Economic Commentary

Mapping the interconnectedness of Swedish credit institutions – Foreign exposures

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NO 4 2026, 25 June

SVERIGES RIKSBANK

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Summary

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Extending our previous analysis (Blix Grimaldi et al. 2026) on the network of domestic exposures across Swedish credit institutions, this Economic Commentary examines another dimension of the interconnectedness of these institutions by shifting the focus to foreign exposures. Using supervisory COREP large-exposure data, we map the bilateral linkages between Swedish credit institutions and foreign financial institutions.

Our results suggest that a large share of the total large exposures of Swedish credit institutions' towards financial institutions is directed towards foreign financial institutions. The geographical distribution of foreign exposures is concentrated in the Nordic region for small and medium-sized Swedish banks, whereas it is more diversified across the world for large banks. Similarly to the pattern observed for domestic exposures, debt instruments account for most foreign exposures.

We also identify the banks within the Swedish banking system that hold the largest foreign exposures or have the most significant exposures to key foreign counterparties. Our findings indicate that large Swedish banks play a central role not only in channelling exposures within the domestic banking network but also in transmitting risks across borders.

1 Introduction

In the companion paper Blix Grimaldi et al. (2026), the analysis focused on the domestic interconnectedness of Swedish credit institutions using the supervisory COREP large exposure data. This Economic Commentary complements and extends that analysis by documenting the cross-border linkages of Swedish credit institutions vis-a-vis foreign counterparties. The analysis remains primarily descriptive and aims at visualizing the geographical distributions of exposures, highlighting concentration patterns and identifying institutions that play a central role in the network.

Mapping foreign exposures is a necessary step towards understanding the external dimension of the Swedish financial system. While the present analysis does not explicitly assess risk or model contagion dynamics, it provides an empirical foundation for

[1] The authors would like to thank David Forsman and Olof Sandstedt and seminar participants at the Riksbank for valuable comments. The views expressed in this Economic Commentary represent the authors' own opinions and should not be regarded as the Riksbank's view on the issues concerned.

future work on cross-borders spillovers, the transmission of shocks and the interaction between domestic and foreign financial networks.

Taken together with the aforementioned analysis of domestic exposures, this Economic Commentary contributes to the development of a framework for analysing contagion risk in the increasingly interconnected and globally integrated Swedish financial system.

2 Overview of foreign exposures

The COREP large exposure data in this study are the same as those in Blix et al. 2026 on domestic exposures.[2] This means that the scope of counterparties is defined as only including foreign financial institutions, and that bank reserves at central banks or holdings of debt instruments issued by general governments are excluded from the total exposures.

In contrast to the domestic exposures data, which captures both inward and outward domestic exposures of credit institutions within the Swedish banking system, the foreign exposures considered here are limited to the outward exposures of Swedish credit institutions towards foreign financial institutions, of which 94% are foreign credit institutions[3]. This limitation reflects the structure of the reporting framework. Data on inward exposures from foreign institutions to Swedish institutions are reported to foreign financial supervisory authorities and therefore not available.

The sample comprises 109 Swedish credit institutions over the period 2021Q2 to 2025Q3. It includes 3 large, 15 medium-sized and 91 small banks, see Table 1 for descriptive statistics. Over the sample period, we identify on average 394 unique outward large exposures from Swedish credit institutions to foreign institutions per period, accounting for 35 per cent of the total number of combined domestic and foreign exposures. Foreign exposures amount to 440 billion kronor, corresponding to 40 per cent of the total value of domestic and foreign exposures combined. Notably, the three large banks account for the largest share of foreign exposures in value terms whereas smaller banks exhibit the highest number of connections to foreign counterparties.

[2] A detailed description on the COREP large exposure data can be found in Blix Grimaldi et al. (2026).

[3] The data is consolidated at the group level. Branches and subsidiaries of foreign banks operating in Sweden are treated as foreign financial institutions. The remaining 6% are classified as financial corporations other than credit institutions and investment firms.

Table 1. Summary statistics of large exposure data

Swedish bank category	Number of institutions	Total assets	Tier 1 capital	Domestic exposures		Foreign exposure	
				Number	Volume	Number	Volume
Large	3	9 449	518	23	156	60	252
Medium	15	3 849	182	87	407	99	150
Small	91	1 002	117	624	111	235	38
All	109	14 300	818	734	674	394	440

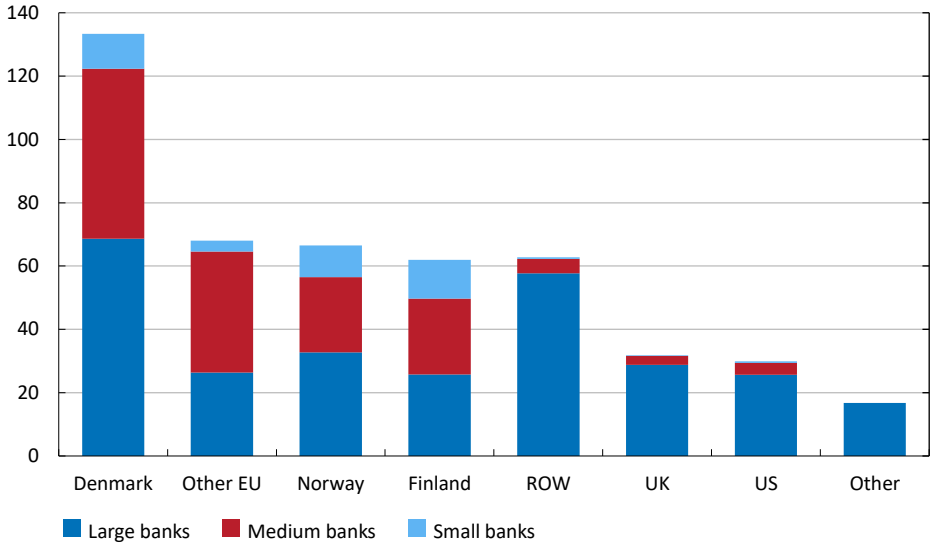
Note. Total assets, Tier 1 capital, total domestic exposures and total foreign exposures are quoted in billion Swedish kronor. Data refers to the average across the sample periods.

Source: The Riksbank.

The geographical distribution of foreign exposures, displayed in Figure 1, reveals a pattern concentrated in the Nordic region, with exposures to Denmark, Norway and Finland accounting for 60 per cent of total foreign exposures. For medium-sized and small banks, foreign exposures are predominantly concentrated within the European Union. By contrast, large banks have a more globally diversified exposure profile.

Figure 1. Foreign exposures by geographical regions

SEK billion



Note. ROW refers to rest of the world. Other refers to exposures lacking information on geographical regions. Data refers to the average across the sample periods

Source: The Riksbank.

3 Foreign exposures by instrument type

As shown in Table 2, a breakdown of foreign exposures by instrument type suggests a clear dominance of debt instruments, in line with the pattern observed for domestic exposures. For medium-sized and small banks, debt instruments account for more

than 90 per cent of their total foreign exposures, while the corresponding share for large banks is somewhat lower but remains substantial at 77 per cent.

Table 2. Swedish banks' large foreign exposures by instrument type, SEK million

	Swedish bank category			
	All banks	Large banks	Medium banks	Small banks
Total	439 250	252 000	150 220	38 130
Debt instruments	369 000	196 000	136 000	36 000
Equity instruments	250	0.15	220	30
Derivatives	39 000	30 000	8 000	2 000
Off-balance sheet items	31 000	26 000	6 000	100

Note. Data refers to the average across the sample periods.

Source: The Riksbank.

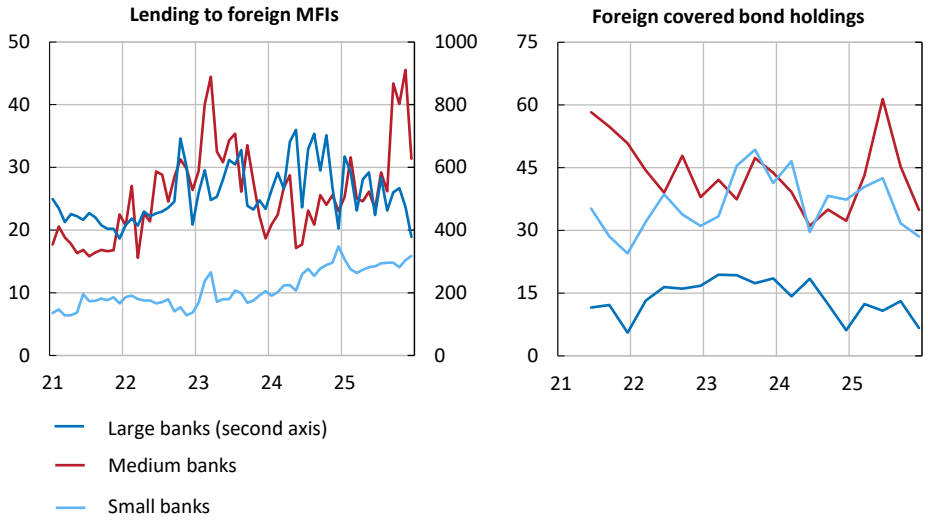
Other instrument types play a comparatively limited role. Equity instruments are negligible, particularly for large banks. Derivatives and off-balance sheet exposures account for 8 and 7 per cent of total foreign exposures, respectively. They are primarily concentrated in the foreign exposures of large banks.

The COREP large exposure data provide information only on the aggregate level of debt instruments and do not allow for a further breakdown by specific debt instrument type. As a complement, we therefore obtain aggregate statistics by bank group on the total lending to foreign monetary financial institutions (MFIs) and foreign covered bond holdings from Statistic Sweden and other internal data sources (Figure 2).

Based on the MFIs' data, it appears that for large Swedish banks, COREP foreign exposures in debt instruments predominantly reflect interbank lending to foreign MFIs.. For small banks, such exposures are mainly associated with holdings of foreign covered bonds. For medium-sized banks, foreign debt exposures appear to contain a combination of interbank lending to foreign MFIs and partly of foreign covered bond holdings, alongside a smaller share of other foreign debt instruments.

Figure 2. Interbank lending and covered bond holdings of foreign counterparties by the Swedish banking system

SEK billion



Note. In the right hand figure all bank categories share the same axis.

Sources: Statistics Sweden and The Riksbank.

4 The network structure of Swedish banks' foreign exposures

In this section, we map the network of Swedish banks and their foreign counterparties. Figure 3 illustrates the network when defined in terms of total foreign exposures as well as in debt instruments, disaggregated by Swedish bank category. In each network graph in Figure 3, nodes on the inner circle represent Swedish credit institutions while nodes on the outer circle represent foreign financial institutions. Directed links (arrowed lines) indicate exposures from Swedish credit institutions to their foreign counterparties. The thickness of each line reflects the average size of these exposures over the sample period 2021Q2-2025Q3.

Institutions are identified using letter-based aliases. Large institutions are assigned single-letter identifiers, medium-sized institutions two-letter identifiers and smaller institutions three-letter identifiers. [4]

Across the six graphs in Figure 3, we identify the top ten foreign counterparties to which Swedish banks have the largest outward exposures. These foreign institutions are labelled "F" followed by three-digit identifiers.

The network visualizations reveal several interesting structural features. First, the networks based on foreign debt instrument exposures closely mirror the networks of total foreign exposures across all bank categories, reflecting the dominant role of debt

[4] The aliases for smaller banks are omitted in Figure 3e and 3f due to space limitation.

linkages between Swedish banks and their foreign counterparties. This implies that shocks are likely transmitted primarily through debt markets or interbank lending.

Changes in funding conditions of key foreign counterparties or credit market stress in foreign countries could therefore have implications for Swedish banks. The close correspondence between debt and total exposure networks also suggests that debt-focused analyses capture most of the channels through which cross-border contagion may spread. At the same time, derivatives exposures are reported on a net basis in COREP, implying that the potential for contagion through derivatives may be understated.

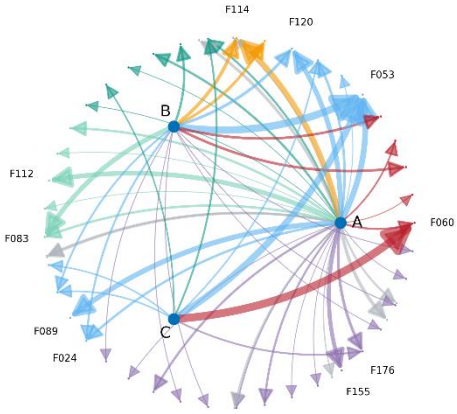
Second, consistent with the geographical patterns discussed in Section 2, the network structure also reveals a strong concentration within the Nordic region, especially for medium-sized and small banks. While this regional concentration reflects close longstanding economic and institutional ties among the Nordic countries and well-integrated financial markets, it also increases vulnerability to regional shocks. Thus, adverse developments in one Nordic banking system or economy may quickly propagate into the Swedish banking system through these dense linkages.

Notably, this concentration is not only regional but also institution-specific with exposures clustered towards a relatively small number of foreign counterparties. Based on the aliases for the identified top 10 counterparties, several foreign institutions appear repeatedly across the subfigures in Figure 3, indicating that they play a key role in the network and remain important from a monitoring perspective..

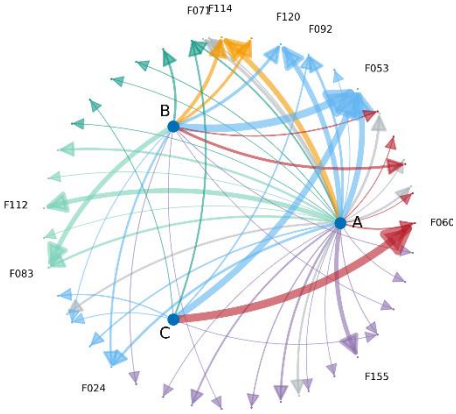
In addition, there is a clear asymmetry among Swedish credit institutions within each category in terms of both the number and size of their foreign exposures. For example, among the three large banks, bank A has much more linkages towards foreign institutions than banks B and C. Bank C has instead two particularly large exposures of significantly greater size.

Figure 3. Network illustration of total foreign exposures and foreign exposures in debt instruments by Swedish bank category

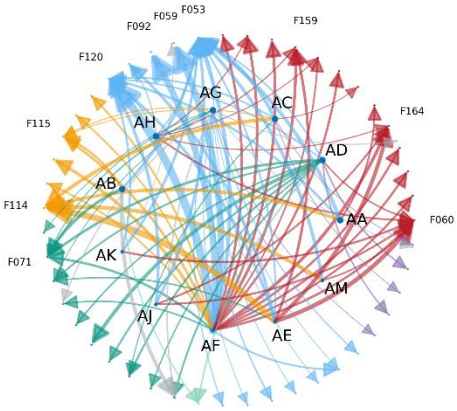
a. Large banks, total foreign exposures



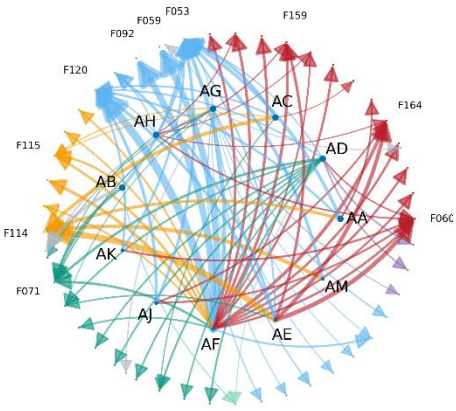
b. Large banks, debt instruments



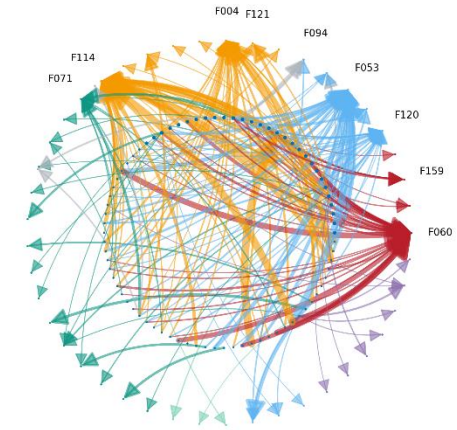
c. Medium banks, total foreign exposures



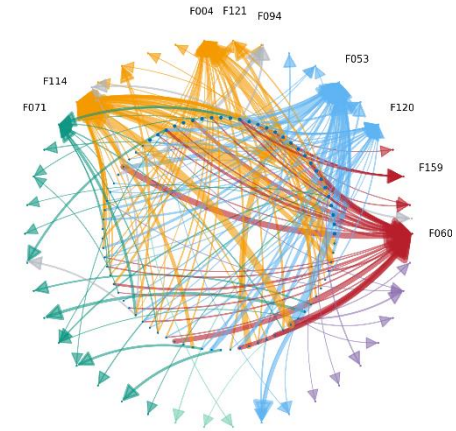
d. Medium banks, debt instruments



e. Small banks, total foreign exposures



f. Small banks, debt instruments



NO FI UK ROW
DK Other EU US Unknown

Note. Each node on the inner circle represents a Swedish credit institution. Each node on the outer circle represents a foreign financial institution. The arrowed lines represent foreign exposures from Swedish credit institutions to foreign financial institutions. The thickness of the arrowed lines reflects the average size of the foreign exposures during the sample period of 2021Q2-2025Q3. ROW refers to rest of the world. Other refers to exposures lacking information on geo-graphical regions.

Source: The Riksbank.

5 Identifying the Swedish institutions with the largest foreign exposures

The network described in Section 4 suggests an asymmetric distribution of outward foreign exposures among Swedish banks. To shed light on this finding, this section identifies the credit institutions in the Swedish banking system with the largest foreign exposures, since they are likely to act as the main transmitters of risks from abroad.

Columns two and three in Table 3 present the top 5 banks with the largest foreign exposures. It is not surprising to see that the three large banks occupy the top positions as they account for the lion's share of foreign exposures in the system.

As noted in Section 4, several foreign institutions emerge as key counterparties across all bank categories, indicating a concentration of exposure in the network. This concentration implies that distress in a small number of foreign institutions could simultaneously affect many Swedish banks.

To identify these foreign counterparties, we isolate (1) the top five foreign institutions with the largest numbers of exposure links from Swedish banks; (2) the top five foreign institutions towards which Swedish credit institutions have the largest outward exposures. Based on these measures, we obtain a set of six distinct foreign institutions. Four of the identified six foreign institutions satisfy both criteria, indicating that they may play a particularly important role for the Swedish banking system.

As shown in Table 4, these six foreign counterparties account for about half of the total foreign large exposures of the Swedish banking system, corresponding to approximately SEK 222 billion. In addition, the three large Swedish banks also stand out as the top three banks with exposures towards these institutes, which confirms that the largest Swedish banks are central to these cross-border financial linkages and warrant continued monitoring.

The above analysis highlights the close connections between large Swedish banks and foreign institutions. Our previous Economic Commentary (Blix Grimaldi et al. 2026) shows that these banks also tend to channel exposures within the Swedish banking network. Taken together, the results thus suggest that large banks may play a key role in the transmission of external shocks to the Swedish banking system, and subsequently risk facilitating the propagation of shocks through the domestic banking network.

Table 3. Key Swedish banks with largest foreign exposures and with largest exposures towards key foreign counterparties

	With largest foreign exposures	With largest exposures towards key foreign counterparties
Rank	Bank	Bank
1	A	A
2	B	B
3	C	C
4	AD	AA
5	AF	AC

Table 4. Identified key foreign counterparty financial institutions

	Number of exposure links	Amount of exposure
Rank	Institution	Institution
1	F053	F053
2	F114	F114
3	F060	F060
4	F120	F120
5	F004	F083
6	F083	F004

6 Conclusion

In this Economic Commentary, we map and describe the network of cross-border (outward) exposures of Swedish credit institutions, based on the COREP Large Exposures data. We thus extend the analysis developed in Blix Grimaldi et al. (2026), where we focus on domestic exposures and highlight the role of large banks in the propagation of shocks through the network.

The results suggest that a large share of foreign exposures is concentrated in a small number of foreign counterparties, mainly major Nordic banks. The largest Swedish banks emerge as central nodes in the network, reflecting their strong interconnectedness with foreign institutions as well as their importance within the domestic system.

Taken together, the findings suggest that the large Swedish banks are core hubs in both domestic and cross-border financial linkages. Their dual role—as major counterparties to foreign institutions and as intermediaries at home—implies that they occupy a central position in the functioning and stability of the network of Swedish fi-

nancial institutions. Distress originating in key foreign counterparties could be transmitted to these banks and subsequently propagate throughout the domestic banking network.

This points to the importance of closely monitoring cross-border exposures and the systemic role of large banks in safeguarding financial stability.

References

Blix Grimaldi, M., Guan Hallquist, L., Li, J., Namér, S., Seim, A., 2026. Mapping the interconnectedness of Swedish credit institutions—Domestic exposures. Sveriges Riksbank Economic Commentary No.1 2026.

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