



Monetary aggregates and financial accounts

UNECE-EFTA Workshop on Financial Accounts

Brussels, 9 – 11 October 2023

Money Holdings in the financial accounts

- Monetary aggregates are widely used in central banks to monitor liquidity developments
- But they are not a “national accounts concept”
- Different definitions of monetary aggregates across countries
- Yet, some bridge can be established:
 - In terms of instruments: financial accounts classified by liquidity may allow to extract main liquidity instruments (currency, deposits, short-term debt securities, although with some differences of definitions)
 - In terms of sectors: money issuing and money holding sectors can be well identified in NA standards (SNA, ESA)

Monetary aggregates in the euro area

M1 (Currency+Overnight deposits)

M2 = M1+ Deposits redeemable at notice up to 3 months and time deposits maturity up to 2 years

M3 = M2 + repurchase agreements, money market fund shares and debt securities with maturity up to 2 years

Money issuing sector = MFI (deposit taking institutions and money market funds) (marginally, some deposits issued by central government and post-office giro institutions)

Money holding sectors: other resident sectors, except central government

Main liquid assets in the financial accounts

- Currency
- Deposits below 1 year
- Money market fund shares
- Debt securities up to 1 year
- Repurchase agreements (included within loans)

Differences of definition of money in monetary aggregates and financial accounts in the euro area

- **Currency:** identified in Financial accounts (FA) and monetary aggregates (MA)
- **Deposits:**
 - FA: split between deposits below/above 1 year
 - MA: Deposits included in M3: overnight deposits, redeemable at notice below 3 months, time deposits below 2 years
- **Debt securities:**
 - FA: below 1 year. Debt securities issued by MFI held by non-MFIs not always singled out.
 - MA: Debt securities below 2 years issued by the money holding sector
- **Repurchase agreements:**
 - FA: included in loans.
 - MA: repos below 2 year awarded by the money holding sector to the money issuing sector (marginal)
- **Money market fund shares:** Identified in FA and MA

Differences of definition of money in monetary aggregates and financial accounts in the euro area

Split by sub-sectors within Non-MFI:

- Currency (Financial account)
- Deposits within M2 (MFI balance sheet)
- Debt securities below 1 year issued by MFIs held by non-MFI sectors (but from 2021 Q1 onward in securities issues statistics).

The Monetary surprise of 2021 in the euro area and the US

Monetary aggregates in central bank monetary policy

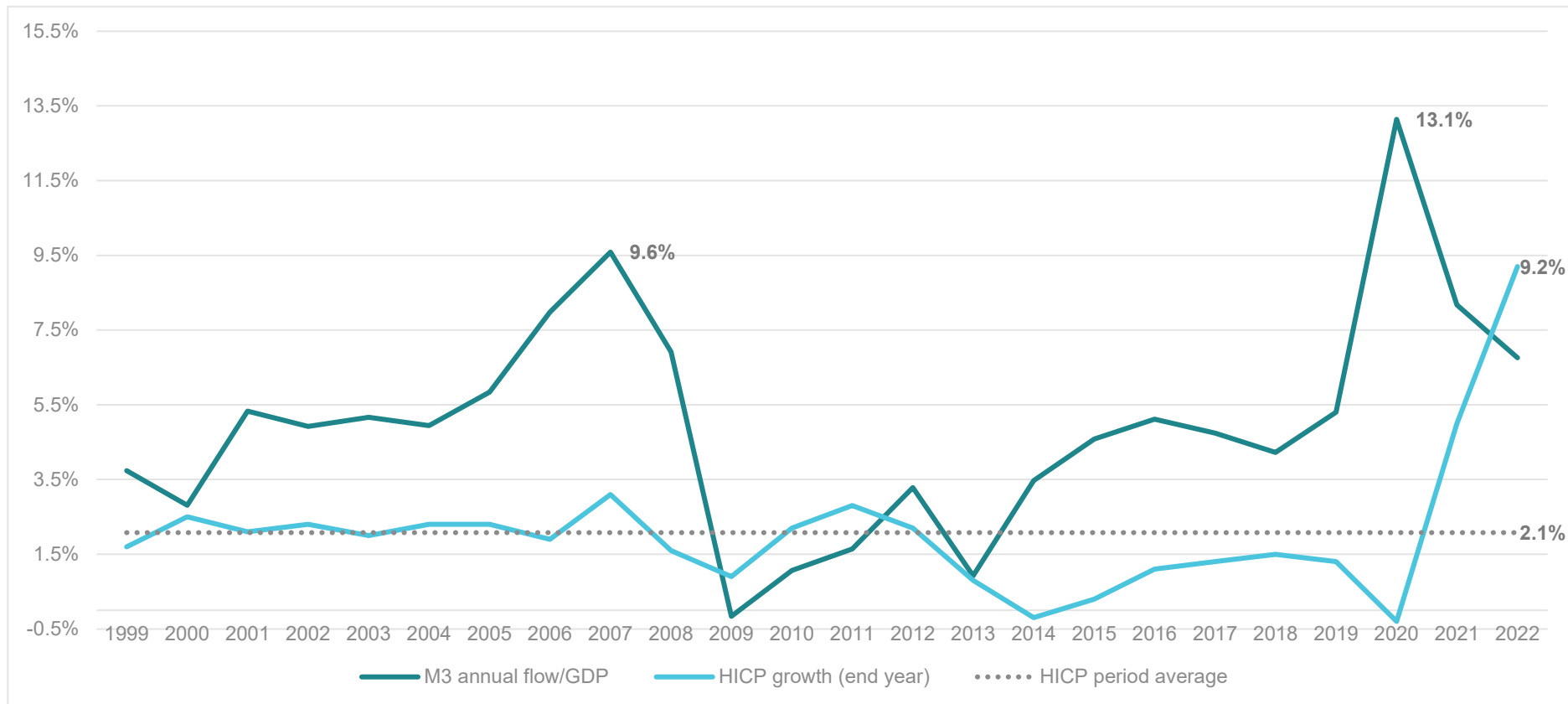
- 1970s: adoption of monetary aggregates targets in the 1970s in the aftermath of the inflation surge and the influence of the monetarist views
- Monetary aggregates targeting progressively dropped due to the instability of the relation between price and money. The ECB abandoned the reference value for M3 growth in 2003
- Monetary and credit aggregates still used as an indicator of long-term inflationary pressure

1999: monetary/credit aggregates as first pillar of monetary strategy

2003: monetary/credit analysis on a par with economic analysis

2021: integrated framework of monetary/financial and economic analysis

The inflation «surprise» in 2021-2022 (chart for the Euro Area)



Return to “monetarism”?

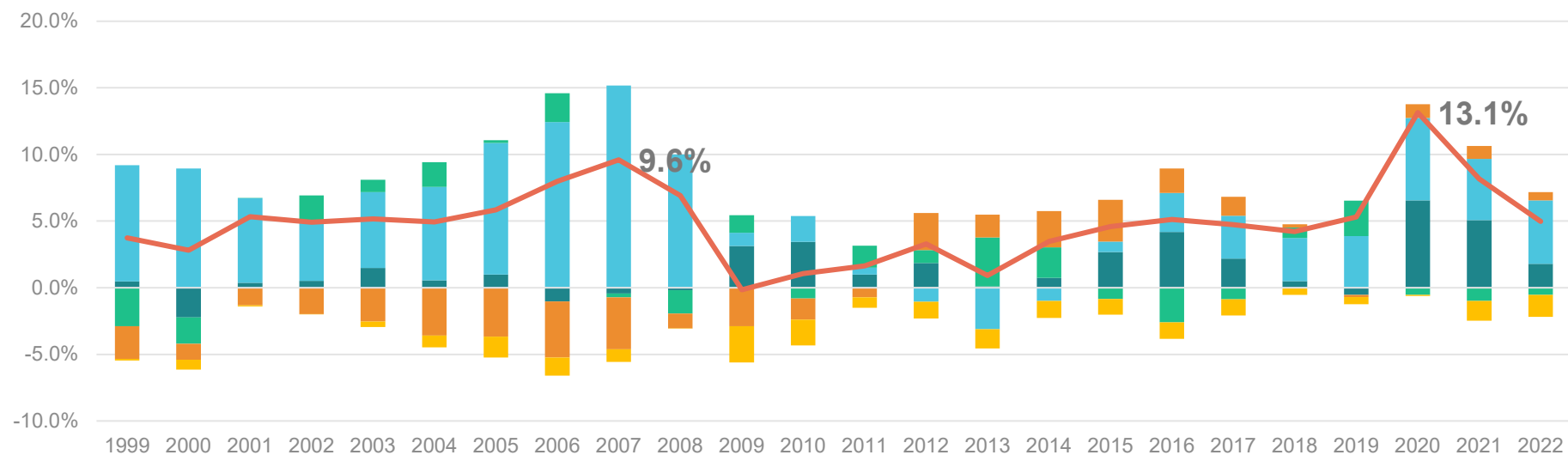
- Larry Summers warning against inflationary effect of US COVID relief bill (February 2021)
- Mervin King (November 2021): “*Common sense suggests that when too much money is chasing too few goods the result is inflation*”
- Borio et al (2023): Does Money Growth Help Explain the recent inflation surge? “*Looking at money growth would have helped to improve post-pandemic inflation forecasts, suggesting that its information value may have been neglected*”.

Looking to the counterpart to money in the MFI balance sheet

ASSETS	LIABILITIES
Credit to general government	Money
Credit to the private sector	Other longer term financial liabilities
Net external assets	Others (capital and reserves...)



Exceptional increase in Money and Credit to general government in the Euro area in 2020



From Public Debt to Money Holdings

- Government issues public debt
- MFIs issue money to acquire public debt (with the central bank facilitating this process through massive purchase of government debt)
- Government transfers money to money holders: households and firms (furlough/employment schemes, social benefits)

M3 counterparts: *this time is different*

Previous episodes:

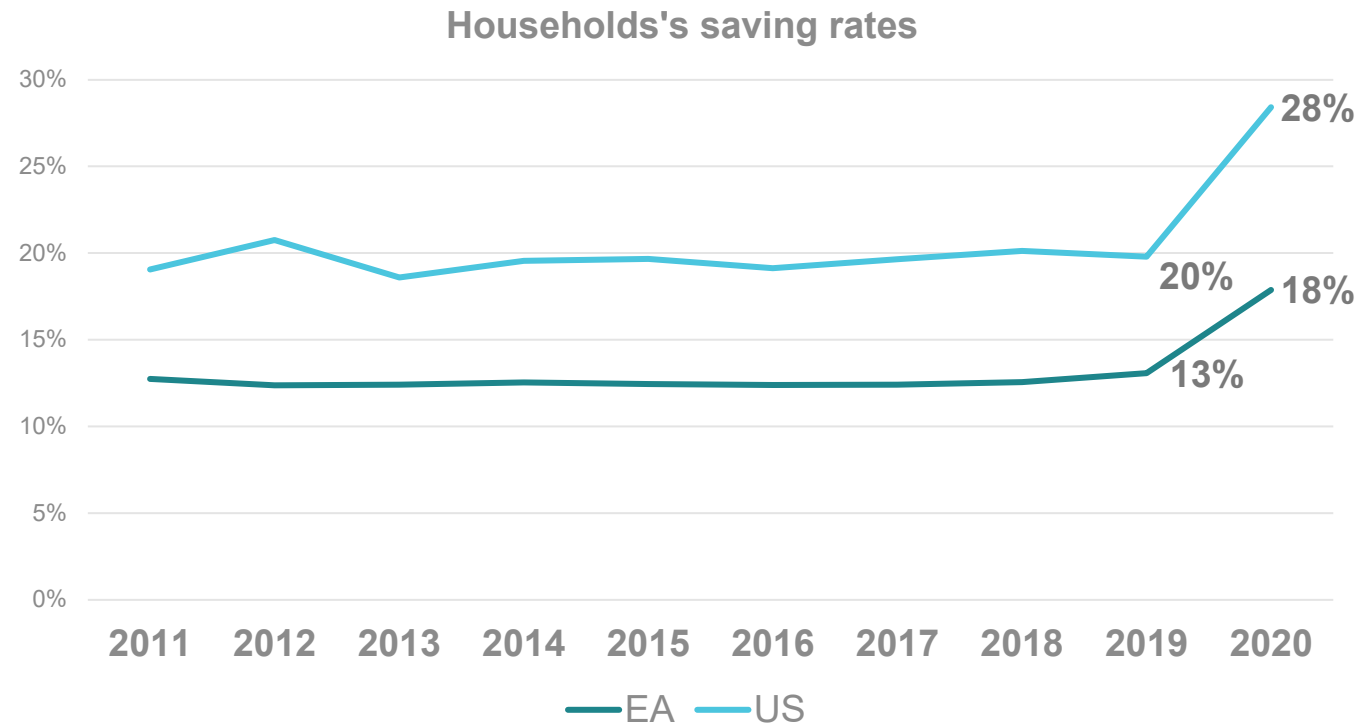
- In 2009 : strong credit to general government offset by purchase of banks' long-term debt (in a situation of steepening of the yield curve)
- In 2015-2016 : strong credit to general government, with the launching of the large-scale asset purchase, but offset by a decline in the net external assets of banks (a large part the public debt was bought from non-residents)

Exercise

- What is the impact on Money/the Counterpart to Money of the following transactions:
 - Purchase of debt securities newly issued by NFC by non-residents
 - Purchase of government securities by households
 - Sale of bank issued bonds by households to saving banks
 - Purchase of government bonds held by investment funds by foreign banks
 - Withdrawal of cash by households

Looking at monetary developments in the balance sheet of the non-financial sectors (households and non-financial sectors) in the EU and the US

A concomitant jump in saving rates in the US and the euro area



From saving to money

Through accounting identities, the relation between saving and money can be rearranged as :

Saving + bank loans + other liabilities – non-financial investment – non-monetary financial investment = **money holdings**

There may be rise in saving without rise in money and vice versa

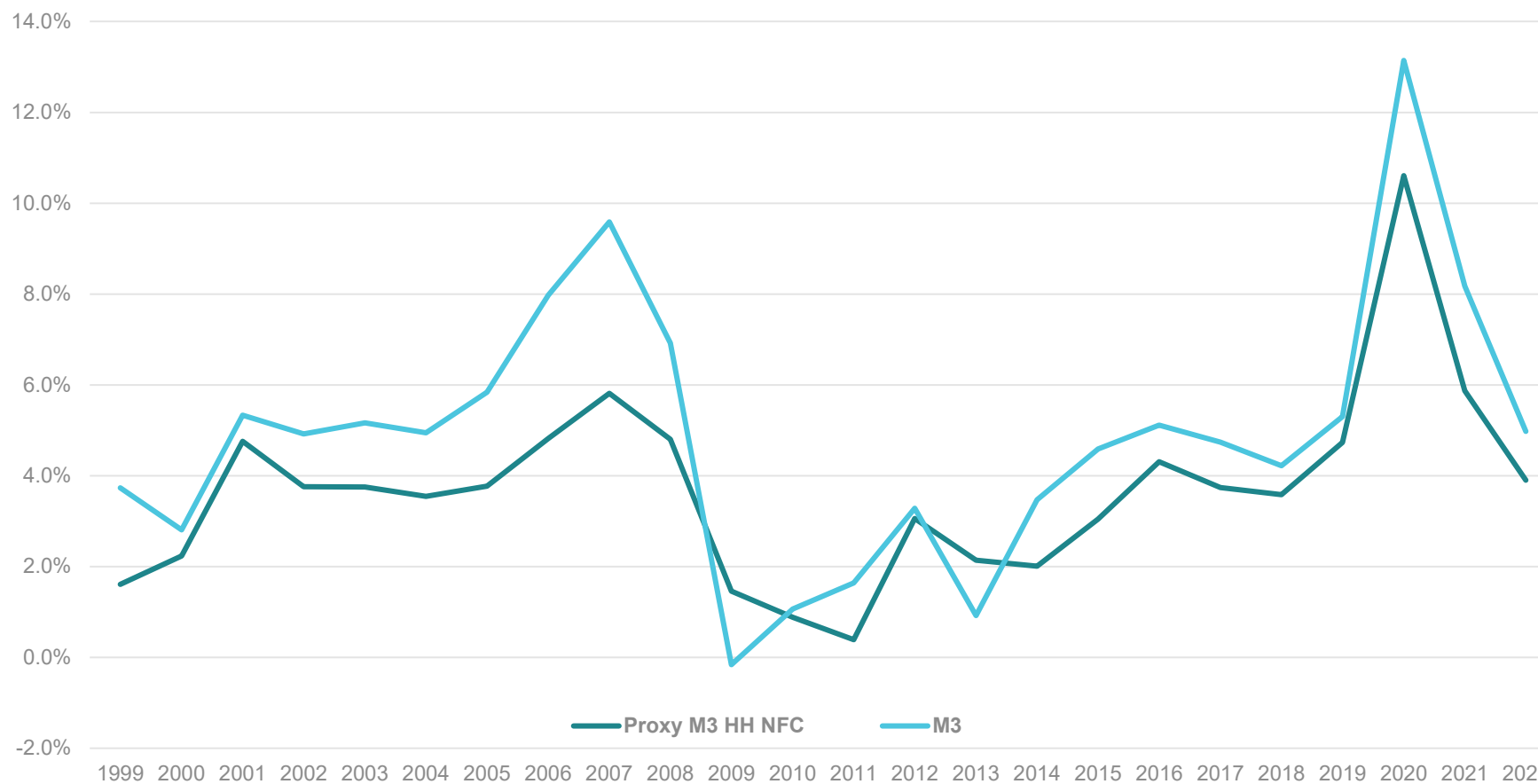
From financial saving to money

- We simplify the above equation:
- **Net lending** (saving minus non-financial investment = “net lending”) + bank loans + other liabilities – other financial investment = **money holdings**
- We look at the developments for households and non-financial corporations in, the EA and the US

Money held by households and non-financial sectors

- Focus on part of money: excluding money held by non-MFI financial corporations (insurance, investment funds, local government)
- Split of money between households and non-financial corporations extracted from MFI balance sheet or other information (financial accounts, securities issued statistics)
- It is therefore a proxy of monetary aggregates

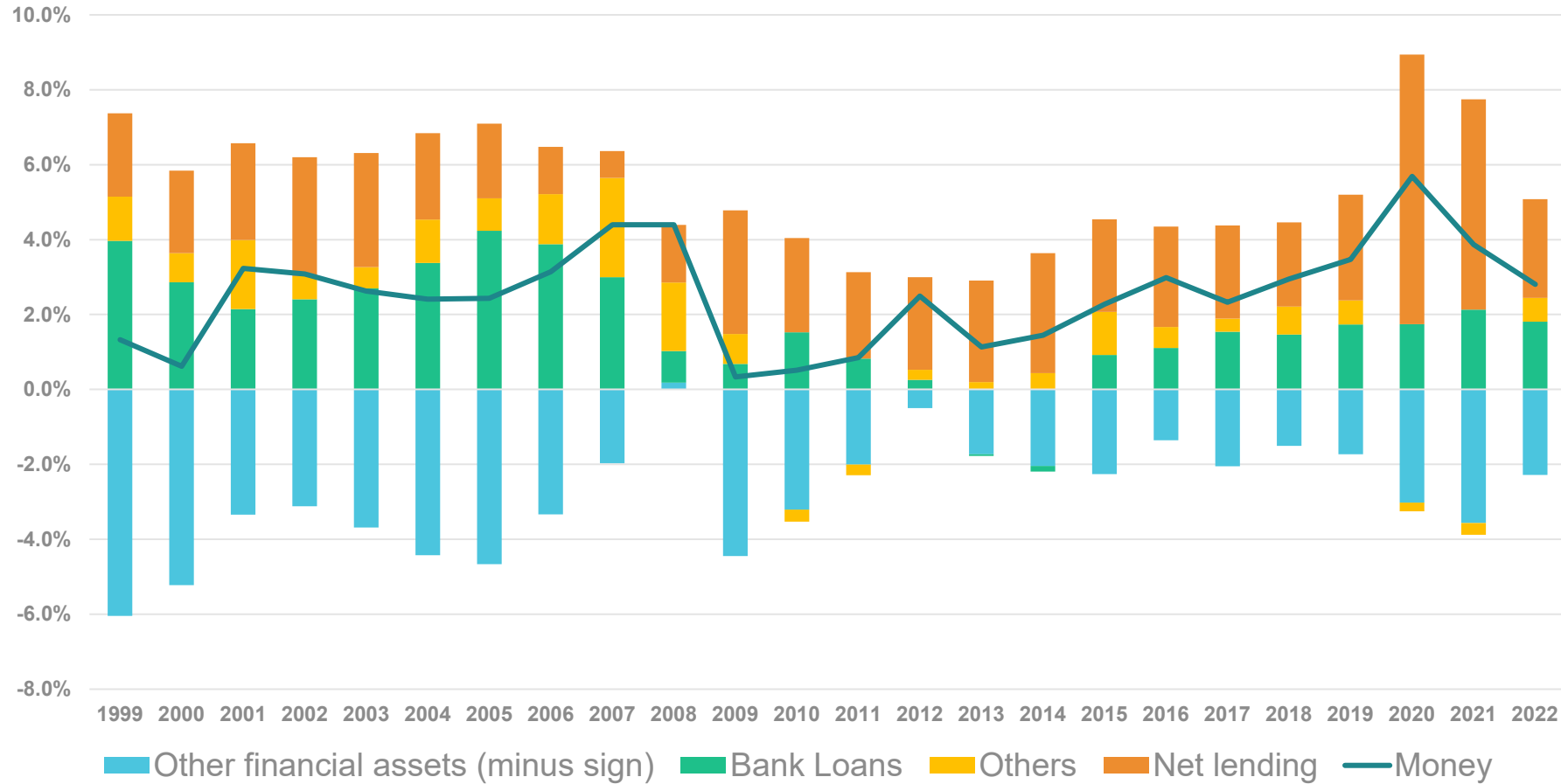
Proxy of money holdings by HH and NFC in the euro area (annual flows, % of GDP)



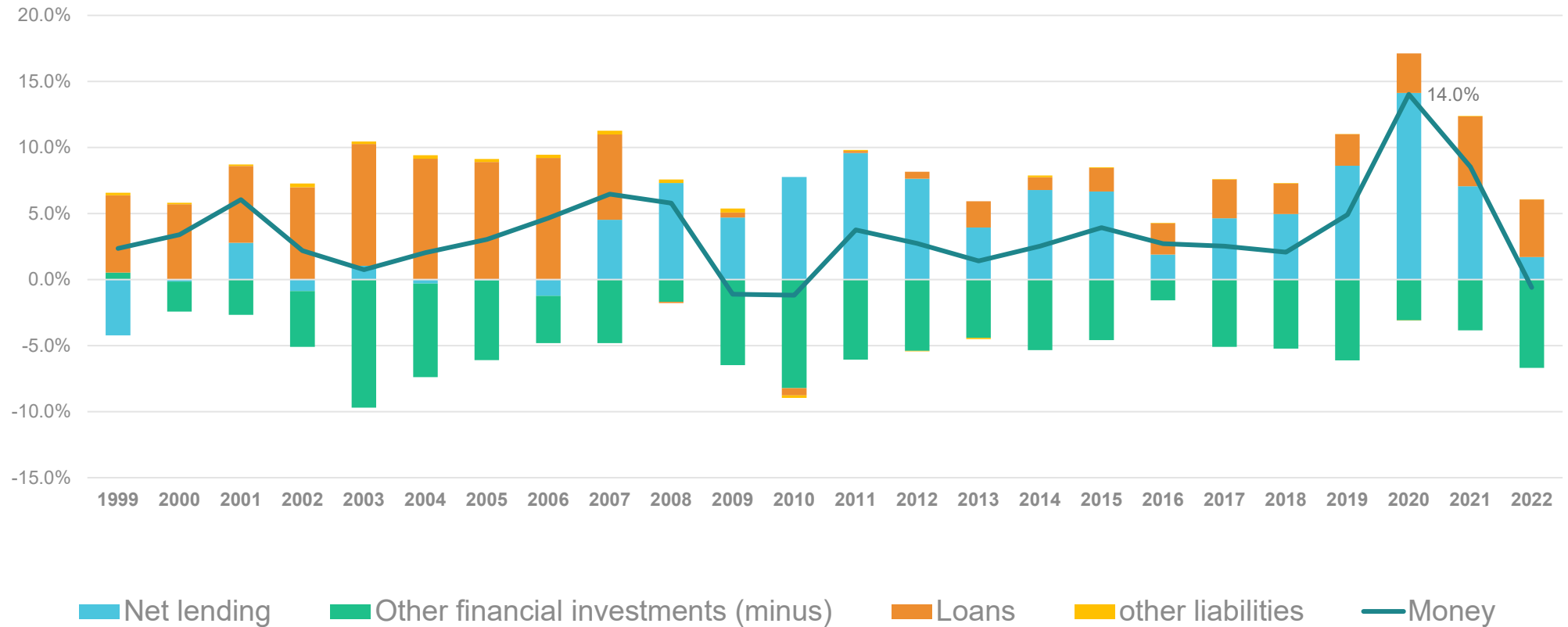
Proxy of money holdings by HH and NFC in the US (annual flows, in % of GDP)



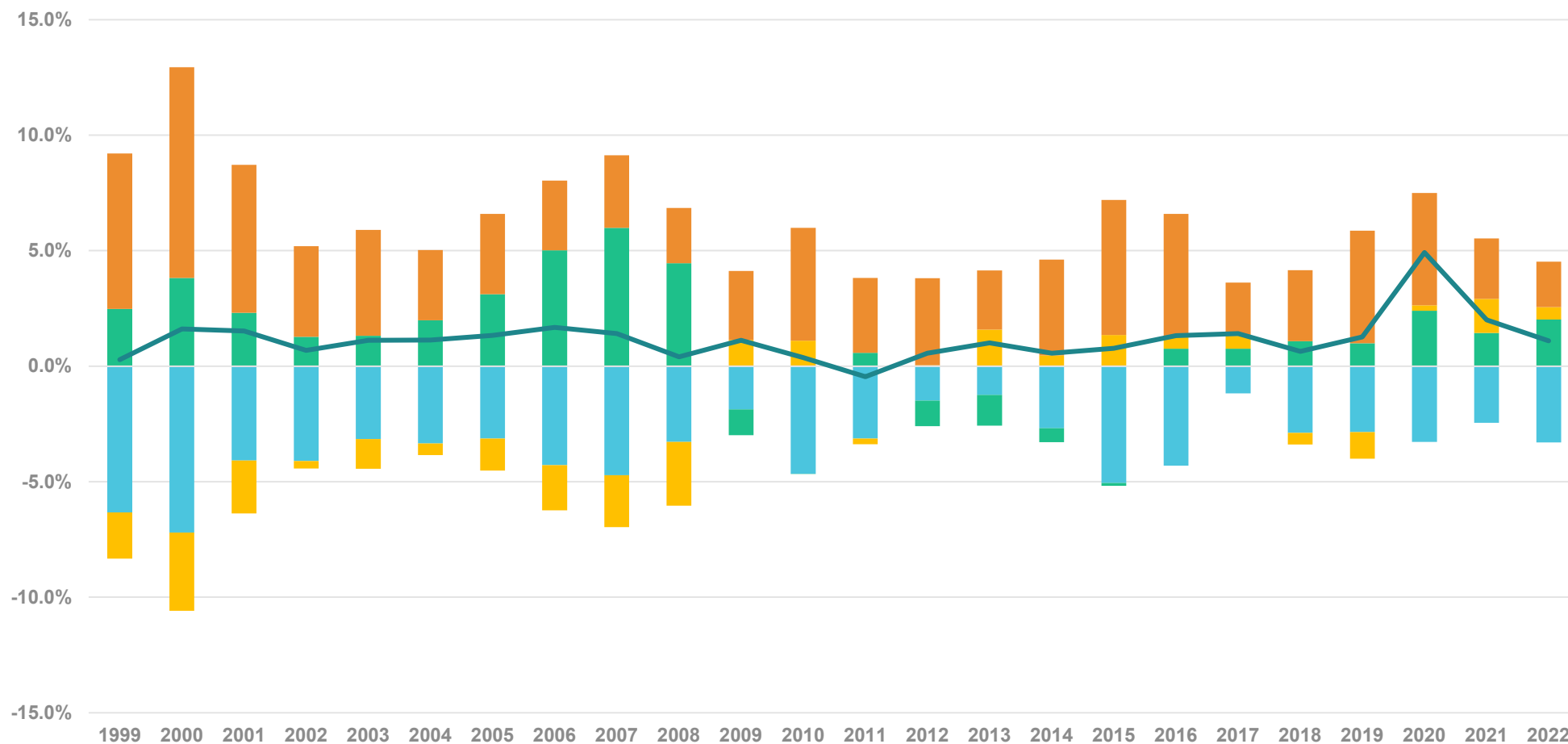
Households (euro area)



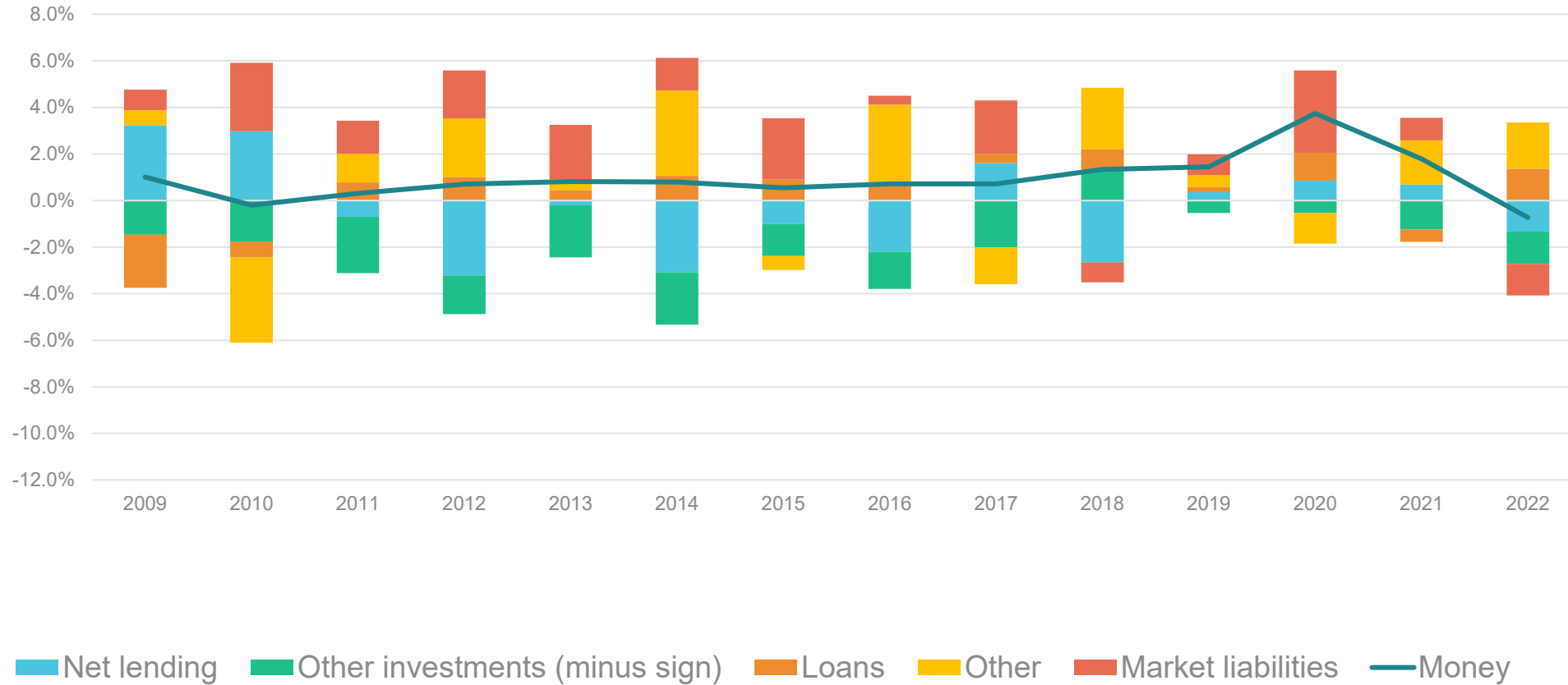
Households (US)



Non-financial corporations (euro area)



Non-financial corporations (US)



Sectoral developments during the COVID crisis

- Saving boost essentially for households, and stronger in the US versus the euro area
- Monetary dynamics moderated by continued investments in non-monetary investments
- Liquid assets built up by NFC in the euro area stronger than in the US
- In the euro area NFC liquidity build up due to a combination of bank loans, equity issuance, sale of non monetary assets
- In the US: mainly recourse to debt security issuance

Data Issues

- Monetary data or monetary proxy based on financial account data? (different standards)
- Holding of debt securities by sectors is the main difficulty
- Connecting the accounts: coping with inter-company loans, adjustment, other accounts payable/receivable

Conclusions

- Challenge to match monetary statistics and financial account statistics: worldwide standard for financial account (SNA, ESA); different monetary statistics standards across regions.
- Advantage of combining monetary and financial account data to get a broad picture of saving and monetary development, especially during turbulent periods
- Illustration of the sectoral dimension of monetary analysis

Thank you for your attention !

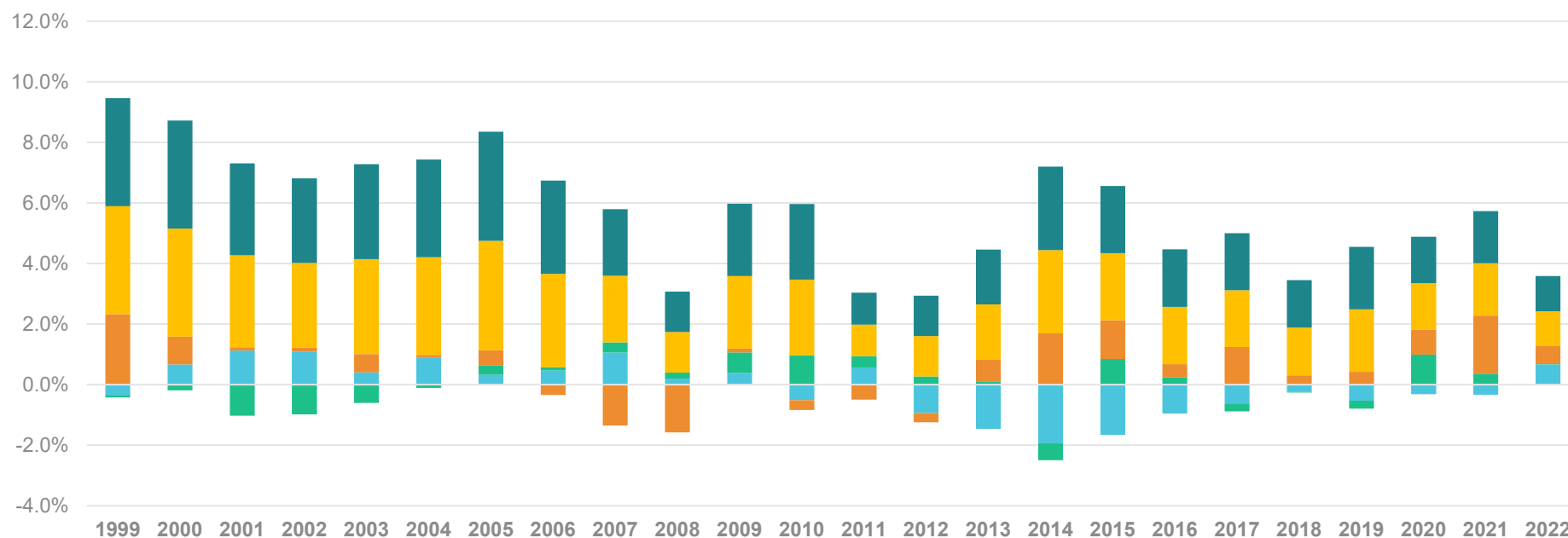
Louis.be-duc@ec.europa.eu

References

- Monetary and Financial Statistics Manual, IMF, 2016
- Manual on MFI balance sheet statistics, ECB 2019
- System of National Accounts 2008, chapter 27
- L. Bê Duc: “*Financial saving, debt and money holdings during the pandemic*”, Banque de France Blog No 256, February 2022
- L. Bê Duc, J-C. Bricongne, M. Bussière, C. Jude, A. Penalver, F. Sédillot, M. Vari, Y. Wicky: “*The increase in the money supply during the COVID crisis, analysis and applications*”, bulletin de la Banque de France No 239, February 2022

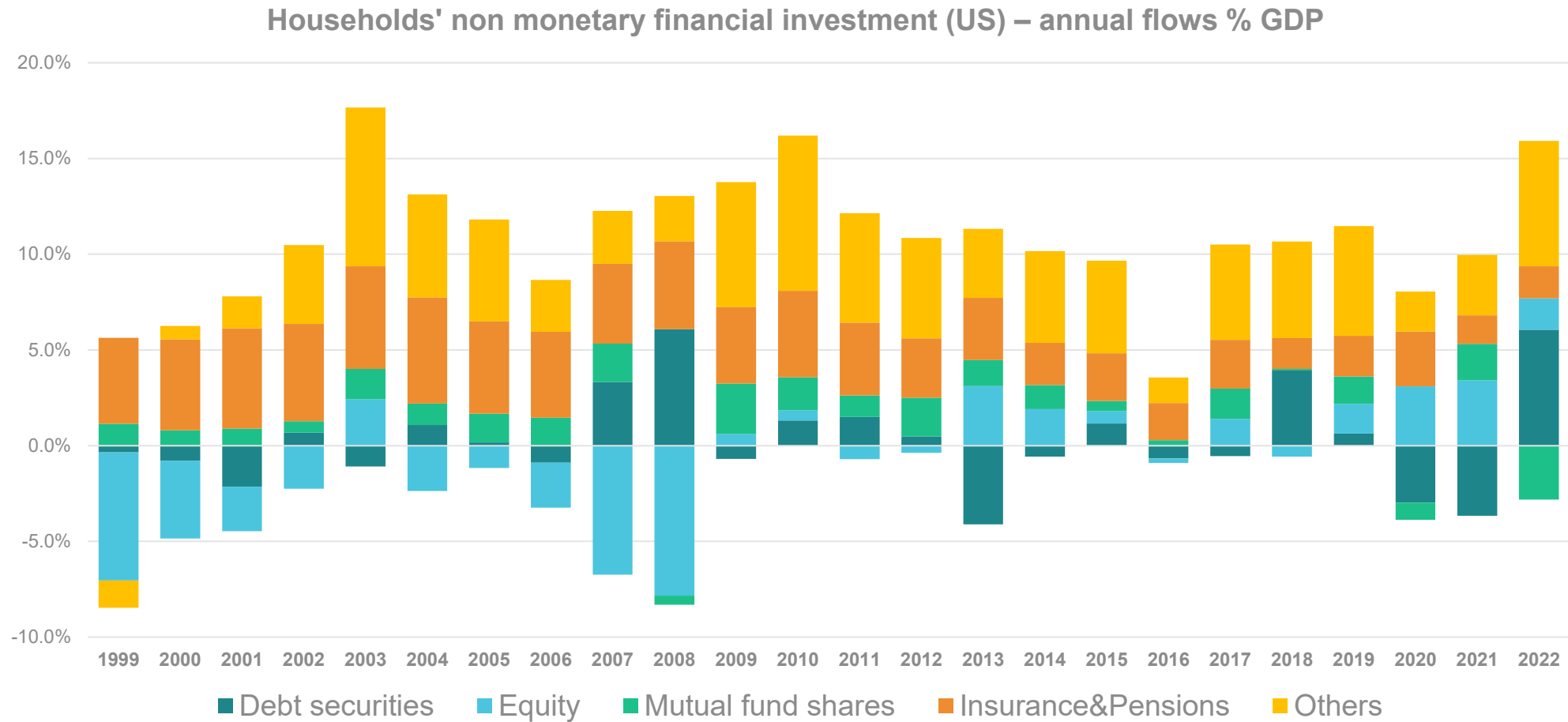
Annex. Detailed assets and liabilities

Households non monetary investments (Euro area) - Annual flows, % GDP



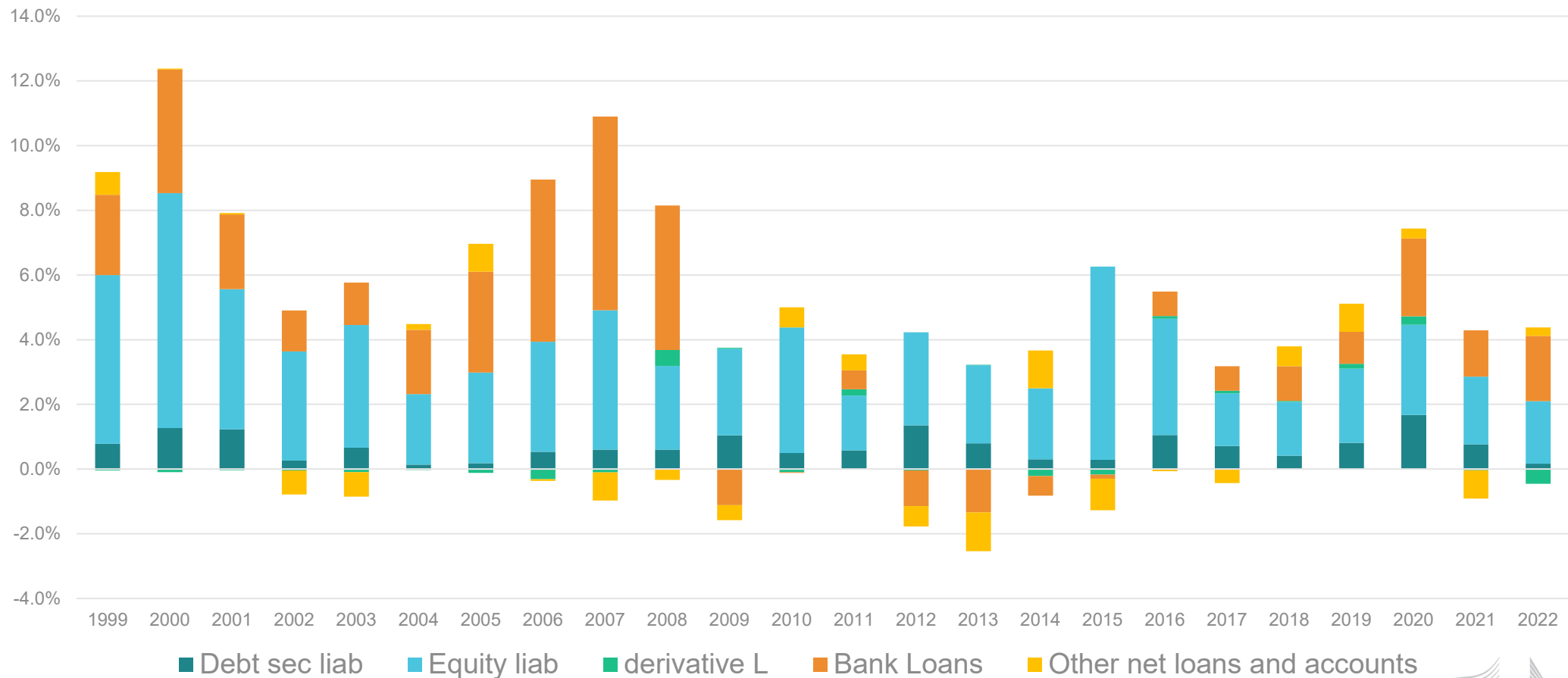
■ Debtsec-LT ■ Equity ■ Non monetary MMF ■ Insurance ■ LT deposits

Annex (continued)



Annex (continued)

NFC liabilities (euro area) – annual flows % of GDP



Annex (continued)

NFC liabilities (US) – annual flows % of GDP

