COVID-19 and the liquidity crisis of non-banks: Lessons for the future

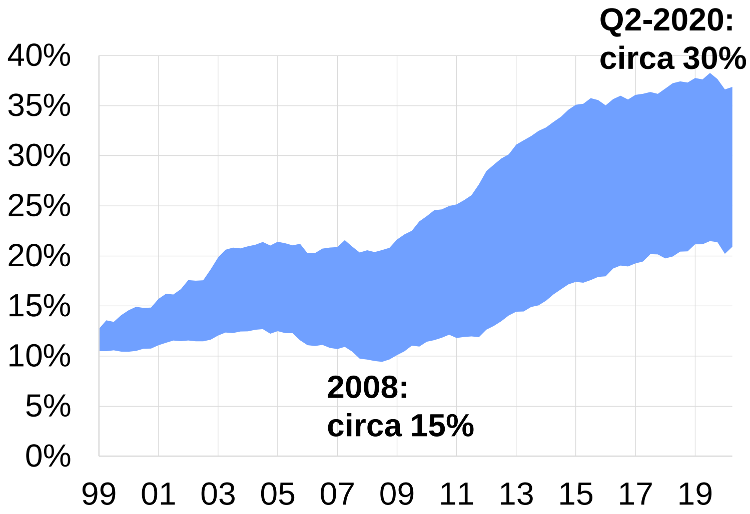
Isabel Schnabel

Financial Stability Conference on “Stress, Contagion, and Transmission” organised by the Federal Reserve Bank of Cleveland and the Office of Financial Research, 19 November 2020

Significant changes in the euro area's financial sector landscape

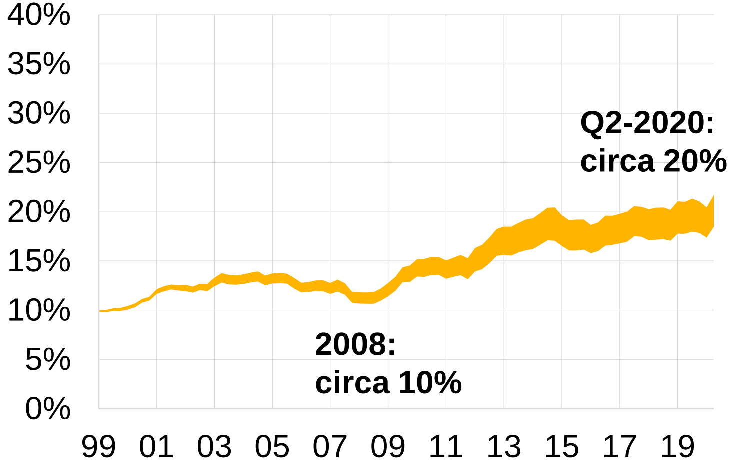
Non-bank credit in the euro area

(percentages)



Market-based credit in the euro area

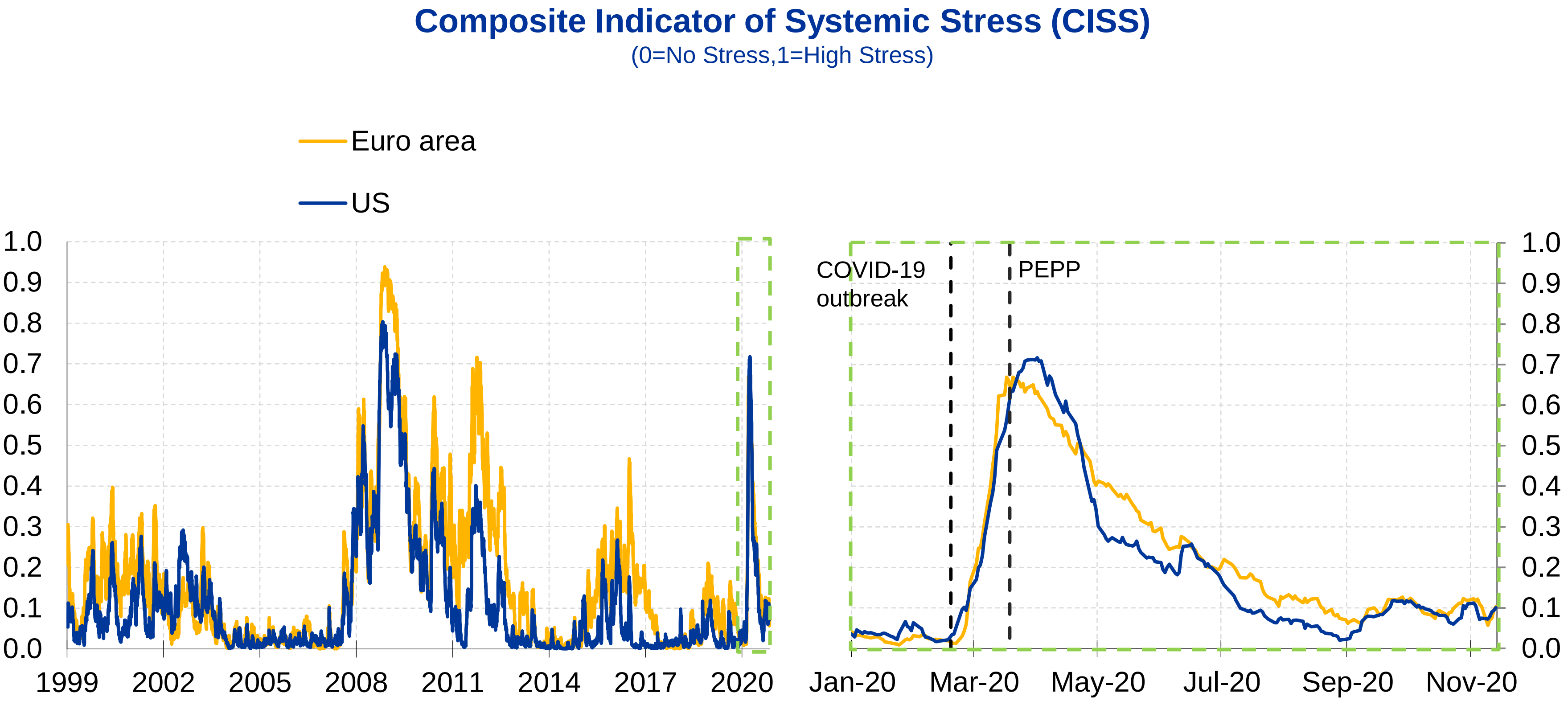
(percentages)



Sources: Euro area accounts, BSI statistics, FVC statistics and ECB calculations.

Notes: The left panel shows non-bank credit, which is the share of credit provided by the non-bank financial sector to euro area NFCs relative to bank and non-bank credit, irrespective of whether that financing is provided through loans or purchases of debt securities. Upper bound estimates include a residual of OFIs, while lower bound estimates exclude this. The right panel shows the share of market-based credit in the total external debt of euro area NFCs, irrespective of which sector is providing the credit. The numerator includes debt securities and non-retained securitised loans, while the denominator includes debt securities and all loans except for intra-group loans. Numbers in the text boxes refer to the rounded mid-point between lower and upper bound.

Systemic stress in financial markets during the pandemic

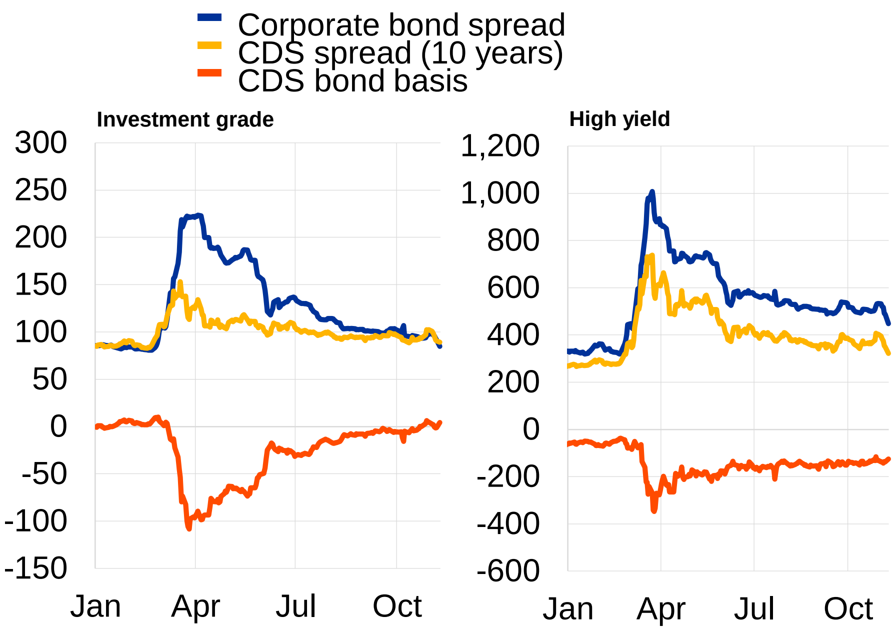


Source: ECB Working Paper No 1426. The CISS aggregates stress symptoms across money, bond, equity and foreign exchange markets and is computed from time-varying correlations among individual asset returns.
Last observation: 13 November 2020.

Liquidity strains amplifying market stress in the euro area

CDS bond basis for investment-grade (left) and high-yield (right)

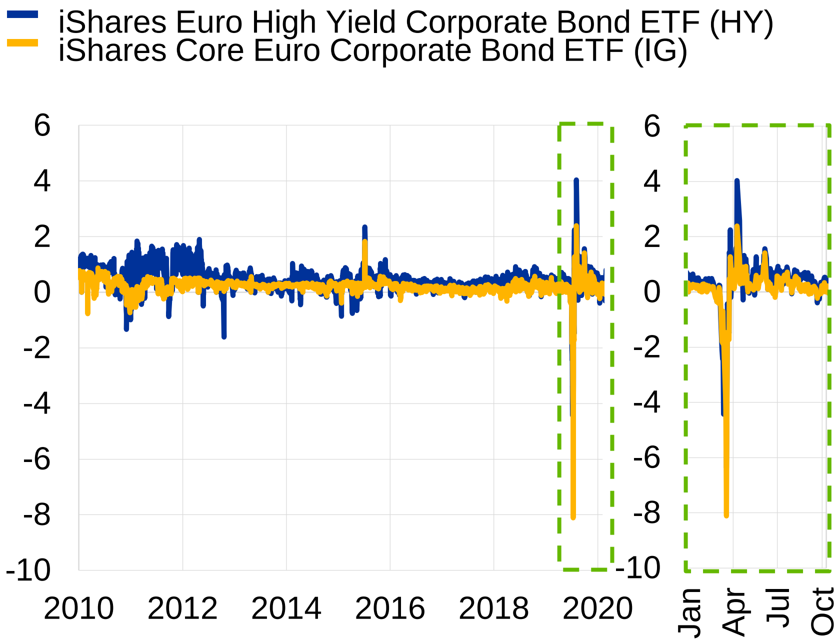
(basis points)



Source: IHS Markit, Refinitiv.

NAV spreads for ETFs tracking euro corporate bond indices

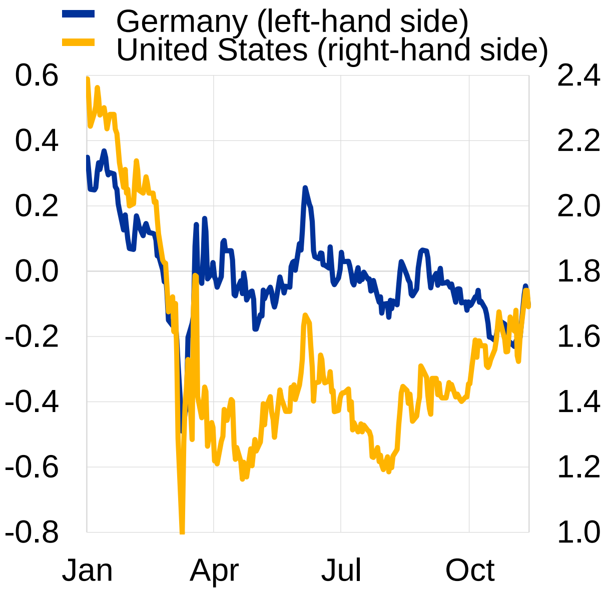
(percentages)



Source: Bloomberg Finance L.P.

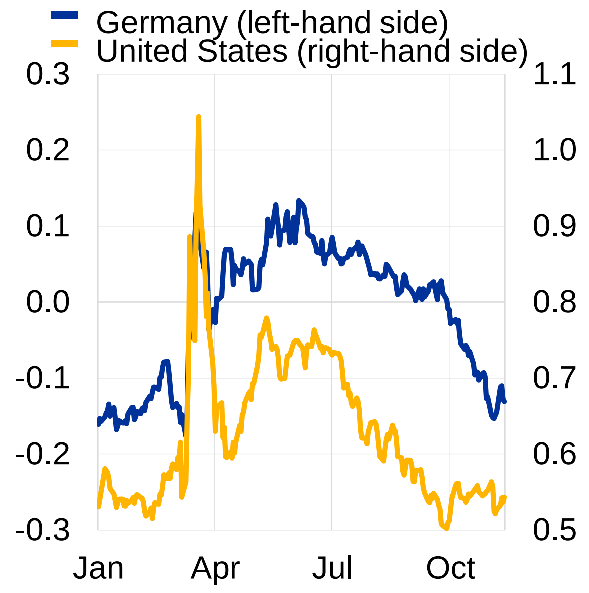
Dislocations in sovereign bond markets due to a dash for cash

30-year sovereign bond yields
(percentages)



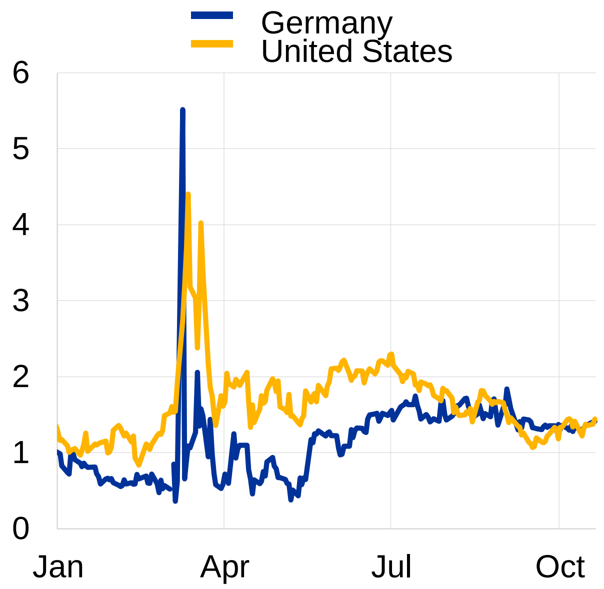
Source: Bloomberg.

Spread between 30-year sovereign bond yields and OIS rates
(percentages)



Source: Bloomberg.

Deviations from sovereign spline curves
(basis points)

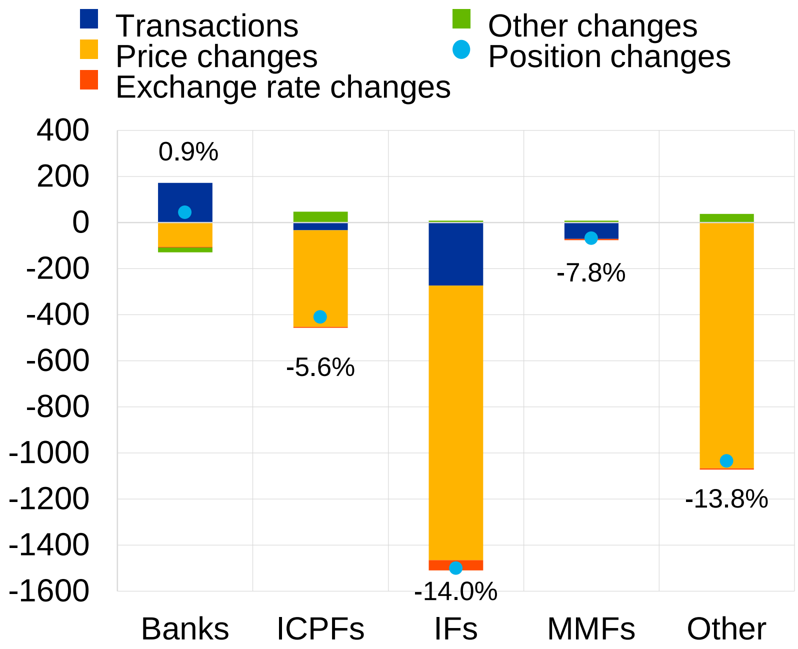


Source: TreasuryDirect, JSDA, Bundesbank and ECB calculations..
Note: average absolute deviation of spline spreads of nominal government bonds with maturities between 7 and 15 years and cash prices between 70 and 130 from the mean.

Procyclical selling by euro area non-banks in the face of large outflows

Price and volume changes in bank and non-bank security portfolios

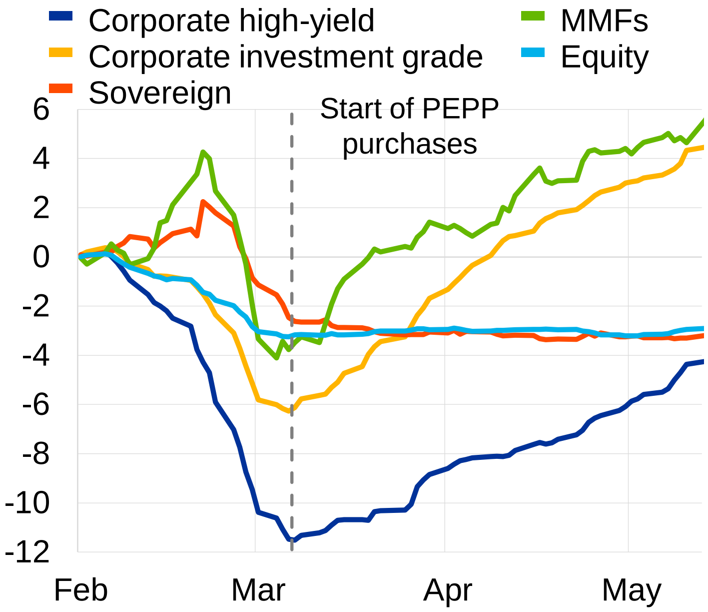
(2020Q1 vs. 2019Q4; € billions and % of securities portfolios)



Source: SHSS and ECB calculations.

Cumulative flows in euro area-domiciled funds

(percentages of assets under management)

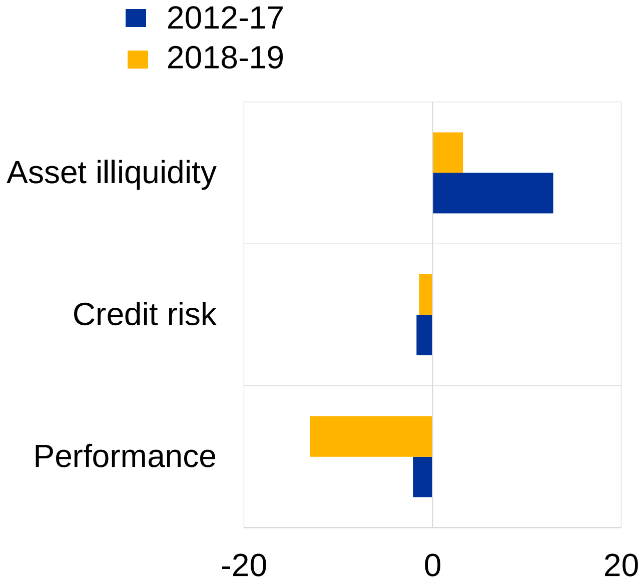


Source: EPFR Global.

Liquidity mismatch in funds resulting in forced asset sales

Coefficients from a regression of cash holdings on liquidity risk factors

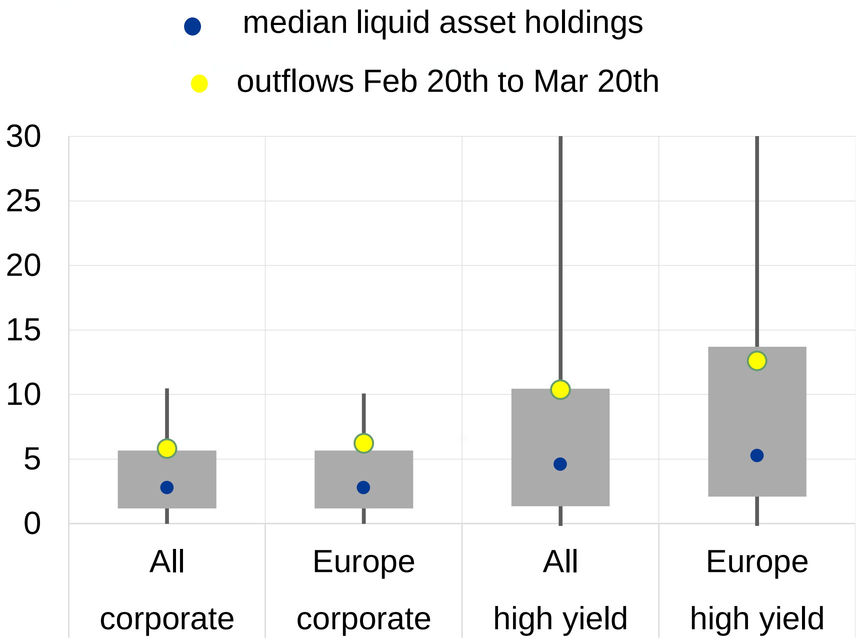
(regression coefficients)



Source: Refinitiv and ECB calculations.
Notes: Regression coefficients for a panel regression of cash holdings of EA bond funds (dependent variable) on various liquidity risk factors. Data are monthly and cover between 3,507 and 3,945 funds over the 2012-19 period. Fund and time fixed effects are included and standard errors for institutional leveraged UCITS funds are clustered. “Asset illiquidity” is the share of the portfolio invested in non-HQLA bonds. “Credit risk” is the weighted average of the bonds’ ratings in the portfolio. Other variables included in the regression: log of AuM, 12-month flow volatility, weighted average bond maturity, and a dummy indicating whether a fund had outflows below the sample’s 20th percentile in the previous three months.

Outflows and liquid assets of EA corporate bond funds

(percentages of total assets)

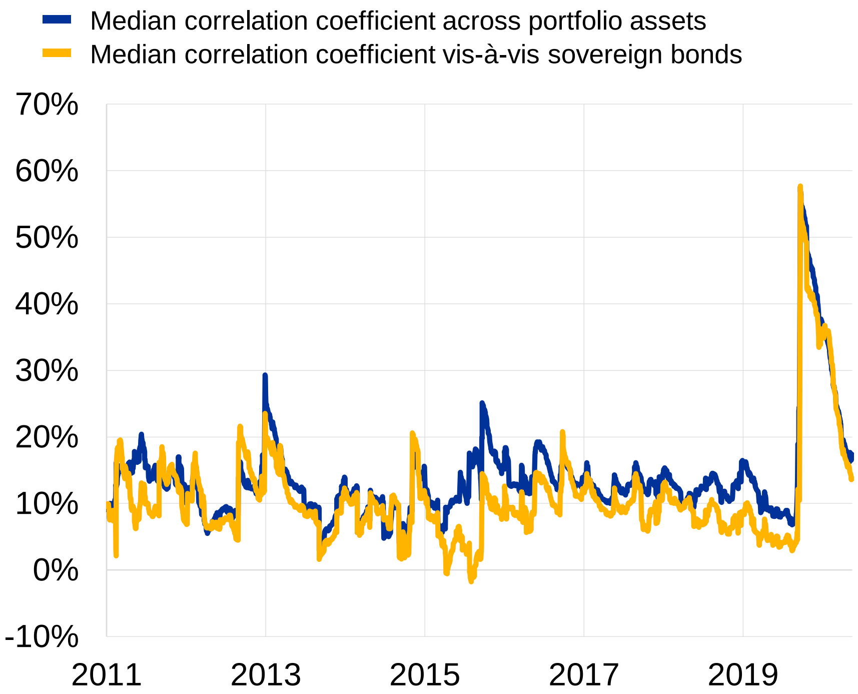


Source: EPFR Global, Refinitiv and ECB calculations.
Notes: Liquid assets include cash and HQLA (high-quality liquid assets) bonds on Dec-2019. Data refer to euro area-domiciled bond funds only. “Europe corporate” and “Europe high yield” refer to euro area-domiciled funds which primarily invest in European bonds. “Corporate” refers to investment-grade corporates. Box plots show ranges from 25th to 75th percentiles.

Liquidation of leveraged positions by volatility-targeting funds

Cross-asset correlations

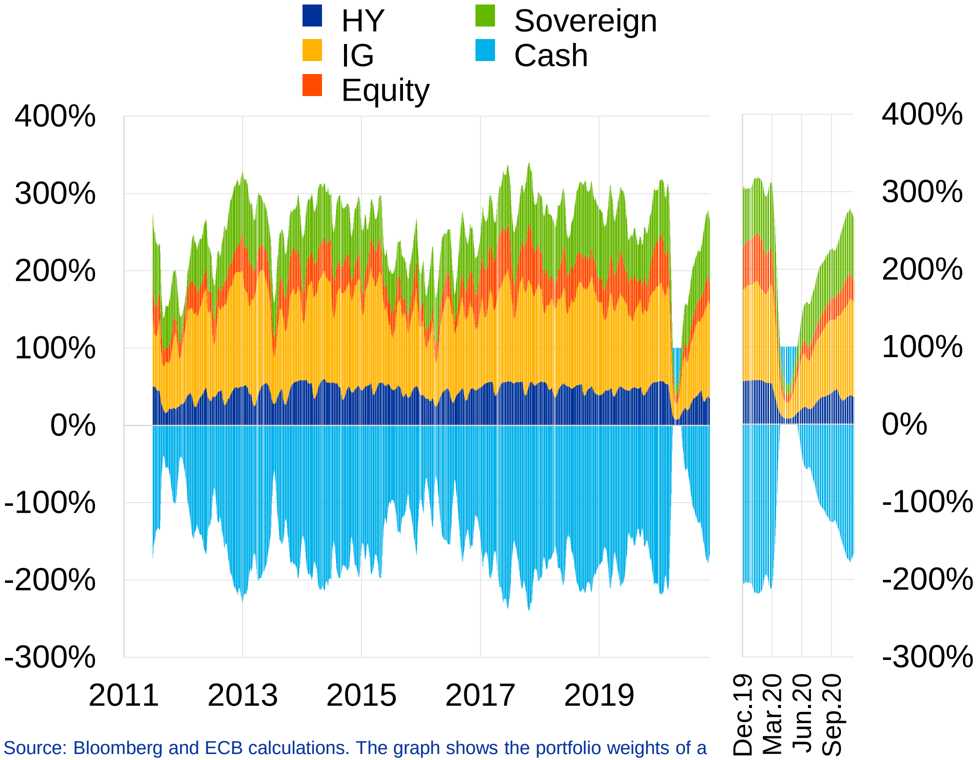
(percentages)



Source: Bloomberg and ECB calculations. The portfolio is composed by four assets representing different asset classes. The asset classes are equity, euro area government bonds, euro area IG corporate bonds and euro area high-yield corporate bonds.

Cash and portfolio weights of risk parity investors

(percentages)

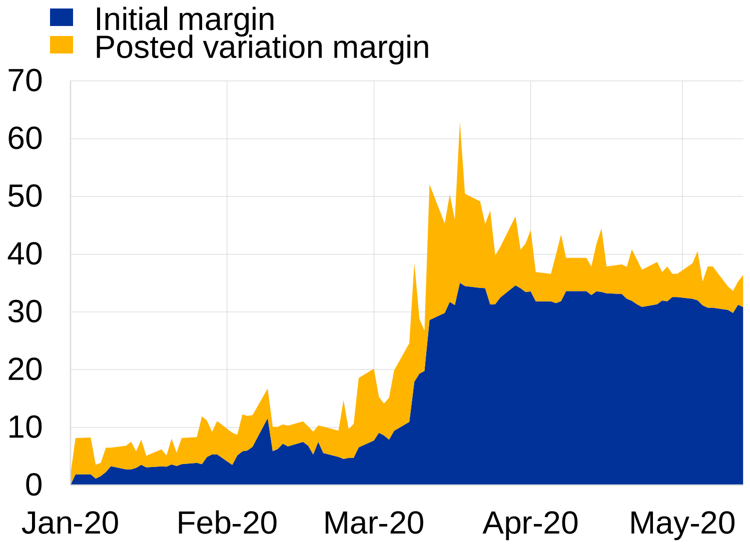


Source: Bloomberg and ECB calculations. The graph shows the portfolio weights of a volatility targeting/risk parity investor to achieve a 8% target portfolio volatility. Portfolio weights add up to 100%. A negative cash position denotes portfolio leverage. Pre-pandemic leverage has been on average around 150%.

Systemic stress amplified by interdependencies in non-bank sector

Initial and variation margins collected by selected European CCPs

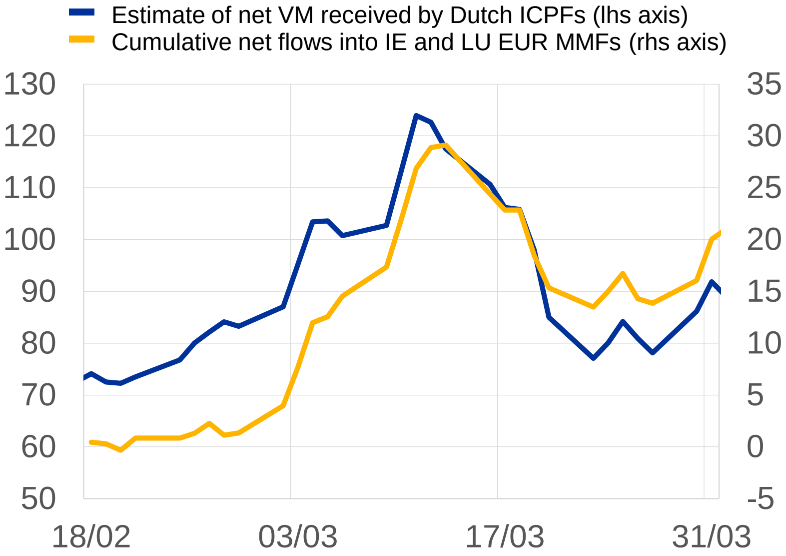
(cumulative changes relative to 1 January 2020; € billions)



Source: EMIR and ECB calculations.
Notes: The chart depicts an aggregate (cumulative) increase in initial margin relative to levels prevailing on 1 January 2020 and in gross incremental variation margin posted by euro area clearing members of four EU and UK central counterparties.

Euro area ICPF variation margins and euro-denominated MMF flows

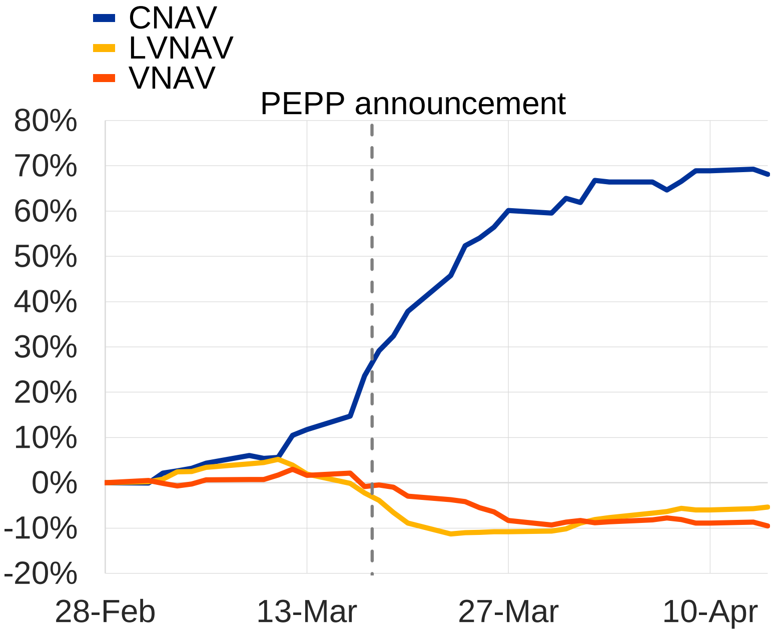
(€ billions)



Source: EPFR, EMIR and ECB calculations.
Note: “Net VM received” refers to the stock of variation margin received by Dutch ICPFs (i.e. cumulative variation margin since the inception of the contracts) . These ICPFs use mainly EUR-denominated MMFs domiciled in Ireland and Luxembourg whose flows are depicted in the chart.

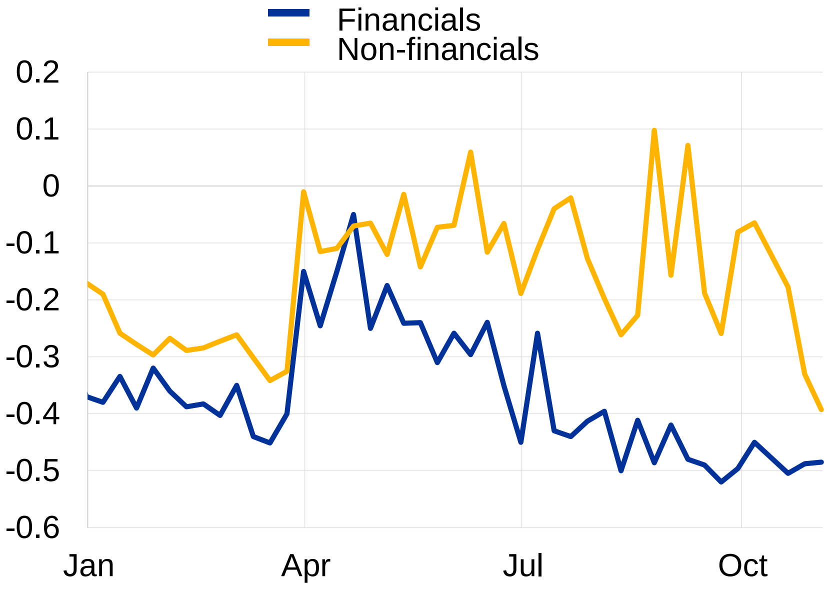
Outflows from MMFs paralysing commercial paper market

Money market funds in- and outflows by regulatory type
(% of total assets)



Source: Crane data and ECB calculations.
Notes: CNAV – Constant Net Asset Value money market fund, LVNAV – Low Volatility Net Asset Value money market fund, VNAV – Variable Net Asset Value money market fund.

Euro area 3-month commercial paper issuance rates
(percentage)



Source: NEU CP data.

Thank you for your attention