



Recent work of the CPSS and the Red Book for Macedonia*

Seventh Conference on Payment and Securities Settlement Systems

Ohrid, Macedonia, 6-9 July 2014



Emanuel Freire
CPSS Secretariat
Bank for International Settlements

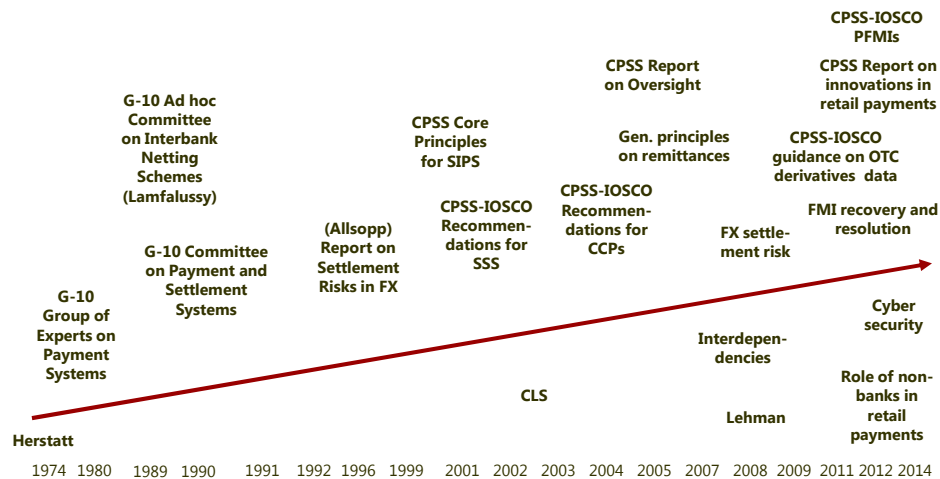
* Views expressed are those of the author and not necessarily those of the BIS or CPSS

The Committee on Payment and Settlement Systems

- ⇒ The CPSS is a global **standard setting body** in the field of payments, clearing and settlement systems and related activities (also including the formulation of common policies and recommendations):
 - e.g. *Central bank oversight of payment and settlement systems* (2005)
 - Principles for financial market infrastructures* (2012)
- ⇒ It also serves as a forum for central banks to **monitor and analyse developments** in large value and retail payment, clearing, settlement and related arrangements, schemes and instruments, both within and across jurisdictions (also including cooperation and sharing information, increasing common understanding, etc.):
 - e.g. *Role of central bank money in payment systems* (2003)
 - The interdependencies of payment and settlement systems* (2008)
 - Innovations in retail payments* (2012)
- Establishment in 1990 (preceded by the 1980 *Group of Experts on Payment*), reporting to the Governors of the Global Economy Meeting
- Today 25 member central banks, chaired by Benoît Coeuré (ECB)



Development and focus of CPSS activities



Top challenges for CPSS in the coming years

- Evolution of oversight approach
- Implementing the Principles for FMIs
- FMI recovery and resolution
- Retail payment developments
- Cooperative oversight
- Cyber security in FMIs

Evolution of central bank oversight

"Oversight of [payment and settlement] [systems]

is a **central bank function**

whereby the objectives of **safety** and **efficiency** are promoted

by **monitoring** existing and planned systems,

assessing them against the objectives and,

where necessary, **inducing change**."

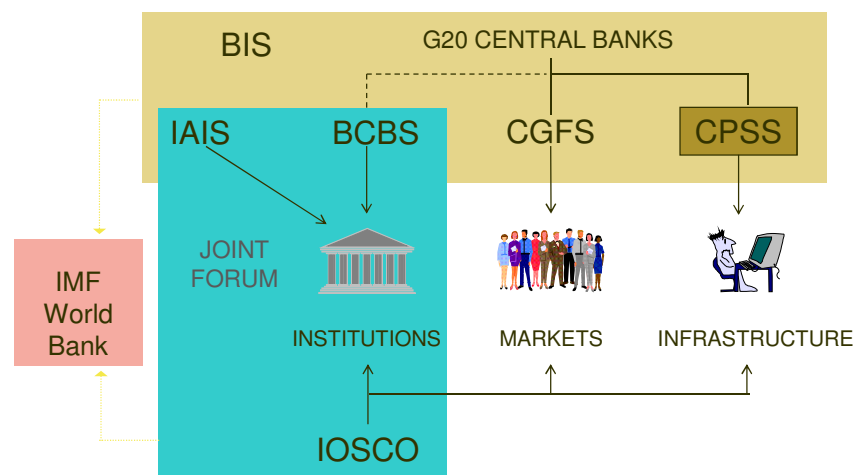
CPSS report on *Oversight of payment and settlement systems*, BIS, 2005

A question of "territory"

	Central banks	Market regulators	Bank supervisors	Competition authorities	Consumer protection agencies	Financial stability authorities	Resolution authorities	Other (IT, telco, etc.) regulators
Large value payment systems	S + E			(E)?		S	(S)?	
Retail payment systems	S + E	(S)?		E	(S + E)		S?	
"Quasi" systems	?		S	E		?	?	
Banks			S	E	S + E	(S)	(S)	
Payment instruments	(S + E)	(S)?		(E)	?			
Non-bank payment service providers	(S + E)?	(S)?		E	(S + E)			(S + E)
	Infrastructure perspective	Market perspective	Entity perspective	Competition perspective	User perspective	Stability perspective	Stability perspective	Sectoral perspective

(S)safety ←→ (E)fficiency

CPSS as standard setting body



Status of CPSS standards such as the PFMI

- *Not legally binding* as such but national regulation increasingly based on them (sometimes by way of incorporation) because of:
 - Power of the arguments they contain ("*soft law*")
 - *Commitment of members* of the relevant bodies (CPSS, IOSCO, FSB) to adopt the PFMI and put them into effect as soon as possible; FMIs are expected to observe the principles as soon as possible
- Compliance of CCPs with the PFMI is a condition for banks to benefit from lower capital requirements (see Capitalisation of bank exposures to central counterparties, BCBS, 2012)
- Subject to *implementation monitoring* by CPSS-IOSCO and FSB
- Basis of assessments by IMF and World Bank as part of the financial sector assessment programmes (FSAPs)

Disclosure Framework

- *Principle 23 of the PFMI*s requires FMIs to complete the *Disclosure Framework* on a regular basis and disclose their answers *publicly*
 - Outlines basic information that an FMI should disclose to increase *transparency* of its governance, risk-management, and operations in order to provide participants, authorities, and the public with a comprehensive understanding of the FMI and to facilitate comparisons across FMIs
 - Prepared in connection with the Assessment Methodology to ensure a consistent framework for disclosure and assessment
- ⇒ Further work being conducted by CPSS-IOSCO on **Additional Quantitative Disclosures** (consultative report of August 2013)



Assessment Methodology

- Provides *guidance for assessing observance* of the 24 principles and 5 responsibilities defined in the PFMI, for determining the scope of an assessment, gathering facts, developing conclusions, and assigning a rating of observance for each principle
- Intended to promote objectivity and comparability across assessments of observance in different jurisdictions
- Intended primarily for *external assessors* at the international level, such as the World Bank and the IMF
- May also be used by *national authorities*, either as written or as an input to their own methodologies
- Also to be used by CPSS-IOSCO in the *PFMI implementation monitoring*



PFMI implementation monitoring

- *Full, timely and consistent implementation of the PFMI*s is fundamental to ensuring the safety, soundness and efficiency of key FMIs and for supporting the resilience of the global financial system
- *CPSS and IOSCO members are committed* to adopt the principles and responsibilities in line with G20 and FSB expectations
- In April 2013, CPSS and IOSCO announced that they have *started the process* of monitoring implementation of the PFMI
- Reviews will be carried out in three stages:
 - Level 1 - ensuring the *timely* implementation
 - Level 2 - ensuring *regulatory consistency*
 - Level 3 - ensuring consistency of *outcomes*



Application of PFMI to central bank FMIs - guidance note

- The PFMI are generally applicable to *infrastructures operated and owned by central banks*
 - In a few areas, the PFMI do not apply directly (e.g. governance, resolution planning, holding of liquid assets)
 - Nothing in the PFMI is intended to constrain central bank policies on offering central banks accounts, provision of credit by the central bank, central bank eligible collateral or the implementation of monetary policy
- ⇒ Further *guidance* under consideration on the application of the PFMI to central bank FMIs



Assessment methodology for critical service providers

- *Annex F to the PFMI*s outlines *five oversight expectations for critical service providers* in order to support an FMI's overall safety and efficiency
 - A supervisor or overseer of an FMI may want to assess an FMI's critical service provider against these expectations
 - Such assessments are intended to complement the assurances of quality of service that FMIs would seek from their critical service providers as part of their compliance with broader CPSS-IOSCO principles
- ⇒ To support such assessments, CPSS-IOSCO have prepared an *assessment methodology*, which is expected to be published in H2/2013 (following the consultative report of December 2013)



Recovery of FMIs

- CPSS-IOSCO consultative report published in July 2012
- Further work on FMI recovery planning on-going – a draft report was issued for *consultation* in August 2013
- Aim to provide *guidance on the development of comprehensive and effective recovery plans to FMIs* as well as to *supervisors, overseers and resolution authorities* of the FMI
- Guidance could cover:
 - the relationship with the FMI's *risk management* and to *resolution*,
 - the process of *recovery planning*, and general guidance on the content of recovery plans
 - determining an appropriate set of *recovery tools*



Resolution of FMIs

- *FSB Key Attributes (KA)* for the resolution of systemically important FIs of November 2011, with further work being undertaken on a related *Assessment Methodology (AM)*
- Together with CPSS and IOSCO, an *FMI annex to the KA* and *FMI related specifications in the AM* are being prepared to indicate how particular KAs should be interpreted when being applied to resolution regimes for FMIs:
 - *continuity and timely completion* of critical payment, clearing and settlement functions and settlement of obligations due to participants and to any linked FMI
 - continuity of '*delivery versus payment*' and application of the relevant *finality* rules
 - *continuous access* of participants to the critical functions of the FMI, including to securities or cash accounts held by the FMI
 - *no disruption in the operation of links* between the FMI in resolution and other FMIs
 - continuous processing of and access to, *data stored in a TR*



Collateral management services and settlement risk

- CPSS has established a task force in 2013 to look at *collateral management services from a settlement risk perspective*
- Increased demand for collateral is spurring innovation in services to provide financial institutions with tools to more efficiently manage collateral, such as:
 - Aggregation of information
 - Collateral optimization
 - Automated collateral allocation, relying on substitution capabilities
- Supply and demand dynamics are still evolving and use of services and associated risks are likely to change over time
- Innovation may increase (inter-)dependencies, concentrate and enhance existing risks (legal, operational, etc.)
- Not much evidence yet for collateral transformation



Market-wide recommendations for securities settlement

- Annex C of the PFMI lists those Recommendations for SSSs that have not been incorporated in the PFMI, as they do not entail requirements for FMIs and their relevant authorities:
 - *RSSS 2 on Trade confirmation, RSSS 3 on Settlement cycles, RSSS 4 on CCPs, RSSS 5 on Securities lending and RSSS 12 on Protection of customers' securities*
- Given that these RSSS date back to 2001, some requirements have become outdated or affected by new market developments:
 - *move to T+2, mandatory clearing, client asset protection regimes*
- Other aspects emerged that may benefit from new requirements:
 - *e.g. trade reporting, portfolio compression, client clearing, etc.*
- In view of this, CPSS and IOSCO have agreed to review the market-wide recommendations starting in H2/2014



Global TR aggregation

- Need to establish a *centralised or other mechanism* to produce and share *global aggregated data* that authorities need to fulfil their mandates and to monitor financial stability, taking into account legal constraints (secrecy and confidentiality rules) and technical issues (standardisation of data)
- *Feasibility study* conducted by FSB jointly with CPSS and IOSCO

Legal Entity Identifier

- Global Legal Entity Identifier (LEI) System
 - Establishing a global scheme for the issuance of legal entity identifiers that will *uniquely identify parties to financial transactions*
 - mandate provided by the G20 to the FSB at the Cannes Summit
- The Regulatory Oversight Committee (ROC) was established in January 2013 - CPSS is a member of the Executive Committee of the ROC



OTCD related follow-up work

- **Capital requirements for bank exposures to central counterparties**
 - BCBS document was published in April 2014
 - New approach for determining the capital requirements for bank exposures to qualifying CCPs (QCCPs), *compliance with the PFMLs* is a precondition for being designated as QCCP
 - An explicit cap on the capital charges applied to bank exposures to QCCPs
- **Large exposures to CCPs**
 - Introducing the framework for large exposures of banks to CCPs
 - Final BCBS proposal under preparation
- **Margining requirements for non-centrally-cleared derivatives**
 - proposing margin requirements for non-centrally-cleared derivatives
 - BCBS-IOSCO final report published in September 2013



Virtual currencies

- **Features:**
 - A “currency” (no legal tender, but means of exchange) with an embedded *user-to-user* payment mechanism
 - Usually *unregulated*
 - Issuers / scheme owners (if any) are usually non-financial companies
- **Concerns:**
 - Anonymity and potential for money laundering and criminal activities
 - Shares the vulnerabilities of cash (theft, counterfeit) and adds others (cyber attacks)
 - Opaque procedures for money creation: inherent instability
 - Reputational risk for central banks and other authorities
 - (So far) limited use as a means of exchange due to lack of critical mass
- Until recently, little attention has been devoted to these currencies due to their small size, but this is *rapidly changing (Bitcoin)*



CPSS work on cyber security

- Part of operational risk (PFMI Principle 17) - CPSS has been looking at specific aspects of cyber security (e.g. phishing) in the past
- In June 2012, the CPSS set up a working group (involving IOSCO, BCBS, CGE and WPSI) to identify and analyse *cyber security issues for FMIs, challenges to ORM and BCPs*, and also *implication for overseers*
- Key preliminary findings:
 - Increasing sophistication of attacks - diversity of goals (fraud, terrorism, etc.)
 - Multiplicity of entry points
 - Attackers can and will breach defences (e.g. attacker is already inside)
 - Disruption can extend beyond expectations (comprehensive data/system integrity breach)
 - Diversity of measures needed (IT, processes, people, communication)
- CPSS is currently discussing with FMIs the policy issues and technical questions that arise in respect of cyber security
- CPSS may prepare *guidance* to support overseers in ensuring that FMIs address cyber security issues properly



Innovations in Retail Payments

- **Report on Innovations in Retail Payments** (May 2012):
 - Stocktaking exercise and analysis, based on a comprehensive survey in which some 122 innovations were reported by 30 central banks (including some non-CPSS central banks)
 - Trends:
 - *Dynamic market*, but few innovations have significant impact (so far), regional differences are likely to persist
 - Most innovations are national (role of *standardisation*?)
 - *Speed* is gaining importance in retail payments (real-time)
 - *Financial inclusion* is a driving force
 - *Role of non-banks* is increasing
 - *Security issues* will become ever more critical
- ⇒ *Regulation can be either driver or barrier*



Role of non-banks in retail payments

- The report on *Innovations in retail payments* (May 2012) identified as one of the main trends the increasing role of non-banks; it recommended a separate work stream to study the role of non-banks in retail payments
- A CPSS Working Group on *Non-banks in retail payments* was created in January 2013
- Status of work:
 - Provisional (functional) definition of "Non-bank" (a retail payment service provider whose main business is not related to taking deposits from the public and granting credit)
 - Initial comprehensive and qualitative survey of 21 jurisdictions
 - Identification of main challenges/issues for central banks in relation to the increasing importance of non-banks
- Results expected for H2/2014

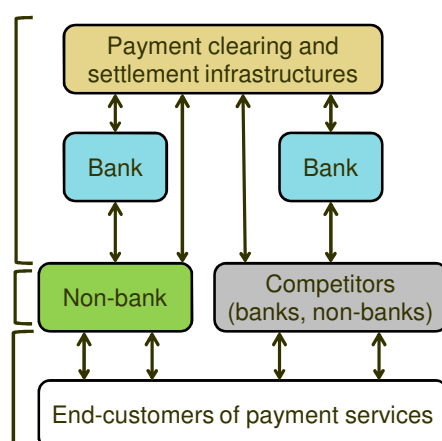
Challenges in the retail area

⇒ **Different issues in different areas**

1 – Fair access to payment infrastructures

2 – Competition

3 – Security and efficiency of services provided to end customers



Issues and challenges for central banks

Varying from country to country, but common issues and challenges persist:

- It is important to *monitor and assess new developments* (collection of relevant data, building expertise)
- Formulating and *communicating in a transparent way* the objectives, views and research of the central bank vis-à-vis innovations
- Central banks may play a role to foster *standardisation and interoperability*
- *Oversight frameworks* may need to be reviewed
- *Cooperation* with other central banks and authorities (at a national and international level) will have to be enhanced
- Need to assess the *impact of innovations* on the services offered by the central bank, on cash provision and on monetary policy



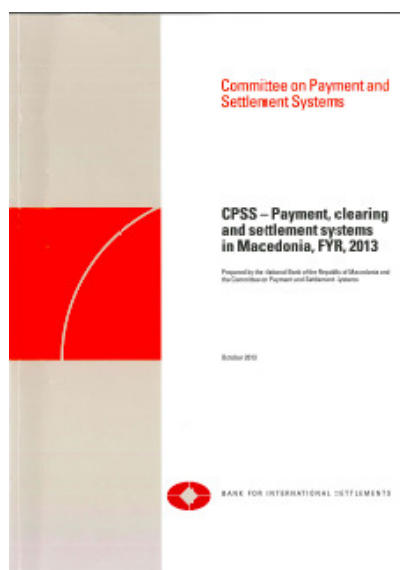
Payments Aspects of Financial Inclusion

- In November 2013, CPSS and World Bank launched a *Joint task force on payments aspects of financial inclusion* (PAFI)
- Members are 14 CPSS central banks and a number of international institutions (AfDB, CEMLA, EBRD, IADB and IMF)
- Issues covered entail:
 - legal and regulatory aspects
 - The balance between payment systems policy objectives like stability and safety, and accessibility and inclusiveness
 - supply and demand perspectives (e.g. access to and usage of financial services, design and governance of the payments infrastructure, customer awareness and education)
 - the role of government payments
- A publication may be envisaged for 2015



Other Current CPSS Initiatives

- **Glossary**
 - *Reference terms and definitions* used in CPSS publications
 - Published on the CPSS website
 - Currently being *updated*
- **Red books**
 - A description of current payment and settlement systems in member and non-member countries
 - Last publication (in two volumes) of the descriptive CPSS red book published in 2011 and 2012
 - Last non-CPSS red book for Macedonia in 2013
 - Regular publication of *red book statistics*



The general institutional framework

- The National Bank of the Republic of Macedonia (NBRM)
 - Payment systems oversight;
 - Operational role as the owner and operator of the MIPS, banker for the government (including acting as government agent for payments abroad) and settlement agent of MasterCard (for cards issued under this brand by domestic banks for payments) in local currency;
 - Maintain settlement accounts for banks and other financial market participants;
 - As overseer and catalyst.
- The Securities and Exchange Commission of the Republic of Macedonia (SEC)
- Treasury operations and the Ministry of Finance



The general institutional framework

- Treasury operations of the Health Insurance Fund of Macedonia
- Banking Association
- Commission for Protection of Competition
- Consumers' Organisation of Macedonia (OPM)



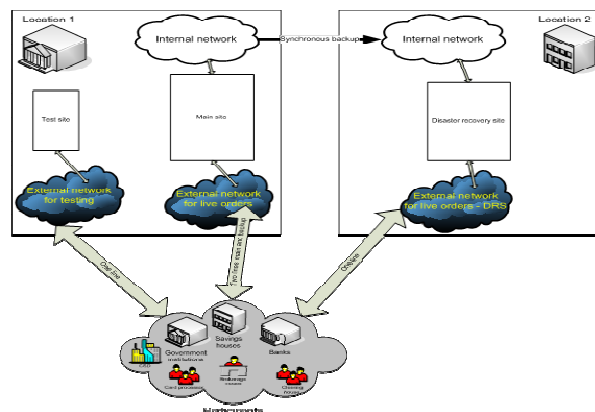
Payment and securities settlement systems operating in Macedonia,

- Macedonian Interbank Payment System (MIPS);
- Clearing House Klirinski interbankarski sistemi AD (KIBS);
- CaSys International;
- Banks' in-house systems; and
- The securities settlement system (CSD).

Overview of Payment Systems

- **MIPS (Macedonian Interbank Payment System)**
RTGS System - Systemically important payment system
 - ◆ Operated by the National Bank
 - ◆ Real Time Gross Settlement System, for large value (≥ 1 million denars, about 16.260 EUR) and urgent payments
 - ◆ Closely connected to the OTC System – SisX, which is also operated by the National Bank
 - ◆ Working hours: 08:00 – 17:30
 - ◆ In 2012, settled 4,930.849 transactions, MKD 2.563 billion (EUR 41,671 billion), average value per transaction MKD 519.847 (EUR 8.452), daily average volume of 19.802,61 transactions, daily average value MKD 10,3 billion (EUR 0,16 billion)
- **KIBS (Clearing InterBank System)**
Retail payments clearing house - Important payment system
 - ◆ Operated by a private company founded by the commercial banks
 - ◆ Deferred net settlement system, multilateral netting of retail payments (< 1 million denars, about 16.260 EUR)
 - ◆ Settlements are transferred from/to participants in packets
 - ◆ Settlement of net positions in MIPS RTGSS once per day (14:30 – 15:30)
 - ◆ In 2012, exchanged 23.771.404 transactions, MKD 255 billion (EUR 4,146 bill.)

MIPS technical architecture



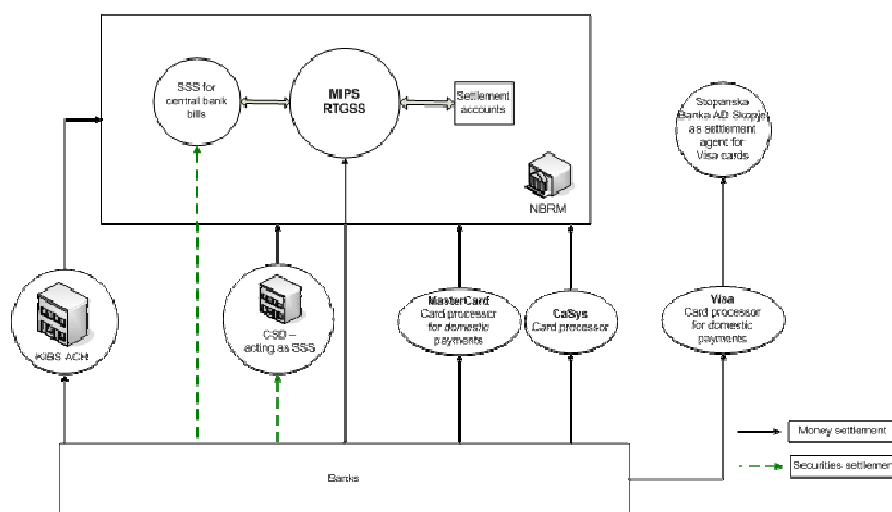
Overview of Payment Systems

- Casys (International payment cards processor)
 - Clearing house - Other payment system
 - Operated by a private company owned by a bank
 - Deferred net settlement for transactions with domestic payment cards
 - Projected from the state as a NPC – National Payment Card processor at the beginning
 - Settlement of net positions in MIPS RTGSS once a day (09:00 – 11:00)
 - In 2012, settled 9.5 million domestic bank transactions
- CSD (Central Securities Depository)
 - Clearing house - Other payment system
 - Operated by a public state company
 - Controlled by Securities and Exchange Commission
 - Registration of securities issuance
 - Provides the International Securities Identification Number (ISIN)
 - Registration of securities' owners
 - Settlement of trades under the Delivery Versus Payment (DVP) principle
 - Settlement of net positions in MIPS RTGSS once per day (10:00 – 11:00)
 - DVP Settlement in MIPS on the OTC Market (cash leg of the SisX System in the National Bank)

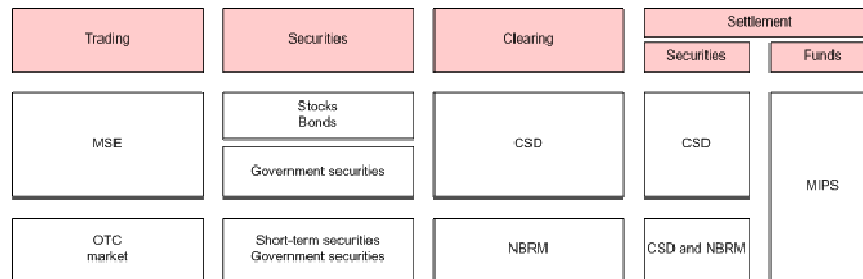
Participants in the Payment System

- Every participant has at least one BIC code
 - ◆ KIBS, Casys, CSD – the 3 clearing houses are participants in MIPS
 - ◆ 15 Commercial banks
 - ◆ 1 State support bank (Macedonian Bank for Development Promotion)
 - ◆ MasterCard International Incorporated settles in MIPS
 - ◆ State Treasury System and Health Insurance Fund
 - ◆ 1 Broker is a direct participant in MIPS
 - ◆ National Bank of the Republic of Macedonia (NBRM)
 - ◆ 1 BIC NBRM Payment Systems Department
 - ◆ 2 BICS NBRM Financial Markets Department
 - ◆ 1 BIC NBRM Cash Management Department
 - ◆ 2 BICS NBRM Financial and Accounting Department
 - ◆ 1 BIC NBRM System for OTC transactions of securities of the National bank (SisX)

Overview of clearing and settlement systems in Macedonia



Trading, clearing and settlement of securities in Macedonia



Selected trends

- Increasing use of mobile devices for payments, including over the internet
 - In the 4Q.2013 there were 11.6 thousand transactions initiated by mobile devices (a 113,9% increase to the previous quarter);
 - There were 91 thousand card payments over the Internet in the 4Q.2013, a 313% increase to the previous quarter.
- Increasing integration with the European payment ecosystem

