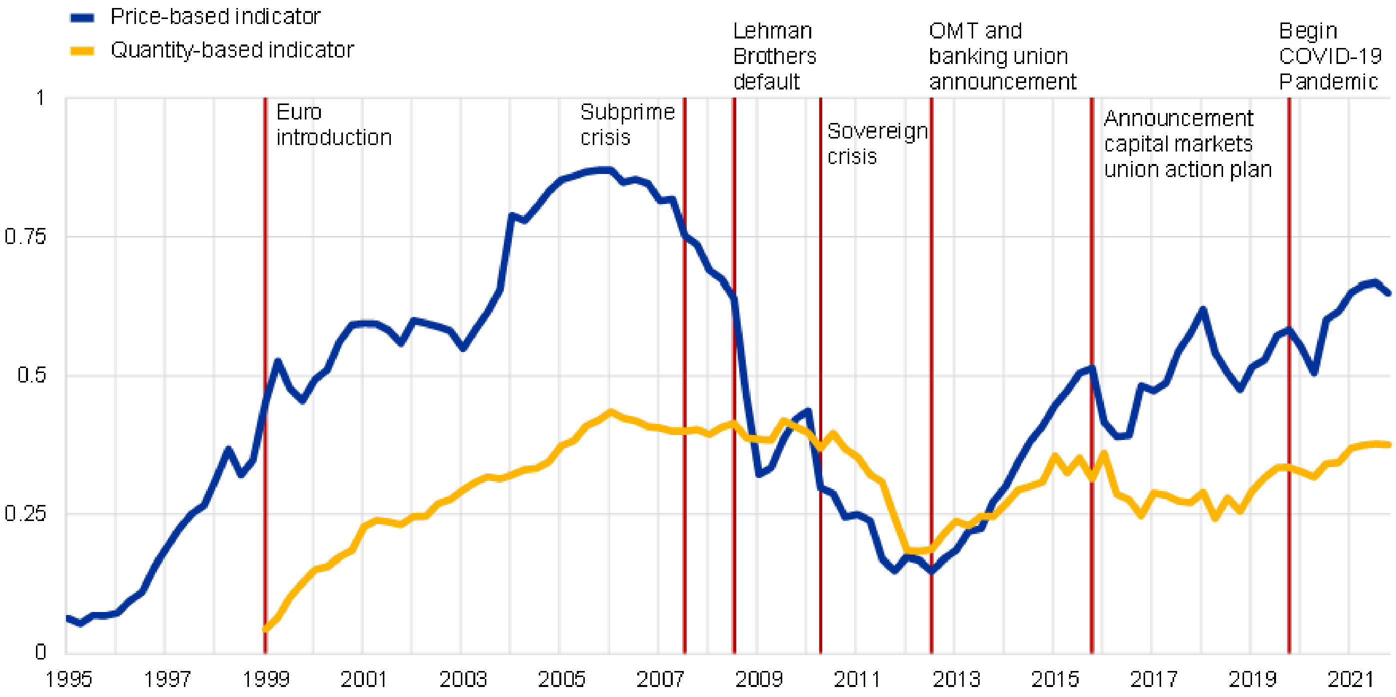
- All the input series used measure price dispersion and are then aggregated into sub-indices for the segments;

- The sub-indices are then aggregated into the price-based composite indicator by computing weighted averages using size weights that reflect the relative size of the underlying four financial market segments.

Quantity-based financial integration composite indicator

Source: ECB and ECB calculations

Price- and quantity-based financial integration composite indicators



Source: ECB and ECB calculations

Thank you for your attention!

Annex

Financial Integration

- Financial integration could have both stabilising and destabilising effects
- Stabilising effects from increased portfolio diversification; as banks and other investors are more diversified across borders, they could reduce their exposure to domestic shocks, with increasing (income and consumption) risk-sharing and smoothing
- Benefit also from improved allocative efficiency
  - Large cross-border banks and integrated financial markets can improve overall economic performance by channelling productive capital towards the most efficient firms

Financial Integration

- On the other hand, destabilising effects of financial integration may occur particularly through risk-taking and contagion.

- Asymmetric information problems associated with cross-border lending could lead to misaligned incentives and increased risk-taking.

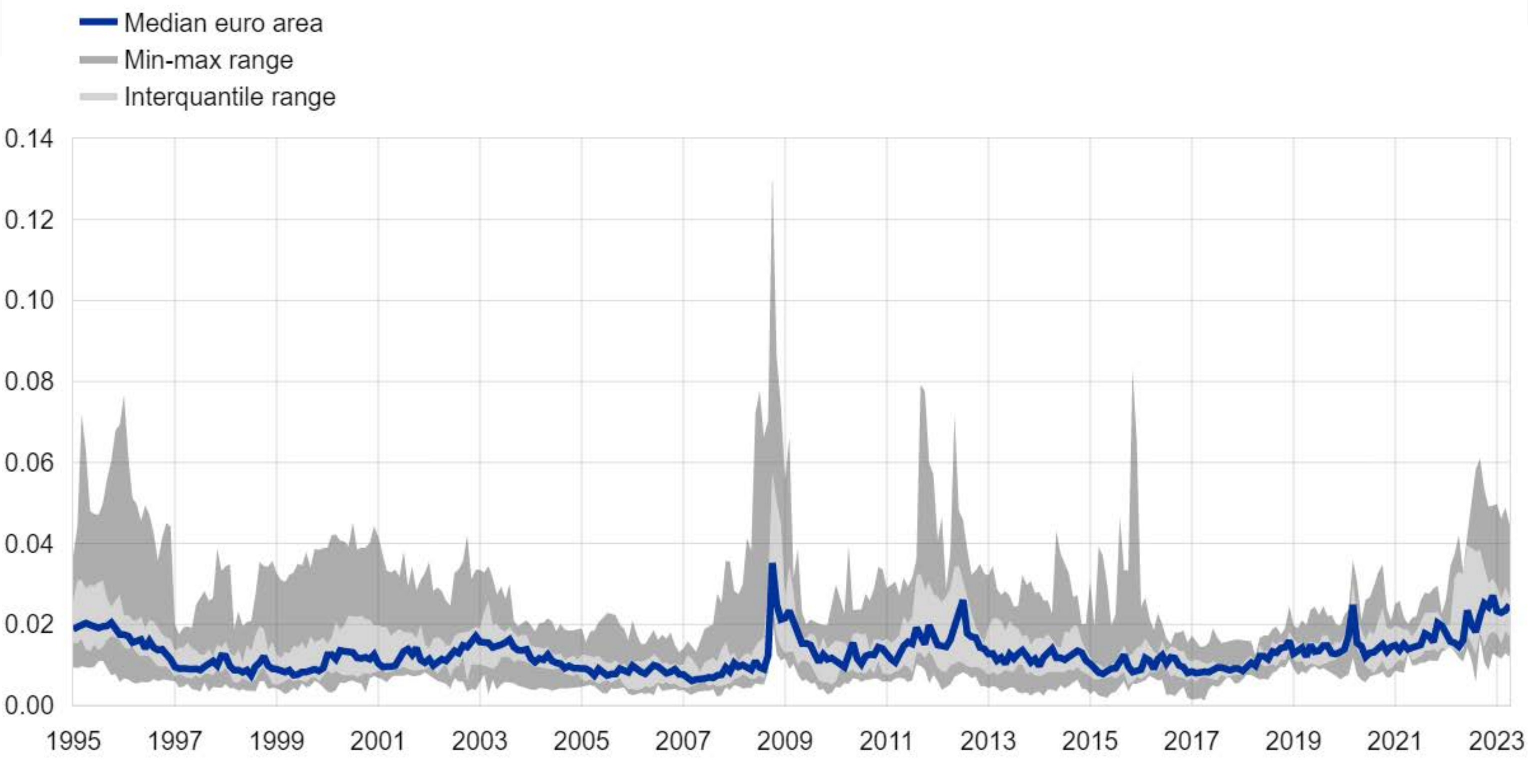
- If negative shocks occur, contagion across economies could be amplified due to the interconnected nature of global financial markets.

How does financial integration affect you?

Increased financial integration in the euro area can result in more investment opportunities for market participants and mean that they are able to diversify financial risks beyond their national borders. What is more, retail bank interest rates for consumers vary less across borders when there is more integration in the financial system, and businesses that want to expand can access money more easily.

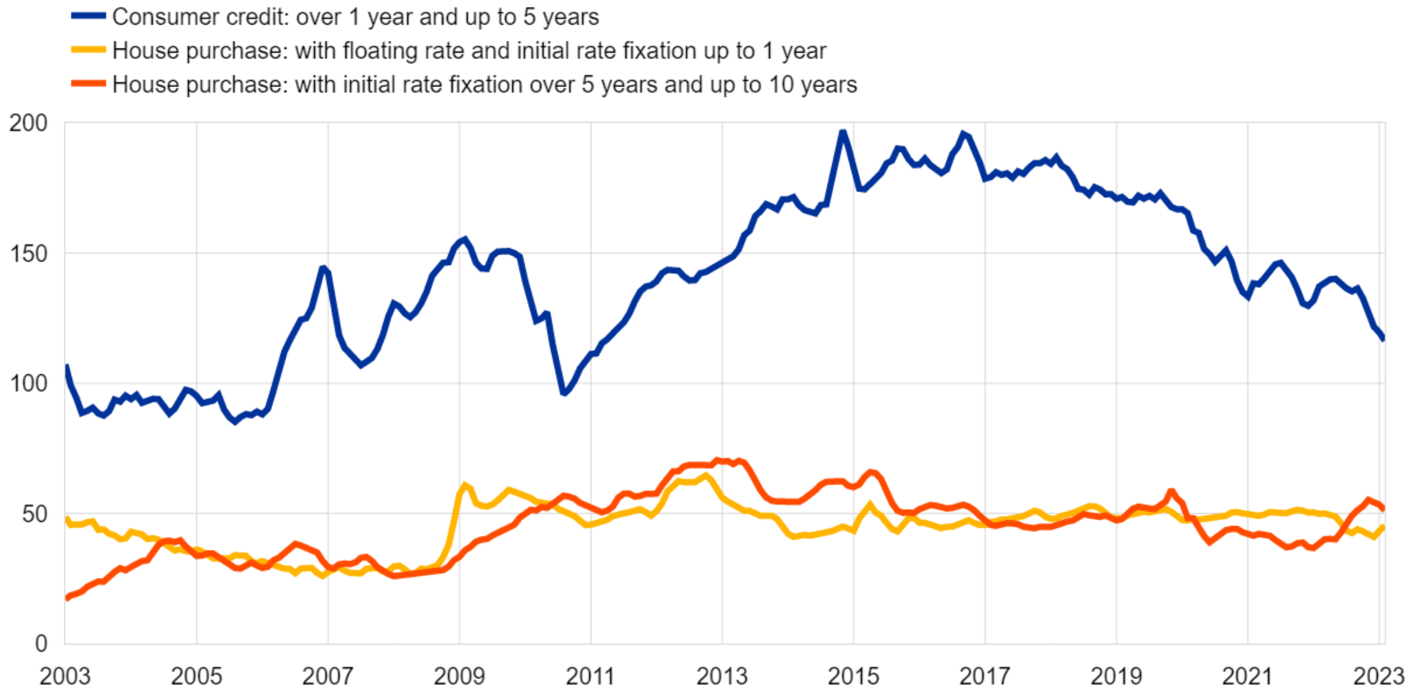
In short, financial integration makes the European economy more efficient by ensuring a single European market for financial services.

Equity Market Segmentation



Sources: Refinitiv and ECB calculations.

Cross-country standard deviation of MFI interest rates on loans to households



Source: ECB and ECB calculations.