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The financing structure of CESEE nonfinancial corporations during the 2020–2024 crises

This report analyzes and compares the financing structures of nonfinancial corporations (NFCs) in eleven CESEE economies (CESEE EU-MS) against the background of the recent COVID-19 and energy crises. It also puts developments across the region in a broader EU context. In addition, this report addresses potential effects of methodological choices on data interpretation.

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Twin crises affected profitability and financing

In the CESEE EU-MS, NFCs' financial liabilities as a percentage of GDP remain substantially lower than in the EU-27 and the euro area, and the gap widened between 2015–19 and 2020–24. However, changes over time are sensitive to methodology, since revaluations can have a significant impact on stock data.

Liability structures show key similarities

In the CESEE EU-MS, unlisted shares and other equity make up a larger part of NFCs' financial liabilities than in the EU-27. This likely reflects the larger share of SMEs and foreign-owned enterprises. There is a heavy reliance on loans and trade credits, while marketable securities play a smaller role than in the EU-27.

Insufficient data to assess risks

Foreign currency loans are important for NFCs in those CESEE EU-MS that have not yet adopted the euro, but no data are available for the currency, interest and residual maturity structure of NFCs' broader financial liabilities. While debt levels across the CESEE EU-MS look somewhat elevated relative to equity, they are more favorable relative to profits.

The views expressed are those of the author and do not necessarily reflect those of the Oesterreichische Nationalbank or the Eurosystem.

1. Executive summary

This report analyzes and compares the financing structures of nonfinancial corporations (NFCs) in 11 CESEE economies[1] (CESEE EU-MS) against the background of the recent COVID-19 and energy crises. It uses a comparative approach to assess the impact of these exceptional events on financing structures. Specifically, it examines two periods: 2015–2019 and 2020–2024[2], i.e. the five years before the outbreak of the COVID-19 pandemic and the five years during and after the pandemic and the European energy crisis. Finally, the report also puts these trends across the region into a broader EU context.

The **economic environment for NFCs** deteriorated between the two periods 2015–2019 and 2020–2024 taken as averages, as the latter was characterized by weaker and more volatile GDP growth, worsening export demand, an important factor for the small and open CESEE EU-MS, and slowing investment. This affected the profitability of NFCs across the region. All profitability indicators used in this report deteriorated in the large majority of CESEE EU-MS (as in the EU and the euro area as whole). Net capital transfers, e.g. in connection with government support measures to mitigate the effects of the crises, offset the deterioration to some extent. Despite this worsening, in the period 2020–2024, the profitability of the region's NFCs remained substantially higher than in the EU-27 and the euro area as a whole.

Financial liabilities of NFCs as a percentage of GDP remain substantially lower in the CESEE EU-MS than in the EU-27 and the euro area as a whole. These ratios decreased in seven of the 11 CESEE EU-MS between 2015–2019 and 2020–2024, and all countries saw the gap to the EU-27 and the euro area widen. However, measurement issues play a role in the assessment of the changes over time. Stock data can be significantly affected by revaluations and other changes in volume. In fact, revaluations (reflecting e.g. changes in equity prices and exchange rates, retained earnings) were an important factor driving changes in the outstanding stock of liabilities in the majority of CESEE EU-MS during 2020–2024. In some countries, they were larger than the changes in the stock due to net transactions (i.e. incurrence less repayment of liabilities). An analysis of flow data for 2020–2024 shows that in nine of the 11 CESEE countries, the net incurrence of financial liabilities increased over the previous five-year period. In fact, the comparison with the EU-27 (EA-20) is more favorable when using flow data rather than stock data: During 2020–2024, six CESEE EU-MS had a net incurrence of total financial liabilities as a percentage of GDP that was larger than in the EU-27 (EA-20). This was an improvement over 2015–19, when only three CESEE EU-MS showed a stronger increase in financial liabilities on a transaction basis than the EU-27 (EA-20).

Despite considerable cross-country variation in the size of and changes over time in NFCs' total financial liabilities, the 11 CESEE countries show key similarities in **their liability structure**, both across the region and compared to the EU-27 (EA-20) average.

- **Unlisted shares and other equity** make up the largest part of NFCs' outstanding financial liabilities both in the CESEE EU-MS and the EU-27 (EA-20). Their share is larger in the CESEE EU-MS, which likely reflects a larger share of SMEs as well as a higher inward stock of FDI and

[1] Bulgaria (BG), Czechia (CZ), Estonia (EE), Croatia (HR), Hungary (HU), Lithuania (LT), Latvia (LV), Poland (PL), Romania (RO), Slovenia (SI) and Slovakia (SK).

[2] For Bulgaria, data on nonfinancial sector accounts (e.g. GVA, net return, net disposable income, gross profit share of NFCs) refer to the period 2020–2022.

a larger share of foreign-owned enterprises. Compared to the average of 2015–2019, the majority of CESEE EU-MS subsequently saw unlisted shares and other equity increase during 2020–24 both as a percentage of NFCs' total financial liabilities and of GDP. Although this was heavily influenced by revaluation effects (e.g. as a result of retained earnings or equity price changes), transaction data (i.e. on additional equity provided by owners) also confirms stronger use of this instrument in the region. This suggests that owners stood by their companies during difficult economic times and provided long-term equity. Foreign direct investors, an important source of unlisted shares and other equity, increased their funding between the two periods according to all three measures used in this report (i.e. stock and flows as a percentage of GDP and stock as a percentage of NFCs' total financial liabilities).

- NFCs across the CESEE EU-MS (as in the EU-27 and the euro area as a whole) rely heavily on **loans** for their financing. Despite a volume increase based on transaction data, the outstanding stock of loans decreased both as a percentage of GDP and NFCs' total financial liabilities in the majority of CESEE EU-MS between 2015–2019 and 2020–2024. Given that resident monetary financial institutions (MFIs) are the biggest providers of loans across the region, this finding is in line with data from bank lending surveys, which indicated a tightening of lending standards for NFC loans and a softening of NFC loan demand between 2015–2019 and 2020–2024.
- **Trade credits and advances** represent the third-largest category among NFCs' financial liabilities across the CESEE EU-MS, playing a much bigger role than in the EU-27 and the euro area as a whole. Between the two periods under review, the share of this instrument rose in the majority of CESEE EU-MS as a percentage of total financial liabilities. There is no easy explanation for the stronger use of trade credits and advances in the CESEE EU-MS than in the rest of the EU. It appears not to be related to the larger role of FDI in equity funding in these countries as the share of FDI in trade credits and advances is generally lower in the CESEE EU-MS than in the euro area (see below). At the same time, EU member states showed an inverse relationship between the strength of the rule of law and the use of trade credits and advances, in line with existing literature.
- **Marketable securities, i.e. debt securities and listed shares**, play a subordinate role for the financing of NFCs across the CESEE EU-MS. In particular, debt securities account for less than 1% of NFCs' total financial liabilities in many countries. Both debt securities and listed shares decreased as a percentage of both total financial liabilities and GDP in the majority of CESEE EU-MS between 2015–2019 and 2020–2024. Importantly, the net issuance (on a transaction basis) of both types of instruments was negligible during both periods under review. The minor role of marketable securities in NFC financing reflects both supply- and demand-side factors. The company structure (i.e. the dominance of SMEs, particularly micro and small enterprises) and the substantial role of FDI across the CESEE EU-MS play an important role on the supply side. Major obstacles likely include the desire to retain control over subsidiaries and, in many cases, either reluctance or insufficient financial and administrative capacity to meet regulatory requirements and handle public offerings of debt or equity securities. For smaller enterprises, another likely factor is a preference for more personal and flexible relationships with creditors, which is easier to achieve with bank loans and trade credits compared to anonymous capital markets. Constraints on the demand side are primarily linked to the small size of institutional investors, such as investment funds, insurance corporations and pension funds (and of financial auxiliaries which facilitate capital market transactions), and the dominance of banks within the financial sector of the CESEE EU-MS (to an even larger extent than in the EU as a whole).

Additionally, households' financial assets in these countries are more skewed toward deposits than in the EU as a whole, with the share of transferable deposits and of deposits held with nonresidents making up a larger share of total household deposits. Mobilizing these deposits to expand the investor base for securities issuance by NFCs remains a challenge, as it does elsewhere in the EU, and is one of the cornerstones of the European Commission's Savings and Investments Union strategy.

- NFCs across the CESEE EU-MS (in those seven member states for which this type of data are available) rely heavily on **nonresident funding**: It accounted for nearly 30% of NFCs' total financial liabilities during 2020–2024. The share was particularly large in the outstanding volume of debt securities (nearly 60%) and accounted for around 30% of the outstanding volume of loans, listed shares as well as unlisted shares and other equity and for around 20% of trade credits and advances. Foreign direct investors play an important role: NFCs' liabilities to nonresidents in the form of unlisted shares and other equity are almost exclusively related to FDI, and about 60% of NFCs' liabilities to nonresidents via loans and listed shares are FDI-related. Importantly, FDI-related funding in the form of unlisted shares and other equity increased between 2015–2019 and 2020–2024 both as a share of GDP and of NFCs' total financial liabilities. Although this was not the case for loan liabilities, due to the retreat of loans in NFCs' *total financial* liabilities, FDI-related loans as a percentage of NFCs' *total loan* liabilities did increase.
- **Cross-funding within the NFC sector** is also widespread. **Resident NFCs** account for about a third of the sector's (unconsolidated) financial liabilities. Their share is particularly large in trade credits and advances (nearly 70%) and other accounts payable excluding trade credits (around 40%), but it is notable also for equity holdings (both listed shares as well as unlisted shares and other equity) and loans (20–25%). Other resident sectors (i.e. non-MFI financial institutions, the general government and households and nonprofit institutions serving households (NPISH)) play a relatively smaller role in the financing of NFCs in the CESEE EU-MS. They mostly provide funds in the form of unlisted shares and other equity (households and NPISH), listed shares (the general government and households and NPISH, to a smaller degree also non-MFI financial institutions, primarily pension funds) and debt securities (non-MFI financial institutions, primarily pension and investment funds).

Unfortunately, **there is little publicly available data to assess risks in connection with the structure and the size of NFCs' liabilities**. Some information is available about the currency structure of loans provided by resident MFIs. According to this data, loans denominated in foreign currencies accounted for somewhat more than 40% of total MFI loans to NFCs in Bulgaria, Czechia, Hungary and Romania, and for about 30% in Poland during 2020–2024. However, since loans from resident MFIs made up only around 40% of NFCs' total loan liabilities in these countries, it is not possible to draw far-reaching conclusions from this data. Assuming that loans from nonresidents, which have a share of about 30% in total loan liabilities, are mostly denominated in foreign currencies while loans from residents outside the MFI sector (i.e. NFCs, non-MFI financial institutions, general government and households and NPISH) are to a large extent denominated in the domestic currency, the share of foreign currencies in total loan liabilities tends to be close to the share of foreign currencies in MFI loan liabilities.

Risks in connection with the size of NFCs' debt (i.e. loans plus debt securities) look mixed across the region, depending in part on the risk variable used. **Measured as a percentage of GDP or the NFC sector's gross value added**, the indebtedness of NFCs – relative to the EU-27 as a whole – generally did not look excessive in the CESEE EU-MS during the period 2020–2024. At the same time, almost all

of these countries had **debt levels measured as a percentage of equity** that were higher than in the EU-27, which seems to be related primarily to relatively low equity-to-GDP ratios. Moreover, even though eight CESEE EU-MS saw their equity-to-GDP ratios increase compared to 2015–2019, all of these countries saw the gap to the EU-27 widen.

Debt levels as a percentage of various profit indicators show a more favorable picture for the CESEE EU-MS, which is attributable to the higher profitability of NFCs across the region than in the EU-27 as a whole. Some of them seem to have substantial leeway to increase their indebtedness as a percentage of profits, provided that they maintain 2020–2024 profitability levels.

2. Data and methodology

Comparisons are made on the basis of period-average data for nonfinancial sector accounts and for financial balance sheets and financial transactions of nonfinancial corporations (NFCs). In analyzing flow data (e.g. nonfinancial sector accounts or financial transactions), period-average data is commonly used when comparing developments in two distinct periods. For stock data, the choice between period-average and period-start/end data is less clear. This report uses period-average data for the following reasons: First, it is more straightforward to compare two periods using two datapoints, instead of three or more datapoints (e.g. for the beginning and the end of the first period and the end of the second period). Second, period-average data help to smooth out outliers that may be present when comparing single-point data. Third, period-average data are more representative of a period than just one data point at the end, especially if this differs substantially from preceding years during the same period. Despite these advantages, some caution is warranted when comparing period-average values. In particular, period averages may be distorted by outlier values and conceal trends, ”jumps” or “drops” in the series within a period. Hence, base-effect issues may complicate data interpretation (similar to the use of year-on-year growth rates, e.g. when a “jump” at the end of the preceding period is followed by stability during the next period, the average value for the second period may be higher than the average value of the first period). Also, the use of period averages breaks the consistency between stock and flow data: Two period-average values cannot be “connected” by in-between flow data (i.e. transactions, revaluations and other changes in volume) as it is possible when data are used for single points in time.

In addition, a choice had to be made between consolidated and nonconsolidated financial accounts data. This report uses nonconsolidated data for two reasons. First, some of the indicators (counterparty information, FDI-related liability items) are available from Eurostat only on a nonconsolidated basis. Therefore, only nonconsolidated data satisfied the requirement to have a consistent dataset across all dimensions of the analysis. Second, intrasectoral financial linkages matter for the assessment of risks, since financial stress in one company can spill over to others. Hence, omitting intrasectoral data may lead to an underestimation of vulnerabilities. Nevertheless, the annex presents selected charts showing the most relevant information on a consolidated basis.

A final issue concerns the measurement of changes in financial liabilities (or other stock variables) by changes in stocks (nominally or expressed as a percentage of GDP). Changes in stock variables can be influenced by factors other than transactions (i.e. interactions between institutional units by mutual agreement), e.g. by the revaluation of instruments, exchange rate fluctuations for instruments denominated in foreign currencies, changes in (instrument or sector) classification, and changes due to exceptional or unanticipated events which are not economic in nature. Therefore, assessing net

financial transactions (i.e. incurrence less repayment of liabilities), expressed as a percentage of GDP, appears to be more suitable for assessing the underlying dynamics of financial liabilities (during or between periods).

3. Economic environment deteriorated between 2015–2019 and 2020–2024…

The operating environment for NFCs deteriorated – on average – between the two periods (table 1). The average annual real GDP growth rate decreased in all CESEE EU-MS (with the exception of Croatia), and its volatility rose in all countries between 2015–2019 and 2020–2024. Nominal (i.e. in current prices) gross value added (GVA) of NFCs as a percentage of whole-economy GVA decreased between the two periods in six of the 11 CESEE countries[3]. Export demand, which is highly relevant for the small and open economies of the CESEE EU-MS, also deteriorated between the two periods.

Gross fixed capital formation (GFCF) is another important indicator both for NFCs' economic activity and for their future growth potential. Therefore, it is relevant that the average growth rate (in constant prices) of whole-economy GFCF decelerated between 2015–2019 and 2020–2024 across the CESEE EU-MS (except in Bulgaria and Croatia). In five of these nine countries, this decline was sharper than the slowdown in GDP growth. However, driven in part by relative price changes across the economy, whole-economy GFCF increased as a percentage of GDP (in current prices) in all CESEE EU-MS but Bulgaria, Poland and Slovakia. By contrast, GFCF by NFCs as a percentage of whole-economy GFCF (in current prices) decreased in all countries under review except in Bulgaria, Lithuania and Latvia. As a result, although GFCF by NFCs increased as a percentage of GDP (in current prices) between the two periods in six CESEE EU-MS, this rate was lower than the growth in the whole-economy investment ratio in all these six countries.

Table 1

Selected indicators of NFCs' activity

	GDP real, yoy growth rate		NFCs' GVA in % of total GVA, in current prices		GFCF real, yoy growth rate		Total GFCF in % of GDP, in current prices		NFCs' GFCF in % of total GFCF, in current prices		NFCs' GFCF in % of GDP, in current prices	
	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24
BG	3.1	2.7	66.0	68.9	1.7	1.9	19.0	17.9	68.7	69.1	13.0	12.0
CZ	3.8	0.5	61.1	59.5	5.1	1.8	24.9	26.8	58.5	56.3	14.6	15.1
EE	3.6	0.2	69.7	68.4	6.3	-0.1	25.4	26.8	59.3	56.2	15.1	15.0
HR	3.0	3.6	54.6	56.9	6.4	7.0	20.1	23.2	62.4	54.0	12.5	12.6
HU	4.2	1.3	60.7	58.2	8.1	-3.9	23.5	25.7	59.7	58.2	14.0	15.0
LT	3.9	2.5	71.7	70.4	6.5	5.5	20.4	22.6	61.0	61.4	12.4	13.9
LV	2.9	0.8	69.1	67.7	2.7	0.4	22.0	23.1	60.0	60.6	13.2	14.0
PL	4.7	2.6	50.3	53.7	4.2	2.3	18.8	17.3	53.6	51.5	10.1	8.9
RO	4.7	1.8	59.9	60.5	4.4	3.6	23.0	25.1	54.4	49.7	12.5	12.5
SI	3.7	2.1	60.5	60.7	4.1	2.7	18.9	20.8	58.7	54.7	11.1	11.4
SK	3.3	1.5	57.0	54.2	3.5	0.9	22.0	20.4	60.1	58.8	13.2	12.0
EA-20	2.0	1.0	58.9	59.9	4.5	0.1	20.6	21.7	58.8	55.8	12.1	12.1
EU-27	2.2	1.1	58.9	59.9	4.5	0.3	21.1	22.2	58.6	56.0	12.4	12.4

Note: Values in red indicate a decrease compared to 2015–2019. For Bulgaria, data for NFCs refer to the period 2020–2022.
Source: Eurostat, author's calculations.

[3] Note that this indicator is limited in its accuracy of measuring economic strength because it is influenced by changes in relative prices across the economy.

4. …weighs on NFC profitability

The deterioration in the economic environment and the economic performance of NFCs weighed on the sector's profitability. This finding is based on eight profitability indicators (two of them published by Eurostat):

1. Net return on *net* equity (i.e. equity liabilities minus equity assets), after taxes (Eurostat);
2. Gross profit share (Eurostat);
3. Net return on equity (liabilities), after taxes;
4. Net return on capital employed, after taxes;
5. Net disposable income before Distributed income and Reinvested earnings on FDI (paid) in % of equity (liabilities);
6. Net disposable income before Distributed income and Reinvested earnings on FDI (paid) in % of capital employed;
7. Net disposable income before Distributed income and Reinvested earnings on FDI (paid) plus Capital transfers (net) in % of equity (liabilities);
8. Net disposable income before Distributed income and Reinvested earnings on FDI (paid) plus Capital transfers (net) in % of capital employed.

These indicators range from a relatively narrow definition of profit ("Gross profit" = Gross operating surplus and mixed income) to broader definitions to include selected property income items and taxes ("Net return") to relatively broad ones to include property income, social contributions/benefits and current transfers ("Net disposable income"). The latter is then augmented by net capital transfers to reflect additional government support measures in the wake of the COVID-19 and energy crises. The exact definition of these indicators (in terms of components of financial balance sheets and nonfinancial sector accounts) can be found in the annex.

All profitability indicators under review deteriorated in the large majority of the CESEE EU-MS (as in the EU and the EA on average) between 2015–2019 and 2020–2024 (table 2). Not surprisingly, the deterioration in profitability was somewhat mitigated by net capital transfers received by NFCs, which rose as a percentage of NFCs' GVA in eight CESEE EU-MS between the two periods. Notwithstanding this deterioration, NFC profitability in the CESEE EU-MS was substantially better during 2020–2024 than in the EU-27 (with the exception of the indicator "Net return on net equity, after taxes").

Table 2

Selected profitability indicators of NFCs

	Net return on net equity, after taxes		Net return on equity, after taxes		Net return on capital employed, after taxes		Net disposable income before Distributed income and Reinvested earnings on FDI paid in % of equity		Net disposable income before Distributed income and Reinvested earnings on FDI paid in % of capital employed		Net disposable income before Distributed income and Reinvested earnings on FDI paid plus Capital transfers net in % of equity		Net disposable income before Distributed income and Reinvested earnings on FDI paid plus Capital transfers net in % of capital employed		Gross profit share	
	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24	2015–19	2020–24
BG	15.2	22.4	11.8	13.8	7.4	9.6	11.0	13.9	6.8	9.7	11.6	14.5	7.2	10.1	50.0	53.8
CZ	13.3	10.7	10.1	8.3	6.8	5.6	9.8	7.9	6.6	5.4	10.1	8.3	6.8	5.6	46.7	45.1
EE	13.8	11.8	9.1	7.5	6.3	5.5	8.1	6.6	5.6	4.8	8.6	7.1	6.0	5.1	45.0	43.6
HR	9.1	12.0	5.8	7.4	3.5	5.0	5.6	6.4	3.4	4.3	6.7	7.9	4.0	5.3	38.9	40.7
HU	16.3	14.0	11.4	9.2	7.6	5.8	11.5	9.6	7.7	6.0	12.4	10.6	8.3	6.7	45.4	43.4
LT	36.3	30.9	24.9	20.3	17.3	14.4	24.7	20.1	17.1	14.3	25.8	21.3	17.9	15.1	49.9	45.1
LV	17.6	15.5	14.3	12.6	8.6	8.5	13.8	11.8	8.3	8.0	14.5	12.8	8.7	8.6	42.0	40.0
PL	21.0	24.7	15.8	20.0	9.7	12.6	16.3	20.6	10.0	12.9	17.6	22.6	10.8	14.2	46.1	46.7
RO	30.0	25.7	25.8	22.7	15.1	14.8	26.1	22.6	15.3	14.8	28.6	24.9	16.8	16.3	54.1	52.2
SI	11.3	10.2	7.2	6.5	4.6	4.6	7.0	6.2	4.5	4.4	6.4	5.9	4.1	4.2	35.6	34.4
SK	23.3	20.7	20.0	17.6	10.7	9.2	13.0	13.7	7.0	7.1	13.7	14.1	7.3	7.4	51.9	48.4
EA-20	19.6	18.1	6.9	6.0	4.3	4.0	6.6	5.8	4.1	3.8	6.9	6.3	4.3	4.1	40.1	40.7
EU-27	18.0	16.4	6.9	6.0	4.3	4.0	6.6	5.8	4.1	3.9	6.9	6.3	4.3	4.2	40.5	41.2

Note: Values in red indicate a decrease compared to 2015–2019. Cells marked grey indicate worse profitability than in the EU-27. For Bulgaria, data refer to the period 2020–2022.

Source: Eurostat, author's calculations.

5. Credit standards tighten, loan demand softens

The ECB monitors banks' credit standards and demand for loans in the euro area on a quarterly basis. In addition, NCBs in four of the five the non-euro area CESEE EU-MS (Czechia, Hungary, Poland and Romania) regularly carry out their own surveys, following the ECB's methodology. Bank lending surveys in general evidenced a tightening of banks' credit standards for loans to enterprises between 2015–2019 and 2020–2024, which may reflect a worsening of the economic environment and the deterioration in NFCs' profitability indicators (table 3). At the same time, demand for corporate loans eased against the backdrop of lower NFC investment activity. Poland was the only country under review where credit standards were loosened between the two periods. Nevertheless, demand for NFC loans eased as in the other countries. (Data for Croatia have only been available since mid-2023 but suggest tight credit standards along with weak loan demand on average for 2023–2024.)

Table 3

Banks' credit standards and demand for loans to NFCs

	Credit standards		Demand for loans	
	2015–19	2020–24	2015–19	2020–24
BG	n.a.	n.a.	n.a.	n.a.
CZ	–9.6	11.1	21.2	–4.7
EE	4.1	9.4	–1.0	–5.6
HR	n.a.	10.7	n.a.	–7.1
HU	–13.5	9.7	44.9	7.6
LT	3.3	5.6	2.6	–3.1
LV	0.6	6.9	6.3	–11.9
PL	–2.7	–7.1	0.8	–8.8
RO	1.4	3.8	8.9	5.1
SI	–4.0	10.8	20.5	–3.1
SK	–1.5	2.2	12.9	–1.1
EA20	–1.2	4.4	6.0	–0.1
EU27	n.a.	n.a.	n.a.	n.a.

Note: Positive values mean a net tightening of credit standards and a net increase in loan demand, respectively. The values represent diffusion indices for euro area member states, Poland and Romania, and net percentage balances for Czechia and Hungary. Values in red indicate a loosening of credit standards and a weakening of loan demand compared to 2015-2019.

Source: Macrobond, ECB, NCBs, author's calculations.

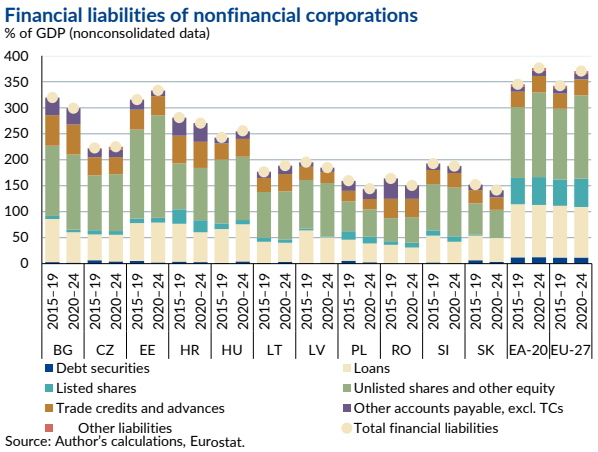
6. NFCs' financial liabilities vary in size, with mixed trends

The size of NFCs' financial liabilities as a percentage of GDP varies in a broad range across the CESEE EU-MS (chart 1). NFCs in Slovakia, Poland and Romania have the smallest financial liabilities in the region, while Estonia and Bulgaria are at the other end of the spectrum (followed by Croatia and Hungary). In the top two countries, the size is close to the EU-27 (and EA-20) average, while the remaining countries show a sizable gap. A similar picture emerges for NFCs' financial liabilities expressed as a percentage of the sector's GVA (with Croatia leading, followed by Estonia, Hungary and Bulgaria).

Over the past decade, NFCs' financial liabilities have been affected by the economic slowdown, increased volatility in growth patterns amid repeated shocks and heightened uncertainty, sluggish investment demand by NFCs and their deteriorating profitability, along with adverse lending market developments. The outstanding stock of NFCs' total financial liabilities as a percentage of GDP decreased between 2015–2019 and 2020–2024 in seven of the 11 CESEE EU-MS. The biggest contractions were registered in Bulgaria, Poland and Romania. In Bulgaria, the decrease stemmed mainly from the contraction of loans as a percentage of GDP, while the decline in Romania was largely driven by other accounts payable (excluding trade credits), and to a lesser extent, by loans. The decrease was relatively broad-based in Poland, with loans, equity (listed shares as well as unlisted shares and other equity) and debt securities contributing. By contrast, NFCs' liabilities as a percentage of GDP increased considerably in Estonia, Hungary and Lithuania (and modestly in Czechia). In Estonia, the increase was mainly attributable to unlisted shares and other equity, while in Hungary it was spread between loans, trade credits and advances, other accounts payable (excluding trade credits), and debt securities. In Lithuania, NFCs' financial liabilities were boosted mainly by trade credits and advances, other accounts payable (excluding trade credits), and unlisted shares and other equity. NFCs in the EU-27 (and EA-20) on average saw an even more substantial increase in their financial liabilities. As a result, the gap to both country groups widened in all CESEE EU-MS.

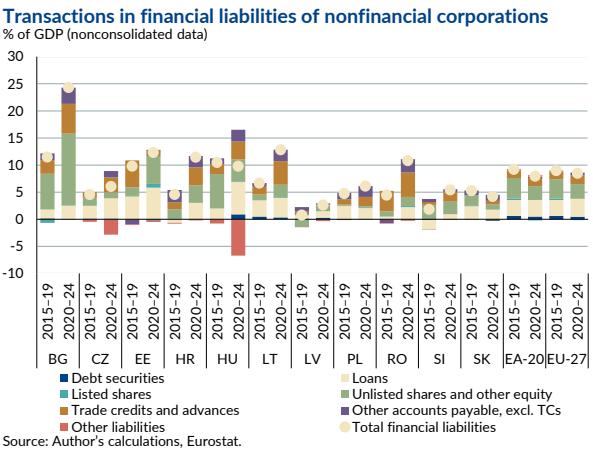
An analysis of intraperiod changes shows that financial liabilities decreased between end-2015 and end-2019 in nine of the 11 CESEE EU-MS, but in only seven countries between end-2019 and end-2024. Moreover, in eight of them, the decrease between end-2019 and end-2024 was smaller (or the increase larger) than between end-2015 and end-2019 (the exceptions were Croatia, Poland and Slovakia). In Hungary and Estonia, the large increase in NFCs' financial liabilities on the basis of period averages was due to a sharp increase between end-2019 and end-2024 following a decline between end-2015 and end-2019. In Lithuania, NFCs' financial liabilities rose more between end-2019 and end-2024 than between end-2015 and end-2019. Hence, taking into account intraperiod data makes trends during the 2020–2024 period in the CESEE EU-MS look less unfavorable compared to the preceding five years. By contrast, in the EU-27 (EA-20), the increase in NFCs' financial liabilities in period-average terms reflects a rise in the first period followed by a modest decline. More specifically, the increase occurred between end-2018 and end-2021, followed by a decline until end-2024 to below end-2019 levels.

Chart 1



Source: Author's calculations, Eurostat.

Chart 2



Source: Author's calculations, Eurostat.

Data on net financial transactions corroborate this view in general (chart 2). During the period 2020–2024, the net incurrence of financial liabilities was larger than during the preceding five years in all CESEE countries under review except in Hungary and Slovakia. Regarding Hungary, this seems surprising given the country's relatively strong performance as measured by stock data (both on the basis of period averages and in the comparison of single years). This discrepancy reflects the large revaluations that boosted the stock data especially during the period 2020–2024. Over that time frame, these revaluations were almost twice as large as transaction-driven changes in the stock. Revaluations were particularly large in 2021, 2022 and 2024 and affected primarily financial derivatives, unlisted shares and other equity, and loans. They were likely linked to equity price increases (in 2021 and 2024) and the depreciation of the forint (in 2022 and 2024).

The comparison with the EU-27 (EA-20) looks more favorable on the basis of flow data than on the basis of stock data: As pointed out above, in all CESEE EU-MS, the stock of NFCs' financial liabilities as a percentage of GDP was lower than in the EU-27 (EA-20) during 2020–2024. This gap widened further compared to the period 2015–2019. By contrast, in six CESEE EU-MS, the net incurrence of total financial liabilities (as a percentage of GDP) – as a measure for the level of financial intermediation – was larger than in the EU-27 (EA-20) during 2020–2024. This marks a change from 2015–2019, when only three CESEE EU-MS saw financial liabilities on a transaction basis rise at a stronger pace than in the EU-27 (EA-20).

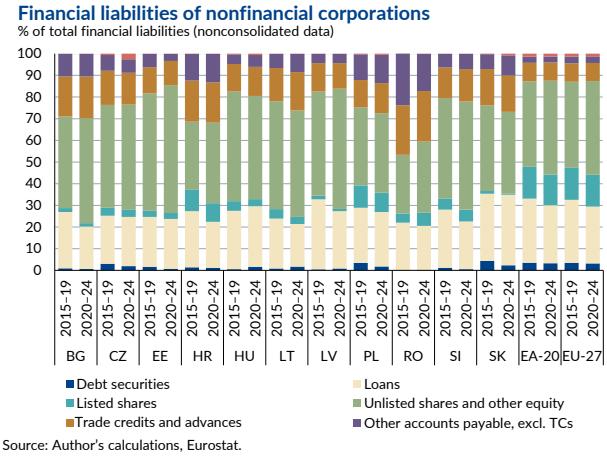
Hence, recent net transactions in NFCs' financial liabilities were substantially stronger than suggested by the changes in the outstanding stocks of liabilities. Similarly, flow data indicate a more developed level of financial intermediation to NFCs in the CESEE EU-MS than suggested by outstanding stocks, relative to the EU-27 (EA-20) average. These differences in how the various indicators change over time highlight that data interpretation is sensitive to methodological choices.

7. Unlisted shares, loans and trade credits dominate NFC liabilities

Despite the considerable cross-country differences in the *size* of NFCs' total financial liabilities across the region, the *structure* of liabilities shows important commonalities, not only among the 11 CESEE countries but also compared to the EU-27 (EA-20) average (chart 3).

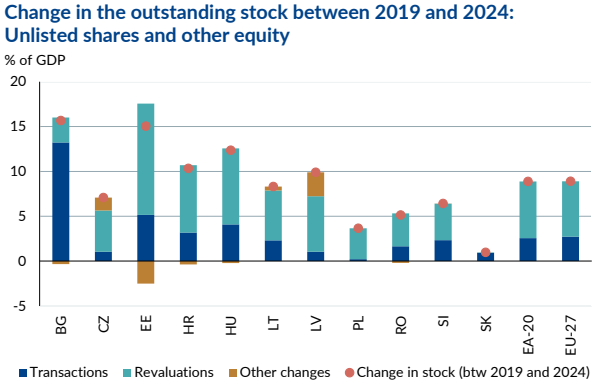
Unlisted shares and other equity (e.g. shares issued by unlisted limited liability companies, equity in limited or unlimited liability partnerships, capital in cooperative societies, etc.) make up the biggest part of NFCs' outstanding stock of financial liabilities in the CESEE EU-MS and the EU-27 (EA-20) average. Their share in the CESEE EU-MS ranged between around 30% and 60% during 2020–2024, with their unweighted[4] average (45.7%) surpassing the EU-27 (EA-20) average (both around 43%). This share was particularly high in the three Baltic countries and Slovenia, followed by Czechia, Bulgaria and Hungary. Compared to the average of the period 2015–2019, the share of these instruments increased in eight of the CESEE EU-MS (except in Hungary, Lithuania and Slovakia) during 2020–2024. Similarly, their share as a percentage of GDP increased across the region except in Hungary, Poland and Slovakia. In this context, however, it is worth noting that the increase in the outstanding stock of unlisted shares and other equity as a percentage of GDP and share in total financial liabilities was largely driven by revaluation changes during the 2020–2024 period (chart 4). During this period, the impact of revaluations on the outstanding stock was larger than the impact of transactions in all CESEE EU-MS (and the EU-27 (EA-20) average) with the exception of Bulgaria and Slovakia[5]. Nevertheless, transaction data as a percentage of GDP also suggests that the use of unlisted shares and other equity increased in seven CESEE EU-MS and at the regional level during 2020–2024 compared to the five years before.

Chart 3



Source: Author's calculations, Eurostat.

Chart 4



Note: For Poland, Slovakia, the EU-27 and the EA-20, revaluations include other (non-transaction) changes in volume as well.
Source: Author's calculations, Eurostat.

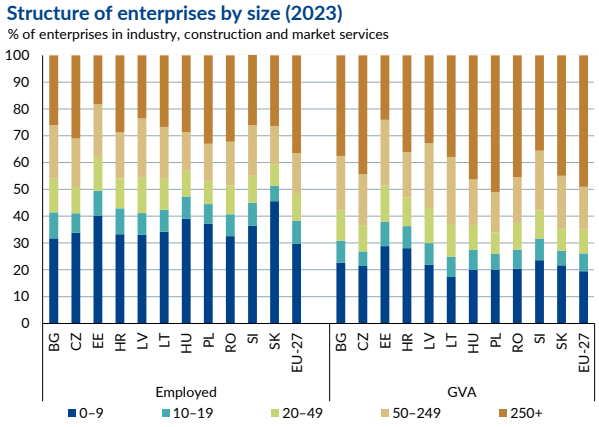
The importance of unlisted shares and other equity for NFCs in the CESEE EU-MS is likely in part connected to two structural factors. First, SMEs (especially micro and small enterprises) play a more important role in the economies of these countries than in the EU-27. According to the latest available data (2023), SMEs accounted for between 50% and 76% of the combined value added of industry, construction and market services (with an average of around 60% for the region compared to 51% in

[4] In the following, the regional averages for the CESEE EU-MS refer always to the unweighted averages. By contrast, values for the EU-27 and the EA-20 mean weighted averages, as published by Eurostat (unless stated otherwise, e.g. in connection with FDI-related liabilities).

[5] For Poland, Slovakia, the EU-27 and the the EA-20, the revaluation effect and other (non-transaction) changes in volume are taken together.

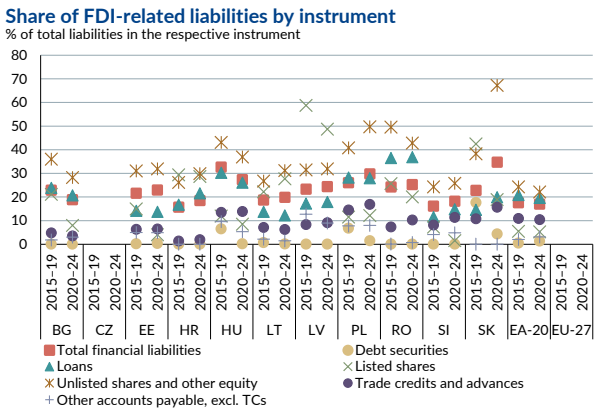
the EU-27 (chart 5). The segment of medium-sized enterprises (50–249 employees) showed the largest gap to the EU-27 average (at the level of the region), followed by micro enterprises (0–9 employees). The gap to the EU-27 was similarly large for SMEs' share in the combined employment of these sectors[6]: It ranged between 67% and 82% (regional average: 73%) as opposed to 64% in the EU-27. Micro enterprises showed the largest gap, followed by the medium-sized segment[7]. It is reasonable to expect that SMEs, in particular micro and small enterprises, are operated in the form of sole proprietorships, unlimited or limited liability partnerships or limited liability companies whose owners are partners and not shareholders ("other equity"), or (in relatively rare cases) in the form of limited liability companies ("joint stock companies") without a listing on a stock exchange ("unlisted shares").

Chart 5



Source: Author's calculations, Eurostat.

Chart 6



Note: No data for Czechia and the EU-27.
Source: Author's calculations, Eurostat.

Second, the region is a major target location for foreign direct investment, and foreign-controlled enterprises play a much larger role in industry, construction and market services than in the EU-27. According to data for 2022 (the most recent available), foreign-controlled enterprises accounted for between 1.5% and 10.8% of all enterprises (average for the CESEE EU-MS: 4.1%) in these sectors, compared to 1.1% in the EU-27. Their share in employment and value added was substantially larger, with the averages for the CESEE EU-MS standing at 24% and 38%, respectively, compared to 15% and 24% for the EU-27. Since direct investors (even in joint stock companies) are typically keen on exercising dominating control over their subsidiaries and may also be reluctant to meet regulatory requirements for a listing (e.g. due diligence, regular financial reporting, investor relationships), they may prefer holding their stakes in subsidiaries in the form of unlisted shares or other equity.

Against this background, it is also not surprising that nearly 40% (regional average) of unlisted shares and other equity liabilities of NFCs in the CESEE EU-MS were held by direct investors during 2020–2024 (range between 26% and 67%, averaging around 38%), compared to slightly more than 20% in the euro area[8] (chart 6). These shares (along with the share of these instruments as a percentage of GDP) rose compared to the average of 2015–2019 in most CESEE EU-MS (except in Bulgaria, Hungary

[6]By contrast, the share of SMEs in the total number of enterprises in the CESEE EU-MS (99.86%) matches the share in the EU-27 (99.84%).

[7] But the gap to the EU-27 in the share of micro (0–9 employed) and small enterprises (10–49 employed) taken together was bigger than the gap of medium enterprises (50–249 employed) both for value added and employed.

[8] This value for the euro area is calculated by the author since Eurostat publishes no data for NFCs' FDI-related liabilities in the EU-27 or the EA-20 as a whole (nasq_10_f_bs). This calculation, aggregating data for individual euro area member states, is approximative since data for Ireland and Malta are missing or incomplete. For the EU-27 as a whole, a similar calculation is not possible due to additionally (completely or partly) missing data for Czechia, Denmark and Sweden.

and Romania), contributing to the rise in the share of both unlisted shares and other equity and FDI-related liabilities in NFCs' total financial liabilities. Similarly, all countries but Bulgaria and Hungary saw the share of FDI-related liabilities in total financial liabilities increase between the two periods.

Loans were the second-largest component of NFCs' financial liabilities across the CESEE EU-MS in both periods, similar to the EU-27 (EA-20). Slovakia, Hungary and Latvia had the highest shares (exceeding the EU-27 average level of 26.3% during 2020–2024), followed closely by Poland. The average of the share of loans across the CESEE EU-MS was slightly below the EU-27 (EA-20) average in both time periods. In contrast to unlisted shares and other equity, the share of loans in NFCs' outstanding stock of liabilities decreased in seven of the CESEE EU-MS (as in the EU-27 (EA-20)) during 2020–2024 compared to the preceding five-year period (the strongest declines were seen in Bulgaria, Latvia, Slovenia and Croatia). Similarly, the average stock of loans as a percentage of GDP decreased in eight of the CESEE EU-MS (with the same four countries exhibiting the strongest declines) mainly due to strong GDP growth (and minor stock-decreasing revaluations and other non-transaction volume changes), even if on a transaction basis loans increased more during 2020–2024 than during 2015–2019 with the exception of Poland and Slovakia.

The impact of FDI can also be seen in this instrument, although not to the same extent as in unlisted shares and other equity. The share of FDI in NFCs' loan liabilities amounted to between 12% and 37% during 2020–2024, averaging 21% for the region, slightly above the euro area average (19.6%). Changes compared to 2015–2019 were mixed across the region (declines in five CESEE EU-MS), whereas FDI-related loans as a percentage of NFCs' total financial liabilities (GDP) decreased in seven (six) CESEE EU-MS.

Trade credits and advances represent the third-largest source of financing for NFCs in the CESEE EU-MS, accounting for about 16% of their total financial liabilities on a regional average. In stark contrast to the other two instruments, the share of trade credits and advances in the CESEE EU-MS is about double the roughly 8% seen in the EU-27 (EA-20). The share of trade credits and advances increased in eight CESEE EU-MS between the two periods under review. By contrast, their stock as a percentage of GDP decreased between the two periods in eight CESEE EU-MS, despite a stronger increase during 2020–24 on a transaction basis in nine of them.

The greater use of trade credits and advances in the CESEE EU-MS appears not to be related to the larger role of FDI: In contrast to unlisted shares and other equity and loan liabilities, the share of FDI-related funds is relatively low for trade credits and advances (between 2% and 17% during 2020–2024), averaging slightly less than 10%, which is below the euro area average. In the seven CESEE EU-MS for which detailed annual data about counterparts are available for trade credits and advances[9], other (i.e. non-FDI-related) nonresidents were a major provider of trade credits and advances to NFCs, accounting for up to a third of NFCs' total trade credits and advances liabilities (the average of the seven countries stood at 15% in 2020–2024). In six of these countries, with the exception of Hungary, unrelated nonresidents (i.e. trade partners and possibly also foreign export credit agencies) provided substantially more trade credits and advances to NFCs than FDI partners.

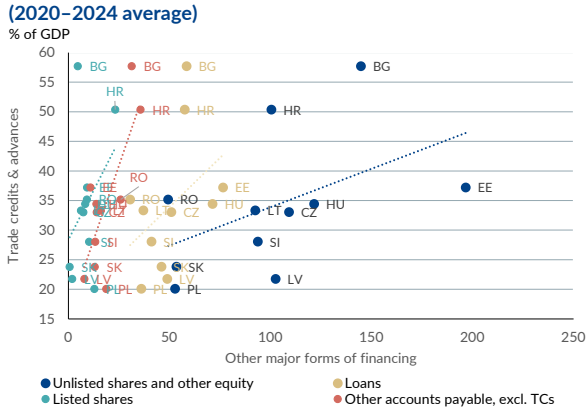
Simple data spotting does not seem to suggest a substitution effect either, in the sense that NFCs in countries with a relatively smaller size of other major financing sources (such as unlisted shares and other equity or loans) would make greater use of trade credits and advances in their financing (chart 7). Neither does visual observation support the assumption that NFCs tended to make more active use of

[9] These are Bulgaria, Estonia, Croatia, Hungary, Lithuania, Latvia and Romania.

trade credits when credit from domestic banks was constrained during the period 2015–2024 (chart 8). The data also do not indicate a clear relationship (across countries or time) between the size of trade credits and advances and the NPL ratio for loans to NFCs, which serves as a proxy for NFCs' payment ability (chart 9). Importantly, however, these observations do not exclude the possibility that in a more complex analysis, constraints on (or higher costs of) other forms of financing may be found to lead to increased use of trade credits and advances. At the same time, the data for the CESEE EU-MS are in line with findings in literature[10] that the size of trade credits is negatively correlated with the strength of the rule of law and the legal system. For the EU-27 member states, such a negative relationship can be found between the Rule of Law Index by the World Justice Project and the share of trade credits and advances as a percentage of total NFC liabilities (chart 10).

Chart 7

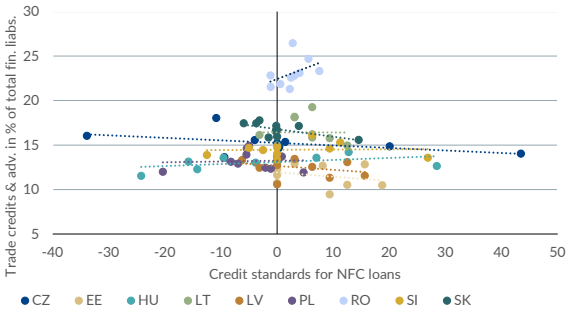
Trade credits and advances vs. other major forms of financing (2020–2024 average)



Source: Author's calculations, Eurostat.

Chart 8

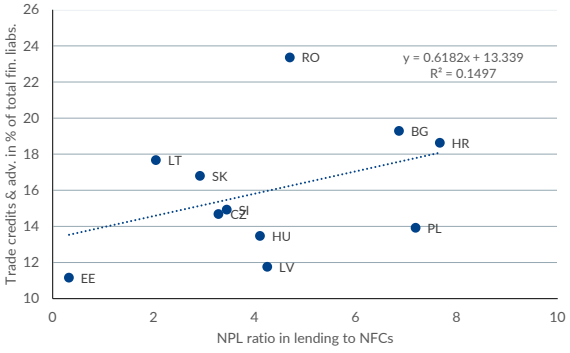
Trade credits and advances vs. credit standards for bank loans to NFCs (2015–2024)



Note: Positive values mean a net tightening of credit standards and a net increase in loan demand, respectively. The values represent diffusion indices for euro area member states, Poland and Romania, and net percentage balances for Czechia and Hungary.
Source: Author's calculations, Eurostat, World Justice Project.

Chart 9

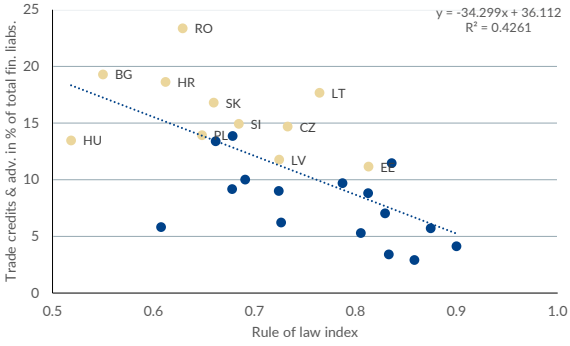
Trade credits and advances vs. NPL ratio in lending to NFCs (2020–2024 average)



Source: Author's calculations, Eurostat, wiiw.

Chart 10

Trade credits and advances vs. Rule of Law Index in the EU-27 (2020–2024 average)



Note: For the Rule of Law Index 1 signifies strong and 0 weak rule of law.
Source: Author's calculations, Eurostat, World Justice Project.

Other accounts payable excluding trade credits[11] are also an important source of financing for NFCs in the CESEE EU-MS, representing a much larger part of their financial liabilities[12] than in the EU-27 (EA-20). The average for the region amounted to around 9% in both periods, compared to around 3% in the

[10] For example: Cull R., C. Goh and L. C. Xu. Trade Credit – Theory and Evidence for Emerging Economies and Developing Countries. World Bank Policy Research Working Paper 10468. June 2023.

[11] Other accounts payable are financial liabilities created as counterparts to transactions where there is a timing difference between these transactions and the corresponding payments (early or late payments). This can occur, for example, in connection with the payment of EU grants, tax obligations, wages and salaries or rents.

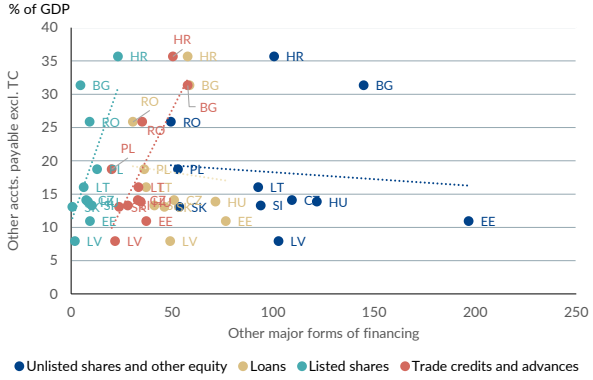
[12] They are also much bigger as a percentage of GDP in the CESEE EU-MS than in the EU-27 (EA-20).

two country blocs. Some countries (Romania, Croatia and Poland) had shares above 10%, but none were below the EU-27 (EA-20). Other accounts payable excluding trade credits also accounted for a much larger percentage of GDP in the CESEE EU-MS than in the EU-27 (EA-20). This share decreased between 2015–2019 and 2020–2024 in six of the 11 CESEE-EU-MS and also on a regional average basis. However, their use increased during the second period in nine CESEE EU-MS (and in the region as a whole), as indicated by transaction data.

Similar to trade credits and advances, simple data plots do not suggest a clear relationship between (1) the changes over time in other accounts payable excluding trade credits and (2) banks' credit standards or NPL ratios for NFC loans. In a static cross-country comparison, however, there seems to exist a modest negative relationship between (1) the size (as a percentage of GDP) of loans and unlisted shares and of other equity and (2) other accounts receivable, and also a somewhat stronger positive relationship than for trade credits and advances (but still with clear clusters) can be observed between other accounts payable and the NPL ratio. As with trade credits and advances, better rule of law, however, seems to reduce the use of other accounts payable excluding trade credits as well.

Chart 11

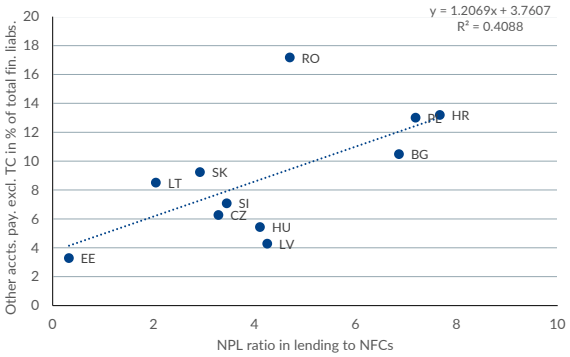
Other accounts payable excluding trade credits vs. other major forms of financing (2020–2024 average)



Source: Author's calculations, Eurostat.

Chart 12

Other accounts payable excluding trade credits vs. NPL ratio in lending to NFCs (2020–2024 average)



Source: Author's calculations, Eurostat, wiiw.

8. Share of marketable securities lower than in the euro area

Marketable securities, i.e. debt securities and listed shares, play a subordinate role in the financing of NFCs across the CESEE EU-MS. The share of debt securities is particularly low, with many of these countries not reaching 1% of the stock of NFCs' total financial liabilities (the regional unweighted average stood at 1.2% during 2020–2024). It does not reach the level of the EU-27 (EA-20) – which is also smaller than in financially more advanced economies, such as the US – in any of the CESEE EU-MS.

The gap to the EU-27 (EA-20) is even more striking in listed shares. In this category, the regional average of the share as a percentage of NFCs' total financial liabilities (4.1%) amounts to less than a third of the EU-27 average. However, there is large variation among the countries. Listed shares made up around 9% of NFCs' total financial liabilities during 2020–2024 in Poland and Croatia, but the share was substantially lower in most other countries. FDI plays an important role for listed shares. The region's average share of FDI-related funds in total listed share liabilities amounted to 18% during 2020–2024, down from 25% in 2015–2019. It was highest in Latvia (49%), Croatia and Lithuania (both at slightly below 30%) and lowest in Slovenia (1.5%) and Estonia (4.1%).

Both debt securities and listed shares decreased as a percentage of both total financial liabilities and GDP in the majority of CESEE EU-MS between 2015–2019 and 2020–2024. Importantly, the net issuance (i.e. incurrence less repayments of liabilities on a transaction basis) of both debt securities and listed shares by NFCs was negligible during both time periods under review, so that it seems that changes in the outstanding stock of these instruments reflect changes in nominal GDP and – particularly in the case of listed shares – revaluation effects and other changes in volume. There are two notable exceptions, however. In Hungary, net issuance of debt securities by NFCs picked up considerably between 2015–2019 and 2020–2024, even surpassing net issuance in the EU-27 (EA-20). Net issuance peaked in the years 2019–2021 (reaching 1.6% and 2.8% of GDP in 2020 and 2021, respectively), i.e. during the years when the country's NCB was running its Bond Funding for Growth scheme (from mid-2019 to end-2021). After the expiry of the NCB's scheme, debt securities issuance by Hungarian NFCs ebbed to around 0.3% during 2022–2024. The second exception is the substantial net issuance of listed shares in Estonia during 2020–2024. This issuance was concentrated in 2021 (reaching 3.4% of GDP) and resulted from a combination of favorable demand and supply factors. Demand was boosted by the elimination of transaction fees for Baltic shares by some banks and by the inflow of funds withdrawn from second-pillar pension funds. A pension reform that took effect at the beginning of 2021 made membership in second-pillar funded pension schemes voluntary, allowing leaving members to withdraw all their money. Supply benefited from several new listings and IPOs, including by a major producer of renewable energy. Net issuance, however, ebbed in subsequent years.

The small share of marketable securities in NFCs' total financing is likely linked to structural factors. As pointed out above, micro and small enterprises play a more important role for the employment and value added of enterprises in the CESEE EU-MS than in the EU-27, and FDI is also a substantially more important factor. Therefore, the same reasons that were listed as potential factors for the high share of unlisted shares and other equity (e.g. legal form of the enterprise, desire of the owners to keep control over the enterprise, reluctance to meet regulatory requirements connected with a listing) explain the low share of marketable securities. Other relevant factors include a lack of expertise and/or administrative capacity to handle a public offering and then meet regular financial reporting requirements and maintain investor relationships, and a lack of commitment to (financial) transparency. In addition, prospective issuers may be deterred by the upfront and recurring costs in connection with the public offering of shares or debt securities (e.g. legal and accounting/auditing fees, cost of printing and distribution of prospectus, underwriting commissions, registration fees, annual listing fees on stock exchanges, cost of shareholder meetings). These costs are particularly onerous for small issuers and can outweigh any potential benefits of debt securities or shares (e.g. lower interest or dividend payments compared to a bank loan). Finally, smaller firms in particular may have a preference for more personal and flexible relationships with creditors, which are more easily achieved with bank loans or trade credits compared to anonymous capital markets.

In addition to these supply-side factors, there are also limitations on the demand side. The financial sector in the CESEE EU-MS is even more bank-based than in the EU-27 (EA-20) (chart 13). In the CESEE EU-MS, other MFIs[13] accounted for more than 60% of the financial assets of financial corporations excluding the central bank in 2024, compared to around 42% in the EU-27 (EA-20). The financial assets of non-MMF investment funds as a percentage of GDP make up only a fraction of the size in the EU-27 (EA-20), and account also for a substantially smaller portion of financial corporations'

[13] Deposit-taking corporations, except the central bank plus money market funds.

financial assets[14] than in the EU-27 (EA-20). Similarly, the financial assets of other financial intermediaries (except insurance corporations and pension funds), financial auxiliaries, captured financial institutions and money lenders[15] are significantly smaller in the CESEE EU-MS than in the EU-27 (EA-20) by both measures. This group includes financial vehicle corporations engaged in securitization transactions, securities and derivatives dealers, venture and development capital companies, i.e. financial corporations which could potentially become buyers of securities issued by NFCs or facilitate their issuance. Although the financial assets of insurance corporations and pension funds are also much smaller than in the EU-27 (EA-20) when measured as a percentage of GDP, they are comparable as a share of the financial sector's financial assets. The financial *assets* of these nonbank financial institutions[16] are substantially smaller in the CESEE EU-MS than in the EU-27 (EA-20) also compared to the size of NFCs' loan liabilities (i.e. the funds which could be "converted" into securities). Since the figures are very similar if one compares NFCs' loans with the total financial *liabilities* of non-MMF investment funds, insurance companies and pension funds, additional funds (e.g. domestic savings) would need to be mobilized to be able to accommodate a shift from loans to securities by NFCs[17]. These additional savings may come partly from households, since in the majority of CESEE EU-MS, households' financial assets are skewed more toward currency and deposits than in the EU-27 (EA-20) (chart 14). These deposits (around 90% of which were held at resident MFIs in 2024, and a majority of which consisted of transferable deposits[18]) currently fund bank lending to various sectors, including NFCs. Importantly, in the CESEE EU-MS, the share of both transferable deposits and of deposits with nonresidents exceeded the levels seen in the euro area as a whole.

[14] Excluding the central bank.

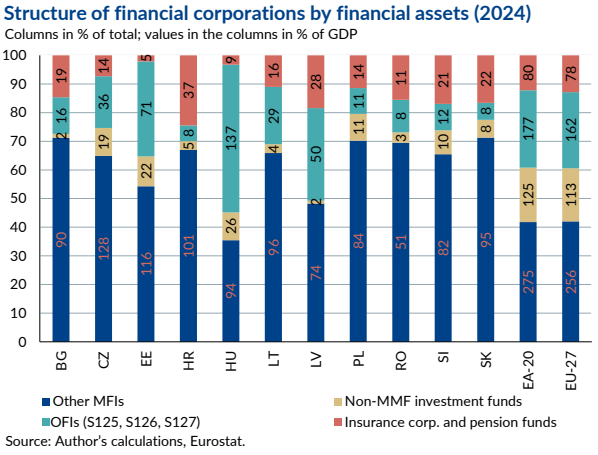
[15] ESA 2010 sectors S125, S126 and S127.

[16] ESA 2010 sectors S124–S129.

[17] By contrast, in the EU-27 (EA-20), the financial assets of the nonbank financial sector are far larger than NFCs' loan liabilities, so that a shift to marketable securities could here at least in part be achieved by reallocating funds from other sectors, e.g. the general government or the rest of the world.

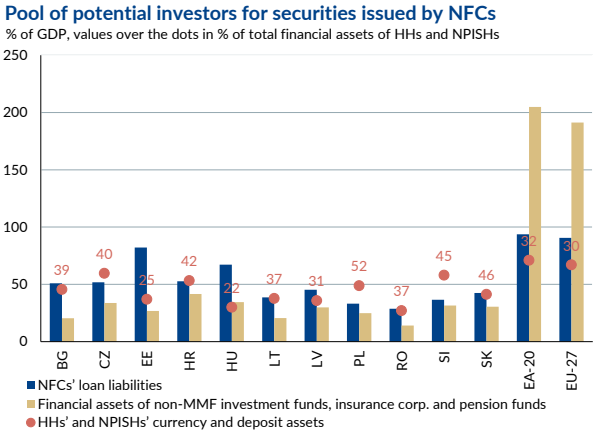
[18] Deposits with domestic MFIs accounted for between 85% and 100% of total deposits of households and NPISH at the end of 2024 in the CESEE EU-MS. The regional average was 95%, roughly the same as in the euro area. At the same time, however, a bigger share of household and NPISH deposits was held with nonresidents across the CESEE EU-MS (4.4%) than in the euro area (1.1%); Hungary (12.5%) and Slovenia (10.6%) stood out. Transferable deposits accounted for between 49% and 77% of total deposits of households and NPISH across the CESEE EU-MS at the end of 2024. The regional average stood at 68%, compared to around 55% in the EU-27 (EA-20).

Chart 13



Source: Author's calculations, Eurostat.

Chart 14



Source: Author's calculations, Eurostat.

9. Counterparty structure

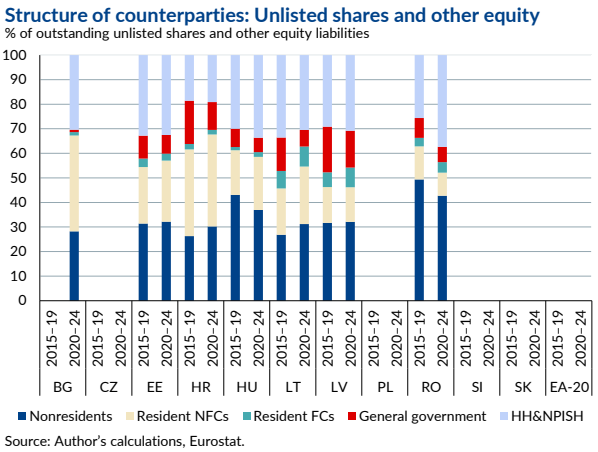
Eurostat publishes quarterly data about the detailed structure of counterparty sectors to NFCs' liabilities for debt securities, loans and listed shares. Annual data are available for all instruments but only for a limited number of counterparty sectors (i.e. the financial corporation sector is not broken down into its various subsectors) and no data are available for four of the 11 CESEE EU-MS[19] and the euro area (or the EU) as a whole. However, some patterns can nonetheless be detected.

As already pointed out above, (almost exclusively FDI-related) nonresidents were the most important source of funding for unlisted shares and other equity for NFCs in the CESEE EU-MS (chart 15), accounting for a third of these liabilities in the seven countries with detailed data during 2020–2024[20]. Almost as important were households and NPISH, with a share of around 30% across the region (except Croatia with 20%). Cross-ownership among NFCs is also relatively common, particularly in Croatia and Bulgaria. Resident financial corporations and the general government held only smaller portions. Interestingly, however, in five of the seven countries (with the exception of Bulgaria and Lithuania) the general government held a larger share in NFCs' unlisted shares and other equity liabilities than financial corporations. The government's share was the largest in Croatia and Latvia (at 11% and 15%, respectively) during 2020–2024. Between 2015–2019 and 2020–2024 on average, the government's share in this financing instrument decreased, while the share of holdings by resident NFCs and households increased. In the case of households, this seems to have been caused by revaluations, while the holdings of resident NFCs and also of nonresidents expanded most on a transaction basis.

[19] Annual counterparty data are available only for Bulgaria, Estonia, Croatia, Hungary, Lithuania, Latvia and Romania.

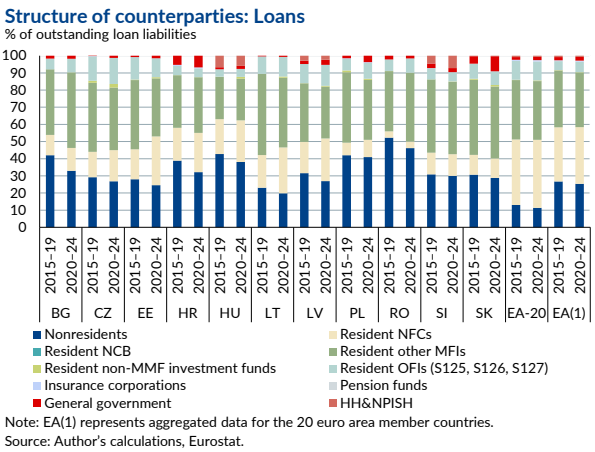
[20] In the sample of ten CESEE EU-MS (no data for Czechia), FDI-related funds accounted for 38% of unlisted shares and other equity during 2020–24.

Chart 15



Source: Author's calculations, Eurostat.

Chart 16



Note: EA(1) represents aggregated data for the 20 euro area member countries.
Source: Author's calculations, Eurostat.

Nonresidents are also important providers of loans to NFCs in the CESEE EU-MS, accounting for an average of around 32% of loan liabilities in the region. Around two-thirds[21] of these nonresident loans come from FDI partners, i.e. from parent or sister companies. The nonresident share in loans across the CESEE EU-MS is nearly three times the share in the euro area and is also somewhat higher than the aggregated share for individual euro area member countries[22] (chart 16). Resident MFIs hold the largest portion of loans to NFCs in the CESEE EU-MS, and other financial institutions also provide some loans (i.e. financial intermediaries except insurance companies and pension funds, financial auxiliaries and captive financial institutions and money lenders)[23]. Overall, there is no significant difference between the CESEE EU-MS and the euro area in the share of resident financial corporations in loans provided to NFCs. Loans among resident NFCs are also widespread in the region (with a share of around 18%), albeit to a substantially smaller extent than in the euro area as a whole. Between 2015–2019 and 2020–2024, the share of nonresidents and domestic banks decreased modestly, which was accompanied by a comparable increase in the share of NFCs. However, on a transaction basis, domestic banks provided the most loans to NFCs as a percentage of GDP during 2020–2024 (followed by NFCs and nonresidents).

[21] For the region on average; in individual countries between 50% and 80%.

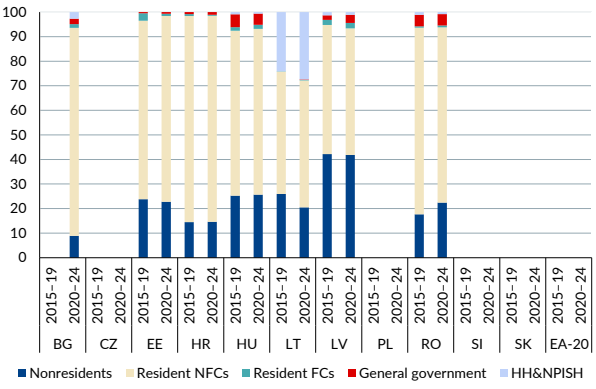
[22] With respect to the share of nonresidents the following methodological issue should be noted. For the euroa area as a reporter, nonresidents mean non-*euro area* residents, while for individual member states as a reporter, nonresidents represent non*domestic* residents (i.e. residents of (other) euro area member states and rest of the world). If for the euro area the data of the 20 individual euro area member states are *aggregated* (i.e. not canceling out positions between residents of different euro area member countries), the share of nonresidents (i.e. nondomestic residents) becomes bigger, while the shares of domestic counterparts become correspondingly smaller. The difference between the "consolidated" (i.e. officially published) and the aggregated share of nonresidents is relatively small for loans and listed shares, presumably due to considerable home bias of creditors/investors of these instruments. The differences in the shares are, however, considerable for debt securities (especially for nonresidents (higher aggregated share), and investment funds, insurance corporations, other financial institutions (S125, S126, S127) and banks (lower aggregated shares).

[23] ESA 2010 sectors S125-S127.

Chart 17

Structure of counterparties: Trade credits and advances

% of outstanding trade credits and advances liabilities

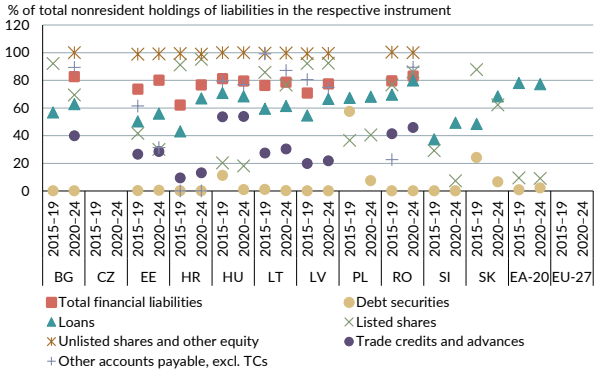


Source: Author's calculations, Eurostat.

Chart 18

Share of FDI-related liabilities by instrument in nonresident holdings

% of total nonresident holdings of liabilities in the respective instrument



Note: No data for Czechia and the EU-27.

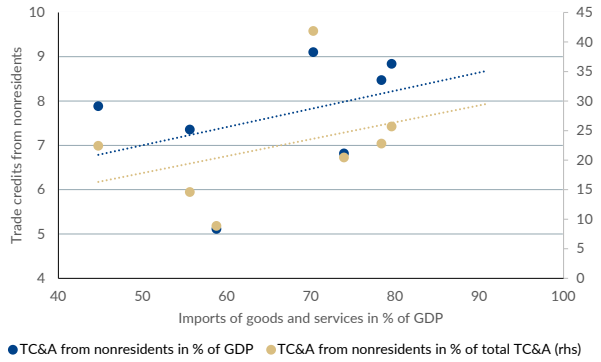
Source: Author's calculations, Eurostat.

The bulk of NFCs' trade credits and advances liabilities was provided by other resident NFCs (chart 17). At the level of the seven countries with annual data on counterparties, this amounts to nearly 70%. An additional 20% come from nonresidents on a regional average basis (chart 17; roughly one third of which from FDI-related counterparties, chart 18). These shares did not change much between the two periods under review, and the bulk of trade credits and advances (on a transaction basis, in percent of GDP) was provided within the NFC sector during 2020–2024. To some extent, the size of nonresidents' holdings of NFCs' trade credits and advances liabilities (both as a percentage of NFCs' total trade credits and advances liabilities and of GDP) correlates with the trade openness of the respective countries (chart 19; measured as imports of goods and services as a percentage of GDP).

Chart 19

Trade openness vs. NFCs' trade credits from nonresidents (2020-2024 average)

% of GDP / % of total trade credits and advances

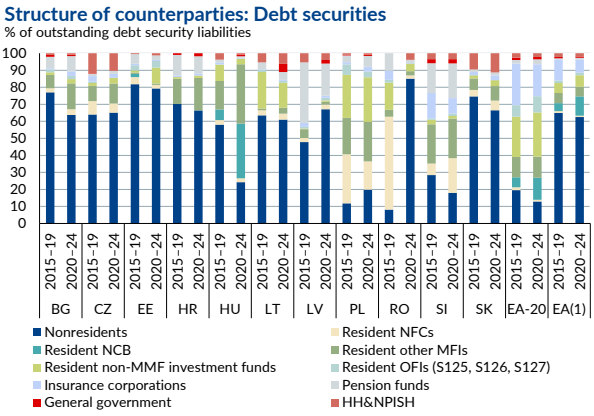


Source: Author's calculations, Eurostat.

Although marketable securities play a very limited role for NFCs in the CESEE EU-MS, there are a few interesting aspects and differences to the euro area that are worth mentioning. First, nonresident investors hold a substantially larger portion of debt securities issued by NFCs (up to nearly 90%, the regional average stood at 56% in 2020–2024) than in the euro area (13%, chart 20). However, according to aggregated data of the 20 euro area member countries (i.e. when positions between residents of different euro area countries are not canceled out), the share of nondomestic holdings in the euro area (slightly more than 60%) is somewhat larger than for the CESEE EU-MS on average. During 2020–2024, resident MFIs (other than NCBs) in the CESEE EU-MS were – at the level of the

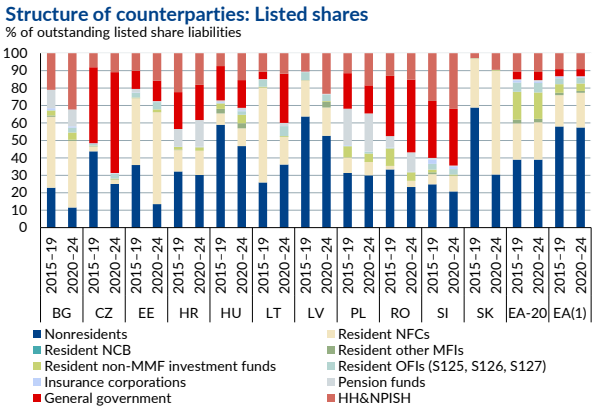
regional average – equally important holders of debt securities issued by NFCs as in the euro area (holding around 12–13% of the outstanding stock[24]), but there was substantial variation in their share between individual countries. Their share was particularly low in the Baltic countries and Romania. By contrast, nonbank financial institutions (especially investment funds and insurance corporations) hold a much smaller portion of NFCs' debt securities in the CESEE EU-MS than in the euro area. However, given that nonbank financial institutions in other euro area member countries have considerable holdings of debt securities issued by euro area NFCs, the picture looks different on the basis of aggregated data for euro area countries: Again, the share of insurance corporations is lower in the CESEE EU-MS in this comparison, but the shares of investment funds and other financial institutions are similar across the two country groups. Domestic pension funds in the CESEE EU-MS hold a bigger share of debt securities issued by NFCs than in euro area member countries (as an unconsolidated aggregate). However, cross-country variation is large across the CESEE EU-MS. For example, investment funds in Lithuania and Poland (and to a smaller extent in Estonia), insurance corporations in Slovenia and pension funds in Croatia, Latvia and Slovenia held substantial portions of debt securities issued by NFCs. The central bank in Hungary took a special position during 2020–2024, holding almost a third of outstanding debt securities issued by Hungarian NFCs as a result of its Bond Funding for Growth program in the years 2019–2021. This was substantially higher than central bank holdings in the euro area as a whole at around 13%. On a regional average basis, the share of holdings by nonresidents and banks (including the central banks) rose between 2015–2019 and 2020–2024, while the share of NFCs and non-MFI financial corporations decreased[25].

Chart 20



Note: EA(1) represents aggregated data for the 20 euro area member countries.
Source: Author's calculations, Eurostat.

Chart 21



Note: EA(1) represents aggregated data for the 20 euro area member countries.
Source: Author's calculations, Eurostat.

Nonresidents are also important investors in listed shares in the region (chart 21): They held around 30% on a regional average, a level that was lower than in the euro area in 2020–2024. This share also varied considerably between countries, being particularly high in Latvia, Hungary and Lithuania. The size of crossholdings of listed shares within the NFC sector was on average comparable with the euro area (around 20%), but cross-country variation was significant. Investment funds in the CESEE EU-MS are less active investors in listed shares issued by NFCs than in the euro area (especially if intra-euro area holdings by investment funds are counted), while the shares of other segments of the financial sector are somewhat smaller in the CESEE EU-MS than in the euro area. Major exceptions are the

[24] But they held a bigger share in the CESEE EU-MS than the aggregated value for the 20 euro area member countries (around 6%).

[25] The development of sectoral holdings on a transaction basis cannot be reasonably interpreted due to the minor transaction volumes as a percentage of GDP.

relatively significant holdings by pension funds in Poland, Croatia, Romania and Bulgaria, which result in relatively large shares for pension funds across the CESEE EU-MS. A further major difference in the holdings of listed NFC shares is that the share of general governments is substantially larger in the CESEE EU-MS than in the euro area. The government's share was particularly large in Czechia, Romania and Slovenia (during 2020–2024), but it was also substantially above the level of the euro area in most of the other CESEE EU-MS (the exceptions were Bulgaria, Latvia and Slovakia). Interestingly, during 2020–2024, households and NPISH in most CESEE EU-MS held a bigger portion of listed shares issued by NFCs than in the euro area as a whole. Their share was particularly large in Bulgaria and Slovenia. It is remarkable that the share of nonresidents decreased substantially between 2015–2019 and 2020–2024, with declines in all CESEE EU-MS except Lithuania, while particularly households and the general government (and to a smaller extent domestic financial corporations) increased their relative positions.

In the CESEE EU-MS for which data were available, 20% of other accounts payable were on average owed to the general government during 2020–2024. This is not surprising as other accounts payable excluding trade credits for NFCs can, for example, arise in connection with the (pre-)payment of EU grants if these funds are paid in advance, possibly in excess of the amount allowable, once the relevant projects involved have been authorized. Similarly, delayed tax payments can give rise to other accounts payable. Households and NPISHs accounted for a similar share, for example in connection with (delayed) payments of wages and salaries or rents, or if EU/government grants were channeled through NPISHs. The largest portion of NFCs' other accounts payable was owed, however, to resident NFCs and possibly reflects liabilities in connection with ownership rights (e.g. dividends) and rents.

If all instruments are taken together, liabilities to other NFCs accounted for a third of total liabilities of NFCs, while another nearly 30% (predominantly FDI-related) was owed to nonresidents on average in the seven CESEE EU-MS with data during 2020–2024[26]. NFCs owed around 18% of their liabilities to households and NPISHs and around 14% to resident financial corporations.

10. Insufficient data to assess risks in NFCs' liability structure…

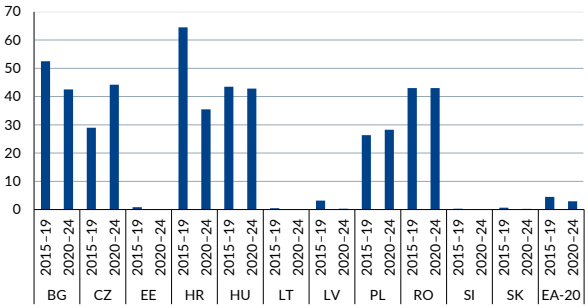
The Eurostat database unfortunately does not (yet) contain information about the risk metrics of NFC liabilities. Although the annual database on financial balance sheets contains dimensions to allow for the calculation of a breakdown of several instruments by currencies of denomination (national versus foreign currencies), and also of loans and debt securities by original and residual maturity (one-year or less versus more than one year), the dataset does not (yet) contain values. Therefore, as for now, publicly available information is restricted to a limited currency breakdown of loans extended to NFCs by resident monetary financial institutions other than the ESCB.

[26] In the broader sample of ten CESEE EU-MS (no data for Czechia), FDI-related liabilities accounted for 24% of total liabilities of NFCs.

Chart 22

Foreign currency share of MFI loans to NFCs

% of outstanding loan liabilities to resident MFIs other than the ESCB



Note: Croatia adopted the euro on January 1, 2023. In the average data for 2020–2024, the euro is treated as a foreign currency prior to that date and as the domestic currency thereafter. Given that foreign currency loans to NFCs before euro adoption were almost completely denominated in euro, the foreign currency share fell to 1% in 2023 and 2024.

Source: Author's calculations, ECB.

According to this data, foreign currency loans to NFCs by resident MFIs (excluding the ESCB) play an important role only for NFCs in countries which have not yet introduced the euro (chart 22). During 2020–2024 on average, the share of foreign currencies in the outstanding stock of loans to NFCs amounted to 43–44% in Bulgaria, Czechia, Hungary and Romania, while it was somewhat smaller in Poland (slightly less than 30%)[27]. The trend compared to the preceding five-year period was mixed: The share decreased sharply in Bulgaria and modestly in Hungary, while it increased sharply in Czechia and modestly in Poland, and remained unchanged in Romania.[28]

It is difficult to estimate the share of foreign currencies in NFCs' total loan liabilities due to the lack of data. Loans provided to NFCs by nonresidents, i.e. the second-largest creditor sector for this instrument with a share of around 30% across the CESEE EU-MS (see above), are very likely predominantly denominated in foreign currencies. Thus, these loans would push up the average share of foreign currencies in total loan liabilities. By contrast, it is reasonable to assume that loans provided by resident sectors outside MFIs (i.e. NFCs, non-MFI financial corporations, the general government and households and NPISHs, together accounting for approximately the same share in NFCs' total loan liabilities as nonresidents) have a considerable domestic currency component. Under these assumptions, the share of foreign currencies in total loan liabilities would tend to be close to the share of foreign currencies in MFI loan liabilities. In the case of Hungary, however, the only country in the sample for which data on financial balance sheets provide a currency breakdown for NFCs' loan liabilities, the foreign currency share in the overall loan portfolio was in both periods larger than in loans from resident MFIs only (52–55% versus 43%). During 2015–2019, this may have been related to the larger share of nonresident loans compared to loans by non-MFI resident sectors; during 2020–2024, when the shares of nonresidents and non-MFI residents in NFCs' loan liabilities were roughly equal, either part of nonresident loans was denominated in the domestic currency or part of the loans by non-MFI resident sectors was denominated in foreign currencies.

[27] According to available information, foreign currency loans extended by resident MFIs to NFCs were almost exclusively in euro across the region.

[28] Unfortunately, there is no publicly available transaction data broken down by the currency of loan denomination.

11. …while size-related vulnerabilities look mixed

Risks in connection with the size of NFCs' debt (i.e. loans plus debt securities) look mixed across the region, depending in part on the risk variable used.

On average, outstanding debt of NFCs as a percentage of GDP for the region amounted to less than half of the average for the EU-27 (EA-20) during 2020–2024 (chart 23a, blue dots, vertical axis), or slightly above 60% if trade credits and advances are included. However, with trade credits and advances included, the ratio rises to as much as 80% of the EU-27(EA-20) in Bulgaria, Estonia, Croatia and Hungary (chart 23b, blue dots, vertical axis). Both ratios decreased compared to the average of 2015–2019 in the majority of CESEE EU-MS, while the gap to the EU-27 widened, with the notable exceptions of Hungary and Estonia or – including trade credits and advances – Hungary and Lithuania. Expressing the gap in NFCs' debt as a percentage of the sector's GVA yields similar results, although NFCs' debt including trade credits and advances in Croatia and Hungary already came close to the level of the EU-27 during 2020–2024 (90% and 85%, respectively), followed by Bulgaria (80%) and Estonia (74%).

During 2020–2024, NFCs' debt excluding trade credits and advances, expressed as a percentage of their equity, was – on a regional average basis – roughly the same size as in the EU-27. In Slovakia, Poland and Hungary, this ratio exceeded the EU-27 average by a considerable margin, while in Estonia, Bulgaria, Slovenia and Lithuania, it was around 80% of that level. At the same time, however, when trade credits are included, the debt-to-equity ratio in all CESEE EU-MS except Estonia was larger than in the EU-27, and was highest in Slovakia, Romania, Poland and Croatia. Both ratios (i.e. excluding and including trade credits) decreased in nearly all CESEE EU-MS compared to 2015–2019.

In Slovakia, Poland and Romania, the debt-to-equity ratios exceeded the level of the EU-27 despite below-average debt-to-GDP ratios, implying that NFCs have relatively low equity in these three countries. The equity-to-GDP ratios were substantially lower than in the EU-27 also elsewhere in the CESEE EU-MS region during 2020–2024[29], and – especially when trade credits are included in debt – appeared to be the main reason for the relatively high debt-to-equity ratios[30]. Even though equity-to-GDP ratios increased in eight CESEE EU-MS from 2015–2019, all of these countries saw the gap to the EU-27 widen compared to the preceding five years.

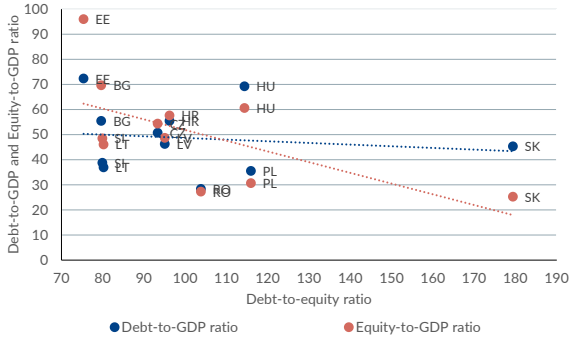
[29] Except Estonia, where it almost reached the EU-27 (EA-20) average.

[30] In this respect, the inverse relationship between the debt-to-GDP ratios and the debt-to-equity ratios across the CESEE EU-MS is remarkable.

Chart 23a

Debt-to-equity ratio and its components, 2020–2024

EU-27 = 100



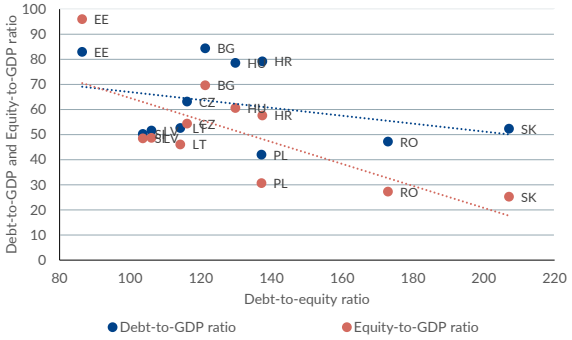
Note: Debt excluding trade credits and advances.

Source: Author's calculations, Eurostat.

Chart 23b

Debt-to-equity ratio and its components, 2020–2024

EU-27 = 100



Note: Debt including trade credits and advances.

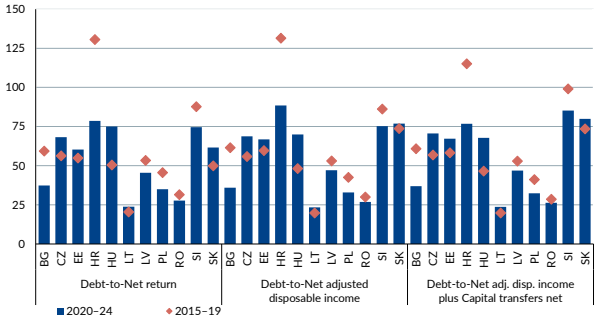
Source: Author's calculations, Eurostat.

Debt levels, expressed as a percentage of various profit indicators (Net return; Net disposable income before Distributed income and Reinvested earnings on FDI paid; Net disposable income before Distributed income and Reinvested earnings on FDI paid plus Capital transfers net) show a more favorable picture for the CESEE EU-MS (chart 24a and 24b), which is attributable to the higher profitability of NFCs across the region than in the EU-27 as a whole. According to these metrics, particularly NFCs in Lithuania, Poland, Romania and Latvia seem to have leeway to increase their indebtedness as a percentage of profits, provided that they maintain profitability at 2020–2024 levels (and which was in Lithuania, Poland and Romania well above the average of the CESEE EU-MS).

Chart 24a

Various debt ratio indicators (excl. trade credits and advances), 2020–2024

EU-27 = 100



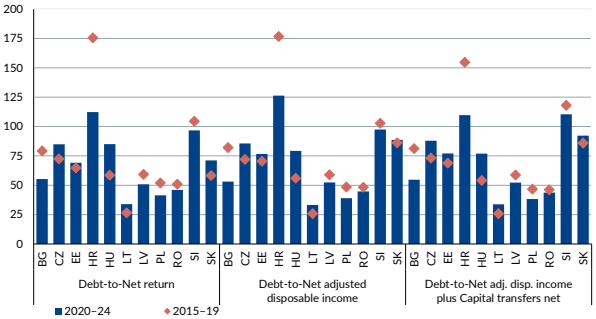
Note: Net adjusted disposable income is defined as Net disposable income before Distributed income and Reinvested earnings on FDI paid. Data for Bulgaria refers to 2020-2022.

Source: Author's calculations, Eurostat.

Chart 24b

Various debt ratio indicators (incl. trade credits and advances), 2020–2024

EU-27 = 100



Note: Net adjusted disposable income is defined as Net disposable income before Distributed income and Reinvested earnings on FDI paid. Data for Bulgaria refer to 2020–2022.

Source: Author's calculations, Eurostat.

12. Conclusions

This report reviewed trends in financing structures of nonfinancial corporations (NFCs) in 11 CESEE EU-MS, before and during the twin crises of the early 2020s (COVID-19 and energy crisis). Trends across the region were also put into a broader EU context. In addition, this report also addressed potential effects of methodological choices on data interpretation.

The **economic environment for NFCs** deteriorated between the two periods 2015–2019 and 2020–2024 taken as averages, which left its mark also on the profitability of NFCs across the region. Despite

this worsening, during 2020–24, the profitability of NFCs across the region remained substantially higher than in the EU-27 and the euro area.

Financial liabilities of NFCs as a percentage of GDP remain substantially lower in the CESEE EU-MS than in the EU-27 and the euro area, and the gap widened between 2015–2019 and 2020–2024. However, measurement issues play a role in the assessment of the changes over time, since factors like revaluations can have a significant impact on stock data. Indeed, during the period 2020–2024, the net incurrence (i.e. incurrence less repayment) of financial liabilities was larger than during the period 2015–2019 in nine of the 11 CESEE countries. Moreover, in six CESEE EU-MS, the net incurrence of total financial liabilities as a percentage of GDP was larger than in the EU-27 (EA-20) during 2020–2024.

Despite considerable cross-country variation in the size and development of NFCs' total financial liabilities across the region, **the structure of liabilities** shows important commonalities not only among the 11 CESEE countries but also compared to the EU-27 (EA-20) average.

- **Unlisted shares and other equity** make up an even larger part of NFCs' outstanding stock of financial liabilities in the CESEE EU-MS than in the EU-27 (EA-20). This is likely related to the larger share of SMEs as well as to the higher inward stock of FDI and larger share of foreign-owned enterprises. During 2020–2024, the share of this instrument increased in most of the CESEE EU-MS, suggesting that owners, including foreign direct investors, stood by their companies during the difficult economic times and supplied necessary long-term funds in the form of equity.
- NFCs across the CESEE EU-MS (as in the EU-27 and the euro area as a whole) rely heavily on **loans** for their financing. However, the outstanding stock of loans decreased as a percentage of both GDP and NFCs' total financial liabilities between 2015–2019 and 2020–2024. This finding is in line with data from bank lending surveys, which indicated a tightening of lending standards for NFC loans and a softening of loan demand by NFCs between 2015–2019 and 2020–2024.
- **Trade credits and advances** represent the third-largest category among NFCs' financial liabilities across the CESEE EU-MS, playing a much larger role than in the EU-27 or the euro area as a whole. This could be related to differences in the strength of the rule of law, as suggested also by existing literature.
- **Marketable securities, i.e. debt securities and listed shares**, play a subordinate role for the financing of NFCs across the CESEE EU-MS, which can be related to both supply- and demand-side factors (e.g. dominance of SMEs, substantial role of FDI, small size of institutional investors, larger share of household deposits held abroad in total household deposits).

Unfortunately, there is little publicly available data to assess **risks in connection with the structure and the size of NFCs' liabilities**. Available data suggest a 30–40% share of foreign currencies in total loans from MFIs in CESEE EU-MS that have not yet adopted the euro. **Measured as a percentage of GDP or the NFC sector's gross value added, the indebtedness of** NFCs – relative to the EU-27 as a whole – generally did not look excessive among the CESEE EU-MS during the period of 2020–2024. At the same time, **debt levels measured as a percentage of equity** were higher than in the EU-27, which seems to be related primarily to relatively low equity-to-GDP ratios. **Debt levels as a percentage of various profit indicators** show a more favorable picture for the CESEE EU-MS, which is attributable to the higher profitability of NFCs across the region than in the EU-27.

Annex 1: Definition of the profitability indicators used

Gross profit share is defined as Gross operating surplus/mixed income (B2G+B3G) as a percentage of GVA (B1G) of nonfinancial corporations.

Net entrepreneurial income (B4N) is defined as Net operating surplus/mixed income (B2N+B3N) plus Property income received (D4REC) minus Interest (D41PAY) and Rents (D45PAY) paid.

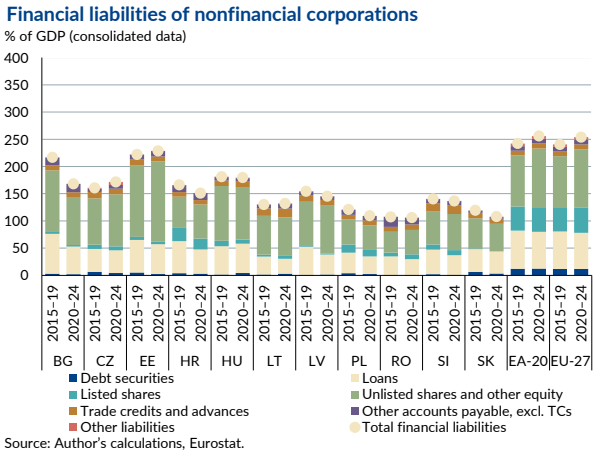
Net return is defined as Net entrepreneurial income (B4N) minus Current taxes on income, wealth, etc. paid (D5PAY).

Net disposable income is defined as Net operating surplus/mixed income (B2N+B3N) plus Property income net (D4REC-D4PAY) plus Social contributions (D61REC) and Other current transfers (D7REC) received minus Current taxes on income, wealth, etc. (D5PAY), Social benefits other than social transfers in kind (D62PAY) and Other current transfers (D7PAY) paid.

Capital employed is defined as the sum of Currency and deposits, Debt securities, Loans and Equity liabilities (AF2+AF3+AF4+AF5, liab).

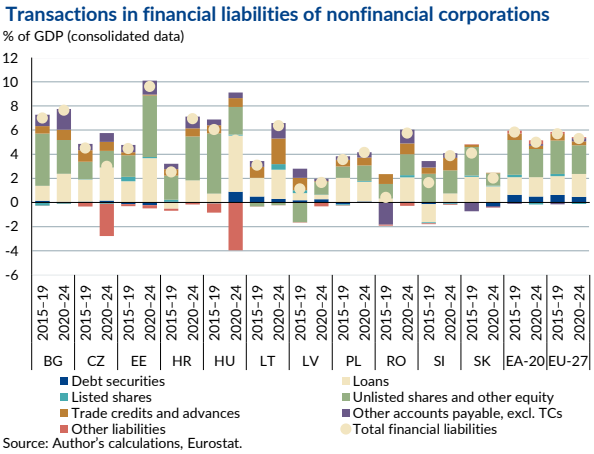
Annex 2: Selected charts based on consolidated financial accounts data[31]

Chart A1



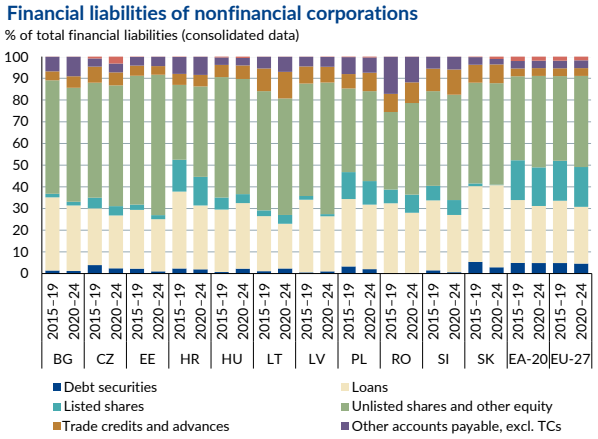
Source: Author's calculations, Eurostat.

Chart A2



Source: Author's calculations, Eurostat.

Chart A3



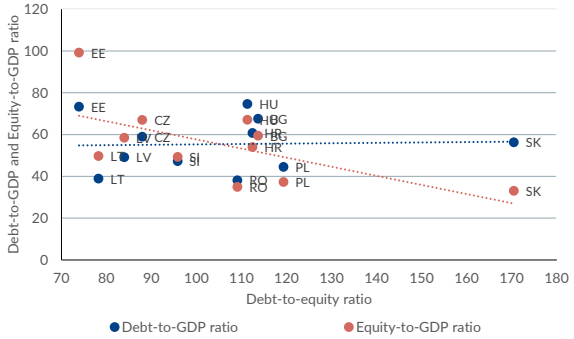
Source: Author's calculations, Eurostat.

[31] Not surprisingly, the level of financial liabilities (as a percentage of GDP) is lower on a consolidated basis than on a non-consolidated basis. The biggest differences can be observed for trade credits and advances, unlisted shares and other equity, and other accounts payable (excluding trade credits). However, there is not much difference in the size of financial liabilities relative to the euro area as a whole; the biggest difference is for other accounts payable (excluding trade credits), the size of which (as a percentage of GDP) exceeds by far the euro area average on the basis of nonconsolidated data, but is comparable to it on the basis of consolidated data. Similarly, it does not make a significant difference for the structure of financial liabilities in the CESEE EU-MS whether nonconsolidated or consolidated data are used. The biggest difference can be observed for trade credits and advances, whose share in NFCs' total financial liabilities is halved on the basis of consolidated data (for the regional average). Differences between nonconsolidated and consolidated data in the debt-to-equity ratio (relative to the EU-27) are not significant either, though some shift can be observed depending on the relative size of intrasectoral funding in debt and equity (e.g. increase in the debt-to-equity ratio in Bulgaria on the basis of consolidated data).

Chart A4

Debt-to-equity ratio and its components, 2020–2024

EU-27 = 100 (consolidated data)



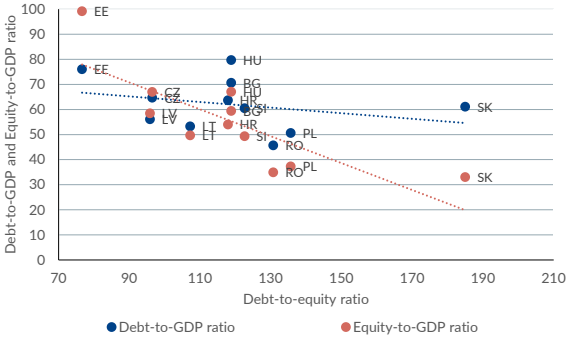
Note: Debt excluding trade credits and advances.

Source: Author's calculations, Eurostat.

Chart A5

Debt-to-equity ratio and its components, 2020–2024

EU-27 = 100 (consolidated data)



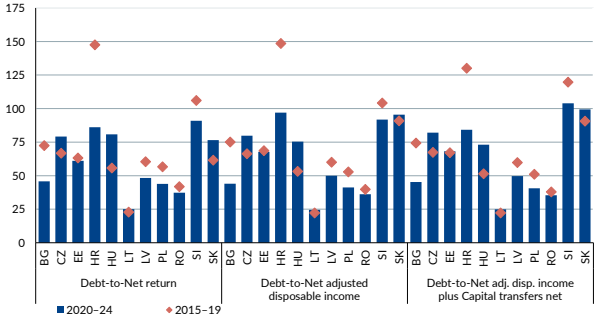
Note: Debt including trade credits and advances.

Source: Author's calculations, Eurostat.

Chart A6

Various debt ratio indicators (excl. trade credits and advances), 2020–2024

EU-27 = 100 (consolidated data)



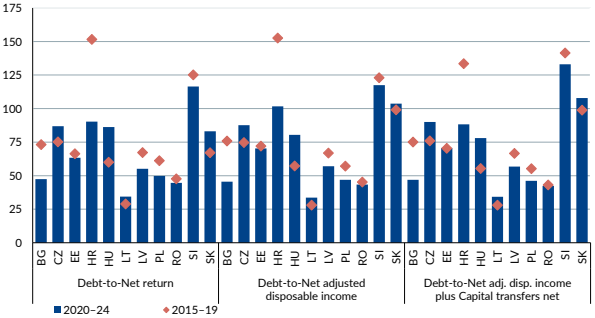
Note: Net adjusted disposable income is defined as Net disposable income before Distributed income and Reinvested earnings on FDI paid. Data for Bulgaria refer to 2020–2022.

Source: Author's calculations, Eurostat.

Chart A7

Various debt ratio indicators (incl. trade credits and advances), 2020–2024

EU-27 = 100 (consolidated data)



Note: Net adjusted disposable income is defined as Net disposable income before Distributed income and Reinvested earnings on FDI paid. Data for Bulgaria refer to 2020–2022.

Source: Author's calculations, Eurostat.

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