METHODOLOGY

Stat Info Money and the financing of the economy – France

18 November 2022

This methodological note aims to explain the concepts illustrated in the Stat Info "Money and the financing of the economy" by defining the economic sectors involved in money creation (both issuers and holders of money), as well as the instruments that make up the monetary aggregates (M1, M2, M3) and their counterparts. It also describes the sources of the data and the formulae used to calculate the published statistics.

1. Objective

The Stat Info "Money and the financing of the economy" provides a comprehensive account and summary of the change in the broad money supply (M3) and its counterparts. It quantifies and shows how monetary financial institutions (MFIs) use their resources to finance the economy, primarily through loans and securities purchases.

Each month, the Stat Info commentary analyses the changes in the data shown in three tables ("M3 and the financing of the economy", "Monetary resources of monetary financial institutions", "Counterparts of domestic resources included in M3") and a chart ("Contribution of monetary counterparts to the growth of domestic resources included in M3"). The related statistical time series can be downloaded at <u>Webstat</u>

2. Definitions

Geographical areas

The "domestic" area refers to all French territory, which encompasses Metropolitan France, Monaco, the French overseas departments (French Guiana, Martinique, Guadeloupe, Réunion and Mayotte), and Saint Martin and Saint Barthélemy.

The rest of the euro area consists of the following countries: Germany, Austria, Belgium, Cyprus, Spain, Estonia, Finland, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, Croatia (as of 1 January 2023).

The European Stability Mechanism (ESM) and European Financial Stability Facility (EFSF) are also included in "the rest of the euro area".

Economic sectors

The **money-issuing** sector consists of all *monetary financial institutions* (MFIs) whose business is to accept deposits and/or close substitutes for deposits from entities other than MFIs, and which grant loans and/or invest in securities for their own account. MFIs include:

- domestic credit institutions and financing companies (including the Caisse de Dépôts et Consignations), as defined in Appendix 1 of the Decision by the Governor No. 2021-01;
- the Banque de France;
- money market funds (MMFs).

The central government sector is considered to be money-neutral as it neither holds nor issues money, even though the most liquid portion of its liabilities in the form of deposits is included in monetary aggregates.

The **money-holding** sector comprises other financial intermediaries (non-MMF funds, investment firms, etc.), insurance corporations, pension funds and non-financial agents, i.e. general government excluding central government, non-financial corporations, households (individuals and sole proprietors) and non-profit institutions serving households (NPISH).



Table 1

Summary of the main categories of economic agent						
Money-issuing sector	Money-neutral sector	Money-holding sector				
Monetary financial institutions (MFIs)		General government excluding central government	Private sector non- financial agents	Other financial intermediaries		
 ECB and NCBs Credit institutions Money market funds Other monetary financial institutions 	– Central government	– Social security funds – Local government	 Non-financial corporations (NFCs) Households (sole proprietors, individuals) Non-profit institutions serving households 	 Insurance corporations and pension funds Non-MMF investment funds Investment firms Securitisation vehicles Central clearing counterparties, etc. 		
	Non-financial agents					
	General government		Private sector			

Financial instruments included in M3

Overnight deposits: deposits which are convertible into currency and/or which are transferable on demand by cheque, banker's order, debit entry or similar means, without significant delay, restriction or penalty.

Deposits with agreed maturity of up to two years: deposits which cannot be converted into currency before an agreed fixed term of up to and including two years or that can only be converted before that agreed term provided that the holder is charged some kind of penalty. They essentially consists of fixed-term accounts and certificates of deposit with an original maturity of up to and including two years. Housing savings plans (PEL) and personal savings plans (PEP) are excluded as they have a maturity of over two years.

Savings accounts: liquid savings accounts that are less liquid than overnight deposits. These include Livret A and Livret bleu passbooks, sustainable development and solidarity passbooks (LDDS), housing savings accounts (CEL), popular savings passbooks (LEP), youth passbooks and taxable passbooks.

Repos: counterpart of cash received in exchange for securities sold by MFIs at a given price under a firm commitment to repurchase the same or similar securities at a fixed price on a specified future date.

Debt securities with a maturity of up to two years: these are negotiable debt securities (NEU CPs, NEU MTNs, certificates of deposits) and debt securities issued by MFIs.

MMF shares/units: shares or units issued by money market funds, which are collective investment undertakings that invest in financial and/or non-financial assets, to the extent that the objective is investing capital raised from the public.

Monetary aggregates

M1: overnight deposits.¹

M2-M1: savings accounts + deposits with agreed maturity of up to two years.

M3 – M2: repos + MMF shares/units + debt securities issued by MFIs with an original maturity of up to two years.

The M1, M2 and M3 monetary aggregates include liabilities denominated in euro and other currencies vis-à-vis domestic agents that are neither MFIs nor central government bodies (see Table 1). MFIs' positions vis-à-vis other euro area countries are recorded as assets and liabilities vis-à-vis the rest of the euro area and are used to calculate (liabilities minus assets) the French component of the euro area M3 monetary aggregate.

¹ Unlike the monetary aggregates calculated by the ECB, the M1 aggregate published in the Stat Info "Money and the financing of the economy" does not include banknotes and coins.



Counterparts of M3

The **counterparts of M3** are constructed using the items from MFI balance sheets (see Table 2). They make it possible to identify which sectors of the economy MFI resources are used to finance, and by what means.

Table 2

M3 France and the financing of the economy				
Total assets	Total liabilities (a)			
Domestic general government sector financing (b)	Domestic resources included in M3: M1			
Domestic private sector financing (c)				
Net external assets (d)	M2-M1			
Remaining counterparts (e) = (a) - (b) - (c) - (d)	M3-M2			
	Long-term resources			

Financing of the economy consists of all financing provided by MFIs to domestic economic agents (excluding MFIs) in the form of loans and securities (debt securities, shares, non-MMF investment fund units/shares). It is broken down into general government sector financing and private sector financing (financial corporations other than MFIs, non-financial corporations and households). Private sector financing notably includes housing loans to individuals and corporate loans.

Net external assets² corresponds to the balance (assets minus liabilities) of MFIs' transactions with non-residents. Together with financing of the economy, they make up the main sources of money creation.

MFIs' **long-term resources** comprise resources not included in M3, i.e. capital and reserves, debt securities issued by MFIs with a maturity of over two years, deposits with an agreed maturity of over two years and central government deposits.

The item "**Remaining counterparts**" corresponds to all transactions not recorded under other items. It encompasses inter-MFI claims and liabilities,³ the net balance of other balance sheet items (financial derivatives, time differences, fixed assets), the Banque de France's gold and SDRs, and currency in circulation.

3. Data sources

The Stat Info "Money and the financing of the economy" is compiled using monetary statistics. These are produced by the Banque de France's Monetary and Financial Statistics Directorate (DSMF) which is part of the Directorate General Statistics, Economics and International (DGSEI).

The system for collecting balance sheet data from credit institutions, financing companies and MMFs, from which monetary statistics are obtained, is governed by ECB regulation 2021/2. The application of this system by the Banque de France is set out in the Decision by the Governor No. 2021-01.

Statistics on deposits collected by the French Treasury, which are also included in M1, are obtained directly from the French Treasury (Direction Générale du Trésor).

4. Calculated statistics

The Stat Info includes several types of statistics that are calculated monthly: stocks, flows, 12-month cumulative flows, annual growth rate, contribution to the annual growth rate.

³ The balance of inter-MFI claims and liabilities is not necessarily zero due to differences in the dates on which the transactions are booked.



² MFIs' claims and liabilities vis-à-vis non-residents may correspond to proprietary transactions with non-residents (e.g. investment by a euro area bank in a non-resident banking subsidiary) or the counterpart in their balance sheet of transactions by non-financial agents (businesses, insurance companies, etc.) with non-residents.

Stocks

Stocks are compiled by aggregating data from the non-consolidated balance sheets collected from MFIs. The other types of data are calculated.

Flows

Flows consist of changes to MFI balance sheet items resulting from economic transactions (collection of deposits, net issuance or net acquisitions of securities, granting or recovery of loans). They are calculated by correcting changes in month-end stocks for effects not resulting from economic transactions.

$$F_{t} = (E_{t} - E_{t-1}) - C_{t} - A_{t} - X_{t}$$

Where:

-Ft, flows in t

-Et, stocks in t

- C_t , reclassifications and other statistical effects

These effects consist of changes affecting the population of MFIs (creations, dissolutions, mergers/acquisitions), and reclassifications linked to changes of sector or the correction of reporting errors.

$- \frac{A_t}{A_t}$, revaluations linked to market effects (valuation effects)

This refers to effects linked to changes in the market valuation of securities. Revaluation adjustments linked to currency fluctuations affecting the amount in euro of transactions denominated in a foreign currency are not taken into account as these data are not collected. However, given that the vast majority of French banks' transactions are denominated in euro, the non-inclusion of currency fluctuations has only a marginal impact on flows.

 X_{t} , the writing off of claims

This is when write-offs/write-downs are recorded on loans, reducing the total loan stock.

Annual growth rate

The annual percentage change at date t, written as a_t , is obtained as follows:

$$a_{t} = \left[\prod_{i=0}^{11} \left(1 + \frac{F_{i-i}}{E_{i-i-1}}\right) - 1\right] * 100$$

where:

- F_{t-i} monthly flow in period t-i
- E_{t-i-1} stock observed at the end of month t-i-1.

Contributions to annual growth rate

Contributions to growth are calculated using a methodology that aims to transcribe as accurately as possible the changes in the different aggregates. For a given time series (x), its contribution to the growth, denoted as c_t , in the explained time series (y) is defined as follows:



$$c_{t} = \left(\frac{\sum_{t=1}^{12} \boldsymbol{F}_{t}(\boldsymbol{x})}{\sum_{t=1}^{12} \boldsymbol{F}_{t}(\boldsymbol{y})}\right)^{*} \boldsymbol{g}_{t}(\boldsymbol{y})$$

where:
$$\sum_{t=1}^{12} F_t(x)$$

: sum of flows of the explanatory variable over 12 months;

 $\sum_{i=1}^{12} F_t(y)$

: sum of flows of the explained variable over 12 months;

 $g_t(y)$: rate of growth of the explained variable calculated using the methodology described above.

Thus, if y results from the addition of k components x_s , where s ranges from 1 to k, its growth rate in t can be broken down into the sum of k contributions in t of the components x_s .

5. Adjustment for seasonal variations

The statistics on monthly flows shown in Tables 2 and 3 of Stat Info are seasonally adjusted (SA), whereas the other data (stocks, annual growth rate, 12-month cumulative flows) described in the document are not seasonally adjusted.

SA and non-SA series for all data can be found at Webstat.

The method used to adjust data for seasonal variations is as follows:

- Retrieval of seasonally unadjusted monthly flows, starting from January 1995;
- Adjustment for seasonal variations using the X13 method (JDemetra package);
- Comparison of 12-month seasonally adjusted cumulative flows with annual unadjusted cumulative flows over the calendar year.

• The difference (adjustment) is broken down evenly over each month of the year:

 $Adjustment_A = [(sum of non-SA flows over the calendar year_A) - (sum of SA flows over the calendar year_A)] / 12$

SA flows with adjustment_t = SA flows_t + Adjustment_A

• If the calendar year is not completely over at the time the adjustment is calculated, the adjustment for the previous year is reused.

For stock data, stocks for December must be equal both in SA and non-SA terms. The SA stocks for subsequent months are derived using the following formula:

 $Stocks_SA_t = Stocks_SA_{t-1} + SA$ flows with adjustment_t + valuation_t + reclassification_t

We assume that reclassifications and valuation effects are not seasonal series.

The aggregated series are seasonally adjusted using the indirect method to ensure they are consistent with detailed series. Thus, the M2-M1 aggregate is not directly seasonally adjusted but compiled from fixed-term deposit and savings account series that are seasonally adjusted.

6. Revisions

Aside from in exceptional circumstances, MFI balance sheet items are subject to few revisions, and these are most often restricted to the previous month's data. In contrast, by construction, SA series are revised each month for the entire period, but the size of the revisions is relatively small.





FAQ

- 1. Are banknotes and coins included in the calculation of France's M3 monetary aggregate? No. Banknotes and coins are not included in the French component of M1.
- Are deposits in Livret A passbook accounts included in monetary aggregates? Yes. Like other savings accounts, Livrets A are included in the aggregate M2-M1, and hence in France's M3.
- 3. Are housing savings plans (PEL) and popular savings plans (PEP) included in France's M3 monetary aggregate?

No. PELs and PEPs are not included in M3 as, in accounting terms, they are classified as deposits with an agreed maturity of over two years. They are recorded under long-term resources.

APPENDICES

List of series published in Webstat

This appendix lists the webstat codes of the series presented in the Stat Info "Money and the financing of the economy"

Table 1- France: M3 and the financing of the economy

Webstat code	Туре	Description
BSI1.M.FR.N.V.AT2.A.4.U6.2100.Z01.S	12-month cumulative flows	Domestic general government sector financing
BSI1.M.FR.N.V.A20.A.4.U6.2100.Z01.S	12-month cumulative flows	Loans to the domestic general government sector
BSI1.M.FR.N.V.AT1.A.4.U6.2100.Z01.S	12-month cumulative flows	Domestic general government sector securities held
BSI1.M.FR.N.V.AT2.A.4.U6.2200.Z01.S	12-month cumulative flows	Domestic private sector financing
BSI1.M.FR.N.R.A26.A.4.U6.2250.Z01.S	12-month cumulative flows	Loans to households
BSI1.M.FR.N.R.A26.A.4.U6.2240.Z01.S	12-month cumulative flows	Loans to NFCs
BSI1.M.FR.N.V.A80.A.4.Z5.0000.Z01.S	12-month cumulative flows	Net external assets
BSI1.M.FR.N.V.DIV.A.4.Z5.0000.Z01.S	12-month cumulative flows	Remaining counterparts
BSI1.M.FR.N.V.N30.A.4.U6.2300.Z01.S	12-month cumulative flows	Domestic resources included in M3
BSI1.M.FR.N.V.N10.A.4.U6.2300.Z01.S	12-month cumulative flows	Domestic resources included in M1
BSI1.M.FR.N.V.L2A.M.4.U6.2300.Z01.S	12-month cumulative flows	Domestic resources included in M2-M1
BSI1.M.FR.N.V.LT3.L.4.U6.2300.Z01.S	12-month cumulative flows	Domestic resources included in M3-M2
BSI1.M.FR.N.V.RNM.A.4.Z5.0000.Z01.S	12-month cumulative flows	Long-term resources

Table 2 - France: Monetary resources of monetary financial institutions

Webstat code	Туре	Description
BSI1.M.FR.N.V.L21.A.1.U6.2300.Z01.E	Stocks	Overnight deposits
BSI1.M.FR.N.V.N10.A.1.U6.2300.Z01.E	Stocks	Domestic resources included in M1
BSI1.M.FR.N.V.L22.L.1.U6.2300.Z01.E	Stocks	Deposits with agreed maturity of up to two years
BSI1.M.FR.N.V.L23.D.1.U6.2300.Z01.E	Stocks	Savings accounts
BSI1.M.FR.N.V.L2A.M.1.U6.2300.Z01.E	Stocks	Domestic resources included in M2-M1
BSI1.M.FR.N.V.L30.A.1.U6.2300.Z01.E	Stocks	MMF shares/units
BSI1.M.FR.N.V.L24.A.1.U6.2300.Z01.E	Stocks	Repos



Contact Banque de France

BSI1.M.FR.N.V.L40.L.1.U6.2300.Z01.E BSI1.M.FR.N.V.LT3.L.1.U6.2300.Z01.E BSI1.M.FR.N.V.N30.A.1.U6.2300.Z01.E BSI1.M.FR.N.V.LXG.X.1.U5.2300.Z01.E BSI1.M.FR.N.V.AXG.X.1.U5.2300.Z01.E BSI1.M.FR.N.V.N30.X.1.U2.2300.Z01.E BSI1.M.FR.N.V.L21.A.I.U6.2300.Z01.A BSI1.M.FR.N.V.N10.A.1.U6.2300.Z01.E BSI1.M.FR.N.V.L22.L.I.U6.2300.Z01.A BSI1.M.FR.N.V.L23.D.I.U6.2300.Z01.A BSI1.M.FR.N.V.L2A.M.I.U6.2300.Z01.A BSI1.M.FR.N.V.L30.A.I.U6.2300.Z01.A BSI1.M.FR.N.V.L24.A.I.U6.2300.Z01.A BSI1.M.FR.N.V.L40.L.I.U6.2300.Z01.A BSI1.M.FR.N.V.LT3.L.I.U6.2300.Z01.A BSI1.M.FR.N.V.N30.A.I.U6.2300.Z01.A BSI1.M.FR.N.V.LXG.X.I.U5.2300.Z01.A BSI1.M.FR.N.V.AXG.X.I.U5.2300.Z01.A BSI1.M.FR.N.V.N30.X.I.U2.2300.Z01.A BSI1.M.FR.Y.V.L21.A.4.U6.2300.Z01.E BSI1.M.FR.Y.V.N10.A.4.U6.2300.Z01.E BSI1.M.FR.Y.V.L22.L.4.U6.2300.Z01.E BSI1.M.FR.Y.V.L23.D.4.U6.2300.Z01.E BSI1.M.FR.Y.V.L2A.M.4.U6.2300.Z01.E BSI1.M.FR.Y.V.L30.A.4.U6.2300.Z01.E BSI1.M.FR.Y.V.L24.A.4.U6.2300.Z01.E BSI1.M.FR.Y.V.L40.L.4.U6.2300.Z01.E BSI1.M.FR.Y.V.LT3.L.4.U6.2300.Z01.E BSI1.M.FR.Y.V.N30.A.4.U6.2300.Z01.E BSI1.M.FR.Y.V.LXG.X.4.U5.2300.Z01.E BSI1.M.FR.Y.V.AXG.X.4.U5.2300.Z01.E BSI1.M.FR.Y.V.N30.X.4.U2.2300.Z01.E

Debt securities with a maturity of up to two Stocks vears Stocks Domestic resources included in M3-M2 Stocks Total domestic resources included in M3 Gross monetary liabilities vis- à- vis the rest Stocks of the euro area Gross monetary assets vis- à- vis the rest of Stocks the euro area French component of euro area monetary Stocks aggregate M3 Annual growth rate **Overnight deposits** Annual growth rate Domestic resources included in M1 Deposits with agreed maturity of up to two Annual growth rate years Annual growth rate Savings accounts Domestic resources included in M2-M1 Annual growth rate Annual growth rate MMF shares/units Annual growth rate Repos Debt securities with a maturity of up to two Annual growth rate years Domestic resources included in M3-M2 Annual growth rate Annual growth rate Total domestic resources included in M3 Gross monetary liabilities vis- à- vis the rest Annual growth rate of the euro area Gross monetary assets vis- à- vis the rest of Annual growth rate the euro area French component of euro area monetary Annual growth rate aggregate M3 Flows Overnight deposits Flows Domestic resources included in M1 Deposits with agreed maturity of up to two Flows years Flows Savings accounts Flows Domestic resources included in M2-M1 Flows MMF shares/units Flows Repos Debt securities with a maturity of up to two Flows vears Flows Domestic resources included in M3-M2 Flows Total domestic resources included in M3 Gross monetary liabilities vis- à- vis the rest Flows of the euro area Gross monetary assets vis- à- vis the rest of Flows the euro area French component of euro area monetary Flows



aggregate M3

Table 3 - Counterparts of domestic resources included in M3

Webstat code	Туре	Description
BSI1.M.FR.N.V.AT2.A.1.U6.2100.Z01.E	Stocks	Domestic general government sector financing
BSI1.M.FR.N.V.A20.A.1.U6.2100.Z01.E	Stocks	Loans to the domestic general government sector
BSI1.M.FR.N.V.AT1.A.1.U6.2100.Z01.E	Stocks	Domestic general government sector securities held
BSI1.M.FR.N.V.AT2.A.1.U6.2200.Z01.E	Stocks	Domestic private sector financing
BSI1.M.FR.N.R.A26.A.1.U6.2250.Z01.E	Stocks	Loans to households
BSI1.M.FR.N.R.A220Z.A.1.U6.2254FR.Z	Stocks	Housing loans
BSI1.M.FR.N.R.A26.A.1.U6.2240.Z01.E	Stocks	Loans to NFCs
BSI1.M.FR.N.R.A2N1Z.A.1.U6.2240.Z01	Stocks	Investment loans
BSI1.M.FR.N.R.A2N2Z.A.1.U6.2240.Z01	Stocks	Cash loans
BSI1.M.FR.N.V.A80.A.1.Z5.0000.Z01.E	Stocks	Net external assets
BSI1.M.FR.N.V.DIV.A.1.Z5.0000.Z01.E	Stocks	Remaining counterparts
BSI1.M.FR.N.V.RNM.A.1.Z5.0000.Z01.E	Stocks	Long-term resources
BSI1.M.FR.N.V.N30.A.1.U6.2300.Z01.E	Stocks	Domestic resources included in M3
BSI1.M.FR.N.V.AT2.A.I.U6.2100.Z01.A	Annual growth rate	Domestic general government sector financing
BSI1.M.FR.N.V.A20.A.I.U6.2100.Z01.A	Annual growth rate	Loans to the domestic general government sector
BSI1.M.FR.N.V.AT1.A.I.U6.2100.Z01.A	Annual growth rate	Domestic general government sector securities held
BSI1.M.FR.N.V.AT2.A.I.U6.2200.Z01.A	Annual growth rate	Domestic private sector financing
BSI1.M.FR.N.R.A26.A.I.U6.2250.Z01.A	Annual growth rate	Loans to households
BSI1.M.FR.N.R.A220Z.A.I.U6.2254FR.Z	Annual growth rate	Housing loans
BSI1.M.FR.N.R.A26.A.I.U6.2240.Z01.A	Annual growth rate	Loans to NFCs
BSI1.M.FR.N.R.A2N1Z.A.I.U6.2240.Z01	Annual growth rate	Investment loans
BSI1.M.FR.N.R.A2N2Z.A.I.U6.2240.Z01	Annual growth rate	Cash loans
BSI1.M.FR.N.V.A80.A.I.Z5.0000.Z01.A	Annual growth rate	Net external assets
BSI1.M.FR.N.V.DIV.A.I.Z5.0000.Z01.A	Annual growth rate	Remaining counterparts
BSI1.M.FR.N.V.RNM.A.I.Z5.0000.Z01.A	Annual growth rate	Long-term resources
BSI1.M.FR.N.V.N30.A.I.U6.2300.Z01.A	Annual growth rate	Domestic resources included in M3
BSI1.M.FR.Y.V.AT2.A.4.U6.2100.Z01.E	Flows	Domestic general government sector financing
BSI1.M.FR.Y.V.A20.A.4.U6.2100.Z01.E	Flows	Loans to the domestic general government sector
BSI1.M.FR.Y.V.AT1.A.4.U6.2100.Z01.E	Flows	Domestic general government sector securities held
BSI1.M.FR.Y.V.AT2.A.4.U6.2200.Z01.E	Flows	Domestic private sector financing
BSI1.M.FR.Y.R.A26.A.4.U6.2250.Z01.E	Flows	Loans to households
BSI1.M.FR.Y.R.A220Z.46.2254FR.Z01.E	Flows	Housing loans
BSI1.M.FR.Y.R.A26.A.4.U6.2240.Z01.E	Flows	Loans to NFCs
BSI1.M.FR.Y.R.A2N1Z.4.U6.2240.Z01.E	Flows	Investment loans
BSI1.M.FR.Y.R.A2N2Z.4.U6.2240.Z01.E	Flows	Cash loans



BSI1.M.FR.Y.V.A80.A.4.Z5.0000.Z01.E	Flows
	Flows
BSI1.M.FR.Y.V.RNM.A.4.Z5.0000.Z01.E	Flows
BSI1.M.FR.Y.V.N30.A.4.U6.2300.Z01.E	Flows

Net external assets Remaining counterparts Long-term resources Domestic resources included in M3

