

**Stock-flow adjustment
for the Member States, the euro area and the
EU, for the period 2019-2022**

as reported in the
October 2023 EDP notification

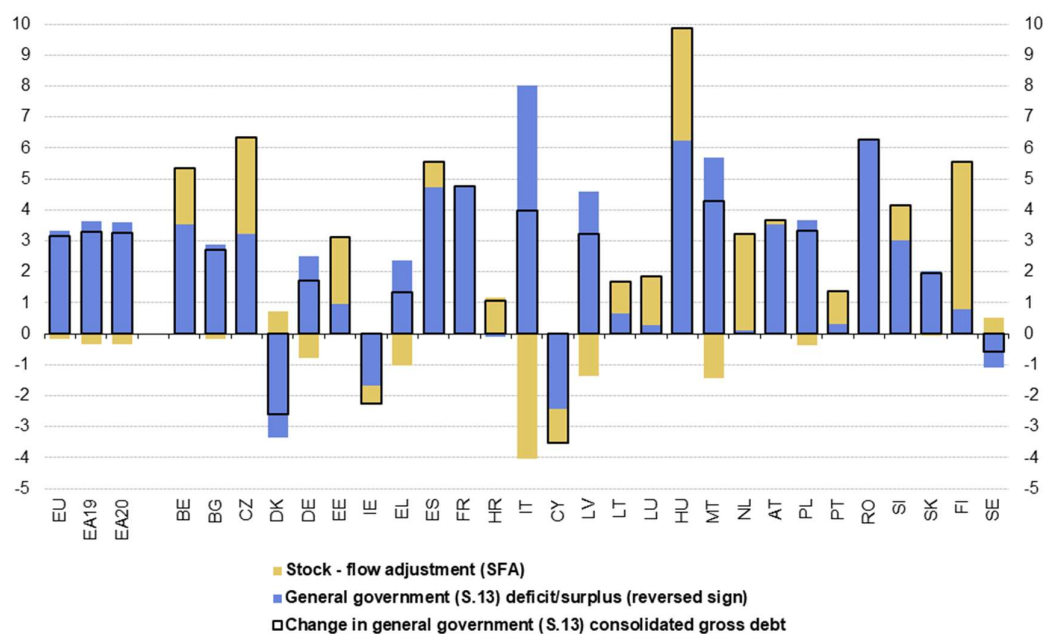
The main factors contributing to changes in government debt other than government deficit/surplus (stock-flow adjustment)

The stock-flow adjustment (SFA) explains the difference between the change in government debt and the government deficit/surplus for a given period. Although SFAs generally have legitimate explanations, Eurostat closely monitors them during quality checks of data for the excessive deficit procedure (EDP)¹, to ensure adherence to statistical rules and consistency across the reported data.

Conceptually, the stock-flow adjustment can be broken down into the following categories: net acquisition of financial assets, debt adjustment effects and statistical discrepancies. The main purpose of this note is to explain the individual elements of the SFA and analyse their patterns and trends.

Countries with an exceptionally large SFA in absolute terms deserve particular attention, even though these values normally have appropriate explanations. Close consideration should also be given to large but offsetting values.

Figure 1: Government deficit/surplus (reversed sign), change in government debt and stock-flow adjustment as a percentage of GDP: 2022 figures



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Source: Eurostat (online data code: [gov_10dd_edpt3](#))

¹ Council Regulation 479/2009 requires the prompt and regular reporting of deficit and debt data by Member States to Eurostat. For definitions of government deficit and debt, and of consolidation, see the Methodological Annex.

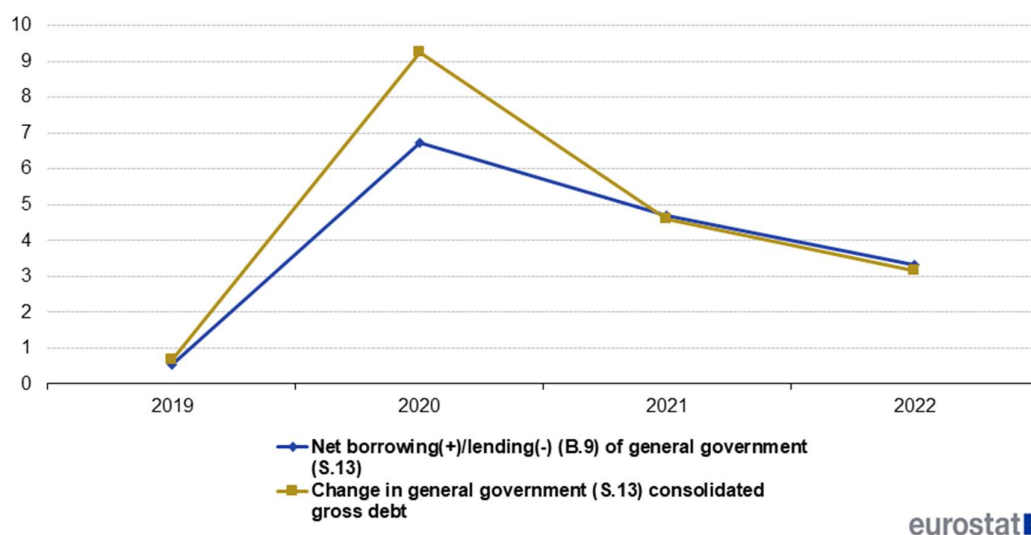
Figure 1 shows the 2022 SFA for each Member State, together with the government deficit/surplus (reversed sign) and the change in government debt, expressed as a percentage of GDP. Five countries exhibit an SFA larger than 3% of GDP in absolute terms in 2022. The countries subject to the highest positive SFA value expressed as a percentage of GDP are Finland (4.8%), Hungary (3.6%), the Netherlands and Czechia (both 3.1%). The largest negative SFA figure expressed as a percentage of GDP is reported by Italy (-4.0%).

Introduction

It is widely known that deficits contribute to an increase in debt levels, while surpluses reduce them. However, as figure 1 shows, the change in government debt also reflects other elements. A positive SFA means that the government debt increases more than the annual deficit (or decreases less than implied by the surplus). A negative SFA means that the government debt increases less than the annual deficit (or decreases more than implied by the surplus).

SFAs have legitimate accounting explanations. The change in the stock of debt reflects the financing of the deficit but also the financing of the acquisition of financial assets, for example, liquidities accumulated by government units, but also loans granted by government or equity acquisition, which do not appear in the deficit figures. The importance of the SFA has been emphasised many times, as an efficient statistical tool to monitor the relationship between the two key fiscal indicators – government deficit/surplus and debt. Closely monitoring SFAs can also highlight data quality problems: for example, governments might have difficulty to accurately report certain transactions as part of the SFA, particularly in times of economic turmoil, such as that caused by the COVID-19 pandemic.

Figure 2: Evolution of change in debt and annual deficit in the EU as a percentage of GDP, 2019-2022



Source: Eurostat (online data code: [gov_10dd_edpt3](#))

Figure 2 shows the evolution of the EU SFA as measured as the gap between the two lines (deficit in blue and change in debt in yellow): 0.14% of GDP in 2019, 2.52% of GDP in 2020, -0.10% of GDP in 2021 and -0.18% of GDP in 2022. The large SFA observed in 2020 illustrates the importance of its analysis at time of economic disturbances.

Table 1 below shows the country SFAs for the years 2019-2022, as a percentage of GDP. The last

column shows the average SFAs over the last four years, which makes it possible to compare the size of the adjustments reported in 2022 with those of the other years, for each country.

In 2022, Italy and Finland reported a large SFA (equal or above 4% of GDP in absolute terms). Italy reported a large negative SFA of -4.0% of GDP, while Finland reported a large positive SFA of 4.8% of GDP. Annual SFAs measured in absolute values exceeded 1% of GDP for sixteen Member States (of which eleven **positive**) in 2022, the same number as in 2021 (of which seven **positive**).

For six Member States in 2022 (CZ, EE, IT, HU, NL, FI), five in 2021 (IE, IT, CY, LU, PT), fifteen in 2020 (DK, DE, EE, EL, FR, HR, CY, LT, HU, PL, PT, RO, SI, SK, FI) and three in 2019 (DK, LT, LU), the SFAs was between 2% and 4% of GDP, in absolute values.

Over the years 2019-2021, the largest **positive** SFAs were reported by Cyprus (11.6% of GDP) and Denmark (9.1% of GDP) in 2020. Large **positive** SFAs, exceeding 4% of GDP, were also reported by Estonia, Lithuania, Hungary, Poland, Portugal, Slovenia and Slovakia for 2020 as well as Denmark, Lithuania and Luxemburg for 2019. One large **negative** SFA, exceeding - 4% of GDP, was observed for Cyprus (-4.4% of GDP in 2021) during the period 2019-2022.

Table 1: Stock-flow adjustment, as a percentage of GDP, 2019-2022

	2019	2020	2021	2022	average
EU	0.1	2.5	-0.1	-0.2	0.6
euro area 19	0.1	2.2	-0.2	-0.3	0.4
euro area 20	0.1	2.2	-0.2	-0.3	0.4
BE	-0.3	1.5	1.2	1.8	1.0
BG	2.0	0.8	-1.3	-0.2	0.3
CZ	0.4	1.4	1.7	3.1	1.7
DK	4.7	9.1	1.6	0.7	4.0
DE	1.1	3.6	0.7	-0.8	1.2
EE	1.0	4.5	-1.1	2.2	1.6
IE	-0.2	-1.1	2.7	-0.6	0.2
EL	-1.1	-3.4	-0.2	-1.0	-1.4
ES	-1.9	0.8	0.0	0.8	-0.1
FR	-0.4	3.2	0.2	0.0	0.7
HR	1.8	2.5	0.5	1.2	1.5
IT	0.1	0.2	-2.9	-4.0	-1.7
CY	1.9	11.6	-4.4	-1.1	2.0
LV	0.9	0.5	-1.3	-1.4	-0.3
LT	5.0	4.6	1.5	1.0	3.0
LU	4.5	-0.5	3.1	1.6	2.2
HU	0.4	7.4	0.0	3.6	2.8
MT	0.9	-0.2	1.0	-1.4	0.1
NL	0.4	1.4	-0.6	3.1	1.1
AT	-0.7	1.3	-1.3	0.1	-0.1
PL	-0.3	5.5	1.0	-0.4	1.5
PT	0.4	4.4	-3.5	1.1	0.6
RO	-0.3	2.6	-0.6	0.0	0.4
SI	-0.3	4.4	-1.8	1.1	0.9
SK	-0.3	5.0	1.0	-0.1	1.4
FI	0.8	3.8	-1.2	4.8	2.1
SE	-1.7	1.5	-0.2	0.5	0.0

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Source: Eurostat (online data code: [gov_10dd_edpt3](#))

The following sections present the individual components of the SFAs, focusing on the same time at large transactions reported by the Member States.

Components of the stock-flow adjustment – factors contributing to the general government debt

The SFA is made up of 17 elements. This note presents them grouped into main categories.

Table 2 presents the SFA elements, as reported to Eurostat by Member States, showing EU figures for 2019-2022. At the end of this document, table 3 details the SFA of each Member State for each year over the period 2019-2022. Its columns are numbered and cross-references to the data are included throughout the text in brackets.

The starting point of the analysis is the **Net lending/net borrowing (i.e., Surplus/deficit)** with reverse sign: a deficit is displayed with a positive sign (a surplus with a negative sign) as deficit should be financed and contribute positively to the change in general government debt.

The first SFA category is called **Net acquisition of financial assets**. These adjustments appear here because acquisition of financial assets must be financed on top of the financing requirement stemming from non-financial transactions. The net acquisition of financial assets leads to an increase of debt, while a net disposals of assets leads to a decrease of debt.

A second category of SFAs, called **Adjustments**, is related to the definition of the Maastricht debt. They can be presented in three sub-categories.

1. The first one includes transactions in those liabilities that are excluded from the definition of government debt (*Financial derivatives (F.71), Other accounts payable (F.8) and Other liabilities (F.1, F.5, F.6 and F.72)*).
2. The second sub-category relates to the valuation of the debt and comprises three lines (*Issuances above/below nominal value, Difference between interest (D.41) accrued and paid and Redemptions of debt above/below nominal value*), reflecting the fact that government debt, defined in Council Regulation 479/2009, is measured at face value.
3. The third sub-category includes the *Appreciation/depreciation of foreign-currency debt*, reflecting the impact of changes in exchange rates on those government debt components that are denominated in foreign currencies, taking into account hedging activities. Finally, other changes in volume (*Changes in sector classification (K.61), and Other volume changes in financial liabilities (K.3, K.4, K.5)*) mainly arise from the reclassification of units inside or outside general government or other rare cases of extinguishment of debt that are not reflected in the deficit/surplus.

The third category contains the **Statistical discrepancies**, which reflect, amongst other, differences arising from the diversity of data sources and might indicate problems with the quality of data. Two kinds of discrepancies are distinguished, discrepancies between the balance of non-financial and financial transactions, and discrepancies linked to the reconciliation of transactions in debt instruments and the change in those debt instruments at face value, after taking into account the adjustments of the second category (sub-categories 2 and 3).

As it can be seen in the table 2, for the EU (and to a lesser degree the euro area or EA) the change in general government gross debt is additionally explained by the *aggregation effects*.

Table 2: Stock-flow adjustment items for the EU, in million euro, 2019-2022

EU	2019	2020	2021	2022
<i>October 2023 EDP notification</i>				
Net borrowing(+)/lending(-)(B.9) of general government (S.13)*	76 409	906 599	690 517	531 378
Net acquisition (+) of financial assets (1, 2)	55 691	443 826	159 889	27 682
Currency and deposits (F.2)	102	282 006	59 879	- 70 980
Debt securities (F.3)	11 801	- 12 213	11 380	4 048
Loans (F.4) (1, 2)	- 6 910	72 289	12 848	26 405
Increase (+)	72 043	138 716	108 141	125 312
Reduction (-)	- 78 953	- 66 426	- 95 293	- 98 907
Short term loans (F.41), net	377	3 816	6 695	10 410
Long-term loans (F.42)	- 7 287	68 473	6 153	15 994
Increase (+)	66 502	122 625	97 784	107 866
Reduction (-)	- 73 789	- 54 152	- 91 632	- 91 872
Equity and investment fund shares/units (F.5)	21 657	27 783	15 225	14 990
Portfolio investments, net	19 872	31 174	13 359	14 050
Equity and investment fund shares/units other than portfolio investments	1 785	- 3 391	1 867	941
Increase (+)	64 324	62 771	43 989	45 925
Reduction (-)	- 62 539	- 66 162	- 42 122	- 44 983
Financial derivatives (F.71)	1 076	- 17 450	- 14 404	- 17 455
Other accounts receivable (F.8)	27 679	90 983	75 117	70 993
Other financial assets (F.1, F.6)	286	428	- 156	- 319
Adjustments (*)	- 34 956	- 91 206	- 151 549	- 45 484
Net incurrence (-) of liabilities in financial derivatives (F.71)	6 788	12 005	17 724	35 879
Net incurrence (-) of other accounts payable (F.8)	- 25 238	- 61 011	- 142 809	- 161 746
Net incurrence (-) of other liabilities (F.1, F.5, F.6 and F.72)	- 3 806	- 15 248	- 18 658	- 4 312
Issuances above(-)/below(+) nominal value	- 54 072	- 73 480	- 59 537	48 877
Difference between interest (D.41) accrued(-) and paid(+)	27 861	28 715	34 264	26 127
Redemptions/repurchase of debt above(+)/below(-) nominal value	7 594	8 410	10 327	- 854
Appreciation(+)/depreciation(-) of foreign-currency debt (*) (2)	5 740	- 819	9 130	9 462
Changes in sector classification (K.61) (+/-)	- 1 628	1 057	- 45	167
Other volume changes in financial liabilities (K.3, K.4, K.5)(-)	1 804	9 164	- 1 945	916
Statistical discrepancies	- 965	- 13 226	- 22 814	- 10 070
Difference between capital and financial accounts (B.9-B.9f)	145	- 11 450	- 21 480	- 10 199
Other statistical discrepancies (+/-)	- 1 110	- 1 775	- 1 334	130
Change in general government (S.13) consolidated gross debt (1, 2) **	96 181	1 245 992	676 043	503 508
[the last item of the core table]				
Memorandum item [1=2+3]: overall aggregation effect**		- 22 172	- 2 851	- 21 481
Memorandum item [2]: consolidation of intergovernmental lending (IGL) effect**		- 885	- 2 073	- 5 309
Memorandum item [3]: foreign exchange aggregation effect**		- 21 287	- 778	- 16 171
Memorandum item [4]: change in the stock of aggregated general government debt (consolidated for IGL)**		1 223 820	673 192	482 028
Memorandum item [5]: stock of aggregated general government debt (consolidated for IGL) **	10 897 340	12 121 160	12 794 352	13 276 380
(*) Consolidated within general government of a Member State [but not for intergovernmental lending between the EU-27 Member States].				
(*) Intergovernmental lending (IGL) not consolidated in this line.				
(*) Due to exchange-rate movements, taking into account hedging activities.				
**Please note the sign convention in this table for net borrowing / net lending: a positive entry reflects a deficit, a negative entry reflects a surplus.				
** Aggregated data for EU are calculated from the nominal figures sent by Member States to Eurostat, using an average exchange rate in the core table (for transactions and other adjustments), but using an end of period exchange rate for the memorandum items [4] and [5], as it is appropriate for conversion of the end-year debt stock. As a consequence, the aggregation of "Change in general government (S.13) consolidated gross debt" for 27 EU Member States [the last item of the core table] is not the same as the "change in the stock of aggregated (consolidated for IGL) general government debt" [memorandum item [4]], for the EU aggregate, owing to: i) the impact of intergovernmental lending [memorandum item [2]] and ii) different annual exchange rates used (for conversion of flows and for stocks), when the data are converted in euro [memorandum item [3]].				
It should be noted that the core table does not consolidate intergovernmental lending (IGL), neither for the item "Loans (F.4)" [assets] nor "Change in general government (S.13) consolidated gross debt".				

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Source: Eurostat (gov_10dd_edpt1, gov_10dd_edpt3, gov_10q_ggdebt)

Net lending (+) / net borrowing (-) (B.9)

The basic factor contributing to the change in government consolidated gross debt is the deficit or surplus of the general government sector (column (1) in table 3). Figure 3 illustrates deficits/surpluses in 2019-2022, as a percentage of GDP, sorted in descending order of the deficit level in 2022.

In 2022, twenty two countries reported a government deficit and five countries reported a government surplus.

Government deficit decreased in the euro area (from -5.2% of GDP in 2021 to -3.6% of GDP in 2022) as well as in the EU (from -4.7% of GDP in 2021 to -3.3% of GDP in 2022). The EU deficit remained slightly lower than that of the euro area throughout the reporting period (2019-2022).

In 2022, the largest deficits, expressed as percentage of GDP, were recorded in Italy (-8.0%), Romania (-6.3%), Hungary (-6.2%), Malta (-5.7%), France (-4.8%), Spain (-4.7%) and Latvia (-4.6%). Twelve Member States had a deficit higher than 3% of GDP in 2022. For the countries that reported a surplus in 2022, the largest were recorded in Denmark (3.3% of GDP), Cyprus (2.4% of GDP), Ireland (1.7% of GDP) and Sweden (1.1% of GDP). Croatia recorded a surplus of 0.1% of GDP.

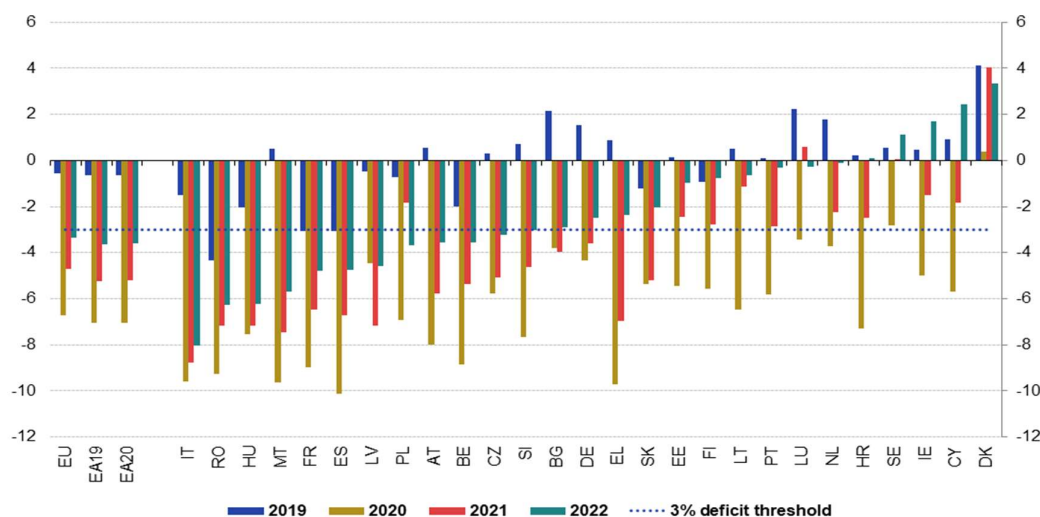
In 2021, the highest deficits were reported by Italy (-8.8% of GDP) and Malta (-7.5% of GDP) while Romania, Latvia and Hungary reported -7.2% of GDP. The largest surplus was reported by Denmark (4.1% of GDP).

In 2020, at the onset of the COVID-19 pandemic, the highest deficits were reported by Spain (-10.1% of GDP), Greece (-9.7% of GDP), Italy and Malta (both -9.6% of GDP), Romania (-9.3% of GDP) and France (-9.0% of GDP). Denmark was the only country to record a surplus of 0.4% of GDP in 2020.

In 2019, seventeen countries reported a government surplus and ten countries reported a government deficit.

During the period 2019-2022, government deficit to GDP ratio deteriorated sharply from -0.6% in 2019 to -3.6% in 2022 in the euro area, while in the EU it plummeted from -0.5% to -3.3%.

Figure 3: Net lending (+)/net borrowing (-) as a percentage of GDP, 2019-2022, in descending order of the deficit level in 2022



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Source: Eurostat (online data code: gov_10dd_edpt3)

Net acquisition of financial assets

The net acquisition of financial assets is generally the main factor in the SFA. It reflects the acquisition less disposal of financial assets held by the general government sector.

Transactions in financial assets are reported on a consolidated basis, i.e., excluding transactions between government units, given that government debt is consolidated within general government. The lending from one unit of government to another is eliminated and is shown neither as acquisition of assets nor as increase in debt. Similarly, the acquisition of government bonds by government units is not shown as acquisition of assets, but as reduction in consolidated debt. The amounts of transactions between sub-sectors can be observed when information is provided at the level of each sub-sector of general government. Such information on SFAs by sub-sector is accessible on the Eurostat [website](#).

Transactions in financial instruments assets, such as purchases/sales of shares or debt securities and loans granted (and then redeemed) by government, have no direct impact on government debt (unless through consolidation), because they lead to changes in holdings of other types of financial assets, normally currency and deposits. However, there will be a subsequent impact on the debt if government uses the proceeds to repay its debt.

Changes in market value (e.g., holding gains/losses due to price changes, both realized and unrealized) of financial assets owned by general government are not considered as transactions but enter the revaluation accounts. These have an impact neither on government deficit/surplus nor on the change in government debt.

Figure 4 shows the evolution of the components of the net acquisition of financial assets for the EU over the years 2019-2022. In the years 2019-2022, most components contributed positively to the net acquisition of financial assets, with the exception of the *Currency and deposits (F.2)* in 2022 and *Financial Derivatives (F.71)* that had a noticeable negative impact in all years concerned except in 2019, of *Debt Securities (F.3)* that contributed negatively in 2020, and of *Loans (F.4)* that had a slight adverse impact in 2019.

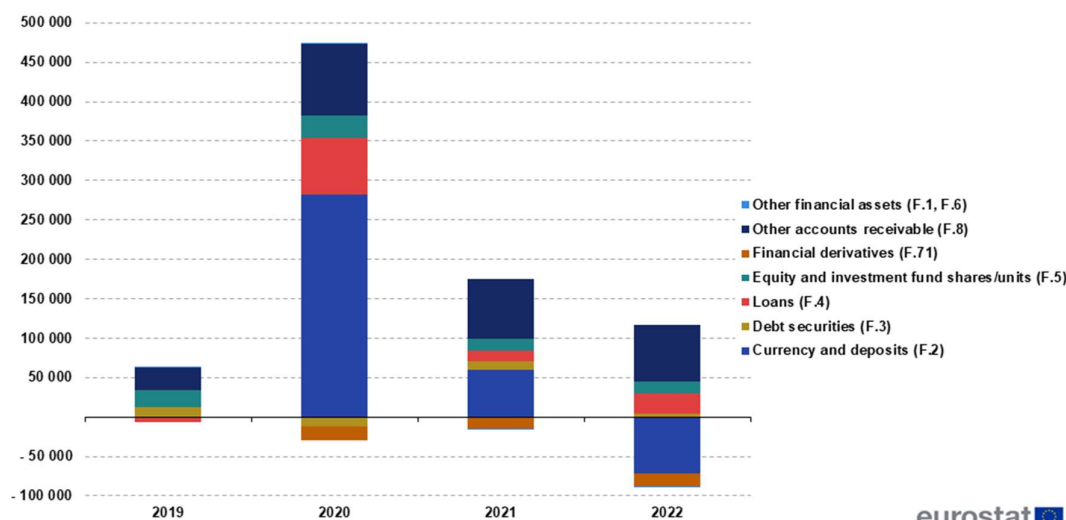
The contribution of each component varied significantly over the whole period. While the contribution of the *Currency and deposits (F.2)* component to the SFA was negligible in 2019, it rose to unprecedented levels in 2020, remained quite large in 2021 and became negative in 2022. This indicates that significant amounts of cash were accumulated during 2020-2021, suggesting that many Member States borrowed funds on favourable terms while anticipating liquidity needs in view of the COVID-19 pandemic, particularly in 2020. The reduction in deposits observed in 2022 may reflect either the fact that the liquidity accumulated over the previous years has been used to finance the deficit or that the excess liquidity has been invested in assets.

Another significant component of the SFA in 2020 and, but to a lesser extent, in 2021 and 2022 concerns the *Other accounts receivable (F.8)* contributing positively to the net acquisition of financial assets and reflecting to a large extent tax accruals (including the impact of tax deferral schemes implemented in many Member States as a result of the COVID-19 pandemic, where taxpayers were allowed to submit their tax declarations or to pay their tax obligations in delay compared to normal circumstances, the impact being positive in 2020, but negative in 2022).

Moreover, Figure 4 shows a reduction of the flow of financial assets in the form of loans (F.4) in 2021 and 2022 when compared to 2020 reflecting inter alia the downsizing of policy measures aiming at providing public financing support to corporations in the context of the pandemic.

The net acquisition of *Equity and investment fund shares/units (F.5)* decreased slightly in 2022 as compared to 2021. The effect of *Other financial assets (F.1 and F.6)* on the net acquisition of financial assets was not significant over the reporting period whereas *Financial derivatives (F.71)* contributed negatively again in 2022.

Figure 4: Net acquisition of financial assets for the EU (in million EUR), 2019-2022



Note: In this graph, intergovernmental lending is not consolidated.
Source: Eurostat (online data code: [gov_10dd_edpt3](#))

The information on net acquisition of financial assets is consistent with financial accounts data published by Member States and reported to Eurostat under the ESA 2010 transmission programme.

The following sections of this note cover the SFA elements related to the financial transactions, examining data by country and focusing on large values.

Currency and deposits (F.2)

The *Currency and deposits (F.2)* position (column (5) in table 3) mainly reflects movements in central government deposits with banks, notably with central banks, which can fluctuate substantially from one year to another, in particular due to treasury operations (including through repurchase agreements – ‘repos’). However, other government units’ (e.g., local government, social security funds) transactions in currency and deposits are also reflected here.

The level of deposits tends to increase along with economic growth. Transactions in *Currency and deposits (F.2)* might also be influenced from one year to the next by very large operations that lead to large cash inflows or outflows in a given year. For example, a large bond issuance might increase the deposits of government if the receipts from the issuance are not immediately used for another purpose like bond redemption or government spending, but are temporarily kept in the bank.

Large accumulations of *Currency and deposits (F.2)* might reflect governments’ overfunding measures in the context of a financial crisis (e.g., reinforcement of cash reserves by issuing bonds or by taking loans).

In 2019, the relatively high positive values for Luxembourg and Lithuania were mainly related to the issuance of debt securities, and for Cyprus related to the redemption of loan assets and the accumulation of cash by Social Security Funds.

The relatively high negative value for Denmark in 2019 was due to the government’s purchase of bonds (not issued by Denmark government units) leading to a decrease in currency and deposits and a significant increase in debt securities held (F.3, see below) .

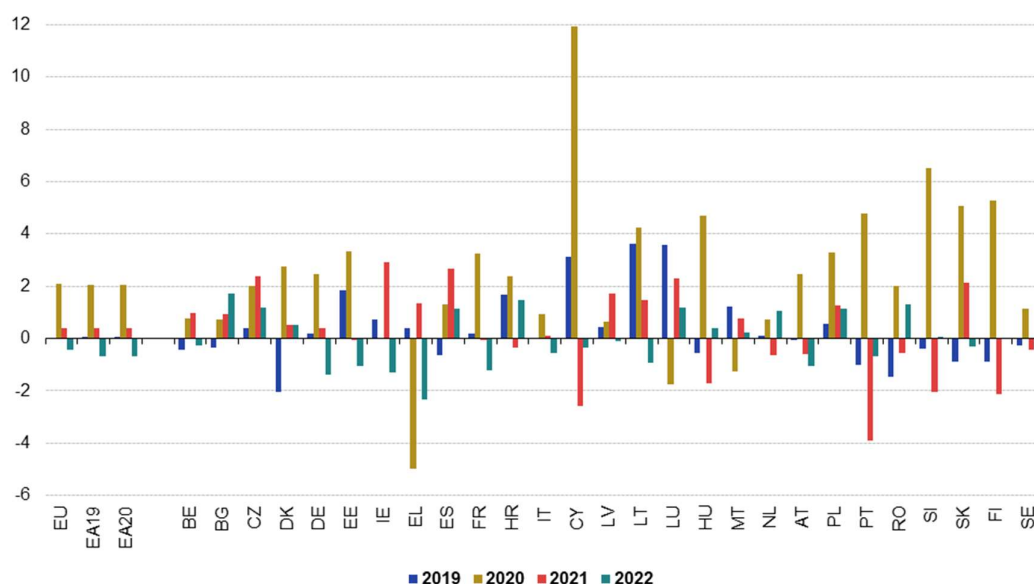
After year 2020, where almost all countries (twenty four out of twenty seven) reported an upsurge in *Currency and deposits (F.2)*, fifteen countries still reported positive adjustments in 2021 with regard to *Currency and deposits (F.2)* with the highest positive values reported by Ireland (2.9% of GDP) followed by Spain (2.7% of GDP), Czechia (2.4% of GDP), Luxembourg (2.3% of GDP) and Slovakia (2.1% of GDP).

In 2022, fourteen countries reported positive adjustments in *Currency and deposits (F.2)*. The highest positive values were reported by Bulgaria (1.7% of GDP), Croatia (1.5% of GDP), Romania (1.3% of GDP), Czechia and Luxembourg (both 1.2% of GDP), Spain, the Netherlands and Poland (all 1.1% of GDP).

These figures suggest that most of these countries have continued to borrow relatively large amounts, albeit at a much lower level than in 2020, mainly through bond issuance, in order to preserve their liquidity needs in the context of uncertainty linked to the energy crisis and geopolitical factors while taking advantage of still favourable financing conditions. Other causes may also have contributed to the increase of *Currency and deposits (F.2)*, such as the large amounts received from the EU in the context of Recovery and Resilience Facility (RRF) and the SURE Instrument.

On the contrary, a negative impact on the SFA from the *Currency and deposits (F.2)* were reported in 2022 by Greece (-2.3% of GDP), Germany (-1.4% of GDP), Ireland (-1.3% of GDP), France (-1.2% of GDP), Austria (-1.1% of GDP) and Estonia (-1.0% of GDP), reflecting the use of the cash that had been accumulated in the past year either to finance expenditure or to invest in other financial instruments.

Figure 5: Currency and deposits (F.2) as a percentage of GDP, 2019-2022



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Source: Eurostat (online data code: [gov_10dd_edpt3](#))

Debt securities (F.3)

Debt securities (column (6) in table 3) mainly reflect net purchases by government (notably by social security funds) of bills, notes, bonds or preference shares issued by financial institutions, non-financial corporations or non-residents (including foreign governments and European institutions or schemes such as EFSF, ESM, RRF or SURE). However, some large flows of social security funds do not appear here, when they invest primarily or exclusively in government securities, because these transactions are consolidated within the general government sector.

Since 2012, debt securities acquisition by Member States may also include notes issued by the European Stability Mechanism (ESM) or the European Financial Stability Facility (EFSF). In the specific case where ESM lending takes the form of the provision of such notes, they also appear as acquisition of debt securities, with a matching increase in debt. A disposal of these notes is recorded later on as disposal of debt securities held, when the Member State decides to use the notes, for instance in a recapitalisation exercise, or to return them to the ESM (in that latter case, the Member State debt also decreases).

Figure 6 shows a marked dispersion across Member States for this item. Many Member States report hardly any acquisition of debt securities.

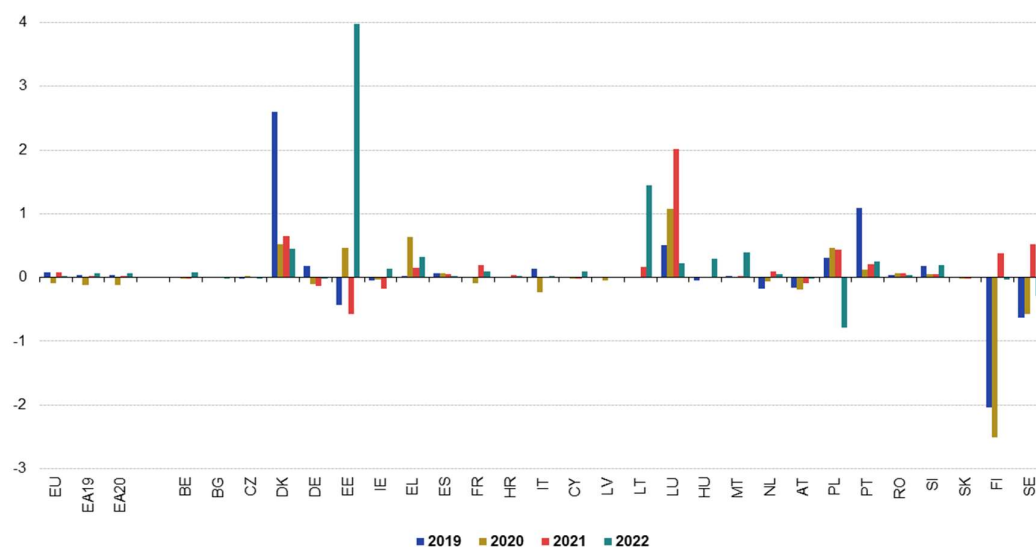
Denmark reported a sizeable positive value for 2019. The positive value for Portugal in 2019 was due to significant investments made by the social security funds subsector into debt securities issued by non-resident units.

The positive value for Luxembourg in 2020 resulted from investments made by the social security funds. In Finland, the five largest employment pension schemes recorded negative net transactions for debt securities in 2019 and 2020 partly compensated by net acquisitions in portfolio investments (F.5, see below).

The increase in *Debt securities (F.3)* in 2021 for Luxembourg primarily reflects a switch from portfolio investments (F.5) into bonds by the National Pension Insurance Fund investment vehicle (see below). The positive value of debt securities reported by Sweden in 2021 are related to the social security funds that have made significant investments in debt securities issued by non-resident units while the positive value for Denmark in 2021 relates to the acquisition of bonds by the central government (not issued by Denmark government units). In 2021, Estonia recorded notable disposals in *Debt securities (F.3)* because of the Treasury's reduction in European sovereign and in financial sector bonds.

The increase in *Debt securities (F.3)* in 2022 for Estonia by 4% of GDP is due to the issuance of a new Euro Medium Term Note (EMTN) in the same period, which proceeds exceeded the financing requirement of the year and have been invested in foreign government debt securities. For Lithuania, the positive impact of debt securities by 1.4% of GDP in 2022 relates to the foreign government's bonds purchased by extra-budgetary funds classified in general government. Poland recorded a decrease in *Debt securities (F.3)* by -0.8% of GDP in 2022, which was mainly due to net disposals of debt securities held by the COVID-19 Counteracting Fund to finance COVID-19 measures.

Figure 6: Debt securities (F.3) as a percentage of GDP, 2019-2022



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Source: Eurostat (online data code: gov_10dd_edpt3)

Loans (F.4)

This component of SFA (column (7) in table 3) comprises loans to non-government units only, since the figures in this table are consolidated. It predominantly includes lending to public corporations, foreign governments or households (students, etc.) and prepayments on deliveries (notably military equipment) when long-term. The outstanding value of loans grows with (new) lending and decreases with loan repayments and loan cancellations. Some loans to corporations might be converted into capital (recorded as capital transfers or equity injections), which would imply a further reduction in this loan item. Loans granted by government with little expectation of repayment at inception are to be recorded in national accounts as capital transfers (thus affecting the deficit) and are therefore not reported here. By the same token, rare cases of loans granted with expectation of a loss at inception are recorded here for their expected recoverable value, the remainder being recorded as a capital transfer expenditure at inception. Conversely, some cases of capital injections expected at inception to be repaid in the not-too-distant future are recorded as loans, to reflect the liquidity character of the measure.

EDP tables require Member States to provide information on the distribution of government's short-term loan (column (10) in table 3) and long-term loan (column (11) in table 3) assets. According to ESA 2010, the maturity of short-term loans is one year or less, while the original maturity of long-term loans is more than one year. All Member States provide these items. The data is shown in table 3.

The relatively high negative value for Cyprus in 2019 and 2020 was due to the redemption of loans pertaining to the defeasance structure, as well as in 2021 and 2022.

In 2020, a number of countries had reported a positive SFA contribution for *Loans (F.4)*, following the financial support provided directly by governments or indirectly by other units acting on behalf of governments (these transactions are then rearranged and reflected in government accounts) to entities in financing need due to the adverse effects of the COVID-19 pandemic. Government lending

was notable for Denmark, Greece, Poland, Germany, Sweden and Estonia. It was also larger than in previous reporting periods in Latvia, Hungary and the Netherlands. Loans, granted in the context of COVID -19 pandemic were generally long-term. In the case of Greece, government had set up a scheme for granting repayable advances to SMEs (1.7% of GDP in 2020), where some amounts would not have to be reimbursed or were not expected to be fully repaid. The part to be repaid has been recorded as a loan in national accounts, whereas the part not expected to be repaid has been recorded as a capital transfer at inception.

In 2021, SFAs due to *Loans (F.4)* were much smaller for the EU and the euro area than in the previous year, reflecting in part the reduction in lending by governments to support economic activity in the context of the pandemic. The largest increases in *Loans (F.4)* were recorded by Finland and Hungary (both 1.1% of GDP). For Finland, it was mainly explained by the housing programme interest subsidy loans, which are rerouted through government accounts, and by loans extended by government-owned housing companies that are classified inside general government. For Hungary, it was a result of increased lending by a large government fund as well as increased lending by units reclassified in the general government sector.

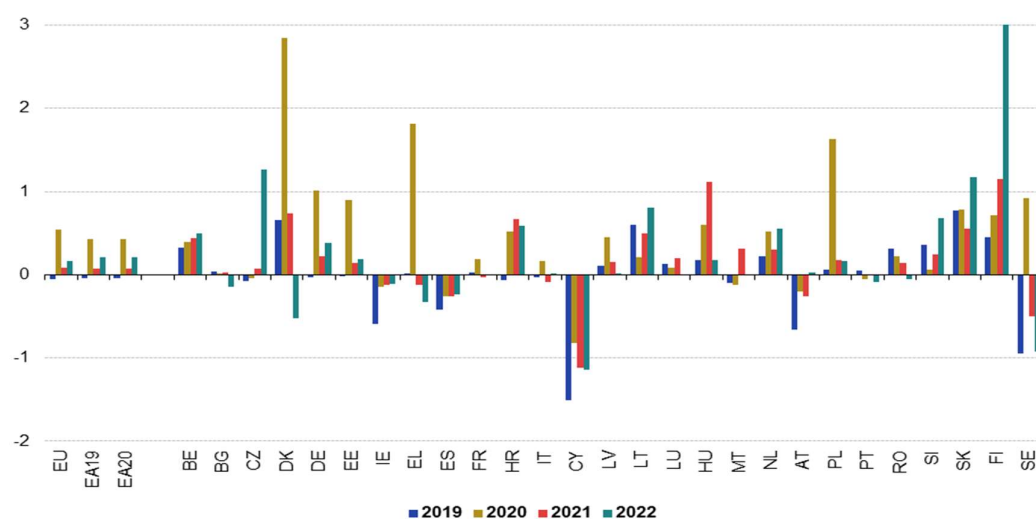
The largest negative value in 2021 was reported by Cyprus (-1.1% of GDP), reflecting a reduction in government lending activity in that year, while the defeasance structure classified inside government also experienced higher loan repayments than in 2020. The negative value for Sweden in 2021 (-0.5% of GDP) was related to significant repayments of loans to government, mainly by the National Central Bank and by one public corporation.

In the current reporting year 2022, stock-flow adjustments due to *Loans (F.4)* slightly increased for the EU and the euro area as compared to the previous year 2021, notably reflecting some exceptional lending benefiting selected energy suppliers confronted to severe liquidity difficulties, either because market funding closed to them or because confronted to unexpected large margin calls on their hedging activities.

In 2022, the largest increases in *Loans (F.4)* were recorded by Finland (3.0% of GDP), Czechia (1.3% of GDP) and Slovakia (1.2% of GDP). For Finland, it is mainly due to large paid margin on derivatives trading, which are recorded as short-term loans in government accounts. For Czechia, it is mainly due to a loan provided by government to a large public energy company to strengthen its liquidity position in the wake of high energy prices. In Slovakia, it is related to the build-up in F.4 claims due to the reclassification of military equipment advance payments, previously recorded as other accounts receivable (F.8) and to large company benefiting from a capital injection that was expected at inception to be repaid when financing conditions improve, and therefore was recorded as a loan. In Slovenia, a similar capital injection recorded as a loan contributed to a significant increase in 2022 as well. Lithuania also recorded a significant increase in *Loans (F.4)* which is due to military equipment advance payments.

The largest negative values in 2022 were reported by Cyprus (-1.1% of GDP) and Sweden (-0.9% of GDP). As regards Cyprus, this is mainly due to repayment of loans held by the defeasance structure, classified inside general government. For Sweden, this is due to the significant repayment of loans by the National Central Bank.

Figure 7: Loans (F.4) as a percentage of GDP, 2019-2022



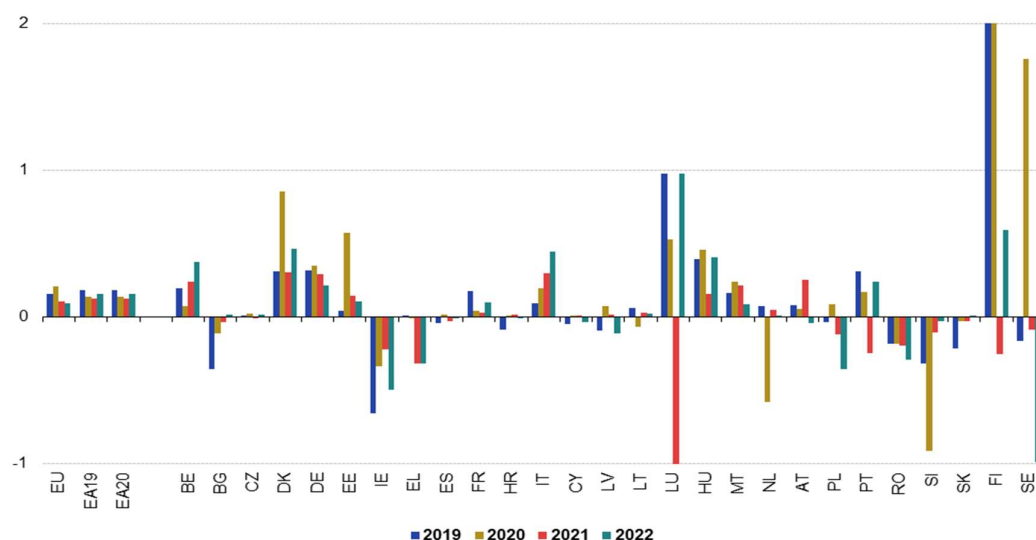
eurostat

Source: Eurostat (online data code: gov_10dd_edpt3)

Equity and investment fund shares/units (F.5)

The item *Equity and investment fund shares/units (F.5)* (column (14) in table 3) mainly captures acquisitions less disposals of equity in corporations or investment funds by government units, divided into portfolio investments (column (15) in table 3) and non-portfolio investments (column (16) in table 3). The latter may reflect privatisation proceeds, super-dividends, or equity injections in public corporations among others. Figure 8 presents these transactions on a net basis.

Figure 8: Equity and investment fund shares or units (F.5) as a percentage of GDP, 2019-2022



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Source: Eurostat (online data code: gov_10dd_edpt3)

Decreases in *Equity and investment fund shares/units (F.5)* may reflect privatisation proceeds (including privatisations conducted by privatisation agencies classified inside general government). Decreases may also result from the application of the so-called super-dividend test, which prescribes that distributions (to their owners) by public corporations in excess of their operating profit (i.e. excluding holding gains/losses) have to be recorded as financial transactions (withdrawal of equity) rather than government revenue (dividends). Such reclassifications are carried out by many Member States and can also concern distributions by central banks.

Increases in *Equity and investment fund shares/units (F.5)* may relate to injections by government (generally in the form of cash provided by government) to specific public corporations and quasi-corporations where government is acting similarly to a private investor and expects a market return on invested funds. The increase in *Equity and investment fund shares/units (F.5)* also reflects Member States' injections in the European Stability Mechanism and in certain international organisations, where paid-in capital is considered as equity.

Equity injections create a financing need and therefore may lead to an indirect increase in government debt, whilst proceeds from privatisations and equity disposals can finance Maastricht debt redemptions.

The item *Equity and investment fund shares/units (F.5)* also captures portfolio investments in the form of purchases of quoted shares on the market or of mutual fund shares made by some government units, notably asset-rich social security funds, such as in Luxembourg and Finland. Placements in money market mutual funds are also reported here, in spite of being close substitutes for bank deposits.

Portfolio investments represent holdings of shares, which, unlike direct investment, do not entail influence over, or control of the issuer by the investor. In line with international best practice, this means that the investor holds less than 10% of the total shares of the issuer.

The outsized equity acquisitions reported by Finland in 2019 and 2020 were mainly due to portfolio investments placed by the social security funds subsector. The equity acquisition by Luxembourg represented portfolio investment of the social security subsector in 2019.

In recent years, many EU governments have reduced their equity holdings by unwinding the support measures to banks provided during the 2008 financial crisis (through privatisation, redemptions of preference shares and equity withdrawals notably related to super-dividends). The relatively large decrease in 2019 for Ireland was due to a net reduction in the holdings of investment fund shares and the withdrawal of equity from the Central Bank following the payment of a super-dividend.

The increase in equity in 2020 for Sweden was mainly due to the acquisition of equity in a state-owned company involved in providing loans to corporations with growth potential and assisting them in their development. In 2020, Denmark reported the acquisition of equity in the Danish Growth Fund ('Vækstfonden') and in a company involved in the distribution of gas. The increase in portfolio investments observed for the same year in Denmark mainly reflected acquisition of quoted shares or mutual funds shares by the social security funds.

The large decrease in 2020 for Slovenia resulted from the privatisation of financial institutions while the significant decrease in 2020 for the Netherlands was explained mainly by the privatisation of an energy company by municipalities.

In 2021, Denmark, Germany, Italy and Austria reported the highest acquisitions (all 0.3% of GDP) of *Equity and investment fund shares/units (F.5)*. For Denmark, this was mainly related to acquisition of portfolio investments notably at local government level whereas for Germany, to the acquisition of investment fund shares by all sub-sectors of general government. For Italy, this was mainly due to the acquisition of portfolio investments by pension funds. For Austria this was mainly due to the acquisition of portfolio investments and investment fund shares at the state government level.

The significant decrease in *Equity and investment fund shares/units (F.5)* for Luxembourg in 2021 (-1.1% of GDP) mainly reflected a reduction in portfolio investment of the investment vehicle of the National Pension Insurance Fund in favour of Debt securities (F.3). The relatively large decrease in

non-portfolio investments observed in 2021 for Greece (-0.3% of GDP) mainly reflected the sale of shares of a state-owned company in the context of a contract for public property development.

In the current reporting year 2022, Luxembourg (1.0% of GDP), Finland (0.6% of GDP) and Denmark (0.5% of GDP) reported a significant increase in *Equity and investment fund shares/units (F.5)*. For Luxembourg, it is mostly related to the National Pension Insurance Fund's investment shares. For Finland it is largely due to the investments of the employment pension schemes' while for Denmark the increase in F.5 is mainly due to portfolio investments undertaken at the level of local government by various municipalities. Italy reported higher acquisitions (0.4% of GDP) in 2022, which mainly results from the acquisition of shares in the Italian export credit agency SACE.

The highest decrease in *Equity and investment fund shares/units (F.5)* in 2022 was reported by Sweden (-1.0% of GDP) and Ireland (-0.5% of GDP). For Sweden, the decrease in F.5 mainly relates to the net sales of foreign shares as a part of social security funds portfolio rebalancing. As regards Ireland, this is due to the equity withdrawals related to super-dividends as well as due to the sale of shares held by the government in financial corporation. The relatively large decrease in non-portfolio investments observed for Greece in 2022 (-0.3% of GDP) is mainly due to the sale of shares in DEPA infrastructure.

Adjustments

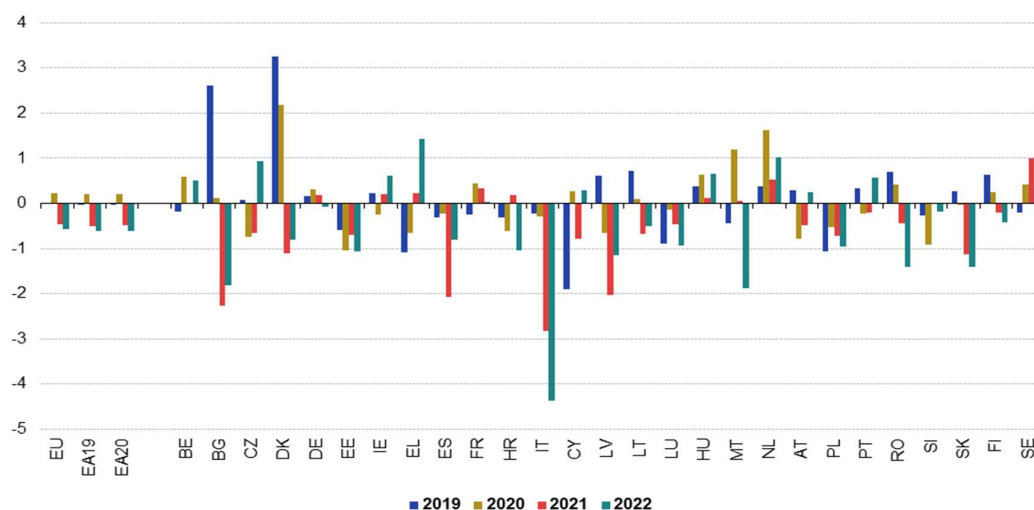
Other accounts receivable (F.8), Net incurrence of other accounts payable (F.8) and Financial derivatives (F.71)

Whereas budget recordings are often cash based (or partly cash based) in the EU, ESA 2010 follows the accrual principle, namely: recording transactions when the obligation to pay arises, not when the payment is actually made. Consequently, the impact on the financing needs of government does not directly arise from the deficit, as government revenue can be cashed or government expenditure can be settled in different accounting periods than the economic transaction itself. Thus, two items have to be added in the transition from the deficit to the change in government debt: *Other accounts receivable (F.8)* and *Net incurrence of other accounts payable (F.8)* (columns (18) and (22) in table 3).

Other accounts receivable (F.8) mainly include receivables of taxes and social contributions, as well as amounts concerning EU transactions (amounts paid by government on behalf of the EU but not yet reimbursed by the EU), trade credits and advances (e.g., advances for future acquisition of goods, such as military equipment, when short-term) and, on rare occasions, amounts for wages or benefits paid one month in advance. The value of *Other accounts receivable (AF.8)* on the government balance sheet tends to increase over time because of nominal GDP growth.

By the same token, entries in *Net incurrence of other accounts payable (F.8)* include (among others) prepayments for licences (notably mobile phone spectrum licences, which are recorded as government revenue spread over the licence duration), trade credits granted by government suppliers, as well as the grants received from the EU but not yet paid to the final beneficiary or tax refunds not yet settled. They notably include large advances by the RRF, grant section, carried out in 2021 and 2022.

Figure 9: Net amounts of Other accounts receivable (+)/ payable (-) as a percentage of GDP, 2019-2022



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Source: Eurostat (online data code: [gov_10dd_edpt3](#))

Figure 9 shows the net amount of other accounts receivable/payable reported by Member States for the years 2019-2022. The net amounts should be interpreted with care since they may hide the reporting of significant contributions of *Other accounts receivable (F.8)* and *Net incurrence of other accounts payable (F.8)* of opposite signs. This was particularly the case in 2020 when many countries were affected by large increases in receivables due, for example, to tax deferral schemes, and by the accumulation of payables pertaining to COVID-19 related expenditure not yet settled (such as for furlough schemes).

In 2019 the large positive value for Bulgaria resulted from advances paid for the future acquisition of military equipment, whereas for Denmark, the large positive adjustment was mainly due to increase in tax receivables. The negative figure reported by Cyprus for 2019 was caused by the recording of a payable tax credit to a private bank.

The 2020 sizeable positive adjustments for Denmark, Malta and the Netherlands were mainly due to increases in tax receivables. The noticeable negative net adjustments for Austria and Slovenia in 2020 mainly related to expenditure incurred (and not paid in that year) in the context of COVID-19 policy measures whereas, for Estonia, the adjustment related mostly to payables vis-à-vis the European Union.

The 2021 relatively large positive adjustment for Sweden was mainly due to taxes, at central and local government level. The significant net negative adjustment for Bulgaria in 2021 was mostly related to transactions in payables of various nature (proceeds related to ETS permits, suppliers and other accrual adjustments). The one for Slovakia was mostly due to the accumulation of payables among other central government bodies (financial institutions classified inside central government) and to RRF pre-financing. For Italy, it was due to the recording of government expenditure relating to payable tax credits.

Denmark reported a significant decrease in receivables in 2021 due to the settlement of large tax receivables accrued in 2020 as a result of tax deferrals granted in 2020.

The large negative contribution to SFA for Latvia in 2021 was primarily due to the combined recording of a large payable related to the RRF and the so-called 'undivided contributions' paid to the new Single Tax Account (which was established in 2021). The negative adjustment for Spain in 2021 was mainly related to advance grant payments under the RRF for which no associated expenditure has been incurred.

In 2022, the net contribution of other accounts receivable/payable to SFA for the EU and the euro area remained negative (-0.6% of GDP) for the second year in a row, after being positive in 2020 (0.2% of GDP). This was the result of generally larger negative adjustments due to other accounts payable than increases in accounts receivable over the years 2021 and 2022, notably reflecting the large RRF prepayments.

In 2022, the largest negative adjustment reported by Italy (-4.4% of GDP) is due to the recording of payable tax credits that resulted in large increase in other accounts payable (F.8). For Malta in 2022, the negative adjustment (-1.9% of GDP) relates mainly to increase in payables due to accrued expenditure on energy support measures and to decrease in receivables due to the repayment of COVID-19 tax deferrals. For Bulgaria in 2022, the noticeable net negative adjustment (-1.8% of GDP) is mainly due to the recording of a large payable related to the RRF advance, as well as incurrence of other payables.

In 2022, the largest net positive adjustments are recorded for Greece (1.4% of GDP) and the Netherlands (1.0% of GDP). For Greece, it is mainly explained by the increase in receivables related to military equipment and the last transfer of income earned on holdings of ANFA and SMP (accrued in 2022, but paid in 2023), while for the Netherlands it is due to increases in tax receivables and the significant decrease in other accounts payable due to the settlements of COVID-19 schemes at the level of the social security funds subsector.

Member States also provide supplementary information on *Other financial assets (F.1, F.6)* and *Net incurrence of other liabilities (F.1, F.5, F.6 and F.72)* (columns (19) and (23) in table 3). These two

items are not shown in this section due to their relatively small size (usually below 0.3% of GDP).

Government entities, notably Treasuries, may carry out operations in financial derivatives, such as swaps, futures and options, with the aim to reduce risks related to their debt instruments and for liquidity management purposes. The cash flows related to those operations are recorded in the financial accounts, without impact on the deficit. Financial derivatives liabilities are excluded from government debt (except for off-market swaps, which lead to entries under loans, either as assets or as liabilities). Individual values are shown in column (21) in table 3. Operations related to *Financial derivatives (F.71)* are not included in figure 9, even though for some countries, such as Sweden and Finland, this component of the SFA might not be negligible as the 2019-2022 figures show.

Valuation effects

These items relate to the fact that government debt is carried at face value.

Governments routinely issue bills, notes and bonds below or above their face value (face value = par value), often in the form of fungible bonds or zero-coupon bonds. When the face and issuance values differ, this affects EDP figures. Since government debt must be recorded at face value but the proceeds entering *Currency and deposits (F.2)* correspond to the issue value, the difference must be recorded as *Issuance above(-)/below(+) par* (see column (24) in table 3). Hence, the difference, which has the economic nature of "interest", is recorded as government expenditure not at time of issuance, but only gradually over time. In recent years, an increasing number of Member States issued their debt above par, leading to premium (negative entry in the table). This phenomenon largely reversed in 2022 owing to the fall of bond prices (reflect increases in market rates/yields), with predominant issuances at a discount across the EU.

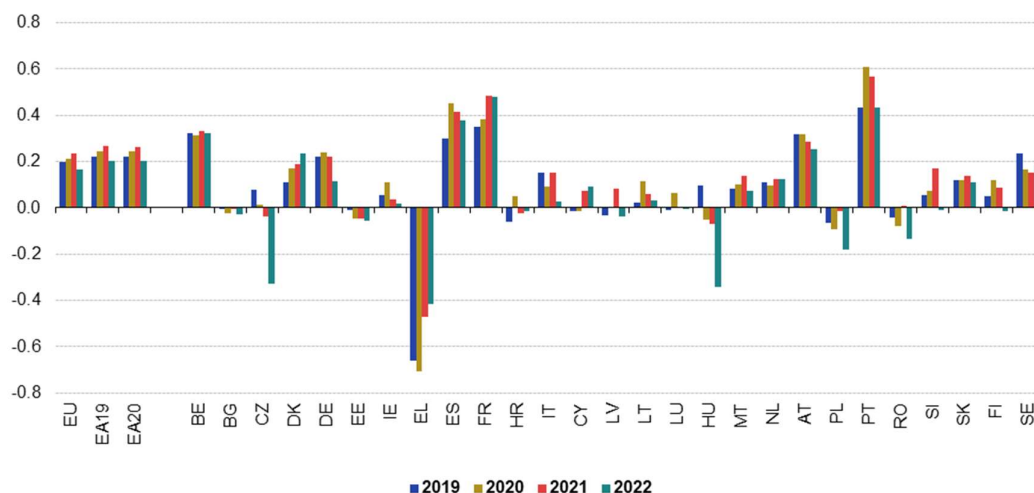
This entry also includes the premiums or discounts related to the loan borrowings through the SURE facility (SURE issues bonds on the market and passes the proceeds to governments in the form of loans with matching characteristics), which are treated similarly to bonds.

Similarly, an adjustment must be made in the case of early redemption, when government buys back bonds it issued, or when a government unit purchases bonds issued by another government unit. The difference between the repurchase value and the face value is presented in the column *Redemptions of debt above (+)/below (-) nominal value* (column (26) in table 3).

Under ESA 2010, government expenditure on interest should be spread over time, in line with the accrual principle, whereas the cash impact occurs only when interest is actually paid. At the same time, interest accrued is excluded from the stock of government debt. The item *Difference between interest (D.41) accrued (-) and paid (+)* (column (25) in table 3) addresses these two issues. As this item also captures the spreading over time of the premium or discount at issuance, positive values may reflect the accrual impact of large amounts of bonds issued in the past at a premium. This effect was particularly visible for Portugal in 2020 and 2021. In general, the adjustment for the *Difference between interest (D.41) accrued (-) and paid (+)* is sizeable for the countries with the highest debt to GDP ratios.

Figure 10 shows, by country, the difference between interest (D.41) accrued and paid for the whole reporting period 2019-2022, as a percentage of GDP.

Figure 10: Difference between interest (D.41) accrued (-) and paid (+) as a percentage of GDP, 2019-2022²



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Source: Eurostat (online data code: gov_10dd_edpt3)

For Greece, the values reported under the item *Difference between interest (D.41) accrued (-) and paid (+)* were significant for the whole reporting period. Over 2019-2022, this adjustment is mainly due to accrued interest on loans. In particular, the deferral of interest payments on EFSF loans to Greece under the second economic adjustment program results in significant negative adjustments for all four years under review. In previous years, the difference between interest accrued and paid was also significantly affected by bond exchange transactions.

Appreciation/depreciation of foreign currency debt

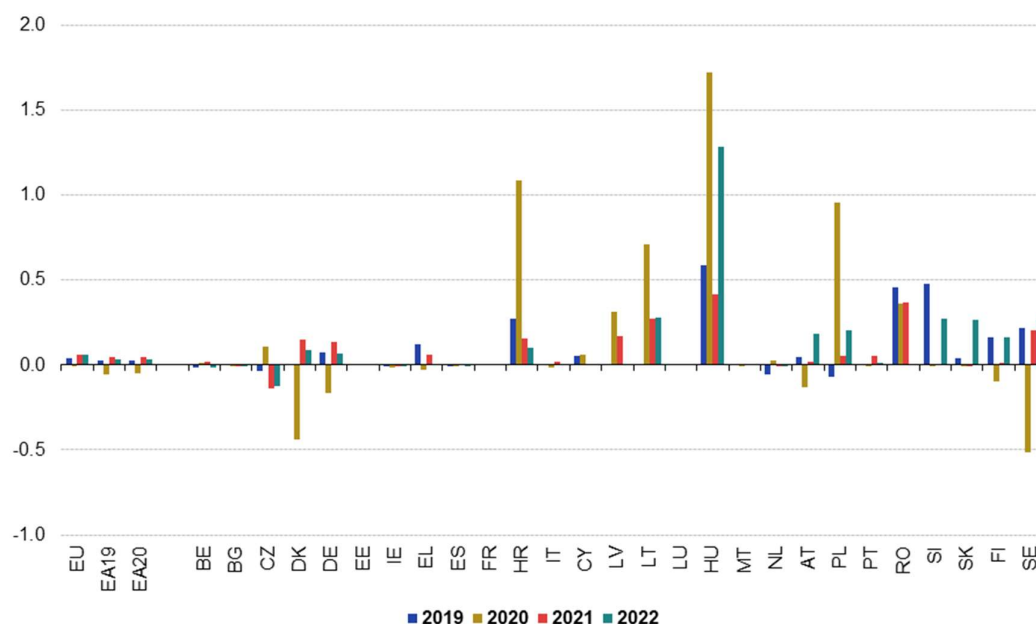
When government issues debt denominated in a foreign currency and not hedged by derivatives, any subsequent depreciation or appreciation of the national currency leads to changes in debt without an impact on the deficit/surplus (shown in column (27) in table 3). Negative entries (reduction in debt) reflect appreciation of the national currency and positive entries (increase in debt) reflect depreciation of the national currency. In addition, at the time of redemption of the hedged debt, the final gain or loss on the instruments is presented under this adjustment entry.

It could be noted from figure 11 that some Member States have substantial amounts of debt denominated in foreign currency, mostly in euro (countries not in the euro area), U.S. dollars or Special Drawing Rights (SDRs). Noticeable depreciation/appreciation of foreign currency debt was observed for Hungary, Poland, Croatia, Lithuania, as well as for Sweden and Denmark in 2020 while the effects were less pronounced in 2021 and 2022.

² Under ESA 2010, this item no longer includes any adjustments for payments on swaps and forward rate agreements, because these are now recorded as financial transactions also for EDP purposes.

The adjustments presented in figure 11 also reflect fluctuations in the value of the IMF's programme loans to EU countries, as well as some bilateral loans granted in foreign currency.

Figure 11: Appreciation/depreciation of foreign currency debt as a percentage of GDP, 2019-2022



eurostat

Source: Eurostat (online data code: gov_10dd_edpt3)

Other changes in volume: Changes in sector classification (K.61) and Other volume changes in financial liabilities (K.3, K.4, K.5)

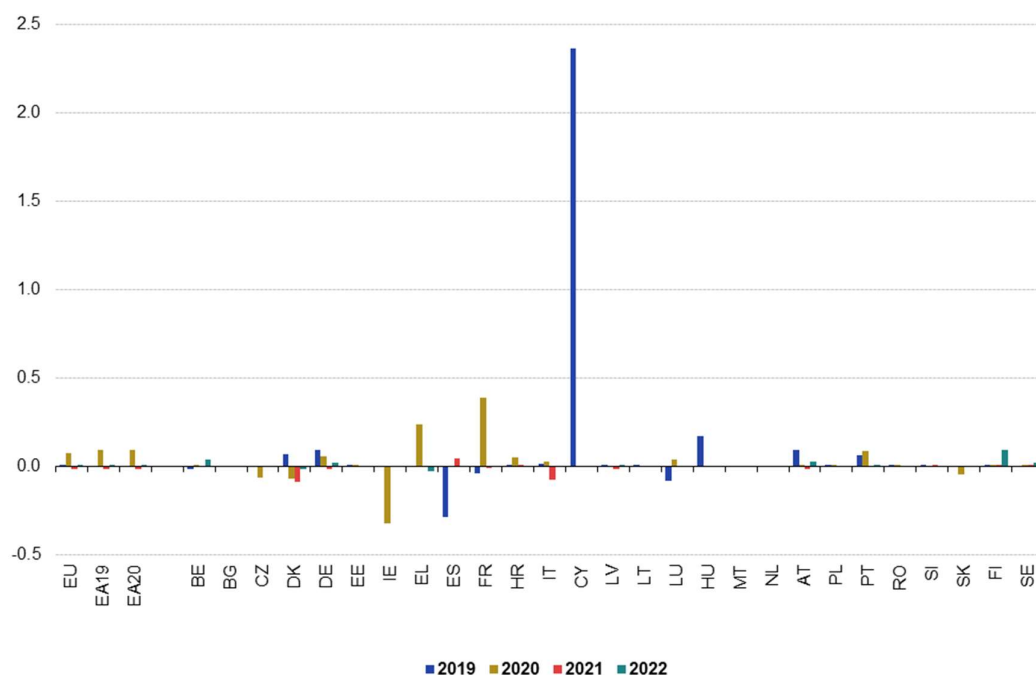
It might happen that an institutional unit, which was classified outside (inside) government, is reclassified inside (outside) government. As a result, the debt of the reclassified unit and its claims against government units need to be taken into account in the compilation of the government debt data. These impacts are commonly shown under *Changes in sector classification (K.61)* (column (28) in table 3).

Figure 12 shows the aggregate impact of both *Changes in sector classification (K.61)* and *Other volume changes in financial liabilities*, such as changes caused by catastrophic losses (K.3), uncompensated seizures (K.4) and other changes in volume not elsewhere classified (K.5).

No sizeable adjustments were reported in 2021 and 2022, while the positive entry of 0.4% of GDP for France in 2020 was due to the sector reclassification of a housing corporation inside the general government. Ireland recorded a negative adjustment of -0.3% of GDP in 2020 due to the sector reclassification of NAMAI inside the general government (through the consolidation of NAMAI holdings of government bonds).

Cyprus recorded a large positive adjustment of 2.4% of GDP in 2019 due to the reclassification of public utilities corporations inside the general government sector.

Figure 12: Other changes in volume as a percentage of GDP, 2019-2022



Source: Eurostat (online data code: [gov_10dd_edpt3](#))

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Statistical discrepancies

Finally, *Statistical discrepancies* (column (30) in table 3) reflect differences arising from the diversity of data sources and might indicate problems with the reliability of data.

The government sector accounts in national accounts (ESA 2010) are often compiled from a diversity of sources, which may not be fully integrated or completely homogenous, leading to differences between the revenue and expenditure data and the financing data. Differences may also arise between the transactions in debt and other economic flows in debt (i.e., valuation effects and other changes in volume), on the one hand, and the change in debt, on the other. Deviations may also appear due to differences in "vintages" (data compiled at different points in time).

Discrepancies between the non-financial and the financial accounts often relate to the time of recording of treasury or budget transactions compared to the moment these flow through the banking system. Therefore, a notable cause of discrepancies originates from the accrual recording applicable to ESA 2010 data and the difficulty to match cash and accrual data with appropriate amounts of other accounts receivable/payable.

The size of discrepancies can thus be an indicator of the accuracy of the data provided by the Member States. Therefore, Eurostat monitors discrepancies carefully to determine if their size is excessive or if they accumulate (i.e., are of the same sign) over time. In particular, a continuously positive discrepancy may put into question whether the deficit is appropriately measured.

In general, the statistical discrepancies for the EU and the euro area are relatively small.

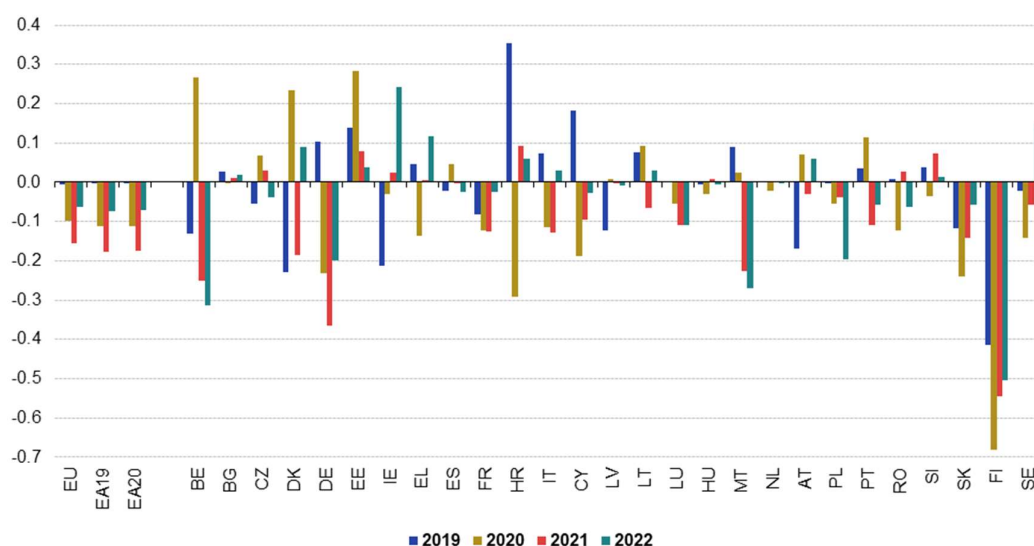
Over the years 2019-2021, relatively large statistical discrepancies were reported by Belgium (0.3% of GDP in 2020 and -0.3% of GDP in 2021), Denmark (-0.2% of GDP in 2019 and 0.2% of GDP in

2020), Germany (-0.2% of GDP in 2020 and -0.4% of GDP in 2021), Estonia (0.3% of GDP in 2020), Ireland (-0.2% of GDP in 2019), Croatia (0.4% of GDP in 2019 and -0.3% of GDP in 2020), Malta (-0.2% of GDP in 2021), Slovakia (-0.2% of GDP in 2020) and Finland (-0.4% of GDP in 2019).

Larger-than-usual statistical discrepancies (equal or above 0.5% of GDP in absolute terms) were reported by Finland in 2020 (-0.7% of GDP) and 2021 (-0.5% of GDP).

For the year 2022, a larger-than-usual statistical discrepancy was reported by Finland (-0.5% of GDP), while relatively large discrepancies were reported by Belgium (-0.3% of GDP), Germany (-0.2% of GDP), Ireland (0.2% of GDP) and Malta (-0.3% of GDP).

Figure 13: Statistical discrepancies as a percentage of GDP, 2019-2022



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Source: Eurostat (online data code: [gov_10dd_edpt3](#))

Table 3: Stock-flow adjustment tables in years 2019-2022

Stock-flow adjustment to General government - 2019 [as % of GDP]
October 2023 EDP notification

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More detailed breakdown is available in Eurostat's database: <http://ec.europa.eu/eurostat/web/government-finance-statistics/data/database>

October 2023 EDP notification

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<http://ec.europa.eu/eurostat/web/government-finance-statistics/data/database>

Stock-flow adjustment to General government - 2021 [as % of GDP]
October 2023 EDP notification

	Net borrowing/lending (B.9) of general government (P.1)		Change in general government (B.10) consolidated gross value added (GVA) (P.1)		Stock-flow adjustment (B.11)		Net acquisition (P.1) of financial assets		Currency and deposits (P.2)		Debt securities (P.3)		Loans (P.4)		Increase (+)		Reduction (-)		Short-term loans (P.4.1), net		Long-term loans (P.4.2)		Increase (+)		Reduction (-)		Equity and investment fund investments (P.5)		Portfolio investments, net		Equity and investment fund investments other than portfolio investments		Increase (+)		Reduction (-)		Financial derivatives (P.7.1)		Other accounts receivable (P.8)		Other financial assets (P.1, P.6)		Adjustments		Net income (P.1) of financial assets		Net income (P.1) of other accounts payable (P.8)		Net income (P.1) of other liabilities (P.1, P.5, P.6 and P.7.2)		Reimbursements and other flows (P.1) of other liabilities (P.1, P.5, P.6 and P.7.2)		Appropriately (P.1) of other liabilities (P.1, P.5, P.6 and P.7.2)		Change in sector classification (P.1) of other liabilities (P.1, P.5, P.6 and P.7.2)		Other volume changes (P.1) of other liabilities (P.1, P.5, P.6 and P.7.2)		Statistical discrepancies	
	(1)	(2)	(3) = (2) - (1)	(4) = (3) + (1)	(5)	(6)	(7) = (10) + (11)	(8)	(9)	(10)	(11)	(12)	(13)	(14) = (15) + (16)	(15)	(16)	(17)	(18)	(19)	(20) = (21) + (22) + (23) + (24) + (25) + (26) + (27) + (28) + (29)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)																														
EU	-4.7	4.6	-0.1	1.1	0.4	0.1	0.1	0.7	-0.7	0.0	0.0	0.7	-0.6	0.1	0.1	0.0	0.3	-0.3	-0.1	0.5	0.0	-1.0	0.1	-1.0	-0.1	-0.4	0.2	0.1	0.1	0.0	0.0	0.0	-0.2																											
EA19	-5.2	5.0	-0.2	1.2	0.4	0.0	0.1	0.6	-0.5	0.0	0.1	0.6	-0.5	0.1	0.1	0.0	0.3	-0.3	0.0	0.5	0.0	-1.2	0.0	-1.0	-0.1	-0.5	0.3	0.1	0.0	0.0	0.0	0.0	-0.2																											
EA20	-5.2	5.0	-0.2	1.2	0.4	0.0	0.1	0.6	-0.5	0.0	0.1	0.6	-0.5	0.1	0.1	0.0	0.3	-0.3	0.0	0.5	0.0	-1.2	0.0	-1.0	-0.1	-0.5	0.3	0.1	0.0	0.0	0.0	0.0	-0.2																											
BE	-5.4	6.5	1.2	2.0	1.0	0.0	0.4	1.7	-1.3	0.0	0.4	1.1	-0.6	0.2	0.1	0.1	0.2	-0.1	0.0	0.4	0.0	-0.6	0.0	-0.4	0.0	-0.6	0.3	0.0	0.0	0.0	0.0	0.0	-0.3																											
BG	-4.0	2.6	-1.3	1.6	0.9	0.0	0.1	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	-0.2	0.0	0.6	0.0	-2.9	0.0	-2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																											
CZ	-5.1	6.8	1.7	2.9	2.4	0.0	0.1	0.3	-0.2	0.0	0.1	0.3	-0.2	0.0	0.0	0.0	0.0	-0.1	0.0	0.4	0.0	-1.2	0.0	-1.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0																											
DK	4.1	2.4	1.6	0.6	0.5	0.7	0.7	4.7	-4.0	1.1	-0.3	3.6	-3.9	0.3	0.2	0.1	0.1	0.0	-0.2	-1.4	0.0	1.2	0.2	0.3	0.0	-0.1	0.2	0.5	0.1	0.0	-0.1	-0.2																												
DE	-3.6	4.3	0.7	1.3	0.4	-0.1	0.2	0.6	-0.3	0.0	0.2	0.5	-0.3	0.3	0.2	0.1	0.3	-0.2	0.1	0.4	0.0	-0.2	0.0	-0.2	0.0	-0.4	0.2	0.1	0.1	0.0	0.0	-0.4																												
EE	2.5	1.4	-1.1	0.4	-0.1	-0.6	0.1	0.3	-0.2	0.0	0.1	0.3	-0.1	0.1	0.0	0.1	0.2	-0.1	0.0	0.7	0.0	-1.5	0.0	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1																												
IE	-1.5	4.2	2.7	3.1	2.9	-0.2	-0.1	2.4	-2.5	0.0	-0.1	2.4	-2.5	-0.2	-0.1	-0.2	0.0	-0.2	0.0	0.7	0.0	-0.4	0.0	-0.5	0.0	-0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0																											
EL	-7.0	6.8	-0.2	2.8	1.3	0.2	-0.1	0.7	-0.8	0.3	-0.4	0.4	-0.8	-0.3	0.0	-0.3	0.3	-0.6	0.0	1.8	0.0	-3.1	0.8	-1.5	-1.6	-1.3	-0.5	1.0	0.1	0.0	0.0	0.0	0.0																											
ES	-6.7	6.7	0.0	3.0	2.7	0.1	-0.3	0.2	-0.4	0.0	-0.3	0.2	-0.4	0.0	0.0	0.0	-0.1	0.0	0.5	0.0	-3.0	0.0	-2.6	-0.4	-0.5	0.4	0.0	0.0	0.1	-0.1	0.0	0.0																												
FR	-6.5	6.6	0.2	0.7	0.0	0.2	0.0	0.6	-0.6	0.0	0.0	0.6	-0.6	0.0	0.0	0.1	0.0	-0.7	0.0	0.6	0.0	-0.4	0.0	-0.2	0.0	-0.7	0.5	0.0	0.0	0.0	0.0	-0.1																												
HR	2.5	3.0	0.5	2.7	-0.3	0.0	0.7	1.6	-0.9	0.0	0.7	1.2	-0.5	0.0	0.0	0.0	0.0	-0.3	2.6	0.0	-2.3	0.0	-2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1																											
IT	-8.8	5.8	-2.9	0.7	0.1	0.0	-0.1	0.2	-0.3	0.0	-0.1	0.2	-0.3	0.3	0.3	0.0	0.1	-0.1	0.1	0.2	0.0	-3.5	0.0	-3.1	-0.4	-0.1	0.2	0.0	0.0	-0.1	0.0	-0.1																												
CY	-1.9	-2.6	-0.4	-3.6	-2.6	0.0	-1.1	0.1	-1.2	0.0	-1.1	0.1	-1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-0.7	0.0	-0.9	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.1																											
LV	-7.2	-5.9	-1.3	2.6	1.7	0.0	0.1	0.2	-0.1	0.0	0.1	0.2	-0.1	0.0	0.0	0.0	0.0	-0.2	0.9	0.0	-3.8	0.1	-2.9	-1.2	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0																											
LT	-1.1	2.6	1.5	1.8	1.5	0.2	0.5	0.7	-0.2	0.0	0.5	0.7	-0.2	0.0	0.0	0.0	0.1	-0.1	-0.3	-0.1	0.0	-0.3	0.0	-0.6	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.0	-0.1																											
LU	0.6	2.6	3.1	3.4	2.3	2.0	0.2	0.3	-0.1	0.0	0.2	0.3	-0.1	-1.1	-1.0	-0.1	0.1	-0.1	0.3	-0.3	0.0	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1																											
HU	-7.2	7.1	0.0	0.6	-1.7	0.0	1.1	1.7	-0.6	0.0	1.1	1.7	-0.6	0.2	0.4	-0.2	0.2	-0.4	-0.3	1.4	0.0	-0.7	0.0	-1.3	-0.1	0.4	-0.1	0.0	0.4	0.0	0.0	0.0	0.0																											
MT	-7.5	8.4	1.0	2.4	0.8	0.0	0.3	0.3	0.0	0.0	0.3	0.3	0.0	0.2	0.0	0.2	0.3	-0.1	0.0	1.1	0.0	-1.2	0.0	-1.0	-0.1	-0.2	0.1	0.0	0.0	0.0	0.0	-0.2																												
NL	-2.2	1.6	-0.6	0.9	-0.6	0.1	0.3	0.6	-0.3	0.0	0.3	0.6	-0.3	0.0	0.0	0.0	0.1	-0.1	-0.3	1.4	0.0	-1.6	0.0	-0.9	0.0	-0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0																											
AT	-5.8	4.5	-1.3	-0.4	-0.6	-0.1	-0.3	0.3	-0.6	-0.1	-0.2	0.3	-0.6	0.3	0.2	0.1	0.1	0.0	-0.1	0.3	0.0	-0.8	0.1	-0.8	0.0	-0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0																											
PL	-1.8	2.8	1.0	2.0	1.3	0.4	0.2	0.5	-0.3	0.0	0.2	0.9	-0.7	-0.1	0.0	-0.1	0.3	-0.4	0.0	0.3	0.0	-1.0	0.0	-1.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0																											
PT	-2.9	-0.7	-3.5	-3.9	-3.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.3	0.0	0.0	0.0	0.1	0.4	0.0	0.1	0.2	-0.6	0.0	-0.5	0.6	0.3	0.1	0.0	0.0	-0.1																												
RO	-7.2	6.5	-0.6	-0.2	-0.6	0.1	0.1	0.2	0.0	0.0	0.1	0.2	0.0	-0.2	0.0	-0.2	0.0	-0.2	0.3	0.0	-0.5	0.0	-0.8	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0																											
SI	-4.6	2.8	-1.8	-1.2	-0.1	0.1	0.2	0.7	-0.5	0.0	0.2	0.7	-0.4	-0.1	0.0	-0.1	0.0	-0.1	-0.1	0.8	0.0	-0.7	0.1	-0.8	0.0	-0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1																											
SK	-5.2	6.2	1.8	3.3	2.1	0.0	0.6	0.9	-0.3	0.0	0.6	0.9	-0.3	0.0	0.0	0.0	0.1	-0.1	0.0	0.7	0.0	2.2	0.0	-1.8	0.0	-0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0																											
FI	2.8	1.6	-1.2	0.4	-2.1	0.4	1.1	1.8	-0.6	0.5	0.6	1.8	-1.2	-0.3	0.1	-0.3	0.1	-0.4	0.0	-0.1	0.0	-0.2	0.0	0.0	0.0	-0.3	0.1	0.0	0.0	0.0	0.0	0.0	-0.5																											
SE	0.0	-0.2	-0.2	-1.9	-0.4	0.5	-0.5	1.9	-2.4	0.1	-0.5	1.4	-1.9	-0.1	-0.1	0.0	1.2	-1.2	-3.0	1.6	0.0	1.8	2.8	-0.6	-0.6	-0.2	0.2	0.0	0.2	0.0	0.0	0.0	-0.1																											

More detailed breakdown is available in Eurostat's database: <http://ec.europa.eu/eurostat/web/government-finance-statistics/data/database>

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Methodological ANNEX

The **legal basis** for the excessive deficit procedure (EDP) is Article 126 of the Treaty on the functioning of the European Union and Protocol 12 on the excessive deficit procedure annexed to the Treaty. Article 126 states that:

1. Member States shall avoid excessive government deficits.
2. The Commission shall monitor the development of the budgetary situation and of the stock of government debt in the Member States with a view to identifying gross errors. In particular, it shall examine compliance with budgetary discipline on the basis of the following two criteria:
 - (a) whether the ratio of the planned or actual government deficit to gross domestic product exceeds a reference value, unless:
 - either the ratio has declined substantially and continuously and reached a level that comes close to the reference value,
 - or, alternatively, the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value.
 - (b) whether the ratio of government debt to gross domestic product exceeds a reference value, unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace.

The reference values are 3% for the deficit and 60% of GDP for the government debt in the annexed Protocol.

Source of fiscal data: Council Regulation 479/2009 defines the data to be reported by Member States to the European Commission in the context of EDP reporting³: the notification tables 1-4. In particular, EDP table 3A, "*Provision of the data which explain the contributions of the deficit/surplus and the other relevant factors to the variation in the debt level (general government)*", is the basis for the comments and graphs presented in this document.

Detailed data, including tables as reported by Member States, can be found on the Eurostat website in the [Government Finance Statistics](#), as well as in the dedicated [EDP notifications](#) sections.

Deficit: The Protocol on the excessive deficit procedure annexed to the Treaty requires that the government surplus/deficit is the net lending/net borrowing as defined by the European System of Accounts (ESA) of the general government sector⁴.

Net lending/net borrowing (B.9) is the balancing item of the capital account in ESA 2010. It is also calculated as the difference between total revenue and total expenditure of the general government sector as defined in the Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union. For further details see ESA 2010 § 8.98 and 8.100 as well as chapter 20 of ESA 2010.

Government gross debt⁵: According to the protocol annexed to the Treaty, the government debt is the gross debt outstanding at the end of the year of the general government sector measured at

³ Excessive Deficit Procedure (EDP) reporting as requested in the Protocol annexed to the Treaty on functioning of the European Union (consolidated version 2012, see Official Journal C 326/47 of 26.10.2012) and related legal acts.

⁴ ESA 2010 § 2.111-2.113 describes the general government sector as the institutional sector principally engaged in the redistribution of national income and wealth and /or mainly producing non-market output intended for individual and collective consumption, and mainly financed by compulsory payments. For more information on general government sector see also chapter 20 of ESA 2010 and table 24.5 in chapter 24.

⁵ The outstanding general government consolidated debt at the end of each year is reported by Member States in EDP table 1 of the notification tables, according to the European legislation.

nominal value and consolidated. Council Regulation 479/2009 defines further the government debt as the sum of government liabilities in Currency and deposits (AF.2), Debt securities (AF.3) and Loans (AF.4). The Regulation further specifies that nominal value for government debt excludes accrued interest (for most debt instruments) and corresponds to face value.

Consolidation: Member States debt data should be reported consolidated at the level of the general government sector. Consolidation, as defined in ESA 2010⁶, means presenting data relating to a grouping of units as if they were one unique unit. This involves the elimination from both uses/assets and resources/liabilities of all reciprocal links: transactions as well as revaluations, other changes in volumes and stocks, that occur or exist between units which belong to the same grouping — in this case to the general government sector (or its sub-sector). Thus, government gross debt is to be consolidated: therefore, holdings of government debt by government units must be excluded.

By the same token, all items reported in EDP table 3A should be also presented on a consolidated basis: not only those related to transactions (e.g. a loan given by central government to a local government unit should be removed from the calculation of the consolidated debt of general government sector as well as from the calculation of loans assets), but also valuation adjustments (such as issuance and redemptions of debt above and/or below par, as well as foreign exchange valuation) and other economic flows adjustments (other volume changes in financial liabilities).

Statistical Discrepancies: *Statistical discrepancies* reflect differences arising from the diversity of data sources and might indicate problems with the reliability of data. For the purpose of this note, Eurostat considers *Statistical discrepancies* with absolute values (expressed as a percentage of GDP) equal to or higher than 0.2% but lower than 0.5% as being 'relatively large'. The ones with values equal to or higher than 0.5% are considered being 'larger than usual'.

Geographical information:

Up to 31 December 2022, the **euro area** (EA19) included Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Austria, Portugal, Slovenia, Slovakia and Finland. From 1 January 2023 the **euro area** (EA20) also includes Croatia.

The aggregate data series commented on in this News Release refer to the official composition of the euro area in the most recent period for which data is available. Thus, News Releases with data for 2022 comment on EA19 series, while Releases with data for 2023 onwards will comment on EA20 series.

European Union (EU27): Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland and Sweden.

⁶ See ESA 2010 § 1.106-1.109.