

WHEN THE FIVE LARGEST PARTICIPANTS DOMINATE A PAYMENT SYSTEM

A very few financial institutions submit a significant share of payments to most of the high-value payment systems. The degree of concentration can affect efficiency, competition and risks in payment systems, resulting in implications for the payment systems' design. In a European comparison, the concentration ratio in the Swiss SIC payment system falls somewhere in the middle.

In many high-value payment systems, a significant number of payments are submitted by the largest financial institutions. High concentrations in payment traffic can increase efficiency, but also – under some circumstances – negatively impact competition and processing risks.

IMPACT FACTORS

Generally, there are two factors affecting the extent of the market share or concentration in a payment system. First, the level of concentration reflects the bank sector's structure. If a few banks dominate the market of a payment system, this inevitably increases the concentration. The significance of individual banks tends to be impacted by factors such as the size of the economy, banking regulations, and past consolidations in the banking industry. In Belgium, where a few banks dominate the relatively small domestic market, this is reflected in the relatively high concentration ratio of the former Belgian payment system ELLIPS (see chart).

Second, the payment system tiering structure influences its degree of concentration. The term tiering is used when only a few financial institutions participate directly in a payment system, submitting payments on behalf of a larger number of indirect participants without their own settlement account.

An open access policy, permitting direct system access to many financial institutions, paired with low access costs, generally reduces the number of indirect participants and thus contributes to reducing the concentration. This effect can be enhanced still more by allowing foreign institutions direct access. Accordingly, the British CHAPS' relatively high concentration ratio is achieved by its distinct tiering structure.

CONCENTRATIONS IN SIC

A comparison between the European payment systems shows that the concentration ratios' range is rather broad. Measured both by the number and by the volume of transactions processed, the SIC ratios are found in the lower midrange.

In addition, it is noteworthy that the two SIC ratios developed diametrically between 2002 and 2006. The ratio measured by amount decreased slightly (-1.8 percentage points to 68.7%), while the ratio measured by number of transactions increased considerably (+8 percentage points to 63.1%). It cannot be determined with absolute certainty which factors are responsible for these trends. The slightly decreased concentration of amounts might result from the fact that the number of direct participants increased slightly during the period observed, from 314 to 330 financial institutions.

However, the higher concentration of transactions is a result of various technical SIC system innovations (individual processing of DTA transactions, introduction of the Swiss direct debit procedures LSV+/BDD) that led to a significant increase in the number of transactions (+79%), whereby the volumes of the large financial institutions grew disproportionately.

HIGH CONCENTRATIONS – ADVANTAGES AND DISADVANTAGES

The degree of concentration in payment traffic can indeed affect efficiency, competition, and the characteristics and extent of risks therein. The following effects can play a role:

- Banks with high cash flow benefit the most from efficiency enhancing technologies and are more willing to make investments. Thus, a high or increasing concentration can increase the efficiency of a payment system.
- A low number of direct payment system participants can negatively affect competition. These negative effects don't have to occur if indirect participants are given access to the payment system at any time.
- High concentrations impact processing risks. As simulations of such scenarios show, a large participant's operational failure can severely disrupt payment processing for the remaining system participants. Even more affected by operational failures are indirect participants who might be unable to process any payments at all if their correspondence bank drops out.

There is no linear connection between advantages and disadvantages. With increasing concentration, first the advantages and, with extremely high concentrations, the disadvantages, seem to prevail.

CONCENTRATION DEFINED

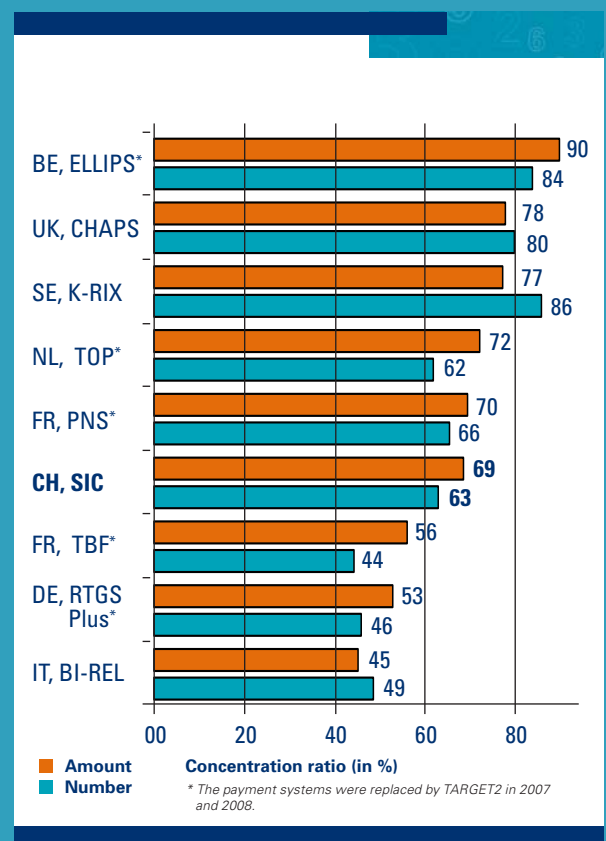
The concentration ratio measures the share of amount volume or the number of payments of the five largest financial institutions with direct access to the payment system. The five largest financial institutions are measured by the number of payments and by the processed amounts, which don't have to be identical.

IMPLICATIONS FOR THE DESIGN OF A PAYMENT SYSTEM

Two conclusions can be drawn for the design of a payment system. First, it turns out that access policies (access conditions and pricing) can significantly influence the concentration in a payment system, thus impacting payment system efficiency, competition and risk. The current access conditions formulated by the Swiss National Bank allow direct access for many financial institutions and contribute to low tiering. Second, operational failures of large participants can severely interfere with operating a payment system. Thus it makes sense for the operator of a payment system to ensure that the critical system participants meet high operational requirements. ■

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Percentage share transactions of the five largest participating institutions in payment systems, 2006



Source: BIZ (2008)