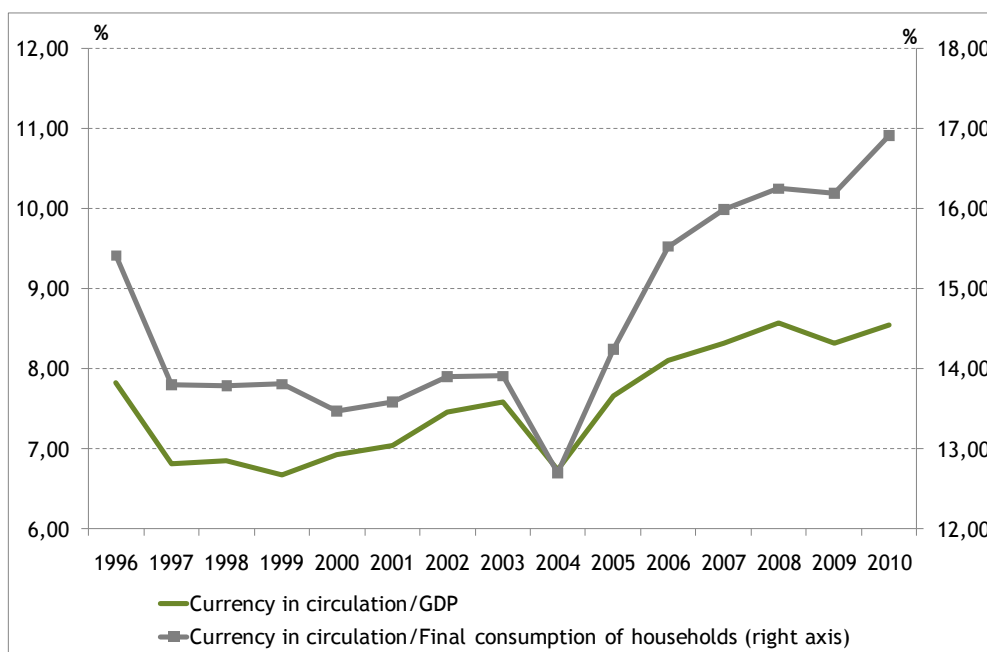


Developments in notes and coins circulation during the last five years

The financial crisis has reached Hungary in October 2008, which has strongly influenced the cash demand. After a transitional increase of cash volume the banknotes in circulation started to decrease in 2009. However, the level of cash stock recovered during last year and has exceeded 8% relative to GDP, a high ratio in international comparison.

Figure 1 Currency in circulation in relation to GDP and consumption of households

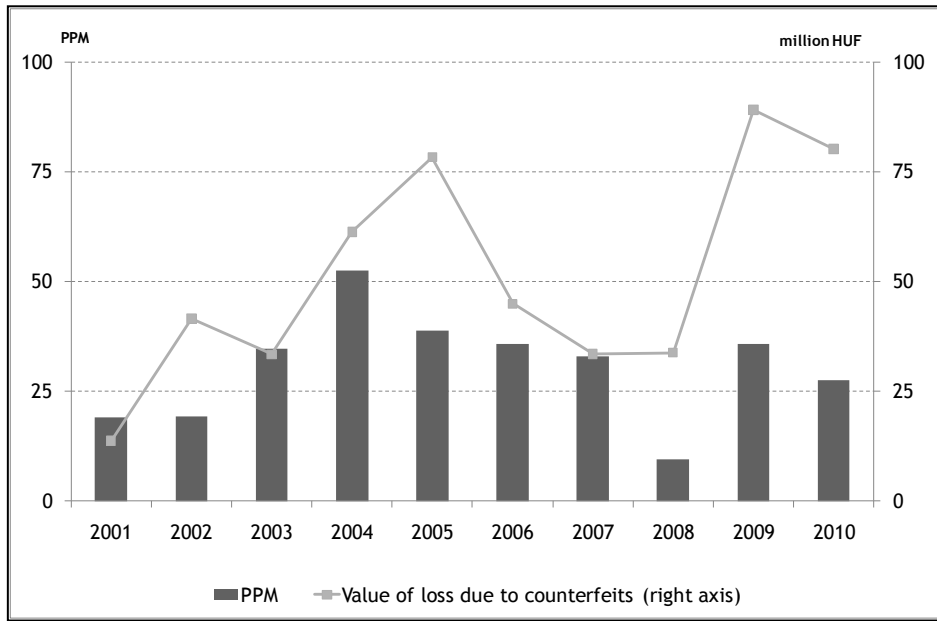


The MNB has replaced the lowest banknote denomination (200 HUF, cca. EUR 0.80) with a new coin. The new bimetallic 200 forint coin was introduced in June 2009 and the notes were withdrawn at the end of the same year. The issuance of the new coin was a success; the demand went some 50 per cent higher than it was for the banknote.

Counterfeit issues

The situation in Hungary was unfavorable before 2007 with the “Piece Per Million” (PPM) figure above 35. When the most counterfeited old versions of the mid-range 1000 HUF denomination were replaced with a hologram-protected new version, counterfeiting declined sharply. Unfortunately, later the counterfeiting of the two largest denomination banknotes started to increase. Moreover, some of the new high value counterfeits were more deceptive than ever seen before (more features were imitated better than before, e.g. UV-A, watermark, holographic stripe and the OVI). The MNB intensified its preventive efforts in various dimensions such as active communication, cooperation with police, retail and commercial banks) to check this rise in counterfeiting. As the HUF has a bi-fluo security feature to be checked in both UV-A and -C lights, the MNB started actively promoting the use of the combined UV-A/C (instead of the more simple UV-A) lamps. Due to these measures and successful cooperation with the police, the number of counterfeited banknotes dropped significantly in late 2010.

Figure 2 Counterfeit banknotes (PPM figure) Piece Per Million seized from circulation

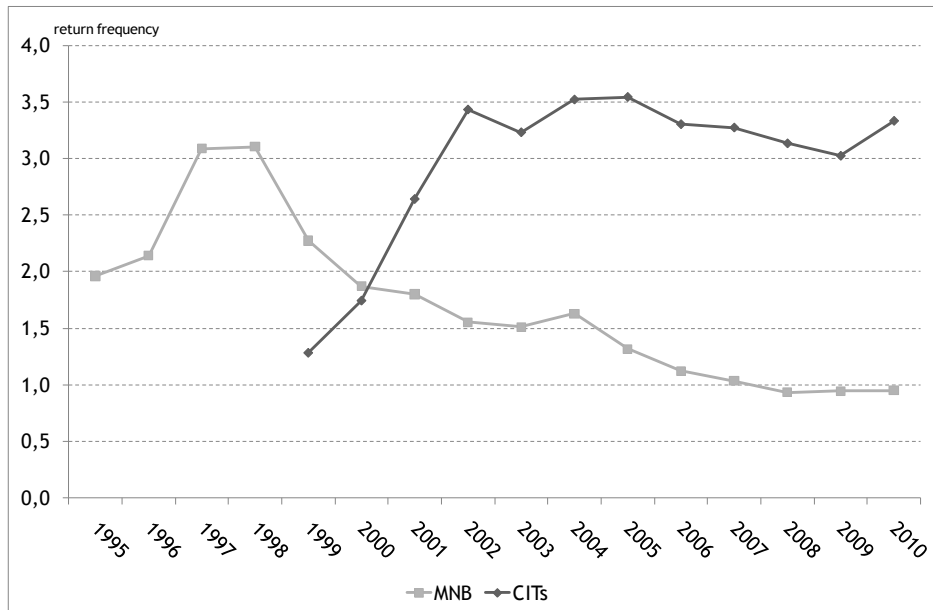


The MNB would like to strengthen the resistance of the financial and retail sectors against counterfeiting. A new MNB decree will broaden the compulsory use of banknote sorting machines successfully tested by the Bank to 90% of banknote sorting done by CITs and also 90% of external banknote supplies to bank and post office branches. This new decree will also make it compulsory to install UV-A/C lamps in bank and post office cash desks with larger cash volumes. In the retail sector, the MNB has started a pilot to subsidize the purchase of combined UV-A/C lamps (60% but max. 70 EUR off the price will be supported by the MNB).

Changes in the cash cycle and the role of the central bank

Until the mid-1990s, the MNB controlled almost all cash distribution processes. Today, it participates only as a wholesaler in the circulation of notes and coins and plans to go further in this direction.

Figure 3 Annual return frequencies of banknotes to MNB and CITs



Commercial banks, the Post Office and large retailers have mostly outsourced their cash operations (incl. vault management, transport, processing, ATM-logistics) to a few large cash-in-transit companies (CITs). These companies perform full authentication and fitness sorting. Unfit and suspect banknotes must be sent to MNB; however, fit banknotes are mostly recirculated. CITs recycle about 80% of banknotes, of which cc. 90% are machine-processed banknotes. The volume of processed banknotes at the MNB was about 250 million banknotes in 2010, with a destruction rate of 25% and a reject rate of 0.4%.

The reconciliation level was raised from the early 1990s to improve the efficiency of cash processing at the MNB. First, the package, then in 1999 the bundle based reconciliation level was introduced. From 2009, the reconciliation level is a deposit, traditionally being secure bags (20 bundles). The container level (100-200 bundles) transaction was introduced this year to improve the efficiency of operations in the new automatized cash center. The inflow of banknotes to the central bank is mostly container based nowadays, while fully containerized outflow can be achieved only in the medium term. The first step on this way was the multi-denominational processing. This allows banks and CITs to load the containers with different denominations, thus making it easier to reach large quantities. In addition containerized banknote inflow was supported by the so-called pooled (or, multi-account) deposit, allowing several banks to transport their excessive banknotes to the MNB as one joint transaction (the reconciliation done later vis-à-vis the CIT). The third step is the new notes-held-to-order (NHTO) scheme introduced at the beginning of 2011. The Hungarian system is a modified version of the Dutch scheme. The Hungarian NHTO system creates a buffer between market players and MNB so CITs can lodge and withdraw banknotes in containers easier. The NHTO stock is owned by the central bank, it can be kept only overnight, only central bank account holders - the commercial banks and the Post Office - are allowed to be the counterparties, there is a cap of the NHTO stock for every commercial bank and only processed banknotes are allowed. It is important to note that commercial banks have outsourced their cash activities in Hungary, so the NHTO stock is typically kept in the vaults of CITs.

As for the coin logistics, 10 years ago MNB had an extensive presence in the cash cycle with a local branch in every major city across Hungary. These branches served coins for private individuals and commercial banks every day of the week without any quantity limit. Today MNB serves only Cash-in-Transit (CIT) companies and concentrates its coin logistics services into one cash centre in Budapest. The coin logistics services of MNB are available only one day in a week in a wholesale quantity. The MNB introduced a number of innovations in order to reduce its role of coin logistics. For example MNB established coin depositions (Coins-held-to-order scheme), introduced transaction fee policy to motivate the CITs to use the central bank's cash service only when it is unavoidable. The innovation from 2011 is that the MNB focuses on the combined coin position of all its coin depository counterparties and enables a central bank coin transaction only when this combined position is above or below certain thresholds. Thus the central bank motivates 'coin trade' between the market participants. Currently the MNB has only one "physical" coin transaction per month on average, as opposed to 5-10 per day before.

The MNB introduced transaction fees already in 1998. From 2005 special fees were added: if counterfeited banknotes are found among genuine banknotes lodged to the MNB, an extra fee charged on top of the routine debiting. In 2009 another special fee for discrepancies was introduced. The coin fee structure was modified to motivate commercial recirculation of coins by making the flow of coins into and from the MNB more expensive than using the CHTO stocks. All fee revenues cover 30% of the operational costs of the MNB's cash management function. (See Annex for details.)

Organizational changes at the MNB

The last two regional branches were closed in 2007 so the MNB has only one cash center now. Parallel with this, the staff of the cash department was reduced from above 200 in the late 1990s to 64 by 2010. An important change in the organization structure in 2007 was the reintegration of the cash policy and operational functions of the MNB. The new department is functioning much better.

The MNB has built a new cash centre in the industrial belt of Budapest, 20 km from the city centre. All MNB cash operations were moved from the centre into the new state-of-the-art facility. This building also houses the Hungarian Mint Ltd. and a new IT back-up function of the bank. The new cash centre has a fully automated container-based vault and self-guided vehicles for internal logistics. Banknote sorting is done by the four BPS 1000 machines (two of them multi-deno) with online shredding and packaging systems. All work processes are integrated into the SAP based cash software that is also interfaced to clients to facilitate online ordering and feedback.

The MNB has reviewed the responsibility management regime of cash handling staff as in the new cash center the amount of losses and discrepancies dropped significantly and the risk profile has shifted to other factors. That's why the objective responsibility of cash handlers has been abolished and general rules are applied. In addition MNB changed the control points of cash handling processes, introduced new training policy, and stresses the importance of prevention.

Special projects

Supply chain risk management. The supply risk management project will be continued with two major issues in 2011. The major focus is to develop and test a contingency solution together with the Hungarian Police for such kind of emergency cases, when the most important CIT's services are not available at all. This BCP can be only an interim solution and focuses on the major offices of the commercial banks. In the emergency situations - together with the police forces - MNB will provide the transportation tasks of cash distribution to those bank and post offices, which play important role in the cash supply of the Hungarian citizens.

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ANNEX: Fees of the Magyar Nemzeti Bank for professional cash handlers

Transaction type		Fees (EURO/1000 banknotes)*			
		transaction fee	+repackaging fee**	=total fee	
IN	sealed secure bag*	Fit	1.1	3.3	4.4
		Unfit	0.0	3.3	3.3
		Denomination exchange (fit)	2.2	3.3	5.5
		Denomination exchange (unfit)	0.0	3.3	3.3
	container (as 50-250 bundle units)	Fit	1.1	0.0	1.1
		Unfit	0.0	0.0	0.0
		Denomination exchange _in (fit)	2.2	0.0	2.2
		Denomination exchange _in (unfit)	0.0	0.0	0.0
OUT	non-standard amount (not multiples of 200 bundles)	Withdrawal	1.1	3.3	4.4
		Denomination exchange _out (fit)	0.0	3.3	3.3
		Denomination exchange _out (unfit)	0.0	3.3	3.3
	standard amount (200-bundle) container	Withdrawal	1.1	0.0	1.1
		Denomination exchange _out (fit)	0.0	0.0	0.0
		Denomination exchange _out (unfit)	0.0	0.0	0.0
Special fees					
<i>Counterfeited banknote</i>	<i>in unfit shipment</i>	<i>2x the face value</i>			
<i>Counterfeited banknote</i>	<i>in fit shipment</i>	<i>10x the face value</i>			
<i>Discrepancies</i>	<i>in fit and unfit shipment</i>	<i>flat fee</i>	37 euro/unit		
<p>* At 1 EUR = cc 270.0 HUF. Fees are, in practice, levied per banknotes, but here shown as per 1000 banknotes.</p> <p>** Repackaging fee applies to non-standard units, i.e. when MNB has to put the seal bags into containers or take out bundles from containers.</p>					