Analysis

Market infrastructures – the pillars of financial stability

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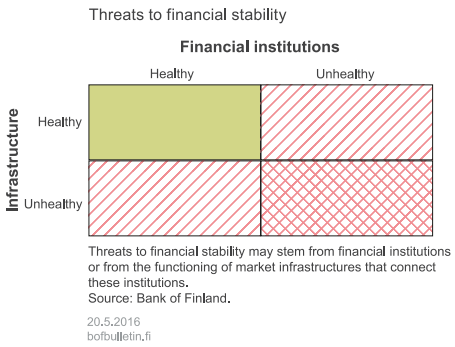
The financial system consists of financial institutions and the market infrastructures that connect them. They are both key to the stability of the system as a whole. The basic assumption is that infrastructures function reliably, and their criticality is noticed only in the event of a disruption. Stability analysis should, therefore, increasingly extend its focus to include both the functioning of infrastructures and their interconnectedness with financial institutions.



The stability of the financial system is fostered by identifying, assessing and managing systemic risks arising from financial institutions. The reliable functioning of market infrastructures providing services to the financial markets also plays a key role in this respect. These infrastructures – payment systems and securities clearing and settlement systems – are hubs that enable the transfer of payments and securities between the various participants.

The number of infrastructures in Finland and the euro area is very small relative to the number of their customers, i.e. financial institutions. Financial institutions can participate in several infrastructures, and, on the other hand, the infrastructures are interdependent.[1]

Chart 1.



Threats to financial stability may stem from financial institutions or from the functioning of market infrastructures that connect these institutions.
Source: Bank of Finland.

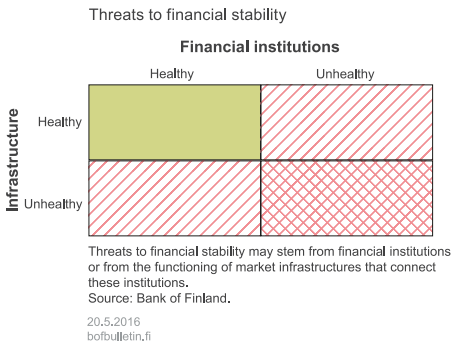
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The smooth functioning of financial infrastructures is often a basic assumption in financial stability analyses. This is justifiable as such, because the infrastructures functioned reliably during the latest financial crisis, for example. Systems that function smoothly do not attract attention: payments are transferred to recipients, and securities change owner in accordance with trades executed on a stock exchange or other trading venues, in the background of other activities.

On one hand, market infrastructures also have their own, stability-fostering role in the event a financial institution faces a crisis. The purpose of system-specific rules and practices is to safeguard the settlement of fund transfers and securities transactions even when the largest counterparties connected to the system are unable to fulfil their obligations.

On the other hand, market infrastructures may themselves be the source of financial instability: if an infrastructure does not function, the financial system cannot operate, despite the soundness of individual financial institutions and other financial sector entities. Finance is not intermediated to the participants that need it, people do not get their pensions or wages and salaries, card payments fail and there is a lack of clarity over securities ownership. Possible technical problems in the infrastructures are rarely linked to general uncertainty in the economy or a lack of confidence between market participants.[2]

Chart 2.



Threats to financial stability may stem from financial institutions or from the functioning of market infrastructures that connect these institutions.
Source: Bank of Finland.

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Disruptions in the systems are reflected almost without exception extensively and immediately on the end customers. This is particularly evident in the case of payment systems, and the higher the degree of real-time execution of payments, the more rapidly the effects become evident. Moreover, in a case of uncertainty over securities holdings, it would be impossible to use bonds and other securities as collateral. This would rapidly freeze central bank financing. Due to the interconnectedness of infrastructures, a disruption in one system would, in a worst-case scenario, also prevent the operation of the other systems.

The deepening of integration has accelerated the concentration of market infrastructures. The criticality of infrastructures providing services to several countries has become more pronounced in the euro area. Provision of services is also concentrated: the same technology supplier or outsourced provider of services may be behind several different infrastructures and the financial institutions connected to them. This has further increased the importance to financial stability of these sometimes external, critical service providers.

The stability of the financial system is safeguarded in a number of ways. In addition to international oversight principles[3] on market infrastructures, we also need comprehensive institution-specific and national contingency plans. These require extensive understanding of the interconnectedness of financial infrastructures and financial stability. The national exercise for testing crisis preparedness and contingency arrangements in the financial and insurance sectors (FATO2015) carried out in autumn 2015 showed that the increasingly international infrastructure and the fragmented structure of critical service providers, in particular, have to be taken into consideration in contingency planning. Accordingly, financial stability analyses should focus also on the interconnectedness of financial institutions and market infrastructures.[4]

Notes

1. For example, the TARGET2 payment system maintained by the Eurosystem settles the cash positions of over 70 ancillary systems. In TARGET2-Suomen Pankki, the average daily value of outgoing and incoming payments is EUR 50 bn, which is close in size to the annual budget of the Finnish Government. ↑
2. An exception to this may be a possible loss of confidence triggered by a cyber-attack. See Manninen, Otso (2015) Could a cyber-attack lead to financial crisis? Bank of Finland Bulletin 2/2015. ↑
3. The Bank for International Settlements (BIS) published in 2012 Principles for financial market infrastructures (PFMI). ↑
4. Infrastructures critical to the Finnish financial markets. ↑

Keywords

financial stability, macroprudential analysis, market infrastructure, payment systems, securities clearing and settlement