

# The role of the Swiss National Bank in the electronic payment system

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## Introduction

A stable financial system is a key prerequisite for a country's economic performance. The two main pillars of a stable financial system are a healthy financial sector and a safe and efficient financial market infrastructure comprising stock exchanges and clearing and settlement systems for payments, securities and other financial instruments. Smooth functioning of electronic payment systems is of primary importance to the Swiss National Bank (SNB) because it needs these systems for the implementation of its monetary policy.

The first part of this article briefly highlights the economic significance of payments. The second part presents the main participants and systems of the Swiss payments infrastructure. The third part then discusses the reasons why safety and efficiency are the main objectives of the SNB in electronic payments. The fourth part describes the SNB's activities in the field of electronic payments and how it contributes to a safe and efficient financial market infrastructure. The fifth part elaborates on the proposal made as part of the revision of the National Bank Law that oversight of payment and securities settlement systems should be explicitly defined as one of the SNB's key tasks. Finally, the sixth part shows how the SNB informs the general public and the parties concerned about its objectives and its role in the field of electronic payments.

## 1 The economic significance of payments

Transactions in the real and financial sectors are the heart of any market economy. For instance, private individuals purchase goods and services, companies procure raw materials and semi-finished goods from other companies and pay wages to their employees, while investors manage their wealth by buying and selling securities. All of these transactions result in financial obligations that have to be met either immediately or at a later date, depending on the underlying agreement. Facilities that allow convenient and inexpensive settlement of these financial obligations are of great practical benefit to all sides and facilitate trade in goods, services and financial instruments.

In Switzerland, cash is commonly used to settle transactions between individuals, especially transactions involving relatively small amounts where there is personal contact between the parties involved. Notes and coins thus play a key role in the payments infrastructure. The Swiss National Bank has a statutory monopoly on the issue of bank notes, which it supplies to the economy through the banking system and the post office. The bank notes it issues meet high security and quality standards. The federal government has also appointed the SNB to supply coins. However, in transactions involving large sums of money or where there is no personal contact between the parties involved, electronic transfers are the norm. The total amount of cash transactions is thus far lower than the sum of electronic transactions.

The main payments turnover is triggered by transactions in the financial sector. The big economic significance of this sector in Switzerland means that massive amounts are transferred back and forth between banks every day. Payments equivalent to about half the country's annual GDP are handled daily. It is thus clear that problems in the settlement of these reciprocal obligations could easily have far-reaching implications for the financial system or even the entire economy. Consequently, a safe and smoothly functioning infrastructure for the flow of payments is in the interests of both the financial sector and the general public.

## 2 Electronic payment systems in Switzerland

Participants in electronic payment systems in Switzerland can basically be divided into three categories: the SNB, financial intermediaries (i. e. banks and Postfinance) and what are known as non-banks, i. e. companies and private individuals. Financial intermediaries channel most reciprocal payments through sight deposit accounts held at the SNB. Non-banks, which do not have direct access to accounts at the SNB, channel payments through bank accounts or a Postfinance account. In other words, companies and private individuals use balances held with banks or Postfinance to settle transactions, while banks use balances on their accounts at the SNB.

Payment systems (see Box 1) are used to process electronic payments. In terms of turnover, the most important payment system in Switzerland is the Swiss Interbank Clearing (SIC) system, which banks use for high-value payments and some retail payment transactions. High-value payments normally relate to foreign exchange transactions or money and capital market transactions, but also include transactions involving large amounts in the non-banking sector. The remaining payments by the corporate sector and private individuals are referred to as retail payments. The number of high-value payments is relatively low compared with the number of retail transactions, but the amounts involved are a good deal larger.

SIC settles payments via the banks' sight deposit accounts at the SNB. It is what is known as a real-time gross settlement system (RTGS), in other words, it undertakes irrevocable real-time settlement of individual payments, provided the bank placing the settlement order has sufficient funds at sight in its account at the SNB. The SNB does not operate SIC. Instead, it has delegated this task to Swiss Interbank Clearing Ltd, a private-sector company owned by the Swiss banks and Postfinance. Swiss Interbank Clearing Ltd is responsible for day-to-day operation and technical development of the system.

SIC is linked to SECOM, the securities settlement system run by SIS SegInterSettle AG. This allows settlement of securities transactions on the principle of delivery versus payment. In other words, securities are transferred in SECOM and payment is settled through SIC at the same time. This eliminates principal risk involved in securities transactions.

Since September 2002, foreign exchange transactions in seven major currencies, including the Swiss franc, may be settled via the Continuous Linked Settlement (CLS) system. CLS, which is operated by the US CLS Bank, is a payment system that allows principal risk to be eliminated by applying a payment versus payment settlement mechanism. Settlement of Swiss franc obligations in CLS is made possible by a remote access of CLS Bank to SIC.

To facilitate payment in euros within Switzerland and between Switzerland and the EU, the Swiss banks and Postfinance established the Swiss Euro Clearing Bank (SECB) in Frankfurt am Main, Germany. SECB operates the euroSIC system, which functions along similar lines to SIC and is also linked to the SECOM securities settlement system. However, euroSIC handles a far lower turnover than SIC.

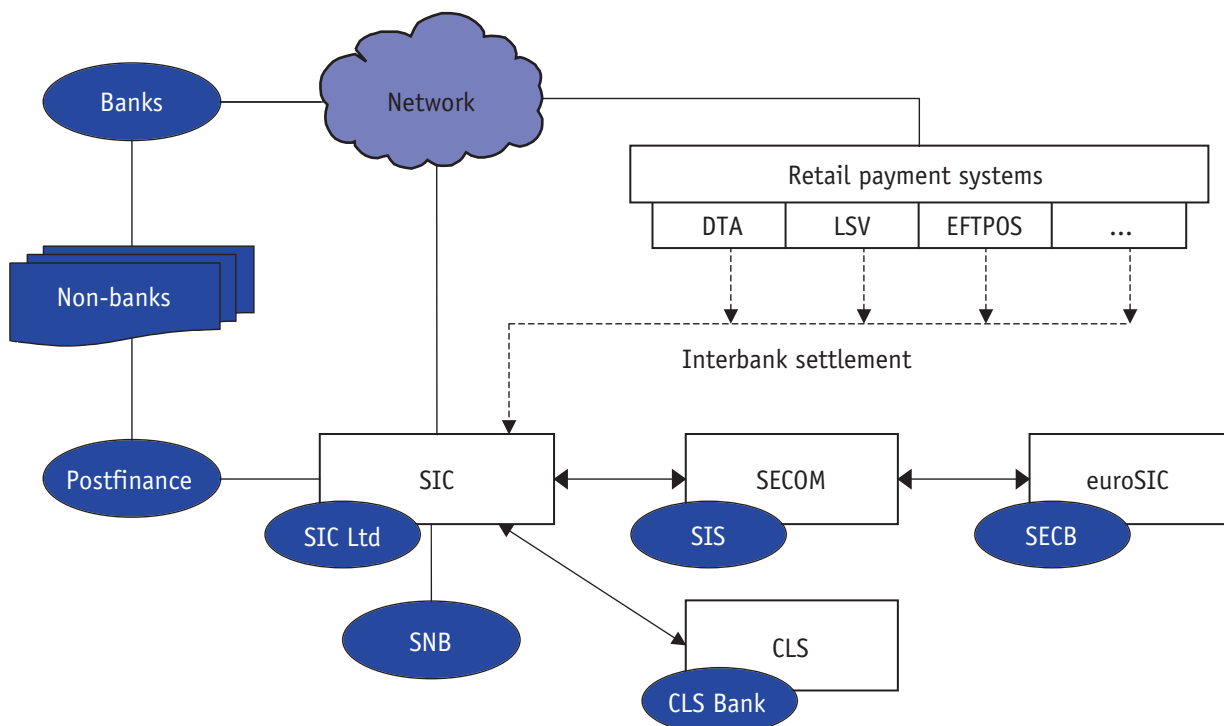
Financial intermediaries offer their clients a variety of non-cash payment instruments for retail payments. The methods used depend on various factors such as general acceptance, costs, safety and convenience. These instruments include credit and debit cards, cheques and pay-in slips. Other payment services include data carrier exchange, the banks' direct debit and electronic funds transfer (EFT-POS) systems, as well as Debit Direct from Postfinance. These systems enable companies and private individuals to transmit payments data electronically to their bank or to Postfinance.

The chief differences between the various payment instruments relate to how payments are triggered. However, they are all used to settle financial obligations by transferring funds from one account to another. If both parties hold an account with the same financial intermediary, the accounts concerned can simply be debited and credited as appropriate by the latter (in-house settlement). Where the parties have accounts with different financial institutions, an interbank transaction is necessary to transfer the funds from one to another. In such cases, the payment instructions may either be sent to the SIC system for direct settlement or channelled through an automated clearing house where they are collected, sorted and grouped by bank. The payments are then settled by SIC at predefined times once or twice a day. The central role played by SIC in Swiss payment transactions is evident from Fig. 1, which shows the main elements of the payment infrastructure in Switzerland.

In addition to the payment systems outlined above, which are used throughout the country, Switzerland has a number of single-purpose and limited-purpose card systems. With single-function cards, the system provider and service provider, i.e. the agent accepting the card, are identical. Examples are store cards and electronic phone cards. Limited-purpose systems are cards that can be used in a small number of stores (e.g. a chain) or at a certain location (e.g. at a shopping centre or in a specific tourist area).

Payment infrastructure in Switzerland

Figure 1



### 3 The objectives of the SNB

Safety and efficiency are the SNB's overriding objectives for electronic payment systems. These objectives are derived from the Bank's principal functions, which are monetary and foreign exchange policy. The interaction between the payment system, monetary policy and the stability of the financial system plays a major role in this.

In the implementation of its monetary policy, the SNB needs an efficient and safe payment system such as SIC. Disruption of the system could prevent monetary policy having the desired impact. At the same time, a stable financial system facilitates the achievement of monetary policy objectives. It enhances the SNB's room for manoeuvre and ensures rapid transmission of monetary policy to other sectors. For monetary policy reasons, the SNB therefore has a vested interest in strengthening the stability of the financial system wherever possible, for instance by promoting a safe and efficient infrastructure for the financial markets.

When considering the safety of a payment system, a distinction can be made between two aspects. Firstly, a payment system should have the technical and operational capability to ensure that it does not itself cause disruption to the financial system. Secondly, it should be designed to ensure that any disruption within the financial system, such as the insolvency of one party, does not spread to the other parties in an uncontrolled way.

The operational reliability of a system depends on a large number of components. First and foremost, these comprise the hardware and software used, the telecommunications network, the interfaces with those parties using the system, power supply and, last but not least, the staff employed. The technical integrity of a system depends primarily on control mechanisms regulating physical and electronic access to the system, e.g. the encryption technology used for data interchange. However, extremely high system availability and integrity are not sufficient. It is equally important to ensure that there are regularly tested back-up facilities and contingency plans to ensure that the system continues to operate in all circumstances.

To prevent the uncontrolled spread of failures in the financial system to other parties via the payment system, the latter needs to be placed on a sound legal basis and there should be clear rules and procedures for the settlement of transactions. One major principle is that once a payment order transmitted to the system has undergone all risk controls and other checks, it can no longer be reversed (irrevocable settlement).

All payment systems should meet minimum standards with regard to the safety aspects mentioned above. However, with increasing importance of a specific payment system for the economy and the financial system, the safety precautions need to be stepped up. Safety is particularly important for payment infrastructures that are of systemic significance. These are systems where internal disruption or financial difficulties on the part of one party could have a knock-on effect on other parties or even wide sections of the financial system (systemic risk). Systemically important payment systems should therefore adopt the ten Core Principles set out by the Bank for International Settlements (BIS; see Box 2).

The importance of a payment system for the financial system depends primarily on the turnover and the type of payments it handles. Infrastructures used for the settlement of high-value transactions tend to be particularly important to the economic system as a whole. By contrast, infrastructures that only handle small amounts or retail transactions represent little or no systemic risk. Whether or not an alternative payment system exists through which payments could be settled in case of need is also relevant for the assessment of a payment system's economic significance.

Alongside the safety of payment systems, the SNB is interested in their efficiency. A payment infrastructure can be considered efficient if it offers users the required functionality and the necessary safety at the lowest possible cost and ensures that resources are not squandered. As in other areas of the economy, the resources required for settlement of payments should be minimised. In this respect, it is particularly important to consider the efficiency of the infrastructure as a whole, rather than the efficiency of individual systems.

A safe and efficient infrastructure for the flow of payments is not merely desirable for the SNB; it is also in the interests of all parties affected by the system. Nevertheless, free market forces are not always sufficient to achieve the goals of safety and efficiency. This is because the market for payment services includes many factors that could lead to market failure, and thus to economically sub-optimal operation, if the regulatory framework is inadequate.

This is particularly evident in the case of systemically important payment systems. The probability of a systemic chain reaction can be reduced by taking suitable action, such as improving safety precautions and risk management. However, such measures raise operating costs. If the design of the system is left entirely to the direct users, they are unlikely to pay much if any attention to the negative externalities of a systemic crisis when weighing up the cost/benefit ratio of reducing risks. Negative externalities include all costs that are not borne directly by the originator of the crisis. As a result, in comparison with the economic optimum, a system selected entirely on the basis of market forces entails higher risks and is more vulnerable to systemic crises.

The retail payments sector also involves a number of factors that can result in a situation that is economically sub-optimal. Possible reasons for shortcomings in this market segment include market entry barriers such as high fixed costs, economies of scale and scope, and network effects. One consequence may be an imperfect and uncompetitive market structure with sub-optimal rates of innovation. The services required by companies and private individuals may not be available, or may be overpriced. Accordingly, ensuring sufficient competition and consumer protection are justified concerns in the retail segment.

These examples show that there is a potential for market failures in the market for payment services. In the case of systemically important payment systems, this is primarily manifested by inadequate levels of safety, while in the retail market, lack of efficiency is often the problem. Regulatory measures in the public sector – including the SNB – are therefore justified if they improve market performance. It goes without saying that the costs of regulation must not exceed the user benefits of regulation.

## 4 The SNB's policy principles

The statutory basis for the SNB's activities in the field of electronic payments is the current National Bank Law, which specifies that the Bank's role includes facilitating payment transactions. There are essentially two ways in which the SNB can help promote a safe and efficient payment infrastructure. Firstly, it can offer certain payment services itself. Secondly, it can take suitable action to ensure that the systems provided by private-sector operators are as safe and efficient as possible.

The SNB's strategy is based on the principle of leaving the private sector to operate payment systems and only acting as an operator if the private sector does not provide a suitable infrastructure. Given this market-based approach, the SNB has two chief tasks in electronic payments. Both functions contribute to the stability and, to a certain extent, to the efficiency of the financial system.

The first main task is the provision of liquidity for settling payments between financial intermediaries. By this, the SNB makes a major contribution to the stability of the financial system. The advantage of using central bank money for payments is that, in the final analysis, the recipient of the funds has a claim on the SNB in the form of the balance held on a sight deposit account. Unlike claims on private-sector banks, there are no credit or liquidity risks attached to claims on the SNB because its monopoly on the creation of money means that it can always meet its obligations in full. A system that settles payments via balances held on accounts at the central bank thus implies lower financial risks to the parties involved than an identical system where a different means of payment is used to settle reciprocal commitments. Consequently, the use of central bank money is one of the Core Principles recommended for systemically important payment systems (see Box 2, Core Principle VI).

In the past, the SNB has also encouraged less important payment systems to use central bank money. Consequently, all retail payment systems used by the banks are now channelled via SIC. However, this development was based on efficiency rather than risk considerations. By using a single payment system for all interbank payments, the banks are able to pool their liquidity and thus reduce the cost of liquidity management.

The second main task of the SNB in electronic payments is to oversee payment systems. Like other central banks, the SNB defines oversight as all of its efforts to influence the rules and architecture of a payment system. The SNB pays special attention to systemically important systems, where negative externalities can be particularly significant. The SNB's role in overseeing such systems is closely aligned to generally accepted international standards, especially the ten Core Principles issued by the BIS. The SNB exercises its influence over such systems and their operators primarily through moral suasion rather than formal rulings.

Given the turnover and type of payments handled by SIC, the SNB concentrates primarily on this system. Problems in retail systems such as data carrier exchange, direct debit processes and the payments systems used by Postfinance may inconvenience a large number of customers, but they are hardly likely to pose a threat to the stability of the financial system as a whole. The same applies to the euroSIC system. In terms of systemic risk, single-purpose and limited-purpose card systems also tend to be irrelevant. The SNB thus intervenes to a far lesser extent in the design of these less significant payment systems than it does in the case of SIC.

The oversight of SIC is made easier by the fact that payments are settled through accounts held at the SNB. An agreement between the SNB and the operating company, Swiss Interbank Clearing Ltd, sets out their reciprocal rights and obligations. This agreement ensures that the SNB has far-reaching powers of oversight. Additional agreements between the operating company and the parties that use the system specify that participants must observe the rules and procedures of the system at all times. These are described in detail in a user manual and technical directives.

The SNB is also represented on the Board of Directors of Swiss Interbank Clearing Ltd. All decisions, especially those relating to the structure of the system, require the approval of the SNB. This is designed to prevent the company taking decisions that are against the public interest. In addition, the SNB has representatives on a number of other interbank bodies that include representatives of the users of the system (banks and Postfinance) and Swiss Interbank Clearing Ltd. These bodies deal mainly with operational issues relating to payment transfers. Insofar as regulatory issues are affected, the SNB outlines its intentions to these committees very early on. In this way, it helps minimise the operator's regulatory expenses.

The increasing globalisation of payment transactions requires intensive international cooperation. The SNB thus works closely with the main regulators of cross-border systems such as CLS. It also maintains bilateral and multilateral contacts with other central banks. These relationships play an important role in improving the understanding of relevant issues and thus help enhance policy on payment systems. By participating in international working groups organised by the BIS, the SNB is involved in drafting specialist reports and international standards, and thereby has the opportunity for input.

In the area of retail payment systems, where efficiency has top priority, the SNB endeavours to take suitable action to counteract market inefficiencies and works towards economically meaningful solutions. For instance, in the event of a conflict of interests it offers its services as an impartial arbitrator. Issues relating to the standardisation of products and interoperability or crosslinking of systems are of particular importance in this sector. However, it should be stressed that, as a matter of principle, the SNB does not intervene directly in decisions taken by operators.

The SNB's activities in the retail payments sector are geared to areas in which it has a comparative advantage over other public and private-sector institutions. Ensuring adequate competition and consumer protection, in particular, are not among its core competencies. Federal agencies such as the Competition Commission and the price supervisor, and private-sector organisations such as consumer protection associations, are better-placed to protect such interests.



## 5 The new National Bank Law

The above description of the activities of the SNB shows that its role in overseeing the payments infrastructure is based either on private contracts with the system operators or their goodwill. This arrangement has proven effective in the past, especially for SIC, which is particularly significant from a systemic viewpoint. Nevertheless, the SNB welcomes the proposal made as part of the revision of the National Bank Law that oversight of payment and securities settlement systems should be explicitly defined as one of its key tasks. Subject to approval by parliament, the new Law is expected to come into effect in 2004.

There are various reasons for providing a statutory basis for the oversight of payment systems. Firstly, it is possible that, in future, Switzerland could have systemically important payment systems that do not use central bank money. This would doubtless make it more difficult for the SNB to influence the structure of the system than has been the case with SIC in the past. Consequently, the draft revision of the National Bank Law provides for the SNB to oversee payment systems, regardless of whether they use central bank money or not. At the same time, statutory regulation reflects the growing importance of oversight of payment systems as part of general efforts to enhance the stability of the financial system. This trend is not confined to Switzerland. Other jurisdictions such as Australia, Canada and the European Union have also put the oversight of their payment systems on a statutory footing in recent years.

In addition to overseeing payment systems, under the new law the SNB will be responsible for the oversight of clearing and settlement systems used for securities and other financial instruments (referred to collectively as securities settlement systems in the subsequent text). If, due to its banking status, the operator of such a system is also subject to supervision by the Swiss Federal Banking Commission (SFBC), the supervisory function will be shared

between the SNB and the SFBC. The SNB will be responsible for the system element and the SFBC for the institutional element. Oversight of systems and supervision of institutions are thus essentially complementary activities, both of which contribute to the stability of the financial system. Nevertheless, the supervisory functions of the SNB and SFBC are closely linked, so efficient implementation of this role requires a coordinated approach by both bodies. If deemed necessary to ensure effective oversight, the SNB may also cooperate with foreign supervisory or oversight authorities. The information that may be provided to foreign authorities is limited to information of direct relevance to system oversight. An exchange of information on system participants or even their customers is inadmissible.

The revised National Bank Law formally empowers the SNB to set requirements for payment and securities settlement systems which could potentially destabilise the financial system. This enables it to minimise systemic risk and to reduce disruptions to the payment system, which would hinder the implementation of monetary policy. A three-step approach is proposed. In the first step, operators of payment systems would be required to provide statistical data. This would give the SNB an overview of the payment systems available in Switzerland and the extent to which different types of means of payment are used. This information would enable it to exclude smaller payment systems from its close oversight from the outset. The second step comprises extended disclosure requirements and would apply to both securities settlement systems and payment systems where a systemic risk cannot be ruled out a priori. Extensive information on such systems is required to give the SNB the certainty it needs to decide whether or not a specific system is of systemic importance. Finally, in the third step the SNB can impose qualitative minimum requirements on systems that could jeopardise

the stability of the financial system. These relate to organisational principles, the precautions required to ensure the safe operation of the system and contingency plans if parties using the system encounter fulfilment problems. Moreover, the SNB would be able to examine the terms of business, means of payment used and conditions of admission to the system. The draft legislation proposes sanctions under administrative law for operators who fail to meet these minimum requirements. For example, the operator could be denied access to its account at the SNB or the SNB could issue a public warning on the shortcomings of the system. However, other sanctions could only be imposed by the authorities directly responsible for supervising the operator and parties using the system in Switzerland and abroad, rather than by the SNB.

## 6 Communication

The SNB regards the publicising of its objectives, role and policy principles as key to actually achieving its goals. It therefore informs the parties concerned and, to some extent, the general public of its intentions and of any major changes and developments in the field of payments infrastructure.

Transparent information on the goals and activities of the SNB is particularly important for system operators and payment service providers. By disclosing its objectives, the SNB enables the private sector to predict business conditions with sufficient certainty. This is a basic requirement for private-sector investment in ongoing improvements to the payment infrastructure. Regulatory changes affecting the operators and users of payment systems are normally drawn up by the SNB in consultation with the parties concerned. This ensures that they have plenty of time to prepare for the changes.

The SNB also provides regular information to the general public on its goals and activities in the field of payment transactions and payment systems. The information available on these topics is being expanded through more efficient use of the present communication channels. The central element in communication with interested parties is the SNB's website ([www.snb.ch](http://www.snb.ch)), which provides extensive information on basic issues and current developments in this field. The information available on the Internet is supplemented by official papers, press releases and regular and ad hoc publications. In its official papers the SNB mainly provides information on its objectives and activities. Information on major changes and developments is given and commented on in press releases, while the annual report summarises events over the past year. More extensive background information on policy principles or relevant developments in the field of payments is published in newspaper articles and academic journals. Last but not least, the present publication is designed to raise public awareness of issues relating to payments transactions and the role of the SNB.

A payment system is a central facility to settle financial claims and obligations between various parties, normally banks. It is based on a uniform set of rules and procedures and comprises three elements. The first is the technical infrastructure, i.e. the communication systems and hardware and software components required by the system operator and participants to exchange data and settle transactions. Secondly, it needs a system of accounts where the financial assets to be transferred are held and to which they can be transferred. In practice, these are account-based claims on the central bank or another financial intermediary who acts as a settlement agent. The third element comprises the rules used to exchange information and transfer funds from one account to another. Clear rules enable users to assess the risks involved in the system. Detailed information on the procedures used to settle payments also allows standardisation and automation of the system and thus minimises costs.

The exchange of payment-related information between system participants and any regulations under which payments are settled on a bilateral or multilateral basis is known as clearing. By contrast, settlement comprises the actual discharge of an obligation, i.e. by debiting the amount from the payee's account and crediting it to the recipient's account. Systems used only for clearing are often referred to as payment systems. For instance, the data carrier exchange (DTA) facility is purely a clearing system, because the actual settlement of inter-bank obligations is carried out by a different system, SIC.

In January 2001 the Committee on Payment and Settlement Systems (CPSS) of the Bank of International Settlements issued ten Core Principles for systemically important payment systems. The CPSS is a forum for the central banks of the G10 countries. Its role is to monitor and analyse developments in payment and securities settlement systems and coordinate the oversight of payment systems. The Core Principles are summarised below. The full report is available at [www.bis.org](http://www.bis.org).

- I. The system should have a well-founded legal basis under all relevant jurisdictions.
- II. The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.
- III. The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.
- IV.\* The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.

- V.\* A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlement in the event of an inability to settle by the participant with the largest single settlement obligation.
- VI. Assets used for settlement should preferably be a claim on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.
- VII. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.
- VIII. The system should provide a means of making payments which is practical for its users and efficient for the economy.
- IX. The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.
- X. The system's governance arrangements should be effective, accountable and transparent.

\* Systems should seek to exceed the minima included in these two Core Principles.

## Risks in payment systems

### Box 3:

The Bank for International Settlements distinguishes between the following types of risks in payment systems:

*Credit risk:* the risk that a counterparty will be unable to fully meet its financial obligations either on the due date or at a later date.

*Principal risk:* the risk that a party within the system will be unable to fully meet its financial obligations under a securities or foreign exchange transaction either on the due date or at a later date, even though the other party meets its obligation on time and in full (specific type of credit risk).

*Liquidity risk:* the risk that a counterparty within the system will have insufficient funds to meet financial obligations on the due date, although it may be able to do so at some time in the future.

*Legal risk:* the risk that a poor legal framework or legal uncertainties will cause or exacerbate credit or liquidity risks.

*Operational risk:* the risk that operational factors such as technical malfunctions or human error will cause or exacerbate credit or liquidity risks.

*Systemic risk:* the risk that the failure of one of the participants to meet its obligations, or a disruption in the system itself, will cause other system participants or financial institutions to be unable to meet their obligations when due. Such a failure may cause significant liquidity or credit problems and, as a result, might threaten the stability of financial markets or even of the economy as a whole.

### Swiss Interbank Clearing System (SIC)

SIC is a real-time system used by the banks and Postfinance to settle major payments and some retail payments. The SNB has delegated operation of this system to Swiss Interbank Clearing Ltd.

### euroSIC

euroSIC is a real-time system used by banks and Postfinance to settle domestic payment transactions in euros. A link to TARGET, the high-volume payment system of the EU, allows settlement of cross-border payments in euros to and from Switzerland.

### Data carrier exchange (DTA)

This is an electronic payment system offered by banks to private individuals and companies. Payment instructions are given via online file transmission or by sending a data carrier to the bank.

### Direct debit (LSV)

The direct debit system is used primarily for regular payments. The payee authorises the recipient to debit the amount from his/her bank account. To use this service, both parties must have a bank account.

### Electronic payment order (EZAG)

This is an electronic payment facility offered by Postfinance to companies and private individuals with Postfinance accounts. Payment instructions are transmitted via the internet or an electronic data interchange system.

### Debit Direct (DD)

The Postfinance direct debit system is suitable for regular payments. The payee authorises the recipient to charge the amount due directly to his/her Postfinance account. To use this service, both parties must have an account with Postfinance.

### Debit cards

Debit cards are mainly used in the retail trade. Customers trigger the immediate debit of the amount to be paid from their account via a terminal operated by the retailer (EFT-POS). Debit cards can normally also be used to withdraw cash from ATMs. The most common debit cards in Switzerland are ec/Maestro and Postcard.

### Credit cards

Credit cards are mainly used in the retail sector, but may also be used for telephone orders and electronic transactions via the Internet. They enable the purchaser to pay for goods and services at a later date. The most common credit cards in Switzerland are Visa and Eurocard/Mastercard.

**The main payment systems used in Switzerland**  
Transaction volumes and turnover in 2002

Table 1

System	Transaction volume	Turnover
	in million	in billion Swiss francs
SIC	177,0	44,750,2
euroSIC <sup>1</sup>	1,6	438,6
DTA	67,1	288,6
LSV	36,1	67,7
EZAG (Postfinance)	293,6	1,047,1
Debit Direct (Postfinance)	13,9	5,0
Debit cards (ec/Maestro, Postcard)	226,2	38,1
Credit cards (AMEX, ECA/MC, Diners, Visa)	81,7	15,3

1 Turnover in billion euros