

CESEE Deleveraging and Credit Monitor¹

December 6, 2022

Key Developments in Portfolio Flows, BIS Banks' External Positions, and Domestic Credit

Portfolio flows to CESEE countries have remained resilient despite sustained but modest outflows in bond funds. While BIS banks have retrenched in Russia, the region has managed to attract cross-border credit. International banking groups continue to see high market potential in the region and intend to maintain or expand their level of operations. At the same time, credit growth has failed to keep up with inflation. During the next few months, credit demand will face tighter supply conditions across all business segments, particularly in mortgages.

Portfolio flows to Central, Eastern, and Southeastern Europe (CESEE) faced headwinds amid geopolitical risks and elevated inflation, but outflows remained contained.² Following the war in Ukraine, flows became highly volatile and reversed for some economies. CESEE bond funds experienced modest redemptions over the last six months reflecting heightened volatility in securities markets on the back of an increasingly uncertain economic outlook and tighter financial conditions. Despite a short-lived rebound in August, sentiment appeared to deteriorate again in September with monthly bond outflows reaching US\$ 1 billion (Figure 1). The size of portfolio outflows is far smaller than the US\$ 9 billion outflow recorded in March 2020, but persistent portfolio outflows have brought cumulative bond flows since 2018 into negative territory. Following a temporary recovery at the beginning of the year, CESEE equity funds have seen sustained negative inflows over the last six months at an average pace of US\$ 0.2 billion monthly. While the resilience of portfolio flows has defied expectations of market turmoil supported by hiking cycles and a more stable investor base, downside risks to portfolio flows remain elevated amid persistent dollar strength, market volatility, and heightened uncertainty about the economic and geopolitical outlook. Using the capital-flows-at-risk methodology, IMF

¹ Prepared by the staff of the international financial institutions participating in the Vienna Initiative's Steering Committee. It is based on the BIS Locational Banking Statistics and the latest results of the EIB Bank Lending Survey for the CESEE region.

² Data is sourced from the Emerging Portfolio Fund Research (EPFR) Global database which contains fund data for publicly available open-end funds, closed-end funds and exchange-traded products (ETPs).

analysis suggests that the probability of outflows for emerging markets over the next three quarters has risen to over 40 percent, up from 30 percent in April.³

CESEE continued to attract cross-border credit in the first half of the year despite the sharp contraction in international lending to Russia. Aggregate foreign claims of BIS banks⁴ in the CESEE stood at US\$565 billion in 2022Q2, 2.7 percent lower than at end 2021 (Figure 3, Table 1). This moderate deleveraging was triggered by reduced exposures to Russia. Excluding Russia and Turkey, cross-border claims increased by 0.8 percent equivalent to 17.0 percent of the region's GDP, up from the 16.1 percent recorded in the last half of 2021. During 2021H2, the largest increase in BIS banks' exposures was observed in the Czech Republic where cross-border claims rose by US\$13.1 billion (4.4 percent of GDP) driven by a surge in bank assets supported by a slight increase in exposures to non-banks (Figure 4, Table 2). By contrast, BIS-reporting banks cut back cross-border lending to Russia by US\$10.2 billion (0.5 percent of GDP), particularly to non-banks. The retrenchment of BIS banks' exposure to Turkey which had started in 2018Q3, slowed down during the first three quarters of 2021, and accentuated in the last half of 2021, reversed its course in 2022 with cross-border claims rising by US\$2.2 billion (0.3 percent of GDP), supported by increasing exposures to banks.

As of June 2022, BIS banks continued to be mostly exposed to Turkey, Poland, Czech Republic, and Russia. Foreign bank funding to Turkey stood at US\$117 billion, or about a fifth of the BIS-reporting banks' exposure to CESEE (Figure 4). After Turkey, BIS-reporting banks are mostly exposed to Poland (US\$102 billion), and Czech Republic (US\$101 billion). Exposures to Russia are still significant at US\$75 billion, despite the US\$10.2 billion reduction recorded in 2022H1 (Table 1). On a consolidated basis, the country with the largest exposure to Turkey is Spain (US\$55 billion), followed by France (US\$23 billion), Germany (US\$14 billion), and the United Kingdom and the United States (US\$11 billion and US\$10 billion, respectively) (Figure 5).

Most CESEE countries experienced funding increases by BIS-reporting banks in 2021H2. BIS banks increased their cross-border flows particularly to Czech Republic (4.4 percent of GDP), Hungary (3.8 percent of GDP), Slovakia (3.5 percent of GDP), and Macedonia (3.4 percent of GDP). Scaled by the size of the receiving economy, outflows exceeded 0.3 percent of GDP only in four countries: Bosnia and Herzegovina, Russia, Belarus, and Moldova (Figure 6). In these countries (except Moldova), funding reductions on claims on banks reinforced credit contraction

³ Global Financial Stability Report (2022), "Financial Stability in the New High-Inflation Environment", Chapter 1, October.

⁴ The sample includes banks in Australia, Austria, Bahrain, Belgium, Bermuda, Canada, Cayman Islands, Chile, China, Cyprus, Denmark, Finland, France, Germany, Greece, Guernsey, Hong Kong SAR, India, Indonesia, Ireland, Italy, Japan, Jersey, Korea, Luxembourg, Macao SAR, Malaysia, Mexico, Netherlands, Norway, Panama, Philippines, Portugal, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan Province of China, Turkey, the United Kingdom, and the United States. This note uses terms "BIS-reporting banks" and "Western banks" interchangeably, as CESEE financial linkages with non-European banks are negligible.

to non-banks (Figure 7). In some countries, BIS banks showed differentiated patterns across portfolios. BIS banks increased their exposure to banks in seven countries, notwithstanding reductions in non-bank claims, most notably in Latvia, where cross-border flows to banks (1.5 percent of GDP) partially offset the observed deleveraging to non-banks (-1.1 percent of GDP). Only in Slovenia and Serbia BIS banks reduced lending to banks, despite increasing cross-border claims on non-banks.

Balance of payment (BoP) data suggest stronger inflows to the region than those implied by the rise in cross-border lending by BIS reporting banks. During the first quarter of 2022, BIS external funding increased by 0.4 percent of regional GDP. This rate was exceeded by the 1.5 percent of GDP expansion in 'other investment flows' recorded in BoP data (Figure 8). The largest increase in BoP liabilities was registered in Slovakia (8.3 percent of GDP) followed by Czech Republic (5.3 percent of GDP) and Estonia (4.4 percent). For several countries (Slovak Republic, Estonia), the difference between BoP flows and changes in BIS banks' external exposure is sizeable, suggesting additional inflows from sources other than BIS reporting banks (e.g., deposits from non-residents, trade credit, other loans). For countries like Russia, Belorussia, and Lithuania, both BoP data and BIS data point at cross-border outflows in 2022Q1. Yet in Lithuania, BIS first quarter outflows turned into inflows in the second quarter, leading to a cumulative expansion in BIS lending through June 2022.

Since the war in Ukraine, real credit growth has remained negative as inflationary pressures outpaced the expansion in nominal credit. (Figure 9). Real credit growth in the region, excluding Russia and Turkey, contracted by 8.6 percent in September 2022 year-on-year, from -1.8 percent in March. This is on the back of elevated inflation at 16.2 percent which outstripped the 7.6 percent pace in nominal credit growth. Adding Turkey, the aggregate picture becomes bleaker at -20 percent real credit growth. In all countries, except Ukraine, year-on-year nominal credit growth turned positive but failed to keep up with inflation. In Ukraine, a nominal contraction of 2 percent credit in August 2022 added to inflationary pressures of 24 percent resulting in a one fourth real credit contraction. The overall trend masks significant cross-country variation mainly reflecting differences in inflation developments (Figure 10). In Turkey, nominal credit growth increased to around 40 percent in August 2022 below the two-decade high inflation rate which peaked at 80 percent. Domestic credit to the private sector in Moldova was reported at 10 percent dwarfed by the 1/3 rise in inflation. Focusing on credit developments by segment, household nominal credit growth halved to 4.0 percent in August from 8.5 percent before the war, leading to a real growth rate contraction of 12 percent. Meanwhile, lending to businesses remained relatively more resilient, increasing its nominal pace since the Russian invasion to 14 percent but shrinking by 2 percent in real terms. The reduction in corporate credit was significant in Moldova where the 30 percent real decline was twice the rate of negative household credit growth.

CESEE banks continued to rely mainly on domestic deposits to fund credit activity during the second quarter of 2022. CESEE banks managed to tap into foreign bank funding in 2022 after three years of withdrawals. Notwithstanding positive developments in foreign bank funding, growth in domestic deposits remained the most significant source of balance sheet expansion (Figure 11), particularly in Estonia, where foreign funding contracted by 6 percent, partly offsetting the 8 percent rise in domestic deposits (Figure 12).

Key Messages – EIB CESEE Bank Lending Survey: Autumn 2022⁵

The EIB CESEE Bank Lending Survey (BLS), covering the period April 2022 to September 2022 and expectations for the period October 2022 to March 2023, analyzes the lending activity trends in the CESEE region and the attitude of cross-border banking groups towards the region. It finds that cross-border banking groups operating in CESEE continue to see high or medium market potential for their business in the region. However, during the next months, still resilient credit demand will be confronted with tighter supply conditions, with also potential increases in non-performing loans (NPLs).

The results of the CESEE Bank Lending Survey – whose information was collected in September 2022 - show that **credit demand** from banks' clients has remained strong and is expected to remain benign. However, its composition has changed, with working capital (reflecting firms' liquidity needs) now the main driver, while fixed investments and retail segments are expected to contribute negatively (Figure 13).

Credit supply has been deteriorating and is expected to weaken further across all business segments, mortgages in particular (Figure 14).

The deterioration of **credit quality** expected during the last round of the survey did not materialize: Credit quality has evolved favorably over the last six months. However, consistently with the deteriorating global economic environment, banks again expect an increase in non-performing loans, affecting the retail and corporate sectors (Figure 15).

In terms of **funding**, banking groups expect the current benign funding environment to remain in place, driven especially by retail and corporate funding (Figure 16).

Parent banks in CESEE countries have maintained (80%) or increased (10%) their **exposure** during the last six months⁶. But 10% of parent banks have reduced their exposure, either through selling assets and branches or restructuring activities

⁵ A full report with regional and country chapters of the EIB Autumn 2022 CESEE Bank Lending Survey will be published in December 2022 on the EIB dedicated webpage http://www.eib.org/about/economic-research/surveys.htm.

⁶ Russia and Ukraine are not covered by the current run of the survey.

Cross-border banking groups continue to see high or medium market potential in most of the region's banking markets, with highest potential in the Czech Republic and Romania. In most cases, profitability is higher for regional subsidiaries than the overall group (Poland is the only exception). Looking at the Groups long-term strategies (beyond 12 months), more than half of banking groups intend to maintain their level of operations in the region, while almost one-third intend to selectively expand operations. However, 10% of banking groups (compared to zero in the previous edition of the survey) are signaling their intention to selectively reduce activities (Figure 17).

Figure 1. CESEE: Monthly Portfolio Flows, January 2015-October 2022

(Billions of US\$)

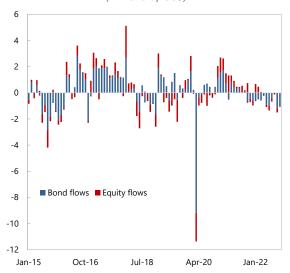


Figure 3. CESEE: External Positions of BISreporting Banks, 2007Q1-2022Q2

(Billions of US\$, exchange-rate adjusted, vis-à-vis all sectors)

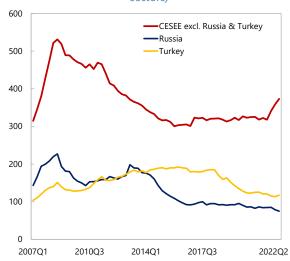


Figure 2. CESEE: Cumulative Portfolio Flows (Billions of US\$; cumulative weekly flows from April 4,

2018, until November 23, 2022)

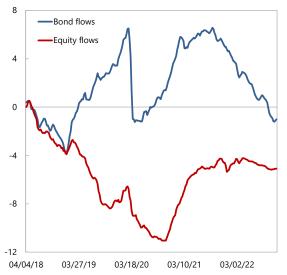
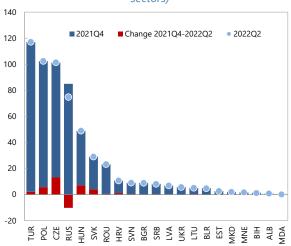


Figure 4. CESEE: External Positions of BIS-reporting Banks, 2022Q1–2022Q2

(Billions of US\$; exchange-rate adjusted, vis-à-vis all sectors)



Sources: BIS, Locational Banking Statistics; EPFR Global; and IMF, World Economic Outlook, and IMF staff calculations. Note: In Figure 1 and 2 fund flows are net inflows into EM-dedicated investment funds, including mutual funds and ETFs, as reported by EPFR Global. Data labels in the figures use International Organization for Standardization (ISO) country codes.

Figure 5. BIS Reporting Banks: Consolidated Exposure to Turkey, 2022Q2

(Total claims on intermediate counterparty basis, vis-àvis all sectors; billions of US\$)

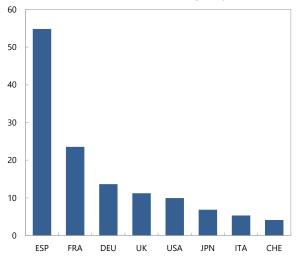


Figure 7. CESEE: External Positions of BISreporting Banks, 2022H1

(2022H1 flows as percent of 2020 GDP)

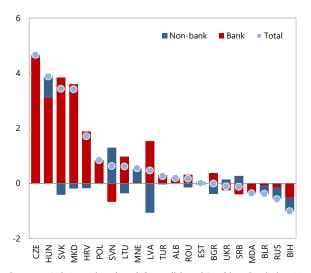


Figure 6. CESEE: External Positions of BISreporting Banks, 2022Q1-2022Q2

(Cumulative change from previous quarter; percent of GDP)

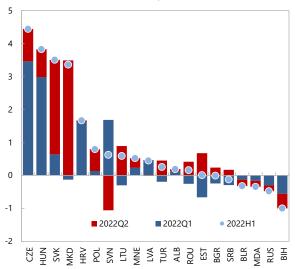
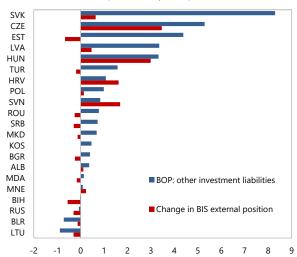


Figure 8. CESEE: Change in BIS External Positions and Other Investment Liabilities, 2022Q1

(Percent of GDP)



Sources: BIS, Locational and Consolidated Banking Statistics; Haver Analytics; and IMF, World Economic Outlook, and IMF staff calculations.

Note: Data labels in the figures use International Organization for Standardization (ISO) country codes.

Figure 9. CESEE: Credit to Private Sector, January 2013–August 2022

(Percent change, year-over-year, real, exchange-rate adjusted, GDP-weighted)

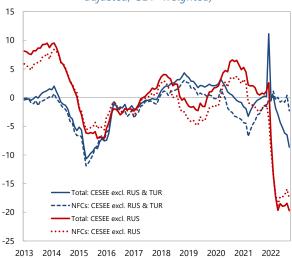


Figure 11. CESEE: Main Bank Funding Sources, 2007Q1–2022Q2

(Percent of GDP, year-on-year, exchange-rate adjusted)

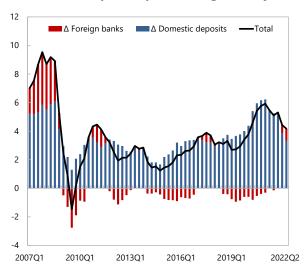


Figure 10. CESEE: Growth of Credit to Households and Corporations, August 2022

(Percent, year-on-year, real, exchange-rate adjusted)

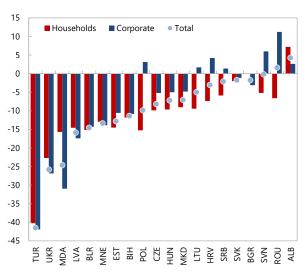
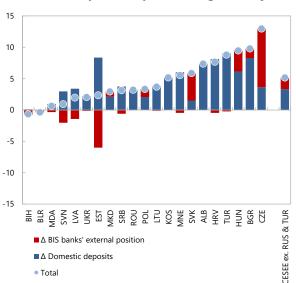


Figure 12. CESEE: Main Bank Funding Sources, 2022Q2

(Percent of GDP, year-over-year, exchange-rate adjusted)



Sources: National authorities; BIS; ECB; EBRD; and IMF, Monetary and Financial Statistics, and IMF staff calculations. Note: Data labels in the figures use International Organization for Standardization (ISO) country codes. Data for Russia is unavailable starting February 2022.

Figure 13. Total Supply and Demand, Past and Expected Development (Net percentages; positive figures refer to increasing (easing) demand (supply))

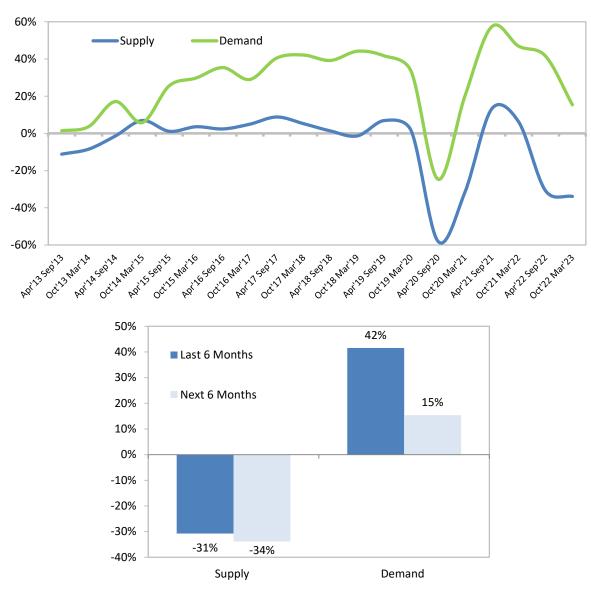


Figure 14. Factors Contributing to Supply Conditions (Credit Standards)

(Net percentage; positive figures refer to a positive contribution to supply)

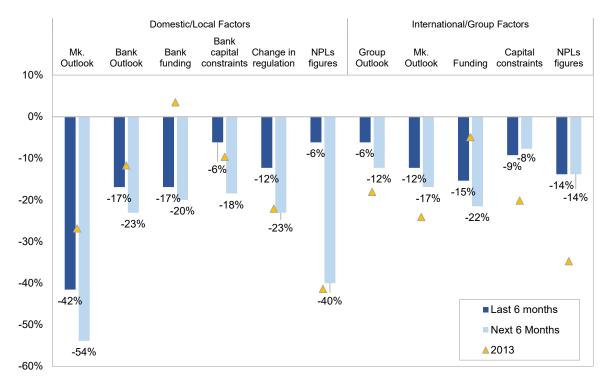


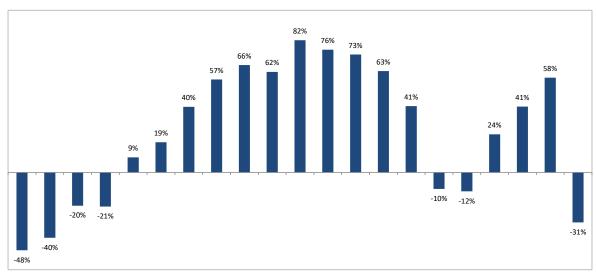
Figure 15. Non-performing Loan Ratios

(Net percentage; negative figures indicate increasing NPL ratios)

Last Run of the Survey

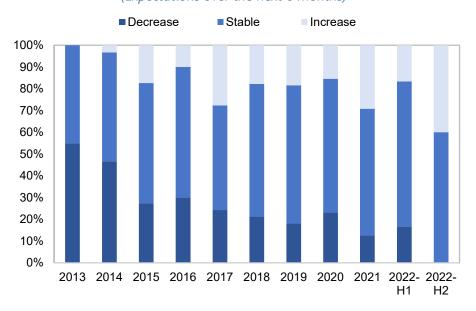


Trend over time Total NPL



Octi12 Aprila Octi13 Aprila Octi13 Aprila Octi14 Aprila Octi14 Aprila Octi14 Aprila Octi15 Aprila Oc

Figure 16. Deleveraging: Loan-to-deposit Ratio (Expectations over the next 6 months)



Source: EIB, CESEE Bank Lending Survey.

Figure 17. Group-level Long-term Strategies in CESEE: Beyond 12 Months (Triangles refer to average outcomes between 2013 and 2020)

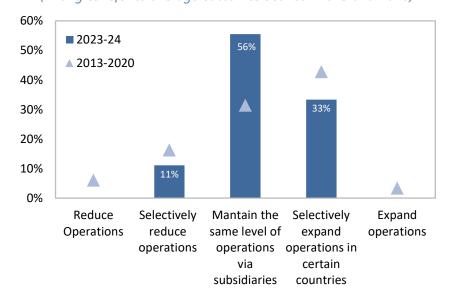


Table 1. CESEE: External Position of BIS-reporting Banks, 2020H2 – 2022H2

(Vis-à-vis all sectors, based on the full sample of BIS-reporting banks)

	2022H1	stocks	Exc	hange-rate	adjusted j	flows (US\$r	n)	Excha	Exchange-rate adjusted flows (% of GDP)								
	US\$ m	% of GDP	2020H2	2021H1	2021H2	2022H1	Total	2020H2	2021H1	2021H2	2022H1	Total	2020H2	2021H1	2021H2	2022H1	Total
Albania	760	4.2	-128	-208	105	35	-196	-13.4	-25.1	16.9	4.8	-20.5	-0.8	-1.1	0.6	0.2	-0.5
Belarus	4,768	6.0	-354	135	-773	-258	-1,250	-5.9	2.4	-13.3	-5.1	-20.8	-0.6	0.2	-1.1	-0.3	-1.9
Bosnia-Herzegovina	1,131	4.8	-82	-230	-127	-237	-676	-4.5	-13.3	-8.5	-17.3	-37.4	-0.4	-1.0	-0.5	-1.0	-3.9
Bulgaria	8,951	10.5	595	-917	1,036	-6	708	7.2	-10.4	13.1	-0.1	8.6	0.9	-1.1	1.3	0.0	1.2
Croatia	10,740	15.5	-1,344	1,032	-2,246	1,158	-1,400	-11.1	9.6	-19.0	12.1	-11.5	-2.3	1.5	-3.3	1.7	-5.7
Czech Republic	101,445	34.3	-4,441	-409	14,160	13,142	22,452	-5.6	-0.5	19.1	14.9	28.4	-1.8	-0.1	5.0	4.4	2.5
Estonia	2,664	6.8	-543	-174	-2,486	3	-3,200	-9.3	-3.3	-48.3	0.1	-54.6	-1.7	-0.5	-6.7	0.0	-8.0
Hungary	48,964	26.5	-3,901	3,793	6,503	7,070	13,465	-11.0	12.0	18.4	16.9	37.9	-2.5	2.1	3.6	3.8	7.5
Latvia	6,940	17.1	183	-1,766	1,937	183	537	2.9	-26.8	40.2	2.7	8.4	0.5	-4.5	5.0	0.5	1.3
Lithuania	5,170	7.6	727	-869	-884	402	-624	12.5	-13.3	-15.6	8.4	-10.8	1.3	-1.3	-1.3	0.6	-1.2
North Macedonia	2,008	14.2	-30	469	-407	474	506	-2.0	31.9	-21.0	30.9	33.7	-0.2	3.4	-2.9	3.4	0.5
Moldova	109	0.8	-3	-101	-1	-49	-154	-1.1	-38.8	-0.6	-31.0	-58.6	0.0	-0.7	0.0	-0.3	-0.8
Montenegro	1,732	28.3	20	-185	-32	32	-165	1.1	-9.7	-1.8	1.9	-8.7	0.4	-3.2	-0.5	0.5	0.8
Poland	102,502	14.3	10,829	-289	3,713	5,708	19,961	13.1	-0.3	4.0	5.9	24.2	1.8	0.0	0.5	0.8	1.3
Romania	23,311	7.8	3,080	-1,637	-990	480	933	13.8	-6.4	-4.2	2.1	4.2	1.2	-0.6	-0.3	0.2	0.2
Russia	74,846	3.5	-3,138	1,440	1,050	-10,198	-10,846	-3.7	1.7	1.3	-12.0	-12.7	-0.2	0.1	0.1	-0.5	-0.7
Serbia	8,139	13.0	-401	-493	546	-77	-425	-4.7	-6.0	7.1	-0.9	-5.0	-0.8	-0.8	0.9	-0.1	-0.2
Slovakia	29,100	25.9	-1,987	-871	683	3,944	1,769	-7.3	-3.4	2.8	15.7	6.5	-1.9	-0.8	0.6	3.5	4.1
Slovenia	9,057	14.6	-74	-320	-2,272	388	-2,278	-0.7	-2.8	-20.8	4.5	-20.1	-0.1	-0.5	-3.7	0.6	-1.3
Türkiye	117,179	14.0	1,566	-4,106	-5,660	2,151	-6,049	1.3	-3.3	-4.7	1.9	-4.9	0.2	-0.5	-0.7	0.3	-2.6
Ukraine	5,663		28	120	180	-213	115	0.5	2.2	3.2	-3.6	2.1	0.0	0.1	0.1		-0.5
CESEE	565,179	10.9	602	-5,586	14,035	27,573	-5,803	0.1	-1.0	2.7	4.5	6.2	0.0	-0.1	0.3	0.6	0.8
CESEE ex. RUS & TUR	373,154	17.0	2,174	-2,920	18,645	40,697	24,108	0.7	-0.9	5.8	9.4	15.5	0.1	-0.2	1.1	1.9	2.9

Sources: BIS, Locational and Consolidated Banking Statistics; Haver Analytics; and IMF, World Economic Outlook, and IMF staff calculations.

Table 2. CESEE: External Position of BIS-reporting Banks, 2020H2 – 2022H2

(Exchange rate adjusted flows, based on the full sample of BIS-reporting banks)

	2022H1		Assets - Banks				Assets - Non-banks						ans - Ban	ks	Loans - Non-Banks							
	US\$ m %	of GDP	2020H2	2021H1	2021H2	2022H1	Total	2020H2	2021H1	2021H2	2022H1	Total	2020H2	2021H1	2021H2	2022H1	Total	2020H2	2021H1	2021H2	2022H1	Total
Albania	35	0.2	2	-172	8	20	-142	-130	-36	97	15	-54	-11	-2	6	13	6	-128	-25	85	4	-64
Belarus	-258	-0.3	-17	9	-245	-54	-307	-337	126	-528	-204	-943	2	-41	-256	-59	-354	-243	110	-519	-211	-863
Bosnia-Herzegovina	-237	-1.0	-89	-209	-60	-121	-479	7	-21	-67	-116	-197	-112	-204	3	-80	-393	7	-24	-65	-116	-198
Bulgaria	-6	0.0	475	-697	971	302	1,051	120	-220	65	-308	-343	359	-77	847	335	1,464	-168	-327	- <i>7</i> 5	-36	-606
Croatia	1,158	1.7	-39	784	-1,593	1,277	429	-1,305	248	-653	-119	-1,829	-95	772	-1,364	1,304	617	-1,458	-81	-577	199	-1,917
Czech Republic	13,142	4.4	-1,635	-1,211	15,395	12,838	25,387	-2,806	802	-1,235	304	-2,935	-12,226	4,128	4,381	23,235	19,518	-989	-19	-708	2,077	361
Estonia	3	0.0	-234	-258	-2,400	24	-2,868	-309	84	-86	-21	-332	-371	-296	-197	-172	-1,036	-88	13	-102	-235	-412
Hungary	7,070	3.8	-3,635	376	995	5,647	3,383	-266	3,417	5,508	1,423	10,082	-3,169	181	-442	1,284	-2,146	-771	4,307	3,330	2,021	8,887
Latvia	183	0.5	340	-782	-1,180	597	-1,025	-157	-984	3,117	-414	1,562	332	-842	-630	569	-571	-68	-1,082	-146	-185	-1,481
Lithuania	402	0.6	599	-779	-727	638	-269	128	-90	-157	-236	-355	575	-802	90	597	460	-153	127	-279	60	-245
North Macedonia	474	3.4	-7	437	-379	500	551	-23	32	-28	-26	-45	-28	496	-441	512	539	21	9	-34	10	6
Moldova	-49	-0.3	3	-74	1	-46	-116	-6	-27	-2	-3	-38	9	-6	-1	1	3	-6	-26	-2	-3	-37
Montenegro	32	0.5	20	-135	-30	2	-143	0	-50	-2	30	-22	13	-63	-27	-1	-78	-49	7	27	17	2
Poland	5,708	0.8	8,202	-1,180	3,352	5,802	16,176	2,627	891	361	-94	3,785	8,965	-3,649	1,586	1,530	8,432	747	1,681	2,260	1,027	5,715
Romania	480	0.2	2,202	32	-973	896	2,157	<i>878</i>	-1,669	-17	-416	-1,224	1,853	-39	-1,198	331	947	570	-1,384	-417	11	-1,220
Russia	-10,198	-0.5	-746	3,365	2,221	-2,858	1,982	-2,392	-1,925	-1,171	-7,340	-12,828	-676	3,001	3,250	-3,491	2,084	-2,216	-1,435	-403	-4,883	-8,937
Serbia	-77	-0.1	-536	-455	-144	-250	-1,385	135	-38	690	173	960	-666	-139	-141	171	- <i>775</i>	-53	198	911	550	1,606
Slovakia	3,944	3.5	-1,208	-974	1,137	4,419	3,374	-779	103	-454	-475	-1,605	-1,107	-958	1,212	3,728	2,875	17	120	-167	277	247
Slovenia	388	0.6	380	-746	-922	-414	-1,702	-454	426	-1,350	802	-576	324	69	-928	-47	-582	-74	63	142	8	139
Türkiye	2,151	0.3	2,829	-3,805	-4,408	2,460	-2,924	-1,263	-301	-1,252	-309	-3, 125	3,358	-2,995	-2,487	759	-1,365	-2,099	2,033	-902	1,486	518
Ukraine	-213 .		-248	309	209	-503	-233	276	-189	-29	290	348	-90	86	121	-118	-1	351	-362	415	472	876
CESEE	24,132	0.5	6,658	-6,165	11,228	31,176	42,897	-6,056	<i>579</i>	2,807	-7,044	-9,714	-2,761	-1,380	3,384	30,401	29,644	-6,850	3,903	2,774	2,550	2,377
CESEE ex. RUS & TUR	32,179	1.5	4,575	-5,725	13,415	31,574	43,839	-2,401	2,805	5,230	605	6,239	-5,443	-1,386	2,621	33,133	28,925	-2,535	3,305	4,079	5,947	10,796

Sources: BIS, Locational and Consolidated Banking Statistics; Haver Analytics; and IMF, World Economic Outlook, and IMF staff calculations.