

ANNEX 2: AN OVERVIEW OF THE COMPONENTS OF THE FINANCIAL INFRASTRUCTURE

CERTIS

CNB Clearing operates CERTIS (the Czech Express Real Time Interbank Gross Settlement system), which is the sole interbank payment system in the Czech Republic. The system processes all domestic interbank transactions in Czech koruna regardless of their value.

The system is based on the following principles:

- real-time gross settlement (RTGS, i.e. each transaction is processed and settled on-line in real time);
- direct participation by all commercial banks active in the Czech Republic;
- direct bilateral connections between the head offices of commercial banks and CNB Clearing;
- settlement on interbank payment system accounts maintained at the CNB (which also serve as minimum reserves accounts);
- irrevocability of all transactions accepted by CNB Clearing;
- no overdrafts permitted on interbank payment system accounts;
- the CNB provides interest-free intraday credit to commercial banks to cover their expected shortages of funds, collateralised by the bank's securities in the SKD system;
- uncovered payments are neither settled nor rejected, but held in a queue (with two priority levels) and the system tries to deal with them by the end of the accounting day;
- processing of different types of transactions (credit transfers, credit transfer cancellations, non-accounting direct debit requests, information requests);
- granting of overnight credit by the Czech National Bank (in the event of non-payment of intraday credit);
- only transactions in Czech koruna are processed at CNB Clearing;
- CERTIS operates under the Payment System Act; the set of CERTIS participants is defined in Article 38 of the CNB Act.

CNB Clearing communicates only with the head offices of commercial banks. Each bank has only one interbank payment system account with the CNB. This means that banks must process the data from their own branches internally and separate out transfers to other banks. Only these transactions can be transmitted to CNB Clearing. Internal transfers between individual branches of a bank are a matter for this bank and are processed in its network without any involvement of CNB Clearing.

Under bilateral agreements with the CNB, "third parties" may be participants with a special status. These third parties are financial institutions which are not banks but play an important role on the market, such as card payment clearing houses and companies responsible for the settlement of securities transactions. Third parties have no interbank payment system accounts with the CNB, but may (with the permission of the direct participants concerned) submit payment orders to CNB Clearing to transfer funds between direct participants (e.g. to settle net positions arising from card payment clearing or payments relating to stock exchange transactions).

No overdrafts are permitted on interbank payment system accounts. To ensure the smooth running of the payment system, the CNB gives banks the option of drawing collateralised intraday credit. No interest is charged on intraday credit and there is automatic spillover into the overnight marginal lending facility – Lombard repos – in the event of non-repayment at the end of the day. The interest rate applied to this facility is the Lombard rate.

If a payment system participant becomes insolvent, there is no danger of problems spreading to other participants through CERTIS, as the system allows for immediate checking of each transaction against the balance of the account to be debited. If there are sufficient funds on the account, the account is debited, the beneficiary's account simultaneously credited and transaction thereby completed. If there are insufficient funds on the account, the transaction is moved to the hold queue, where it waits until new liquidity arrives or until an appointed time, often the end of the settlement day, when a final attempt is made to settle the transaction.

SKD

The Czech National Bank is responsible for managing and operating the Short-term Bond System, which replaced the original TKD system on 9 December 2002. The SKD has a dual role: it is a statutory register of securities and it is the settlement system for the securities recorded therein. In the SKD, records are kept of the securities issued by the Czech Republic (i.e. by the Czech Ministry of Finance) with maturity of up to one year, the short-term securities issued by the Czech National Bank (CNB) with maturity of up to six months, and other bonds with maturity of up to one year (e.g. Czech Consolidation Agency bonds). All the bonds are issued in the Czech currency and in dematerialised form.

SKD participants are divided into two groups: agents and clients. Clients participate in the SKD's activities through their agents. A client is a legal or natural person that has an SKD security owner account agreement with the CNB. Bonds owned by the client are registered on that account. Each client may have one or more such security owner accounts in the SKD and has access to each of them via an agent specified in the agreement. At the end of 2003, there were 126 clients registered in the SKD. The agent must have either its own interbank payment system account with the CNB or an account with a bank that has such a payment system account. At the end of 2003, a total of 23 agents were registered in the SKD.

On auction day, information on the allocation of securities among the bidders (based on clients' orders placed through the point of auction) is entered into the SKD, as are the yields at which the primary sale will be executed in individual cases, in accordance with the procedure set by the issuer. On the issue date, the SKD undertakes the primary sale of the bonds. Intraday settlement finality is ensured by DVP (delivery-versus-payment) through the RTGS (Real-time Gross Settlement System). This involves the transfer of the securities from the seller's security owner account to the buyer's security owner account and the payment of the agreed purchase price by the buyer to the seller.

THE PRAGUE STOCK EXCHANGE (PSE) AND UNIVYC

The PSE was established as a joint-stock company in 1992 and trades in securities on the secondary market. It operates on the membership principle, its members being mostly banks, investment companies and securities dealers. It is overseen by the Czech Securities Commission (which is responsible for the regulation and oversight of the securities market in the Czech Republic).

A joint-stock company called Univyc was founded to undertake settlement and clearing of all trades executed on the PSE. Univyc does not have members of its own, but its services are used by PSE members as direct participants. Other entities may use the services of one of the direct participants.

Univyc executes cash settlement of trades by means of payment orders dispatched to CNB Clearing (CERTIS), to which it is directly connected as a "third

party". Within Univyc it is possible to settle trades in securities issues registered on the stock exchange and, in the case of OTC transactions, trades in issues registered only for settlement in Univyc. In the case of settlement of dematerialised securities, Univyc works in collaboration with the Prague Securities Centre, where it sends instructions to make transfers between the accounts of the final owners of the securities. Foreign securities are registered on Univyc's customer account in the international clearing centre Clearstream, of which Univyc is a direct participant.

The model whereby both operations in the settlement process take place within a set time limit is called "delivery versus payment". Some transfers can be settled through Univyc by "delivery free of payment". For such transactions, only asset settlement – i.e. the delivery of the securities – is realised through Univyc; cash settlement takes place outside Univyc.

As regards financial settlement, there are two types of Univyc members (direct settlement participants) – bank members (domestic or foreign financial institutions with a banking licence from the Czech National Bank) and non-bank members (domestic or foreign securities dealers without a banking licence). Bank members have a clearing account in CERTIS and the trades they execute are cash settled directly by means of this account. The account is then debited (settlement of a securities purchase) or credited (settlement of a sale) with the relevant amount. Non-bank members do not have a clearing account in CERTIS. Their trades are settled using a bank's clearing account. This bank becomes a "clearing bank" for the non-bank member and their relationship is governed by a contract. As part of the settlement process, the clearing bank's account is then debited or credited. The bank is notified in advance of the planned payment.

An Exchange Guarantee Fund (GFB) has been established to guarantee the settlement of accounts payable by Univyc members and to cover the risks arising from exchange guaranteed trades.

RM-SYSTEM

Besides SKD and Univyc there is a third securities settlement system in the Czech Republic, namely RM-System, which has been operating as an over-the counter (OTC) market since 1993. RM-System was founded during the "voucher privatisation" period under the Securities Act and is operated by the company which implemented the voucher privatisation process.

Unlike the stock exchange, the OTC market is not based on the membership principle. This means that on the OTC market investment instruments are not traded by members – usually securities dealers – but directly by the individuals interested in buying or selling them. Any natural or legal person may become a customer, regardless of whether or not they are a Czech national.

RM-System is a fully electronic securities market and works on the DVP principle. Credit and liquidity risk is eliminated by pre-trade validation, i.e. the blocking of the relevant securities on the relevant account at the Prague Securities Centre in the case of sell orders, and the blocking of sufficient funds on a cash account at a specific bank in the case of buy orders.

PRAGUE SECURITIES CENTRE

In the Czech Republic, the overwhelming majority of securities are registered on public markets in dematerialised form, i.e. as magnetic records stored by law at the Prague Securities Centre. The Centre also maintains the accounts of all owners of these dematerialised securities. Consequently, no trade in

dematerialised securities can take place without the Centre's assistance. The Centre's primary function is to keep a unified register of dematerialised securities and their owners. Besides the SKD, the Centre is thus the second securities registration centre in the Czech Republic.

Univyc and RM-System are linked to the Securities Centre and send it change of ownership instructions based on securities trades realised.

Under the new Capital Market Undertakings Act, a central depository is to take over the register from the Securities Centre. This depository has not yet been set up, but it is clear that the securities register maintained by the Securities Centre forms the foundation on which the central depository will be created.

INTERNATIONAL PAYMENTS

For international payments, banks use accounts with foreign correspondent banks or – in the case of branches of foreign banks – their own networks. Foreign banks use their own networks and the correspondent relationships of their head offices. In most cases, SWIFT is used for transfers. Where a bank in the Czech Republic receives an incoming koruna-denominated payment instruction to be credited from an account at another bank, the subsequent transfer is executed through CERTIS.