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# National currency circulation system: formation and development prospects

**BISHKEK 2013** 

#### Working papers series of the conference devoted to the 20-th anniversary of the Kyrgyz som introduction, "National currency circulation system: formation and development prospects", March 6, 2013

Approved for publication:

Deputy Chairman:	S. Abdybaly tegin
Chief of Economic Department:	S. A. Urusmetov
Executive Secretary:	A. R. Berdigulova

If you have questions regarding the content of this publication, please contact us at: 101 Umetaliev St., Bishkek The National Bank of the Kyrgyz Republic Phone: (996 312) 66 91 59 Fax: (996 312) 61 07 30 E-mail: <u>aberdigulova@nbkr.kg</u> <u>http://www.nbkr.kg</u>

The series includes shorthand records of verbal reports, articles and presentations of the speakers on the issues of monetary policy, development of the payment system as well as banking and micro-financing sectors of the Kyrgyz Republic.

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## Introductory speech of the conference moderator, the NBKR Deputy Chairman, Suerkul Abdybaly tegin

#### Dear ladies and gentlemen! Dear colleagues, friends!

Welcome to the third scientific and practice conference devoted to the 20-th anniversary of the national currency introduction. This event was organized under the auspices of the National Bank of the Kyrgyz Republic and the Academy of Management under the President of the Kyrgyz Republic.

6<sup>th</sup> March is a special day for all of us. The National Bank of the Kyrgyz Republic was established by the resolution of the Supreme Soviet of the Kyrgyz Republic on this particular day in far 1992. One year later – May 10, 1993 – independent Kyrgyzstan, the first among the CIS countries introduced national currency – Kyrgyz som.

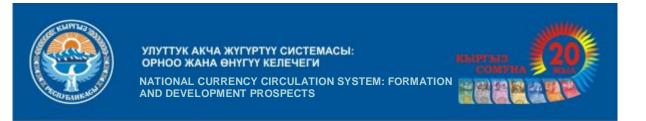
These are the key aspects in formation of the money circulation system in the republic. Besides, a lot was made in the legislative sphere and in the sphere of the National Bank development as a special institution. And we've got a great deal of work ahead of us!

We've always been aware that open discussion and consensus are the only right ways of taking comprehensively grounded decisions. These are the issues we are about to discuss today. The topic of today's conference is the "National currency circulation system: formation and development prospects".

Introduction of the national currency marked commencement of carrying out truly independent monetary policy. It sets a lot of tasks in front of us, which are often solved ambiguously and require in addition to high professionalism, strong political will and readiness to use nonstandard ways facing down challenges of modern economy.

I'm sure that our conference will become fruitful ground for exchange of opinions and finding new and nonstandard solutions in current nonstandard conditions. We'll be glad to listen to and discuss the most unusual offers as specific objectives are not reached by standard ways.

Dear colleagues! Let me open the third research and practice conference devoted to the 20-th anniversary of the national currency introduction and wish success to all participants!



#### Welcome speech of the NBKR Governor, Zina Mukaevna Asankojoeva

#### Dear ladies and gentlemen!

Welcome to the conference devoted to the 20-th anniversary of the national currency introduction in the Kyrgyz Republic. The conference was organized with assistance of the Academy of Management under the President of the Kyrgyz Republic.

On May 10, 1993, our country was one of the first among the former Soviet republics to introduce the national currency – Kyrgyz som. A number of outstanding events which are opened today by the present conference are planned for this year in commemoration of this remarkable date.

20 years – a very short period for the history; transfer from one economic system into another has been implemented during this time. Comprehension of the national currency has become an integral part of our consciousness; everyone understood the significance of money purchasing value and danger of high inflation rates. We mastered a lot of things in the sphere of economic processes management having passed through two difficult decades which faced economic growth and crisis, success in politics and tragic events.

Having got its independence, Kyrgyzstan focused on ultimately liberal approach in economic policy-making process. We've chosen the way of economic reforms thereby integrating into global economy.

One of the first decisive steps made on this way was introduction of the national currency. Nowadays, we can speak with confidence about timeliness and reasonability of such decision. In fact, it was objective necessity for the decisions to be later made in the economic policy. The role of the National Bank has considerably changed; it became the central bank to the full extent. Due to selected regime of the floating exchange rate the economy can adapt to changing external conditions, which is particularly significant for the small open economy.

However, despite substantial progress economic situation is mainly difficult. New challenges appear which we should fight off every year. Finding solutions is obviously joint activity. Particular emphasis should be placed on the importance of coordinated policy-making by the Government and the National Bank. Involvement of financial institutions, scientific community and society as a whole is very important in the process of decision making. Economic and social efficiency should be regarded as of paramount importance.

There is significant mutual dependence between financial system, healthy and strong economy, investment opportunities and, as a result, people well-being. This fact was repeatedly proven in many empirical studies.

In my opinion, nowadays, we are to solve the most difficult issues set by modern time. For this purpose there are:

- active people with modern ideas;
- knowledge and invaluable experience of economic changes in the transitional period;

- natural and material resources available in sufficiency to provide worth living subject to putting to good use thereof.

People got used to perceiving currency circulation and banking servicing as matter of course and something usual and in the routine life nobody has ever started thinking about the way these processes are controlled and the number of people involved in these processes. However, this is probably the best indicator of uninterrupted operation.

Development and strengthening banking sector, microfinancing institutions, payment



system, and monetary policy transmission mechanism are the most important issues nowadays. Today, all these aspects are included in the reports of our respected speakers. Therefore, I appeal to all of you to emphasize usefulness and economic efficiency of conclusions to be made. I'm sure of fruitful cooperation and hope that we'll be able to work successfully, to exchange experience in carrying out economic reforms and in the course of discussions and even debates to achieve some particular results to be used in further operation of the National Bank.

I wish you fruitful and interesting work!



### CONDITIONS AND BACKGROUND OF THE NATIONAL CURRENCY INTRODUCTION IN THE KYRGYZ REPUBLIC (SITUATIONAL ASSESSMENT)

Karim Madjitovich Urazbaev, Ex-First Deputy Minister of Finance of the Kyrgyz Republic

*Report*<sup>1</sup>

I see a lot of young people present here, who didn't catch or due to their young age do not remember the events occurred 20 years ago. Therefore, I would like to start my speech with description of the period predating introduction of the national currency.

The Soviet Union collapsed in 1991. Thereafter, the system of business relationship was destroyed which operated within the framework of common macroeconomic complex, earlier called all-economy complex. This resulted in breaking of external relations, and ultimately in breaking of cooperation ties. Events on holding adverse effect of systemic crisis in the economy were carried out in this respect.

I would like to remind you the inflation rates of that period in order to assess the depth of crisis. As you remember, you are likely to have read; huge spurt in inflation was originally observed. Later it became clear, that the process was characterized by hyperinflation rather than inflation spurt. In 1992, annual inflation rate made about 1 770 percent in Kirghizia, in Russia -2500 percent. You understand that in such conditions it was impossible to keep economic ties as destruction process thereof acquired threatening character. It destroyed banking system of newly formed states, damaged economy and correspondingly resulted in failure to perform social obligations inherited from socialism. And you know, that social burden of the state was enormous it included the system of benefits and other privileges.

Another great challenge of that period which required urgent solution was "interruptions" in the payment system on foreign trade operations which were caused by two major factors. The first factor is high inflation rate and the second is Resolution of the Government of Russia on price liberalization which was passed in early 1992 and implemented within two-week period whereby resulting in another inflation spurt. Non-payment crisis started at once, business entities had nothing to pay with. There was a situation in which it became profitable not to make settlement in cash, the volume of non-payments increased. Business entities supported barter trade. In respect of a number of products up to 80 percent of trade operations were carried out according to barter based cooperation. Generally, barter deals made 28 percent in the total trade turnover of Kirghizia. Development of barter system caused losses in revenue side of the budget, breakdown of tax system, as tax collection becomes impossible in conditions of barter exchange. As you see it was a very huge problem which should be solved.

At the same time you can say: "Why didn't you introduced national currency being aware of such difficult moments as, for example, Estonia, which introduced its own currency approximately in October, 1992?" We perfectly realized the necessity of this measure but availability of particular economic factors prevented us from forcing events.

When the Russian Federation has unilaterally introduced the system of correspondent accounts for newly formed states difference on trade operations was converted into external debt which was calculated in the Soviet rubles. The USSR State Bank and 14 Central Banks

<sup>&</sup>lt;sup>1</sup> Verbal report was written in shorthand and edited by the NBKR.



of the former Soviet Republics remained after collapse of the Soviet Union. The USSR State Bank issued cash holdings while all other banks were entitled to issue loans. Ukraine was the first to exercise its right and issued RUB 350 billion within the first half of 1992; deficit-free budget was set in Kyrgyzstan for the first half of the year 1992. Competition for the volume of issued cash holdings started later, it caused hyperinflation in thousands of percents and breakdown of the whole system. However, we had to stay in the current system as long as possible, as Kirghizia had negative balance of trade<sup>2</sup> even in the Soviet period which made

NATIONAL CURRENCY CIRCULATION SYSTEM: FORMATION

УЛУТТУК АКЧА ЖҮГҮРТҮҮ СИСТЕМАСЫ: ОРНОО ЖАНА ӨНҮГҮҮ КЕЛЕЧЕГИ

about 17 percent of GDP. Kirghizia was granted a loan from the Union budget to cover such balance, as well as latent subsidy by means of raw materials, fabric, and energy sources supplies at the domestic prices of the state which are far lower that the world prices. On the other hand, such situation was not advantageous for those countries which had active balance of trade.

One more moment, which should be emphasized – the International Monetary Fund was totally against introduction of the national currencies till the first half of 1992. In May 1992, meeting of the CIS leaders was carried out in Tashkent, where the IMF declared that the countries to have introduced national currency should not rely upon resource support on the part of the monetary fund. You understand that under the conditions of passive balance of trade and subsidized budget, the introduction of national currency was out of the question, as there were no resources which could provide steady position of the Republic.

There was another factor in respect of Kirghizia, which played restraining role. As they say, our advantage has become our disadvantage. During collapse of the Soviet Union, Kirghizia left behind Turkmenia, Tajikistan, and Kazakhstan by the level of industrialization. Kyrgyzstan was characterized by diversified structure of industry with large share of finishing fields in the sphere of engineering. As aforementioned fields had the most developed system of cooperation ties, they suffered most of all, when the system broke down, as a result the country slipped into recession very quickly. Moreover, in the structure of industry in Kyrgyzstan based on subordination<sup>3</sup>, 60 percent comprised enterprises of union subordination, about 30 percent were the enterprises of union and republican subordination, and only 6 percent were the enterprises of republican subordination. This structure had its advantages and disadvantages. The advantage was that Kyrgyzstan was granted subsidies by means of union ministries, the disadvantage consisted in restricted control over particular industrial facilities at the level of the Republic. For example, the plant named after V.I. Lenin manufactured large volumes of products for military and industrial complex, which was directly subordinated to the Union ministry. In 1991, having declared independence of the Republic, Kyrgyzstan stated that all enterprises located in its territory are the property thereof. However, it was not enough to declare the owner; the declared property should have been taken under control, which was a great problem under the conditions of the aforementioned structure.

It was obvious in the current situation that the process of currency split was inevitable and we had to be ready for it. Nevertheless, Kyrgyzstan kept active participation in the negotiations on establishing payment and clearing unions, thereby providing financial and material support from the "old" sources.

I think that now it became clear for you why the national currency was introduced rather late. However, on saying "rather late" I would like to remind that the Kyrgyz som was introduced on May 10, 1993. While our neighboring trade partners, Kazakhstan and Uzbekistan introduced national currency in November 1993, i.e. halfway through the year.

<sup>&</sup>lt;sup>2</sup> During the era of the Soviet Union it was called foreign trade balance (author's note).

<sup>&</sup>lt;sup>3</sup> During the era of the Soviet Union the enterprises were divided not by their property, but by subordination (author's note).



 
 УЛУТТУК АКЧА ЖҮГҮРТҮҮ СИСТЕМАСЫ:

 ОРНОО ЖАНА ӨНҮГҮҮ КЕЛЕЧЕГИ

 NATIONAL CURRENCY CIRCULATION SYSTEM: FORMATION AND DEVELOPMENT PROSPECTS

Our expectations that Russia is to introduce its own currency in August 1993 proved to be right. New Russian ruble was introduced on July 24, 1993. As you see, Kyrgyzstan introduced its national currency ahead of schedule trying tactically not to separate from the resource base the country had got used to in the best way possible. In particular, industrial enterprises were fully dependant on the old resource base, thereby justifying occurred disagreement and opposition on the part of the heads of these enterprises.

The decisive factor in favor of national currency introduction was prices liberalization; circumstances thereof shattered both macroeconomic stability of Kyrgyzstan and threatened integrity of the socio-political system of the country. It was necessary to take measures on sovereignization of economy, political and cultural spheres of Kyrgyzstan, moreover, the government was ready enough for this step.

Having considered the factors and conditions in which the decision on the national currency introduction was made, les us now turn to the reform itself. Working group was formed by the secret order of the President for the purposes of finding solid evidence of the currency reform urgency to be submitted to the cabinet of ministers and the Parliament, who were strongly against. They believed that ruble area departure would cause collapse not only the economic system, but the whole Kyrgyzstan as a state. Difficult task placed before the working group was successfully fulfilled. At this point I would like to recall with great acknowledgement Emil Sadykovich Abdumanapov, who generated ideas and could detach rational kernel among suggested ideas. He could define strategic direction correctly; thereafter we could proceed to implementation of tactical tasks.

Taking into account the importance of the designated mission, members of the working group were delegated to the Issyk-Kul, where they could abstract from the routine work and focus on carrying out model analysis of new macroeconomic indicators missing in the Soviet statistics. For example, it was necessary to make up a balance of payments, whereas it was little known in 1992. There was no Internet at that time therefore members of the working group relied upon available knowledge and their own arguments while elaborating first macroeconomic indicators of the trade economy standards. Balance of payments was made up of four options as under concluded contract when leaving the ruble area the Kyrgyz party should have repaid ruble supply to the issuer and could be sanctioned such as imposition of economic embargo. The fact that the industry of Kyrgyzstan was dependant of imported raw materials could cause irreversible effect. Besides embargo, with the introduction of the national currency the settlements on the foreign trade operations should have been performed at the world market prices rather than at the fixed reduced prices thereby resulting in enormous losses. It was necessary to estimate and simulate all possible progression of events. Besides, it was very important to obtain support of the international financial organizations, so that to provide emergency reserve fund for the purposes of budget financing and currency support.

Introduction of the currency reform suggested by the working group was not least difficult task. The process of this decision making was very difficult and painful; let me share my memories about it with you. The working group relied upon support on the part of the Supreme Council<sup>4</sup>. Inner circle of the republic leaders: President, Prime Minister, Presidium of the Supreme Soviet, which consisted of 13-15 persons headed by Medet Shirimkulovich Shirimkulov, were invited to the Supreme Soviet session to discuss suggestions of the working group. The working group put the arguments for and against currency reform; in conclusion the working group presented the finding that it was necessary to introduce national

<sup>&</sup>lt;sup>4</sup>Counterpart of present-day Jogorku Kenesh (author's note).



currency otherwise it would cause drastic and in some cases irreversible consequences. Having heard the report and discussed it in hot disputes, the Supreme Soviet took into consideration the resolution of the Government on the introduction of the national currency. Thereafter the Supreme Soviet declared that if three months later the consequences differed from those specified in the program, the Government would have to resign, and members of the Working group including E.S. Abdumanapov would stand to the law as people who fulfilled economic diversion against their state. Under such conditions Jogorku Kenesh supported the resolution on the national currency introduction, i.e. the later took it into account but did not share responsibility with regard to this issue.

20 years later you see that despite all difficulties which occurred within this period, such as Black Tuesday in Russia and two world economic crises, Kyrgyz som was characterized by rather stable movement of exchange rate due to the mechanisms which had been provided. For example, Russian Ruble was denominated several times, while Kyrgyz som was once intorduced in 1993 and kept steady. At that time, the USD/KGS exchange rate was USD 1 = KGS 4, afterwards USD/KGS ratio was USD 1 = KGS 10, currently - USD 1 = KGS 47, but the rates of the Kyrgyz som devaluation are lower compared to Turkmenistan, where the exchange rate increased by 9000 times. Compare the exchange rate of the Kazakh tenge at the moment of its introduction and current exchange rate - considerable difference compared to the Kyrgyz som. I would like to call on you to treat carefully the statements that all these years no one had dealt with any reforms; all attempts were of no effect. One of reform results is rather stable movement of the national currency. To my mind Kyrgyz som is the source of proud for Kyrgyz people which should be strongly maintained. As rational currency system will contribute to stabilization of macroeconomic environment which will eventually raise investment attractiveness of the country thereby initiating the process of resource and financial potential accumulation in Kyrgyzstan. All this will contribute to resolving the issue with regard to long-term stable development of the republic, on the basis of real economic growth. The major objective is to improve manufacturing component in the gross domestic output of the Kyrgyz Republic. Thank you for attention!



# PERIOD OF THE KYRGYZ SOM DEVELOPMENT

Marat Abdyrazakovich Sultanov, Deputy of the Kyrgyz Republic Jogorku Kenesh

Report<sup>1</sup>

Dear participants of the conference!

I was asked to make a report about the period of the Kyrgyz som development. This report I will present in a free style so that not to make you be tired of it.

I suppose you are aware of the background of the national currency introduction, which problems existed at that time, and how these problems were solved. That is why I'm not going to dwell on such issues and will turn to the issue about the Kyrgyz som development.

In 1993, payment system was hardly operating in Kyrgyzstan when the national currency was being introduced. Payments procedures lasted for three-four months, money were partially lost. There were a lot of so call forged letters of advice, although this problem affected Kyrgyzstan to a lesser extent. Multiple rates of exchange were observed. Despite the fact that the National bank declared official rate of exchange, multiple rates of exchange were actually applied in the cash and non-cash markets. Payment system and licensed foreign exchange market were hardly operating. Real interest rates were negative. At that time, inflation exceeded 1000 percent, the National Bank provided loans at the rate of 30-50 percent. Thus, high negative interest rate caused substantial corruption component.

Moreover, the accounting system inherited from the Soviet Union was completely useless. For example, balances of banks reflected profit, while the later were in huge overdraft before the National Bank. When the question about repayment of obligations to the National Bank was raised before the banks declaring profit in balance, the heads of commercial banks explained that it was accrued but not actually gained profit. Such problem occurred due to noncompliance of accounting with markets actual conditions.

Besides, it is necessary to emphasize the problem of high market monopolization. At that time banking system of the Kyrgyz Republic consisted of four banks: Promstroibank, Agroprombank, Savings bank and AKB Kyrgyzstan covering 95 percent of the market. Meanwhile, all four banks had negative capital which made approximately KGS 1 billion, thereby exceeding all reserves of the central bank to a great extent. Net international reserves of the National Bank composed negative value, gross reserves amounted to approximately USD 20 million, taking into account Stand-by credit resource provided by the IMF, gross reserves amounted to approximately USD 30-50 million. I suppose that now you understand in what initial conditions the central bank started its activity.

I would like to note that there were a lot of small corporate banks. For example, the Ministry of Internal Affairs possessed its own bank, politicians held their own banks (Adilbank owned by U.A. Baryktabasov). Savings bank was not subordinated to the central bank as under the laws it belonged to Jogorku Kenesh called the Supreme Soviet at that times. According to the laws of that time Jogorku Kenesh was entitled to appoint or dismiss the

<sup>&</sup>lt;sup>1</sup> Verbal report was written in shorthand and edited by the NBKR.



Chairman of Savings bank without central bank being involved. All aforementioned facts had adverse effect on the development of banking system.

Moreover, the salary in the central bank was more lower; the staff was not experienced and not trained. That is why many people preferred to work in the commercial banks, where the salary of staff was high. At that time you didn't have to be a rocket scientist to fulfill the duties of the credit department specialist. Officer of the bank could only provide a loan and receive so called "success commission" instead, which due to negative interest rates reached abnormal values. Average rate on credit amounted to 50-70 percent, while inflation was at the level of 1000 percent. In such conditions it was very profitable to carry out purchase and sale transactions. One could obtain a loan, purchase any commodity, for example bricks, and having resold it just on the next day a person could become very rich instantly. Thus, those people who had access to loans were very rich. That is why the banking system was supposed to be the most corrupted branch of economy in the Kyrgyz Republic.

How did the reform start? Naturally, reorganization of payment system was initially started as it was blocked like "blood circulatory system" and could hardly function. When it was declared that a new payment system would be developed based on a Western model within one year, no one in the country believed that this project would be a success. Nevertheless, basic model was elaborated within 12 months, full-fledged system was introduced in one and a half year.

Secondly, the accounting system was completely revised. This issue was very painful, as no one assessed the quality of assets. On the understanding that the system of accounting and financial reporting were different, the principles of control over commercial banks activity differed considerably from current standards. At that time, the supervision was hardly carried out according to economic standards, monitoring of provided loans was rather fulfilled. The central bank kept files on every loan provided by the commercial banks. You understand that with availability of 10 inspectors, while ten thousands of loans were provided, supervision could hardly be carried out; the system of punishments and rewards was rather implemented. New systems of supervision and punishment were introduced due to these reasons.

The major reform was directed to elimination of monopoly in the market. Financial sector adjustment program (FINSAC) was elaborated and introduced in Kyrgyzstan for this purpose in cooperation with international organizations. Within the framework of this program, Agroprombank and Savings bank, two most unprofitable banks having the largest volume of negative capital, were initially liquidated. You may imagine a rush of indignation and disbelief in correctness of this step caused the decision about liquidation of largest banks of the republic. The society did not believe that very young Chairman, I was 33 year-old at that time, would be able to overcome opposition on the part of influential statesmen holding their positions during the era of the Soviet Union. The main advantage of young specialists appointed to the positions of responsibility at that time was that no one held onto their chairs. That is why we could easily carry out reforms and were ready to resign at any moment if carried out reforms were not approved by the senior officers of the country. On the other hand, the state personnel policy was directed to attraction and retention of qualified specialists. Currently, the situation has unfortunately changed; qualification of the employee is the last thing which is considered in the process of recruitment, but this is another question. Besides, political will is a ticket to success of carried out reforms. Currently, many people criticize A.A. Akaev, K.A. Mambetaliev, T.Ch. Chyngyshev that they made mistakes in the policy which they carried out. However, it is necessary to give them proper respect for the political will shown by them in the difficult period for the republic. On making the decision



about introduction of the national currency they were not afraid to assume responsibility for subsequent risks.

Pursuing the subject about reform of the banking sector, I would like to note that with liquidation of the largest banks the whole system would collapse as only for banks had vast branched network. All other banks were located only in Bishkek, even in Osh- the second most important city- there were no branches of small banks. Thus, if large banks were closed, the republican banking system would have been contracted to the limits of Bishkek city. That is why a very simple model was elaborated; it included properly functioning payment system which provided reliable way of monetary funds holding, thereof gains were not high. However, the possibility of risk occurrence in this model is restricted to minimum. A new institution was established for these purposes – Settlement Savings Company (SSC). Such company was not entitled to provide loans; it could only make settlements, attract deposits and invest its own capital into the securities of the state or of the National bank. It should be noted that the work on instruments development and creation of State Treasury Bills and State Treasury Bonds markets and the notes of the Central Bank, about which I will tell in details below.

Besides, agricultural regions would be deprived of loan resources with liquidation of high-street banks, such things ought not to be allowed. That is why the second institution was established, Agricultural Finance Corporation (AFC). At this point I would like to emphasize that all these institutions were founded by the National Bank, and as they advanced they were transferred under the supervision of the Government.

AFC was not entitled to attract deposits and provided loans only, i.e. crediting and settlement system were separated. Foreign loans and grants which were later distributed among the regions by government official in accordance with their personal judgment were redirected to AFC, where the process of monetary funds distribution was for the first time ever based on commercial benefit and the system of economic indicators. Due to the fact that the AFC activity was aimed at large loans, it could not completely solve the issue of credit resources availability in the remote regions. Upon collapse of the Soviet Union, when the volume of GDP decreased more than twice, a lot of commercial farm households were established, they needed access to small loans. That is why the National Bank initiated establishment of so called Financial Company for Support of Credit Unions. Within the first two years 70-100 effectively operating credit unions were established.

Here I would like to note that a lot of negotiations were conducted, a lot of time and attempts were spent for successful implementation of aforementioned structural reforms and argumentation of such measures necessity. Much attention was paid to promotion of own policy. Active argumentation was conducted among members of the Government and deputy corps as to why such system of control was necessary, why such interest rates were set, why loans should be distributed by means of auction mechanism rather than administratively.

Besides structural reforms the instruments of monetary policy were created and developed. Lack of credit resources was observed at that time that is why the National Bank provided long-term loans – rather than short term ones as nowadays – to the commercial banks for the period from three to six months, and up to one year in separate case. Auction mechanism of credit resources allocation was developed so that the distribution of monetary resources was carried out under the market conditions. Meanwhile, the commercial banks participating in the auctions were to comply with the economic standards of the National Bank. Currency auctions were conducted under the same principle. To solve the issue of multiple exchange rates the National Bank launched so called "cash" currency auctions. Thus,



currency market was filled with foreign cash, and 1996-1997 official and market exchange rates were equal; interest rates were actually positive. Reforms of the accounting and supervision system caused changes in the system of risks assessment by the banks. The National Bank assessed bank activity by the condition of bank as a whole rather than by one credit.

In 1997, banking legislation was completely amended. At that time Kyrgyzstan was the only country in the territory of the former Soviet Union, besides Estonia, where ban was imposed at the legislative level on providing loans to the Government and assisting it in any financial form. During the period of this draft law elaboration, the International Monetary Fund expressed its opinion that introduction of such standard was premature. However, we understood that such standard was necessary, as the objectives of preserving stable prices and banking system were regarded as of paramount importance.

It is clear, that it would be impossible to fulfill all aforementioned things, if highly qualified staff didn't work in the bank. That is why high emphasis was placed on the system of training and attracting the youth in the National Bank. You see, that first of all the salary was significantly increased, a very good bonus system was introduced, residential loans were granted thereby providing cooperative apartments for almost all employees working in the bank at that time. Moreover, the system of the staff advanced training was developed; the agreements were concluded with the best Central Banks in Switzerland, Germany, Great Britain, Japan, Turkey, Thailand, with the Federal Reserve System, etc. Thus, experienced and mobile staff was employed in the National Bank within rather short period. Based on the data of survey conducted in 1997, the National Bank of the Kyrgyz Republic was declared one of the best Central banks in the territory of the former Soviet Union including the Baltic States. Estonia is not considered in this case as the Currency Board was established in this country instead of central bank, which had other purposes and objectives.

Briefly, this is the whole history of reforms implemented in the period when I was the Chairman of the National Bank of the Kyrgyz Republic. In conclusion I would like to thank you for attention.



Slide 1

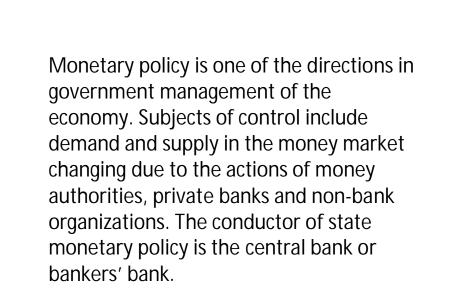
УЛУТТУК АКЧА ЖҮГҮРТҮҮ СИСТЕМАСЫ: ОРНОО ЖАНА ӨНҮГҮҮ КЕЛЕЧЕГИ NATIONAL CURRENCY CIRCULATION SYSTEM: FORMATION AND DEVELOPMENT PROSPECTS



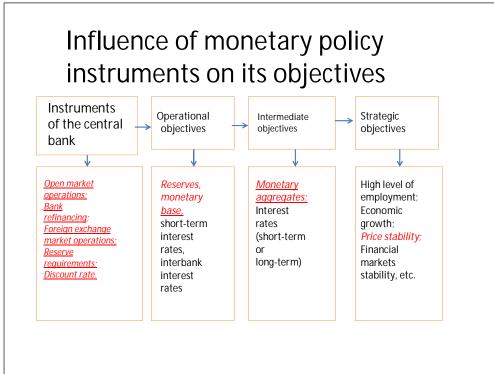
# INFLUENCE OF MONETARY POLICY ON ECONOMIC DEVELOPMENT IN THE KYRGYZ REPUBLIC

Nurlan Uzgenovich Atabaev, lecturer of the Ataturk-Ala-Too University

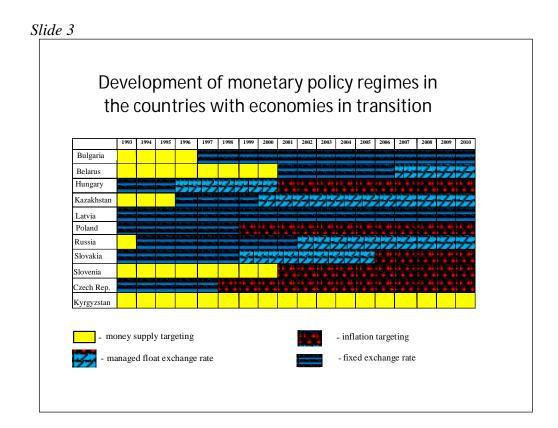
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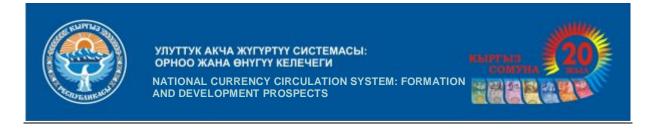




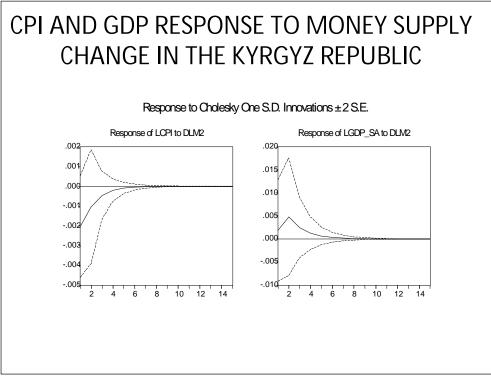


Monetary aggregates reflect the state of monetary policy contributing to restraining inflation expectations and decreasing inflation rate.

Monetary aggregate will not reflect the state of monetary policy correctly if dependence of strategic goal variable on selected monetary aggregate is low.



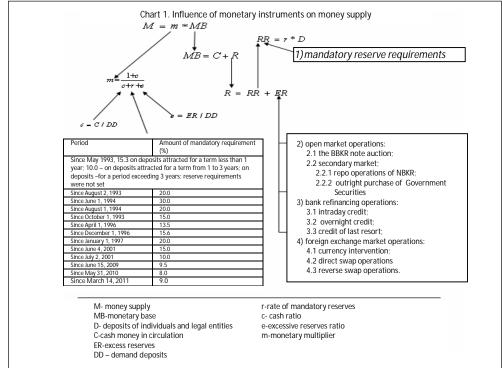
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	кеμ	oublic		103-Z	010			
In % of total assets	2003	2004	2005	2006	2007	2008	2009	2010
Fotal assets	100	100	100	100	100	100	100	100
Net foreign assets	55.3	85.1	82.1	78.2	77.3	77.8	105.2	103.3
Net domestic assets	44.7	14.9	17.9	21.8	22.7	22.2	-5.2	-3.3
Net claims on Government	85.3	38.1	31.9	17.0	-16.9	-15.0	202.9	189.2
Claims on other sectors	59.8	227.3	207.0	167.2	216.4	237.4	-870.4	-1243.5
Shares and other forms of participation in equity	-52.1	-139.7	-136.1	-96.8	-115.0	-152.5	910.5	1454.4
Other items	7.0	-25.6	-2.9	12.7	15.5	30.1	-143.0	-300.1
In % of money supply	2003	2004	2005	2006	2007	2008	2009	2010
Gross liabilities=Broad noney (M2X)	100	100	100	100	100	100	100	100
Money supply, in KGS M2)	75.5	70.0	74.9	74.7	80.8	78.9	76.1	77.7
Cash money in circulation	63.5	57.4	61.4	60.1	62.0	60.6	59.3	59.9
Deposits, in KGS	12.1	12.6	13.6	14.6	18.8	18.2	16.8	17.7
Demand deposits	8.2	9.1	9.2	10.2	11.3	10.1	11.0	12.5
Ferm deposits	3.9	3.5	4.4	4.4	7.5	8.1	5.8	5.3
Deposits in foreign currency	24.5	30.0	25.1	25.3	19.2	21.1	23.9	22.3







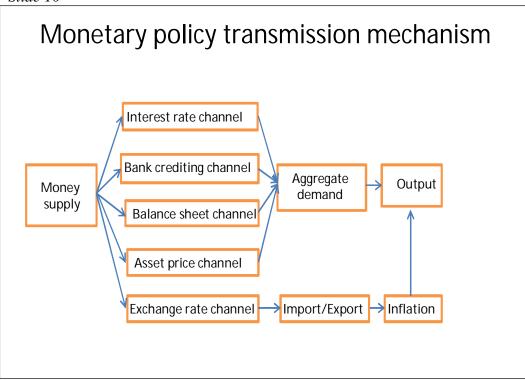


Name	2002	2003	2004	2005	2006	2007	2008	2009	2010
Monetary base, %	100	100	100	100	100	100	100	100	100
Reserves, %	10.3	7.5	10.1	15.5	14.9	15.5	16.4	18.5	14.7
Cash in circulation, %	89.7	92.5	89.9	84.5	85.1	84.5	83.6	81.5	85.3

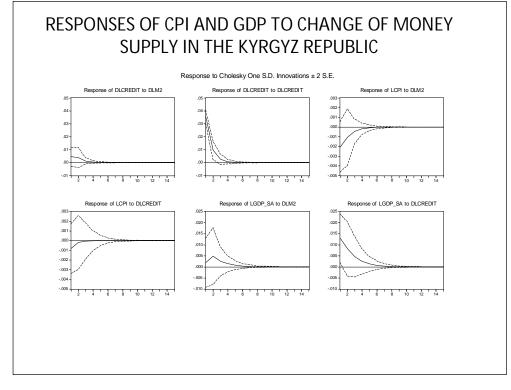


Name	2002	2003	2004	2005	2006	2007	2008	2009	2010
Cash ratio (c)	8.543	7.758	6.293	6.705	5.918	5.466	6.015	5.379	4.810
Rate of obligatory reserve (r), %	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.095	0.080
Excessive reserves ration (e)	0.193	0.101	0.261	0.662	0.524	0.307	0.338	0.626	0.363
Monetary multiplier (m)	1.080	1.100	1.096	1.032	1.057	1.101	1.087	1.046	1.106

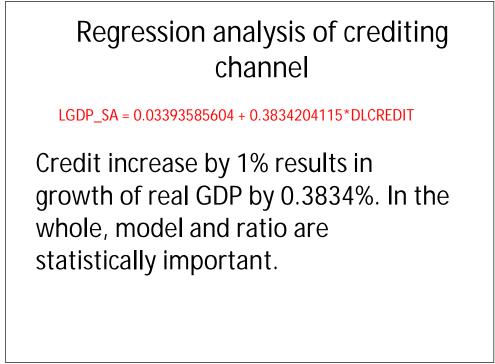








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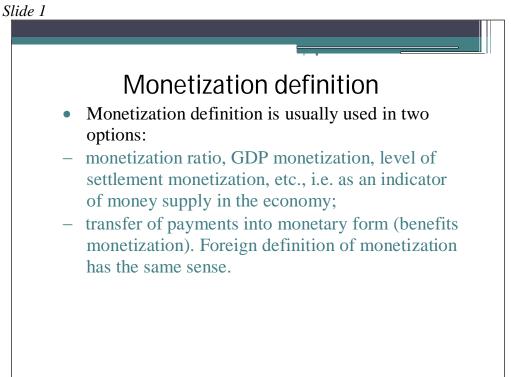


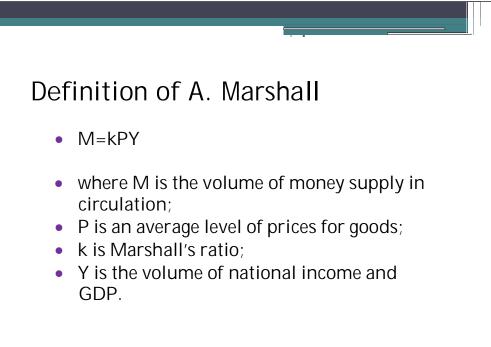


# MONETIZATION LEVEL

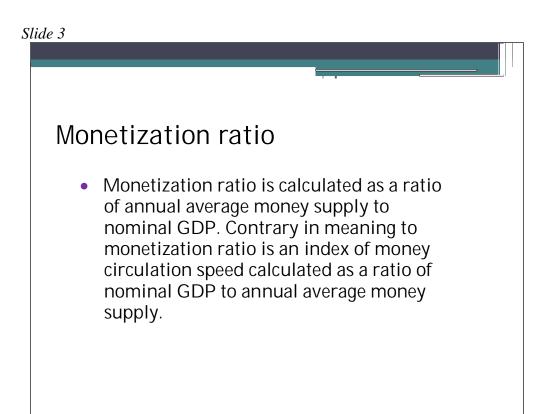
Aibek Jumalievich Kadyraliev, the World Bank expert

Presentation

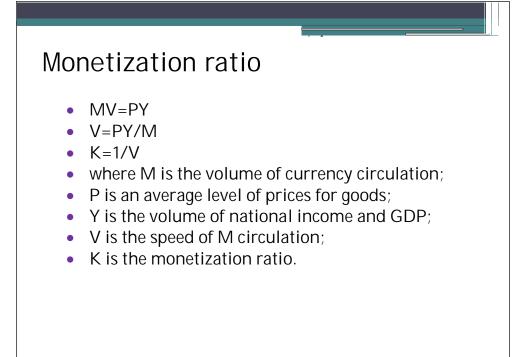




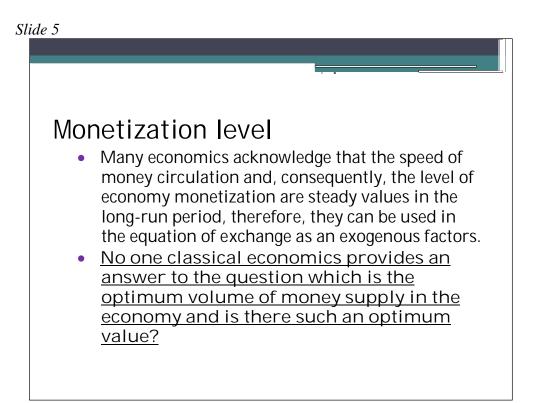














## INFLUENCE OF THE KYRGYZ REPUBLIC MONETARY POLICY ON BANKING SYSTEM DEVELOPMENT

Damira Chotuevna Bektenova, Doctor of Economic Sciences, Professor, Head of Finance and Credit Department, KRSU

Article

Effective use of monetary policy instruments is the most important objective for the monetary authorities in modern Kyrgyzstan and is very necessary under the conditions of not quite sustainable market economy. Solution of this problem stipulates determination of economy demands in cash and non-cash money, possibilities for money flow management and development of effective instruments for money circulation control.

One of the major indicators of relative money supply in the economy is the economy monetization level to be calculated as a ratio of some broad money aggregate (M2 in Kyrgyzstan) and nominal GDP.<sup>2</sup>

This indicator reflects the economy monetization level, necessary to effect payments and settlements, to pay salaries, benefits and scholarships, etc. At the end of 2011, the economy monetization level in Kyrgyzstan amounted to 22.7%, while in 2002 it made 10-12%. At the same time it increased from 70 to  $150\%^3$  in some developed countries. Monetization behavior is dependent on inflation. Inflation growth causes decrease of monetization level; this level stabilizes and increases with decrease of inflation rates and achievement of financial stability.

Many central banks including the NBKR introduc monetary targeting regime so that to stabilize the price level by means of direct control of money supply through the NBKR monetary base management. Monetary base is an operational objective, while money supply is an intermediate objective under conditions of monetary targeting. Success depends on possibility to control money supply and monetary base. However, there is small reason for relying upon the stability of the monetary multiplier. Monetary base is defined and calculated in the monetary policy as the total of cash money in circulation and bank reserves.<sup>4</sup> Generally, monetary base consists of the state obligations used by the population for purchase or sale of goods or services including those bank assets intended for settlement of interbank transactions. Such components as currency and bank deposits placed in the central bank are qualified as high-powered money. Monetary base is the volume of cash money in circulation and reserves of the banking system.

In the monetary economy, monetary base has several unique characteristics. Firstly, its components include assets issued by monetary authorities (Treasury and central bank) and used by private sector (population and banks) to carry out transactions. Secondly, the volume of monetary base changes if monetary authorities take active or passive measures, private sector can not permit changes, change monetary base and involvement of monetary authorities. Hence, monetary base is under control of monetary authorities in the monetary theory thereby reflecting direct dependence of monetary policy direction and economic

<sup>&</sup>lt;sup>2</sup> Report of the National Bank of the Kyrgyz Republic, 12/2009. Bishkek, Kyrgyzstan.

<sup>&</sup>lt;sup>3</sup> Resource: http://data.worldbank.org/indicator/FM.LBL.MQMY.GD.ZS

<sup>&</sup>lt;sup>4</sup> Benjamin M. Friedman, Feb 1998, "The Rule and Fall of the Money Growth Targets as Guidelines for U.S. Monetary Policy", NBER Working Papers 5465, USA, pp:2-4



activity resulting in inflation. However, in practice no one central bank sets objective to control the volume of monetary base anticipating instability of market interest rate.<sup>5</sup>

The central banks control monetary base supply by means of assets purchase and sale. Purchase of any assets result in increase of monetary base when the central bank pays in cash for such assets or in increased deposit liabilities. Assets sale by the central bank result in decrease in monetary base. Historically, it forced the governments with weak fiscal policy to use central bank as a purchaser of last resort for state debt, when private capital markets were not sensitive and often resulted in hyperinflation. Demand for monetary base includes transaction demand of the population for cash and demand of the banks for monetary base which are used by ordinary banking business for satisfying rate of mandatory reserves established by law.

Cross comparison of the countries, particularly cross comparison of increase in their monetary bases appeared accidentally in the world economy as interventions of the National bank influence exchange rate which is obligatorily calculated on the basis of assets purchase and sale resulting in changes of the monetary base volume. When the central bank sterilizes effects of its actions on the monetary base by substitution of one asset purchase and sale for another asset purchase and sale (probably a foreigner purchases and sells the bond issued in the country), the volume of monetary base remains intact this fact is proved in a number of scientific works of the economists of the US Federal Reserve System indicating insignificant effect on the exchange rate.<sup>6</sup>

In all modern economies growth of monetary base is endogenous variable i.e. the variable which defined simultaneously with other variables such as employment, prices and market interest rate. Many central banks in the world conduct monetary policy by setting and manipulating short-term interest rate. In the United States, the Federal Open Market Committee conducts the policy on selecting the interest rate target level of short-term interbank credits (overnight). Every day, interest rate on short-term interbank credits should keep close to set target rate by means of increase or decrease of the monetary base supply.

Developing countries and the CIS countries, such as Bulgaria, Belarus, Kazakhstan, Russia, Slovenia and the Kyrgyz Republic implemented monetary policy by adaptation of monetary aggregates targeting. Moreover, monetary aggregates targeting was supported by monetary base control as an operational objective. Only Kyrgyz Republic among all other CIS countries had not changed the regime of monetary aggregates targeting for two decades. One of the major reasons for aforementioned problem was incompliance of the system of monetary policy instruments and monetary control with the objectives and conditions of the Kyrgyz economy development. However, the NBKR holds officially in stock almost all monetary policy and monetary control instruments existing in the developed countries, generally, the scopes of use thereof are not significant.

The National Bank of the Kyrgyz Republic applies five major instruments to control money supply and monetary base<sup>7</sup>. These instruments are the following:

- 1. Open market operations;
- 2. Banks refinancing;
- 3. Reserve requirements;
- 4. Foreign exchange market operations;

<sup>&</sup>lt;sup>5</sup>Anderson, R. G., 2006, "Monetary Base", Working Paper 2006-049A,

http://research.stlouisfed.org/wp/2006/2006-049.pdf, Working Paper Series, Research Division, Federal Reserve Bank of St. Louis, St. Louis, USA.

<sup>&</sup>lt;sup>6</sup> Ibid, pp 2-4

<sup>&</sup>lt;sup>7</sup> Bulletin of the National Bank of the Kyrgyz Republic, 1 and 2/2010.

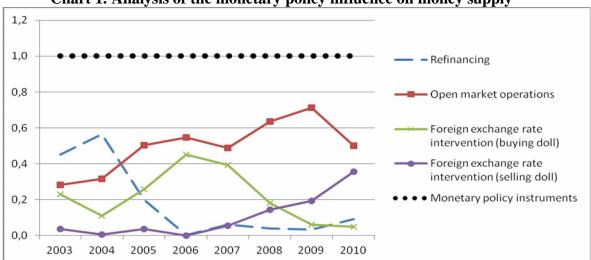


5. Discount rate

#### Table 1. Structure of the NBKR monetary policy instruments influence on monetary base through 2003-2010

Monetary policy instruments	2003	2004	2005	2006	2007	2008	2009	2010
1. Banks refinancing	45%	56%	20%	0%	6%	4%	3%	9%
2. Open market operations	28%	32%	50%	55%	49%	63%	71%	50%
3a. Foreign exchange market operations (buy)	23%	11%	26%	45%	39%	18%	6%	5%
3b. Foreign exchange market operations (sell)	4%	1%	4%	0%	6%	14%	19%	36%
4. Obligatory reserves	10%	10%	10%	10%	10%	10%	9,5%	8%

Source: the NBKR bulletin



#### Chart 1. Analysis of the monetary policy influence on money supply

According to Table 1 and Chart 1, the open market and foreign exchange market operations were actively used by the National Bank as monetary policy instruments. Refinancing (discount crediting) made 56% in 2004, in 2010 – only 9%. Rate of mandatory reserves was changed twice from 10% to 9.5 and to 8% in 2010; it resulted in measures taken against global financial crisis for liquidity upsurge in the banking system. The National Bank changed the obligatory reserves rate thereby influencing the process of money supply through money multiplier (mm). Another instrument had an influence through monetary base (MB) by changing the volume of cash in circulation and bank deposits in the central bank.

According to Table 2, the NBKR has often changed the rate of reserve requirements within 20 years.



Period	Obligatory reserves in the National Bank
Since 1993	15% - deposits up to 1 year;
	10% - deposits from 1 to 3 years;
	0% - more than 3 years
02/08/1993	20%
01/06/1994	30%
01/08/1994	20%
03/10/1994	15%
01/04/1996	13.5%
01/12/1996	15%
01/01/1997	20%
04/06/2001	15%
02/07/2001	10%
15/06/2009	9.5%
31/05/2010	8%
14/03/2011	9%

#### Table 2. Obligatory reserves variation in the National Bank

Source: the NBKR reports

Table 3. <sup>8</sup>	Factor an	alysis influ	encing the	monetary	y base multi	iplicatio	n level fo	or
2002-2010								

Description	2002	2003	2004	2005	2006	2007	2008	2009	2010
Cash ratio (c)	8.543	7.758	6.293	6.705	5.918	5.466	6.015	5.379	4.810
Rate of obligatory reserves, % (r)	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.095	0.080
Excessive reserves ratio (e)	0.193	0.101	0.261	0.662	0.524	0.307	0.338	0.626	0.363
Monetary multiplier (m)	1.080	1.100	1.096	1.032	1.057	1.101	1.087	1.046	1.106

According to Table 3, monetary multiplier (m) reflects dependence of money supply on the value set for monetary base change, i.e. the money supply level excess over monetary base. Maximum level of multiplier amounted to 1.1 for 2002-2010, while it is equal to 5-6 in the developed countries. As the monetary multiplier of Kyrgyzstan is more than one (m>1), the volume of money supply exceeded the volume of high-powered money not significantly.

According to Table 2, 3, monetary multiplier and money supply are connected with the rate of obligatory reserves, cash ration, and excessive reserves ratio on the basis of inverse dependence. Cash ratio in Kyrgyzstan is very high, average value amounts to 6.1 within the given period, while in the developed countries -1.5-0.5.

The NBKR applies broad money as an intermediate target, while monetary base is used as an operational target. Achievement of monetary aggregates objectives is fulfilled on quarterly basis, while operational objectives such as excessive reserves of the banking system are achieved every week.<sup>9</sup>

<sup>&</sup>lt;sup>8</sup> National Bank of the Kyrgyz Republic. www.nbkr.kg.

<sup>&</sup>lt;sup>9</sup> Gürgen, E., Snoek, H., Craig, J., McHugh, J., Izvorski, I., & Ron van Rooden, 1999, "Economic Reforms in Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan", IMF Publications. Occasional Paper No. 183, Washington DC, USA



	2003	2004	2005	2006	2007	2008	2009	2010
Monetary base	10 075.3	12 379.9	15 465.6	22 798.8	31 575.9	35 150.8	41 587.7	48 597.3
Cash in circulation	9 623.3	11 425.1	13 413.8	19 909.7	27 561.9	30 803.3	35 738.7	43 290.3
Bank deposits in the central bank	452	954.9	2 051.8	2 839.1	4 014.0	3 835.1	5 446.7	5 514.2
Growth of monetary base compare to previous year	2 416.9	2 304.6	3 085.7	7 333.2	8 777.0	3 574.9	6 436.9	7 009.6
Growth cash in circulation compared to previous year	2 565.3	1 801.8	1 988.7	6 495.9	7 652.1	3 241.4	4935.4	7 551.6
Growth of bank deposits in the central bank compared to the previous year	-148.4	502.8	1 097.0	837.3	1 124.9	333.5	1 501.5	-542.0

# Table 4. Analysis of the NBKR monetary base structure for 2003-2010<sup>10</sup>

According to the analysis, growth of monetary base and bank deposits were negative in the central bank in 2003 and 2010. Negative result of 2003 was inherited from the financial crisis which occurred in Russia in 1998. In 2010, negative outcome was caused by bankruptcy of one of the largest strategic banks (AUB) after revolution and bank accounts blocked in 5 banks. Such measures taken by the government resulted in money withdrawal from the accounts in large volumes. Increase of monetary base in percent terms is caused by growth of cash in circulation, which is proved by the following data.

Tuble 5. Monet	<u></u>		-					
	2003	2004	2005	2006	2007	2008	2009	2010
Growth of monetary base, %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Growth of cash in circulation, %	106.1	78.2	64.4	88.6	87.2	90.7	76.7	107.7
Growth of bank deposits in the central bank, %	-6.1	21.8	35.6	11.4	12.8	9.3	23.3	-7.7

 Table 5. Monetary base structure

Influence of cash in circulation amounts to 88% within the given period. Correlation between growth of cash in circulation and increase of bank deposits in the central bank amounts to r=(-0/98). It proves the fact that deposited funds are rapidly converted into cash and transferred to the first part of monetary base, i.e. C. It is more clearly given in Chart 2 below.

<sup>&</sup>lt;sup>10</sup> Bulletin of the National Bank of the Kyrgyz Republic, 1and 2/2010, Bishkek, 2010.



Chart 2. Rates of cash and bank deposits growth in the Kyrgyz Republic for 2003-2010

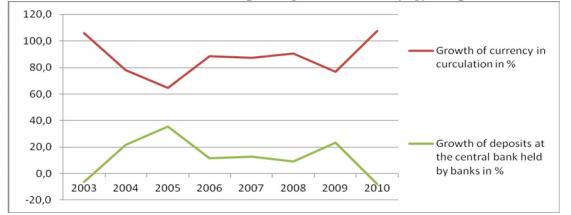
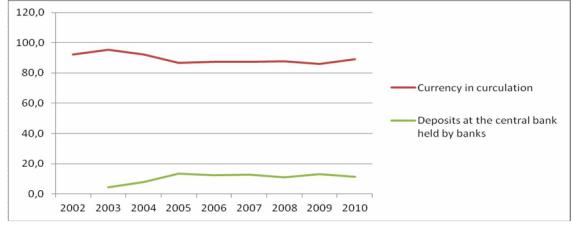


Chart 3. Influence analysis of cash in circulation and bank deposits on deposit base



According to the analysis (Chart 3), the influence of cash in circulation amounted to 85% within the last eight years. It means that the National Bank of the Kyrgyz Republic carried out ineffective monetary policy by means of obligatory reserve instrument and excessive reserves used to control banking system liquidity as an operational objective. According to the chart the influence of bank deposits in the central bank amounted to 13% in the given period. Confidence of the population in banks is very weak due to destabilization of political and banking systems. Changes in monetary base occur due to changes in money circulation, therefore change of money multiplier amounted to 1.1 (mm) within the last decade. Commercial banks of the Kyrgyz Republic are almost not involved in the process of money supply through multiple deposit expansion. It was one of reasons why the Kyrgyz Republic did not face global economic crisis.

According to the analysis data, the share of money in circulation did not decrease below 81% within the last years, the maximum share of money in banks amounted to 19%. Aforementioned facts confirm that the National Bank applies monetary policy instruments to control the reserves with the share of approximately 11% of the monetary base within the given period. Obligatory reserves established by the central bank amount to 10% of the total reserves. Increase of monetary base by means of cash in contrast with reserves growth doesn't result in multiple deposit expansion.<sup>11</sup>

<sup>&</sup>lt;sup>11</sup> Mishkin, F.S., 2004, "The Economics of Money, Banking and Financial Markets", 7th Edition, Addison Wesley, USA, p:451



The results of the analysis confirm that the population of the Kyrgyz Republic is poorly integrated with the banking system. Reserves of the monetary base may be controlled by the National Bank, however, the reserves of the Kyrgyz Republic are rapidly converted into cash thereby complicating control of money supply.

Tulip revolution of 2005, 2010, bankruptcy of commercial banks in 1995 and 2010, as well as crisis in Russia in 1998 disturbed confidence of citizens in the banking system. Moreover, inefficiency of the National Bank monetary policy was caused by low level of population confidence in the banking system.

Therefore, the share of NBKR in money supply control is insignificant; instruments of monetary policy and monetary policy are not efficient in Kyrgyzstan.

F. Mishkin mentioned in his scientific work additional factors such as negative dependence of market interest rate and positive dependence of expected deposit outflow on excessive reserves ratio in the banking system. Therefore, the NBKR and monetary policy instruments are passive in the process of money supply creation and monitoring. The reason for this is that only tenth share of monetary base is circulated in the banking system, therefore, monetary policy instruments control and regulate only reserve share of monetary base. Hence, ninety percent of cash is out of the NBRK control. Therefore, the population of Kyrgyzstan is more active participant of money market compared to the NBKR.

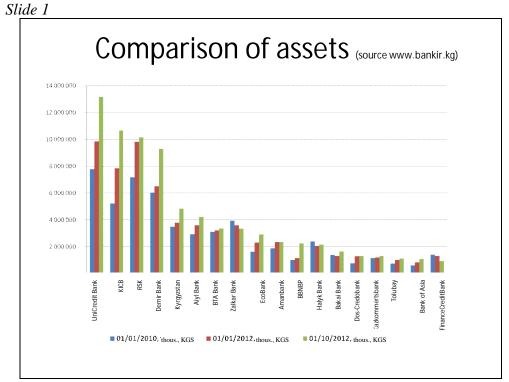
To effectively use instruments of the monetary policy and regulate money supply, the central bank and other regulatory authorities shall control money flows, take measures to transform and direct cash to the banking system through development of non-cash settlement procedures between economy agents. It will result in increase of commercial banks depositary base, therefore credit money supply will grow, and credit interest rates will be reduced. Finally, it will cause acceleration in investments growth and in the whole economy.



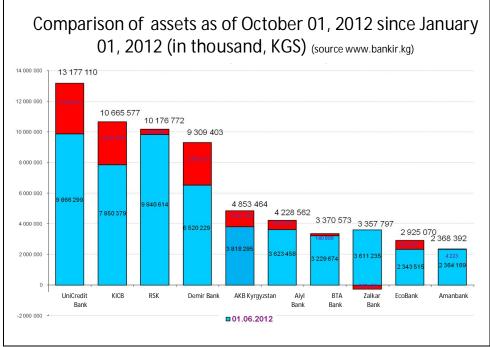
# BANKS AND BANKING SYSTEM OF THE KYRGYZ REPUBLIC (BRIEF ANALYSIS IN BUSINESS TERMS)

Eldar Abakirov, Young Teachers Association

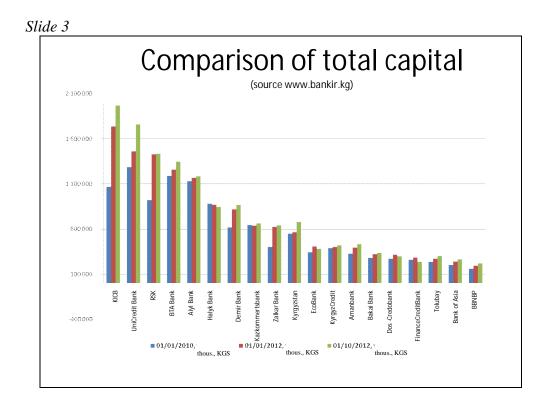
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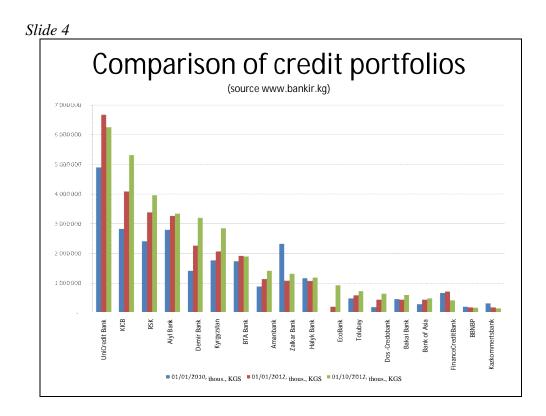




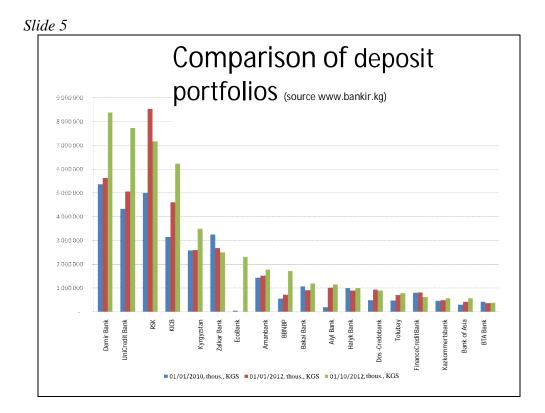














ndex	Value	Rate and share	
Assets	80 212		
Total capital	14 452		
Deposits	52 510	1.56%	
Credits	36 050	20.86%	
Delay	3 070	8.50%	
ROE	3.3%		
ROA	19.5%		
Liquidity ratio	78.6%		
Net profit	1 823		



#### Slide 7

		(source	www.nbkr.kg)		ed in 2012
Period	Total amount	Term deposits	Demand deposits	Share	Average weighted rate
Legal entities	6 678	645	6 033	90.3%	
Individuals	11 490	1 347	10 143	88.3%	
Total	19 571	1 992	17 579	89.8%	1.56

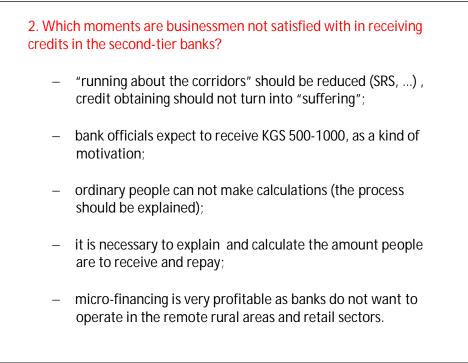
90% of attracted inside money are money at call.

Which money will business use?	
Construction: profitability – 30-35% per annum, term – up to 2 years. While banks offer rates up to 20% per annum, term – more than 1-3 years.	
If the term of construction exceeds 1 year-period, construction business goes in arrears.	
Why doesn't population place money into term deposit accounts?	
Banks offer 10-13% per annum.	
<ol> <li>There is deposit substitution: investments into tandyr business (flat cakes baking in tandyr stoves), reselling in the markets (Dordoi,);</li> </ol>	
<ol> <li>Concerns about unsteadiness of banking system due to instability in the country and lack of public confidence in banks.</li> </ol>	

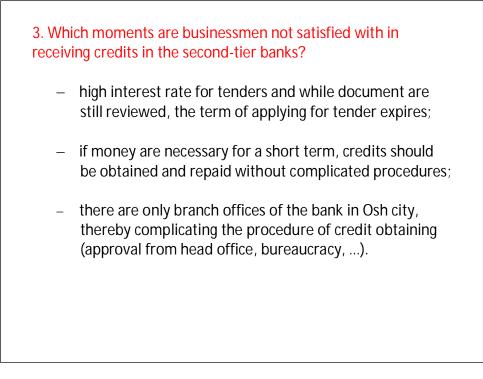


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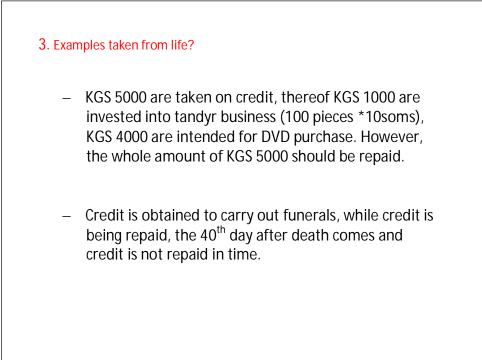
- Which moments are businessmen not satisfied with in receiving credits in the second-tier banks?
- routine procedure of credit obtaining and long review of documents (1-3 months);
- non-transparent rate (the rate of 18% per annum turns into more than 20% per annum inclusive of fees: legal advisers services, encashment services,...);
- I want to obtain credit, however it is not urgent any more, 2% are charged reserving credit line, it is too expensive;
- collateral is appraised with significant discount.







Slide 12





#### BANK SIZE AND OWNERSHIP EFFECT ON KYRGYZ BANK EFFICIENCY

Ibrahim Keles, PhD Management Department, Faculty of Administrative & Economic Sciences, International Ataturk Alatoo University, Bishkek, Kyrgyzstan

Article

#### ABSTRACT

As a transition economy, the Kyrgyz financial system is highly dominated by its banking sector and that fact, in turn, increase significance of the banking sector efficiency and soundness. Consequently, as the most important actors of the financial intermediation function, monitoring of the performance and efficiency development of Kyrgyz banks will provide benefit for the whole economic units.

Data envelopment analysis is a method that is used to determine to effective and ineffective units, performing in same subject and using similar inputs and outputs. This technique has been commonly used because of need for calculating of the effectiveness of the decision making units which have the same structure.

The purpose of this study is to examine the Kyrgyz banking sector from an "efficiency" perspective and apply the data envelopment analysis (DEA) method on the banking sector in Kyrgyzstan by grouping the banks according to their sizes and ownership structures.

#### **INTRODUCTION**

Gaining the independence from the Soviet system in 1992 and the transition to a market based economy from the planned one, resulted rise to shift all the institutions in the country. Economic policies that began to settle as a result of liberalization in financial services in line with the scale and diversity of development as indicated.

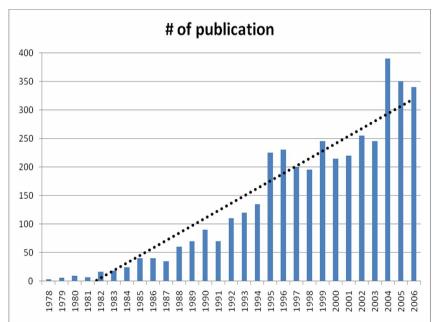
In transition economies such as Kyrgyzstan, developing the most important element of the financial sector, the banking sector is very essential. Because unlike other economic sectors, the banking sector determines the allocation of resources has undertaken the task of financial intermediation. In the case of transition economies such as Kyrgyzstan, non-bank financial intermediaries and capital markets are underdeveloped; this increased the value of the banking sector efficiency within the financial system. Therefore, analyzing the factors affecting the efficiency and effectiveness of the Kyrgyz Banking System is beneficial for not only development of the financial system in the country but development of the economy as well.

In this study, the efficiency analysis was conducted on the basis on intermediary approach. Banks defined as institutions using its own capital and deposits and interest expenses during use of these deposits (inputs) to create loans and interest revenue (outputs). And the effectiveness of the Kyrgyz banking system during the period of 2002-2009 was measured by using DEA to determine reference bank groups in Kyrgyz Banking System and their unique properties to distinguish them from others.



#### LITERATURE REVIEW

There is a very rich literature on efficiency analysis especially for not only the banking industry but also nearly in all other industries as well (Emrouznejad et al, 2008). But using data envelopment analysis method for efficiency analysis of banking industry in Central Asia is very limited (Djalilov & Piesse, 2011:6). Of course there are several studies mentioning Central Asian banking systems in general, but only a few studies focuses on specific countries. Some of the country specific studies were mentioned below.



Source: Emrouznejad, A. Parker, B. and G. Tavares (2008): Evaluation of research in efficiency and productivity: A survey and analysis of the first 30 years of scholarly literature in DEA, Journal of Socio-Economics Planning Science, 42(3) 153.

In the study of Djalilov & Piesse (2011), the progress of the transition to a market economy for banks in Central Asia (21 from Kazakhstan, 3 from the Kyrgyz Republic and 6 from Uzbekistan) using a non-parametric approach to the measurement of productivity, efficiency and technical progress at the institution level was discussed. The results indicated that the efficiency level of 8 banks levels deteriorated over the period 2003-2006. The possible reasons for this were investigated by an analysis of the financial statements of these banks using financial ratios. Low capital adequacy ratio, low earnings (profitability) and asset quality were determined as the main problems.

In Nigmonov's (2010) article titled "Bank Performance and Efficiency in Uzbekistan" Operational expenses, Fixed assets, Total Deposits used as input variables and Total credits -Reserve for possible loan losses, Total non-interest income, Other non-interest income (excluding commission income) used as output variables. He analysed the efficiency levels of Uzbek banks during 2004-2006. The results have shown that the overall efficiency levels of banks on average decreased during this period. The study found that the main source of inefficiency was due to the technical efficiency. It then compared the relative performance between the private, joint-stock and foreign banks for which no significant divergence were found. The investigation of differences between the small, medium and large banks lead to the observation of significant difference between the small and medium sized banks.



Peresetsky, Anatoly (2010) measured and compared cost efficiency of Russian and Kazakh banks with two different input-output sets for the period of 2002-2006. In this study, no significance difference is found for the average cost efficiency scores of banks for those two countries. And also, as an interesting insight is the finding that most banks in both countries were below optimal size.

To the author' knowledge, there is virtually no previous study except Khadjimouratov (2004) applying data envelopment analysis to measure efficiency of Kyrgyz banking system. In this study, average earning assets, average savings deposits, and total income used as outputs and inputs as average nonearning assets, and overall costs as the sum total of noninterest expense, the charge for equity capital, and adjusted interest expense. 15 banks for 2002 and 2003 were taken into account. In Khadjimouratov's study and in this study, efficient frontiers were similar banks.

#### METHODOLOGY

*Model.* Basically, DEA is concerned with the efficiency of the individual unit, defined as the Decision Making Unit (DMU) in the work of Charnes et al (1978); while this DMU deals with the issues related with converting inputs into the outputs both through the daily operations and decisions accepted at the strategic level.

So, if we consider *s* number of DMUs (in our case Kyrgyz banks) which use particular group of measurable positive inputs (eg.: Labor hours, buildings, deposits, etc.) for transforming them into the particular types of measurable positive outputs (eg.: loans, interest income, etc.). Than, the input and output data as it is represented in Figure 3 can be expressed by matrixes X and Y, where  $x_{ij}$  refers to the i<sup>th</sup> input data of DMU j, whereas  $y_{ij}$  is the i<sup>th</sup> output of DMU j.

$$X = \begin{pmatrix} x_{11} & x_{12} & \cdots & x_{1s} \\ x_{21} & x_{22} & \cdots & x_{2s} \\ \vdots & & & \\ x_{m1} & x_{m2} & \cdots & x_{ms} \end{pmatrix}$$
(1)  
$$Y = \begin{pmatrix} y_{11} & y_{12} & \cdots & y_{1s} \\ y_{21} & y_{22} & \cdots & y_{2s} \\ \vdots & & & \\ y_{n1} & y_{n2} & \cdots & y_{ns} \end{pmatrix}$$
(2)

Whereas, the purpose of DEA is to measure the relative productivity of each DMU by comparing it with every DMU used in the model. For each input and output of every DMU weights are assigned and through the analysis will be selected the input and output weights that maximize its efficiency score. While efficiency is considered to be as division of weighted sum of outputs into weighted sum of inputs.

Accordingly, the efficiency score will be obtained relative to some maximum possible unit and will lie between the values of 0 and 1. In our case, for each inefficient bank DEA explores an efficiency reference set which is the set of relatively efficient branches to which the inefficient bank has been most directly compared in calculating its efficiency rating. This facilitates the examination of the nature of inefficiencies at a bank, by indicating those relatively efficient ones against which performance comparisons can be drawn.



This way of solving the model is very understandable but it fails to deal with the models which use more than two outputs or inputs. Therefore, usually in the scientific literature the mathematical representation of a model is used which was developed by Charnes, Coopers and Rhodes (1978). This model was named as CCR model and can be represented as follows:

$$Max \qquad \theta = \frac{u_1 y_{1o} + u_2 y_{2o} + \dots + u_n y_{no}}{v_1 x_{1o} + v_2 x_{2o} + \dots + v_m x_{mo}}$$
(3)

Subject to

$$\frac{u_{1}y_{1j} + u_{2}y_{2j} + \dots + u_{n}y_{nj}}{v_{1}x_{1j} + v_{2}x_{2j} + \dots + v_{m}x_{mj}} \le 1 \qquad (j = 1, \dots, s)$$
(4)  
$$v_{1}, v_{2}, \dots, v_{m} \ge 0$$
  
$$u_{1}, u_{2}, \dots, u_{n} \ge 0$$

Given the data X and Y in (1) and (2), the CCR model measures the maximum efficiency of each DMU by solving the fractional programming problem in (3) where the input weights  $v_1$ ,  $v_2$ , ...  $v_m$  and output weights  $u_1$ ,  $u_2$ , ...  $u_n$  are variables to be obtained.  $\theta$  in (3) varies from 1 to *s* which means *s* optimizations for all *s* DMUs. Constraint (4) reveals that the ratio of 'virtual output'  $(u_1y_{1o} + u_2y_{2o} + \dots + u_ny_{no})$  to 'virtual input'  $(v_1x_{1o} + v_2x_{2o} + \dots + v_mx_{mo})$  cannot exceed 1 for each DMU, which conforms to the economic assumption that the output cannot be more than the input in production.

*Measurement of Input and Output Variables in Banking.* The first step in measuring the efficiency is to specify inputs and outputs of the firms under consideration. The present study followed an intermediation approach to select input and output variables because of the data limitations. The main problem was with access of internal data which could enrich this study and just data from financial statements were used.

In this study, banks defined as institutions using its own capital and deposits and interest expenses during use of these deposits (inputs) to create loans and interest revenue (outputs).

For the calculation of efficiency measures, the inputs were chosen as capital  $(X_1)$ , total deposits  $(X_2)$  and interest expense  $(X_3)$ .

For the present study, two measures of outputs were considered which are proxies in terms of interest revenue  $(Y_1)$  and total credits  $(Y_2)$ .

**Data.** Secondary data was used in the study, comprehensive and full data about the financial performance and position of the Kyrgyz banks which is obtained from the newspaper "Ekonomika, Banki, Biznis" and journal as "Bankovski Vestnik". The financial statements of individual banks gave all of the relevant information for the analysis of efficiency. Also recent financial statements were collected from the websites of the banks. The main problem with access was the unavailability of internal data which could enrich the analysis.

Kyrgyzstan adopted the International Accounting System (IAS) in 2002. So that, this study was started from that year till 2009. During this period 18 banks were actively operated in Kyrgyzstan. In 2009, there were 22 banks operating in the country.



#### Table 1: List of banks in 2009

	OJSC RK "Amanbank"						
	OJSC "Kazkommertsbank Kyrgyzstan"						
	OJSC "Commercial Bank Kyrgyzstan"						
	OJSC "AsiaUniversal Bank"						
	"UniCredit Bank" OJSC						
	OJSC Investbank "Issyk-Kul"						
	CJSB "Tolubay"						
Within	OJSC "RSK Bank"						
the	CJSC "BTA Bank"						
scope of study	CJSC "Demir Kyrgyz International Bank"						
of study	OJSC "Dos-Kredobank"						
	OJSC "EcoIslamicBank"						
	CJSC "Bank of Asia"						
	OJSC "Kyrgyz Credit Bank"						
	OJSC "Bank-Bakai"						
	OJSC "Halyk Bank Kyrgyzstan"						
	Bishkek Branch of the National bank of Pakistan						
	Kyrgyz Investment and Credit Bank						
Without	OJSC "FinanceCreditBank KAB"						
the	OJSC "Aiyl Bank"						
scope of study	CJSC "Manas Bank"						
of study	OJSC "Akilinvestbank"						

*Software.* Efficiency scores were calculated by using the software Data Envelopment Analysis Program (DEAP) 2.1 (Coelli, 1996), a fast, batch-oriented DOS program, distributed by its author, Tim Coelli, and the Center for Efficiency and Productivity Analysis. There is a range of software tools and technology to assess DEA. Barr (2004) compared both commercial and non-comercial software and listed as one of the recommended options in the non-comercial category. It is presented as a tool with power to evaluate large-scale data sets on inexpensive platforms.

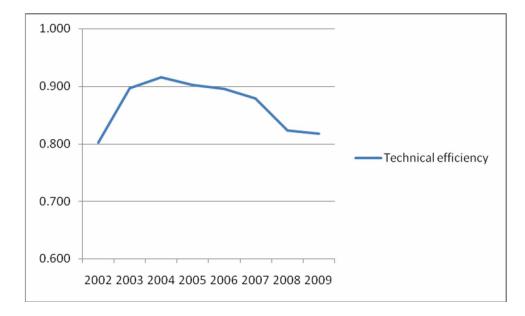
DEAP is guided by two text files: one with input, output, and price values (where appropriate) and another with operating instructions: numbers of DMUs, inputs, outputs, and time periods; model selection; and file names. Execution of the program creates a text file of reports.

#### RESULTS

The results have been obtained through running CCR model separately for each year. And then taking the average of the results. So that, the general banking system's efficiency results (technical efficiency) for 2002-2009 period is obtained as follows;

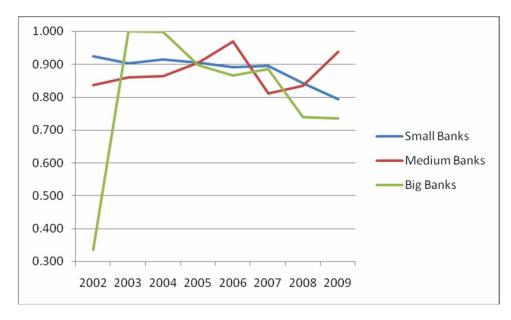


Year	2002	2003	2004	2005	2006	2007	2008	2009
Technical efficiency	0,802	0,897	0,915	0,902	0,896	0,879	0,823	0,817



Secondly, the banks were classified according to their size. If a bank has more than 10% of total banking systems' capital, it is named as a big sized bank, if between 5% and 10%, it is named as a middle sized bank, and the remaining ones will be the small sized banks. A sample classification of banks and individual efficiency results for 2009 was given in the appendix part.

	2002	2003	2004	2005	2006	2007	2008	2009
Small Banks	0,924	0,903	0,915	0,904	0,892	0,895	0,842	0,794
Medium Banks	0,836	0,859	0,864	0,904	0,969	0,812	0,835	0,938
Big Banks	0,335	1,000	0,998	0,896	0,866	0,885	0,740	0,736

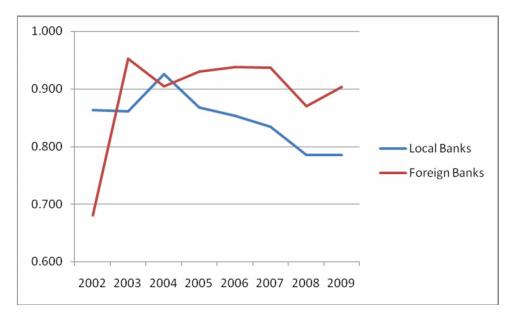


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Thirdly, the banks were classified according to ownership. If a bank's more than 50% shareholders are citizens or legal entities of Kyrgyzstan, it is named as a local bank, if not, it is named as a foreign bank. A sample classification of banks and individual efficiency results for 2009 was given in the appendix part.

	2002	2003	2004	2005	2006	2007	2008	2009
Local Banks	0,863	0,861	0,926	0,868	0,853	0,834	0,785	0,785
Foreign Banks	0,680	0,952	0,904	0,930	0,938	0,937	0,870	0,903



#### FINDINGS AND DISCUSSIONS

As seen in the efficiency results of general banking system, there was an increasing trend from 2002 till 2004 (three periods) and then a decreasing trend started. The possible reasons for this change may be the political instability in the country in 2005. And then we must take into account recovery period. Also, in 2007, the global financial crisis has started.

Big banks have more fluctuations in efficiency scores and the middle sized banks are the most stable ones. So that we can say, the big sized banks are most sensitive bank group in Kyrgyzstan to local and global crises.

The foreign banks are generally more efficient, just year in 2002 and 2004 local banks were more efficient. The privatizations (Kairat Bank to Halyk Bank Kyrgyzstan) and new market entries (Kyrgyz Investment and Credit Bank and Bishkek Branch of the National Bank of Pakistan) could be the reasons for these two periods.

In 2010, after the political events, some banks were nationalized. One of them was the biggest bank of the country, having 20% of all system's capital. So that a new period for the Kyrgyz banking system was started. Also, pre-test for periods after 2009 shows lower efficiency scores. But the nationalization of AUB limits expansion of this study to recent periods.

Finally, as a result of study, it is recommended for related government bodies to invite middle sized foreign banks to operate in Kyrgyzstan.





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#### APPENDIX

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Appendix A. Technical efficiency of banks classified according to their size in

2009					
Туре	Bank	Capital	Tech. Eff.	Share	Average Efficiency
	OJSC "AsiaUniversal Bank"	1422,4	0,572	0,192	6
Big	CJSC "BTA Bank"	1000	0,664	0,135	0,736
, ,	OJSC "RSK Bank"	844	0,973	0,114	0
	"UniCredit Bank" OJSC	700	1,000	0,095	
Idle	OJSC "Halyk Bank Kyrgyzstan"	534,2	0,887	0,072	0,938
Middle	Kyrgyz Investment and Credit Bank	440,9	1,000	0,060	0,9
-	OJSC "EcoIslamicBank"	372,4	0,866	0,050	
	OJSC "Kyrgyz Credit Bank"	300	0,438	0,041	
	OJSC Investbank "Issyk-Kul"	271	0,443	0,037	
	OJSC RK "Amanbank"	263	0,627	0,036	
	OJSC "Dos-Kredobank"	242	0,928	0,033	
=	OJSC "Commercial Bank Kyrgyzstan"	160,9	1,000	0,022	4
Small	OJSC "Bank-Bakai"	200	0,663	0,027	0,794
Š	CJSC "Demir Kyrgyz International Bank"	132,5	1,000	0,018	0
	Bishkek Branch of the National Bank of Pakistan	131,1	1,000	0,018	
	CJSC "Bank of Asia"	146	1,000	0,020	
	OJSC "Kazkommertsbank Kyrgyzstan"	120,5	1,000	0,016	
	CJSB "Tolubay"	125	0,638	0,017	



# Appendix B. Technical efficiency of banks classified according to their ownership in 2009

Туре	Bank	Efficiency	% Foreign Share	Average Efficiency
	CJSC "Demir Kyrgyz International Bank"	1,000	100	
	Bishkek Branch of the National Bank of Pakistan	1,000	100	
	OJSC "Halyk Bank Kyrgyzstan"	0,887	100	
E	"UniCredit Bank" OJSC	1,000	97	$\omega$
Foreign	OJSC "AsiaUniversal Bank"	0,572	97	0,903
Fo	OJSC "Kazkommertsbank Kyrgyzstan"	1,000	95	0
	Kyrgyz Investment and Credit Bank	1,000	90	
	CJSC "Bank of Asia"	1,000	75	
	CJSC "BTA Bank"	0,664	71	
	CJSB JSCB "Tolubay"	0,638	2	
	OJSC "Commercial Bank Kyrgyzstan"	1,000	1	
	OJSC RK "Amanbank"	0,627	0	
Domestic	OJSC Investbank "Issyk-Kul"	0,443	0	2
me	OJSC "Kyrgyz Credit Bank"	0,438	0	0,785
Doi	OJSC "EcoIslamicBank"	0,866	0	0
	OJSC "RSK Bank"	0,973	0	
	OJSC "Dos-Kredobank"	0,928	0	
	OJSC "Bank-Bakai"	0,663	0	



#### BANKING SYSTEM DEVELOPMENT IN THE KYRGYZ REPUBLIC

Anarbek Samiibekovich Abdyzhaparov, Candidate of Science (Engineering), professor of AMPKR

Article

#### ANNOTATION

Currently, efficiency of banking sector and stable economic development are topical issues. This research analyses the role of banking financial intermediation and possibilities of providing loans to firms and population with the aim of achieving growth and sustainable economic growth by means of bank effectiveness assessment. The research evaluates availability of financial services and efforts directed for provision of sustainable economic growth in Kyrgyzstan by using appropriate statistical methods. The bank data of the Kyrgyz Republic for 2008 - 2012 were used for this purpose. Theoretical and empirical analysis suggests that availability of crediting services has particular advantages for sustainable economic growth in the countries with transition economy.

#### **INTRODUCTION**

There are different approaches to assess the effectiveness of banks and their branches activity. Assessment of financial organization operation is often based on information about earned profit, such financial indicators as efficiency and quality of provided services are not taken into account.

Quantitative analysis of such financial indicators as number of particular operations, number of accounts opened with particular period, earned profit, incurred costs is the most widespread method of bank analysis.

Development of banking sector of Kyrgyzstan was autonomous (close). Active and system approach aimed at improvement of banking sector effectiveness on the part of government was not observed. Irregular government regulation and intervention into banks activity was implemented both on the part of the National Bank representatives, government and fiscal authorities. Despite repeated attempts of separate public officials to develop financial institutions of Kirghizia, further growth and strengthening positions in bank competitive environment were random and inefficient. Analysis and assessment of the banking sector effectiveness were not carried out; lack of serious analytical materials confirms this fact. Namely, participation of professionals' community in creation of strategy and adjustment of up-to-date model of banking system in Kyrgyzstan is necessary particularly in this sphere. High interest rates on credits, high refinancing rate, growth of cash turnover and low banks profitability with relatively steady exchange rate these are the parameters of expensive som.

Banks of Kyrgyzstan should reduce interest rates of credits in the process of competitive struggle and for the purposes of retention of their clients. This issue should be solved today; this will have positive impact on the effectiveness of the whole banking market. In this respect, the strategy of the banking sector development in Kyrgyzstan which is currently ineffective should be considered in detail. It confirms inflation growth, lack of credits availability and high level of cash circulation. There is no clear policy of credit funds management, value of credit resources, poor management of credit risks, lack of capital and profit management. The Competition among banks is unilateral and weak; the market is monopolized, it leaves the banks of Kyrgyzstan behind innovation processes occurring in



Central Asia (CA). In Kyrgyzstan, banks' strategy should be based on innovation and marketing.

#### What is the banks mission?

This issue has caused a number of publications about the role of financial intermediaries. Research of Merton and Bodie should be emphasized [Merton and Bodie, 1995], according to which banking system should be considered with respect to its functions rather than the composition included in it as bank functions are steadier compared to the institutions which change under the influence of competition and financial innovations.

The data of investigations from different countries confirm that financing contributes to economic growth due to increase in labor productivity [Ayagari, Demirgüç-Kunt, and Maksimovic, 2007]. Moreover, bank development plays important role in dampening the influence of external shocks on economy of the country [Beck, Lundberg and Majnoni, 2006]. Besides studying the role of finance in the economic development, economists discussed relative significance of so called continental (bank-based financial system) and Anglo-American (market-based financial system) financial systems [Demirgüc-Kuntand Levine, 2001]. Joseph Schumpeter stated that banks play a key role in economic development. Banking sector may have positive influence on the economy as a whole, and consequently has considerable macroeconomic importance [Jaffe and Levonyan, 2001; Rajan and Zingales, 1998]. Development of banking system and markets are determined to be closely connected with economic growth [Ksintopulos and Tsionas, 2004]. Accurate bank activity contributes to efficient distribution of resources and accelerates economic growth [Levine and Zervous, 1998]. Accordingly, banks can contribute to potential investments in the economy on improving assets liquidity and reducing business expenses [Greenwood and Smith, 1997]. Banks have considerable influence on productive capacity and economic growth contributing to GDP development and growth.

Modern strategy of banking sector consists in creating client base; banks should attract clients by means of courtesy, they should care, "foster" and love them, rather than their money. In pursuit of profit banks forget about their clients. Quality development of banks won't occur in Kyrgyzstan until banks re-engineer their way of thinking and strategy due to changed situation in the world.

#### Research of banks effectiveness located in Kyrgyzstan

The approach dividing indices based on their identity with active or passive side of balance was used in this research which consisted in assessment of indices influence on input and output parameters. Finally, the following sources of banks funds were used as input parameters:

- 1) banks loans;
- 2) volume of bank deposits;
- 3) value of bank capital.

The following bank indices were used as output parameters (see Table 1 below):

- 1) volume of operating assets;
- 2) profit actually gained by banks;
- 3) income of banks.

Potential capacities of banks on increasing effectiveness of operation with respect to both increase of the operating assets (earning assets) volume and gaining profit were studied of the basis of carried out analysis with account of credits and deposits volumes.

Potential growth of output parameters reflects banks capacities on increase of issue and characterizes the effectiveness of its activity.



#### Risk management in the banking system

Financial intermediary restrict the possibility of risk by applying diversification of assets operations. Currently, balance-sheet risks are less significant in quantitative respect compared to off-balance-sheet risks. It means that financial intermediaries have become exceptionally competent specialists on risk management. Allen and Santomero [Allen and Santomero, 1977] believe that banks capability of risk management should serve to a greater extent as the basis for new theory of bank intermediation compared to decrease of transaction costs and information asymmetry.

Random management of operational risks in the banks of Kyrgyzstan based on ad hoc principle (lat. "ad hoc" – applied particularly for this case) consists in formal banks compliance with laws requirements regulating basic aspects of risk management, as well as in risks assessment and minimization by separate banks subdivisions. Due to lack of common methodology risk management is executed on "first aid" principle; preventive measures, early warning are not carried out (example, in 2004, the AUB purchased suspicious securities of the Russian Federation).

#### Monetary market and exchange rate

In 2012, rate of inflation increased in the Kyrgyz Republic and amounted to approximately 18%. The reasons are:

growth of prices for food caused by draught;

- tightening in the labor market and slow growth of crediting;

- NBKR decreased discount rate due to inflation rate excess over target level set as of the end of the year.

It contributes to stabilization of inflation expectations and agrees with the NBKR policy on transition to inflation targeting.

The following principles which bank resources control should be based upon were established with account to peculiarities of investment activity: differentiation, continuity, integrity, flexibility, orientation for new in respect of banking activity methods, outsourcing (outsourcing – transfer of functions on bank risks control to non-staff specialists (external agencies), possessing particular knowledge in separate spheres).

Refinancing of commercial banks in two directions contribute to increase in risk control effectiveness: 1) long-term target provision of credits by the Bank of Kyrgyzstan to commercial banks to implement investment projects of nationwide scale; 2) creation of full-fledged mechanism for securitization and syndication of investment credits.

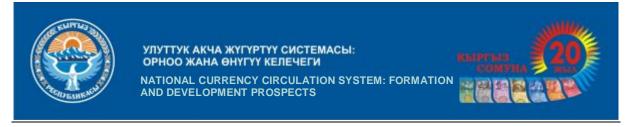
The following direction is borrowers monitoring:

- Equality of supply and demand ratio for financial services. This direction in the activity being the result of data processing enables bank to act as an intermediary in such spheres as mergers and acquisitions, arrangement of securities issue and finance structuring.

- Control of goods distribution. Modern banks place considerable emphasis on the channels of goods distribution, particularly, to their own branch network; marketing thereof is the major element of banking strategy. Simultaneously, bank should organize supply of marketing services using the results of technological progress.

- Payment system management. This function has traditionally been performed by the banks which retain superiority over their competitors for a long time due to their monopolistic role in the sphere of attracting deposits and executing settlements.

One of assessment indicators of bank efficiency is building long-lasting relationships. Many banks of Kyrgyzstan are not guided by long-term prospects of their activity and consider margin maximization as a major target and high-priority objective. Actually, other



things are economically more advantageous: creation of favorable crediting conditions for regular borrowers [Germany, 1949, credit rates amounted to -2-4%], contribution to their circle extension, assistance in financial and economic activity development, etc. Operation intended for future prospects in the sphere of interest rates management should contribute to provision of liquidity, profitability and extension of the commercial banks activity. Banks as intermediaries should contribute to business development rather than destroy it.

Activity of the banking sector is not efficient as the volume of classified (bad) credits increased from KGS 2.06 billion in 2010 to KGS 4.897 billion in 2012; losses thereof are equal to KGS 1 billion. The share of non-performing loans increased by 43% and amounted to KGS 3.515 of aggregate loan portfolio which makes KGS 35.65 billion - 13.7%.

Major obstacles for the banking sector development are characterized by structural and strategic rather than quantitative indicators. With the current resource base economy crediting can reach 25-35% of GPD (compared to current 11.3%). Assets of the banking system of Kyrgyzstan amount to 30% of GDP, while standard level makes 60-70%.

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Indices	2009	2010	2011	2012
Net profit	1592.0	737.9	1980.2	2098.4
Liquidity level, %	86.8	72.9	74.9	80.1
Classified assets, mln.	1340.7	2061.4	3515.4	4897.5
KGS	1340.7	2001.4	5515.4	4097.3
Return of equity (ROE)	13.6	1.1	17.3	16.9
Return on assets (ROA)	2.5	7.1	4.7	2.7
Interest margin	10.2	10.5	12.4	11.8
Banks assets, mln. KGS	73733.5	61232.6	67673.6	78422.9
Credits to clients, mln.	25214.6	26382.6	31217.1	35657.9
KGS	25214.0	20302.0	51217.1	55057.7
Banks deposits, mln.	39604.4	34065.7	38675.3	48627.5
KGS	5700-1-	5-005.7	50075.5	40027.5
Weighted average credit	30.2	26.3	24.7	24.8
rate %	50.2	20.5	24.7	24.0

Table 1. Maior	indices of the	banking sector	of Kyrgyzstan <sup>1</sup>

Loans of baking sector amount to KGS 35.6 billion; it makes 11.3% of GDP of the country, while standard level is 60-70%. Banks' profit does not increase and in 2011 amounted to KGS 1.98 million or USD 42 million.

These data reflect low efficiency of banking sector in Kyrgyzstan, return of equity (ROE) in 2010 amounted to 1.1%, in 2011 - 17.3%, return on assets in 2010 was equal to 7.1%, in 2011 - 2.6%. Herewith, significant liquidity ratio was accumulated in the banks thereby resulting in uncertainty and large volume of money with the banks does not work.

Currently, commercial banks are solving their own issues and it is a paradox of the banking system, the value of resources at the entrance to the system is 6.78%, the value thereof at exit is 26%. Herewith, profit of the banks is low. Margin value amounts to 15%. It means that banks do not take into account clients' interest to the full extent. High level of interest rates reflects complexity and ineffectiveness of credit recourses price formation and availability of separation, i.e. different categories of borrowers face with different interest

<sup>&</sup>lt;sup>1</sup> Bulletin of the NBKR, № 12, 2012, p 98.



rates and loan conditions. Banking system of the Kyrgyz Republic is conservative and inefficient.

NATIONAL CURRENCY CIRCULATION SYSTEM: FORMATION

УЛУТТУК АКЧА ЖҮГҮРТҮҮ СИСТЕМАСЫ: ОРНОО ЖАНА ӨНҮГҮҮ КЕЛЕЧЕГИ

AND DEVELOPMENT PROSPECTS

Kyrgyzstan <sup>2</sup>				
Index	2009	2010	2011	2012
GDP, bln. KGS	201.22	220.36	273.18	315.41
GDP per capita	860.3	907.8	1069.3	1204.6
Number of banks	22	22	22	23
Banks assets in	73.73	61.23	67.67	78.42
KR, bln. KGS				
Bank equity in	14.32	11.81	13.72	14.21
KR, bln. KGS				
Assets / GDP	36.6%	31.2%	29.4%	24.5%
Equity / GDP	7.1%	5.6%	5.9%	4.5%
Credits /GDP	13.1%	11.7%	12.5%	11.3%
Assets per capita	13 432/	11 133/	14 753/	14 228/
	USD 360	USD 264	USD 327	USD 299

Table	2.	Major	indices	of	financial	intermediation	in	the	banking	sector	of
rgyzstan <sup>2</sup>		Ŭ							U		

According to the data of Table 2, the volume of credits in banks compared to GDP is very low -11.3%, the share of banks' assets to GDP is 24.5%, equity of all banks is from 4.5% to 7.1%, index of banks' assets per capita is low KGS 14 228 or USD 299.

Indicator of banking sector effectiveness in the Kyrgyz Republic	Standard value	2009	2010	2011	2012
Profit margin	from 8 to 29%	25%	14%	31%	29%
Assets use ratio	from 14 to 20%	8.3%	8.1%	9.1%	9.2%
Return of assets	from 1.5 to 9.0%	2.5	7.1	4.7	2.7
Return on equity	from 15% to 40%	13.6	1.1	17.3	16.9
Equity multiplier	8-16 times	5.1	5.2	4.9	5.5

#### Table 3. Analysis of the banking sector effectiveness in Kyrgyzstan

With high profit margin it is necessary to reduce return on assets and vice versa, low efficiency of assets use conditioned by any given circumstances may be recovered by increasing profit margin as in the case with the banking system of the Kyrgyz Republic. Thus, in analyzing the influence of changes in return of assets it is necessary to define which of the indices profit margin or assets use ratio change to greater extent and rapidly thereby having more significant influence on the total level of return on assets.

Government policy in respect of banking system in 2012-2017 is focused on providing banking sector stability and decrease of inflation rates in the country:

- overcome the global financial crisis circumstances of 2007-2010;
- revision of the banking system strategy in Kyrgyzstan;
- creation basis for amendments introduced into banking legislation and its practical use;

<sup>&</sup>lt;sup>2</sup> It is composed based on the data of the NBKR bulletin, 2011-2012.



- decrease of ineffective bank expenses;
- increase of profitability and efficiency of banking sector.

Integrated and balanced system of indicators is necessary at this stage of development to determine parameters of effectiveness and stability of banking system and reveal reserves for improvement thereof. Development of model for assessment of commercial banks financial sustainability is a strategic objective which having been solved will influence positively on provision of anti-crisis development of the banking system and sustainable development of economy in Kyrgyzstan;

- progressing to the necessary level of commercial banks financial stability is the basis for further development of banking system, assessment of bank institutions financial stability on the part of their heads, top managers, partners, the Bank of Kyrgyzstan should become an indicator of public confidence in the banking sector on the whole;

- development of theory and analytical instruments for qualitative and quantitative assessment of banks activity will enable bank analysts to use the system of indicators for solving topical bank issues;

- assessment of financial stability is characterized by social significance, thereby determining the necessity of constant development of approaches to carrying out such assessment, instruments modification and methods of results interpretation, timely accounting of factors being able to influence on operation of the whole banking system.

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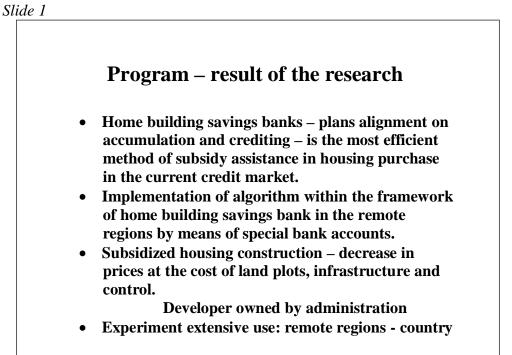
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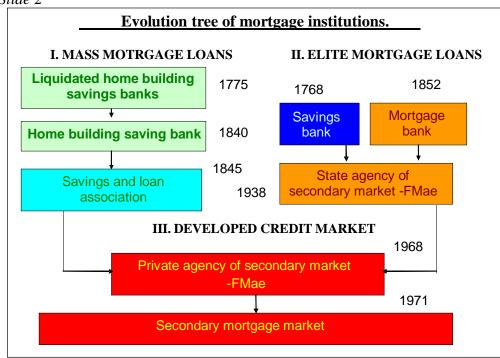
### MORTGAGE FORMATION IN DEVELOPING ECONOMIES

Viktor Meerovich Polterovich, member of the Russian Academy of Sciences

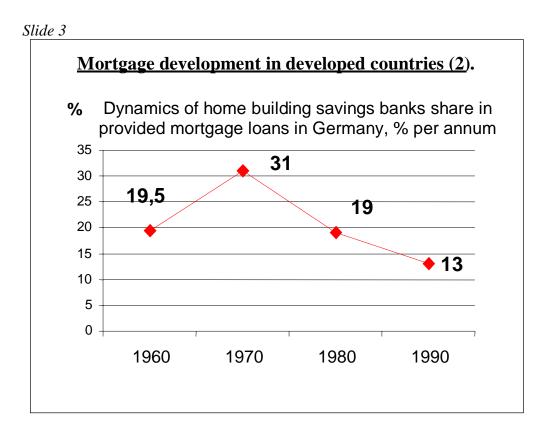
Presentation



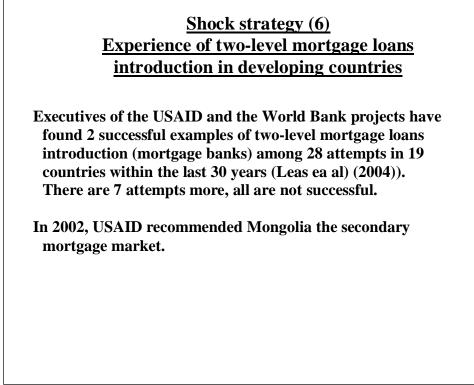










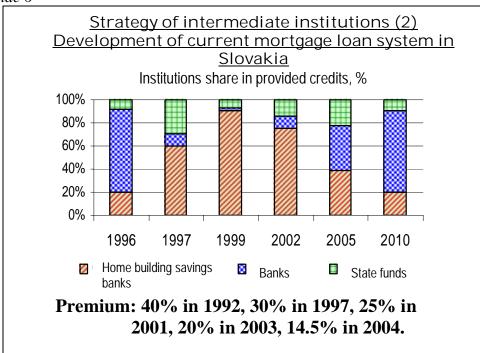




<u>Strategy of intermediate institutions (1)</u>
Mass introduction of home building savings banks

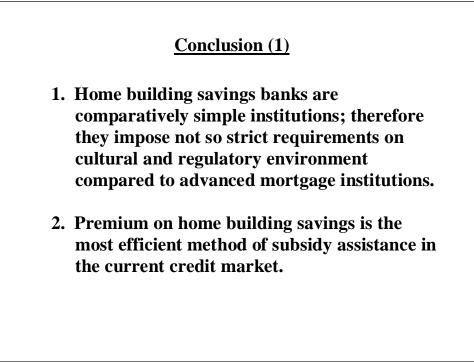
	Slovakia	Czechia
Population, mln. people	5.5	10.3
Year of introduction	1992	1993
Number of contracts in 10	20	45
years, % of population		
Number of credits in 10 years,	5	6
% of population		
Average ratio of deposits to	0.08/0.95	0.1/4.9
GDP, % in the 1-st/7-th year		
Ratio of deposits to premium	8.5	10.8
	(after 5)	(after 6)

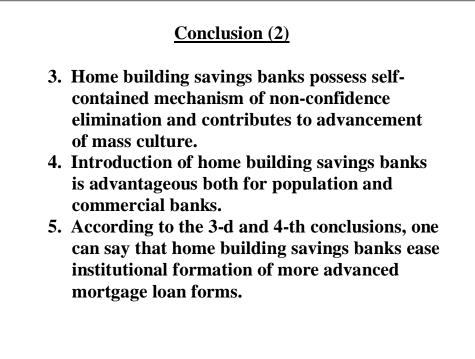






Slide 7







#### Slide 9

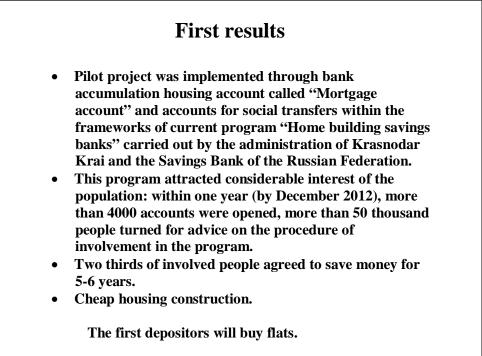
#### Published papers.

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- 2. O.Yu. Starkov (2004). Evolution and transplantation of institutions in the mortgage loan market.//*Economics and mathematical methods*. V.40, №3 p. 33-50.
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#### Slide 10

Experiment conducted in Krasnodar Preparation: September 2010 – October 2011
1. Establishment of KKDA (Krasnodar Krai Economic Development Agency) – development agency;
2. Settlements in Krasnodar;
3. Public opinion polls;
4. Adoption of law and instructions;
5. Models development;
6. Transition regime: short-term accumulation – demonstration effect.



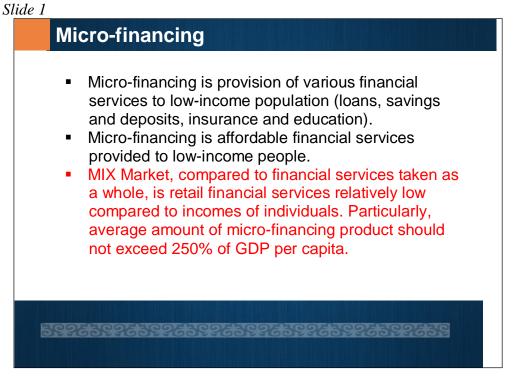




#### FORMATION AND DEVELOPMENT OF MICRO-FINANCING SECTOR

Gulnara Jamankulovna Shamshieva, Chairman of the Board, Bai Tushum CJSC

Presentation



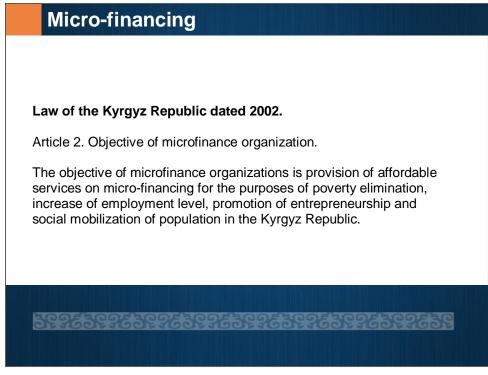




#### Slide 3

## **Micro-financing**

Credit portfolio, in mln. KGS	NBKR data	MFO data
	31.12.2012	01.01.2013
Microfinance organizations	14 060.9	11 597
Credit unions	1 344.5	
Lombards	124.7	
Active clients of microfinance organization	412 812	375 506







#### Slide 5

### **Development results**

- Micro-financing in the Kyrgyz Republic = Microcrediting (there is no other service besides provision of credits);
- 4 microfinance companies, no services provided on savings and deposits;
- Insurance;
- Commercialization;
- Liberal control:
  - Very low barriers to entry and registration of microfinance organization;
  - There is no particular requirements to owners shareholders of microfinance organization;
  - High level of completion and excessive crediting.

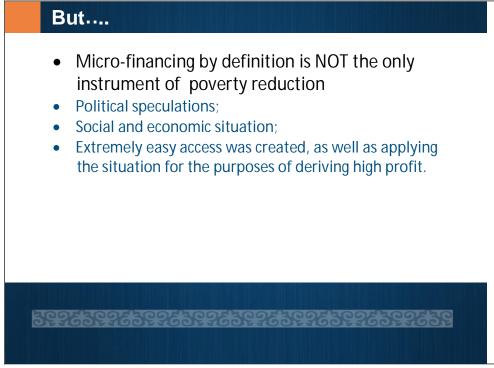
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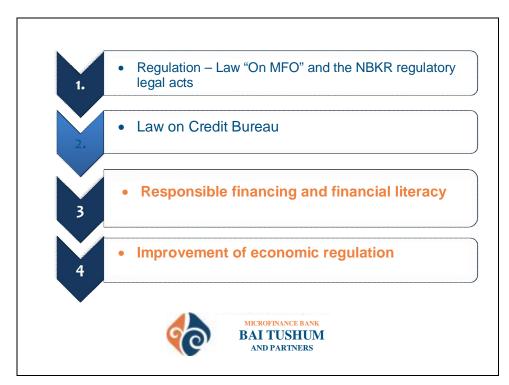
#### Slide 7













Slide 1

УЛУТТУК АКЧА ЖҮГҮРТҮҮ СИСТЕМАСЫ: ОРНОО ЖАНА ӨНҮГҮҮ КЕЛЕЧЕГИ NATIONAL CURRENCY CIRCULATION SYSTEM: FORMATION AND DEVELOPMENT PROSPECTS

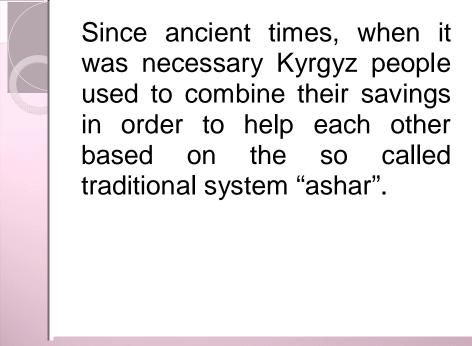
#### PROBLEMS AND DEVELOPMENT PROSPECTS OF CREDIT UNIONS IN THE KYRGYZ REPUBLIC

Raisat Azizovna Mambetmusaeva, Senior lecturer of the AMPKR

Presentation

Credit union is a financial and credit organization established in the form of cooperative for the purposes of assistance rendering to its participants (members) by means of personal savings merger owned by participants of the credit union and their use for mutual crediting, as well as provision of other financial services.

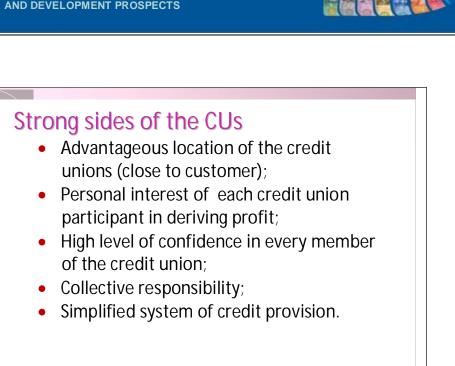


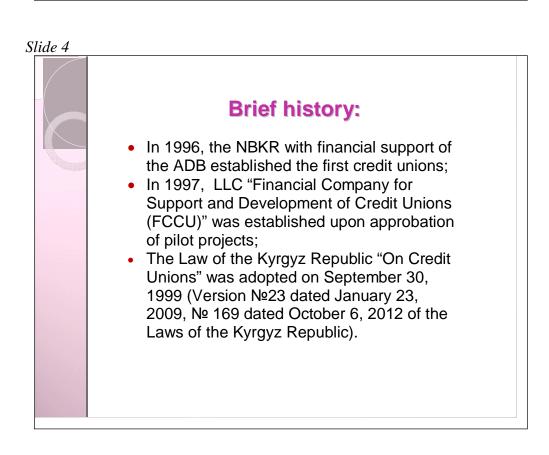




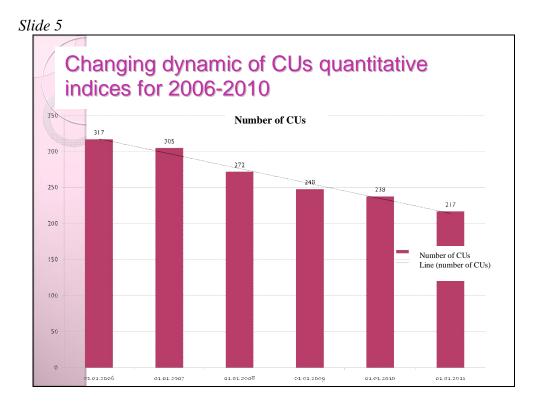
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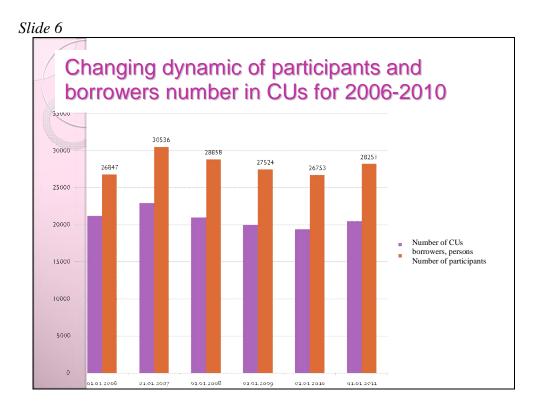
УЛУТТУК АКЧА ЖҮГҮРТҮҮ СИСТЕМАСЫ: ОРНОО ЖАНА ӨНҮГҮҮ КЕЛЕЧЕГИ NATIONAL CURRENCY CIRCULATION SYSTEM: FORMATION AND DEVELOPMENT PROSPECTS



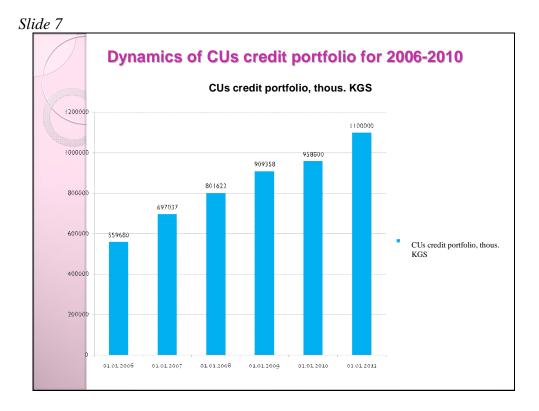


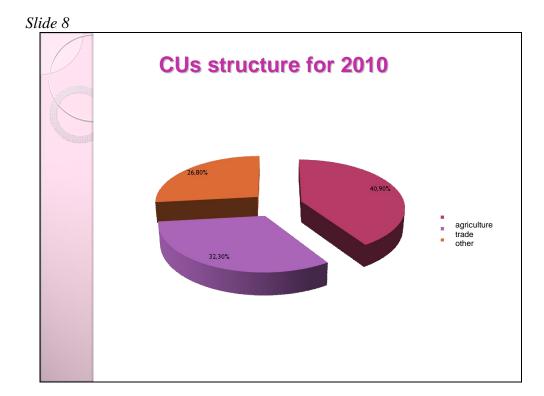




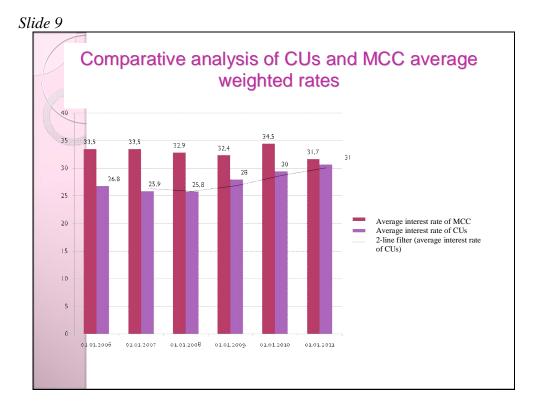




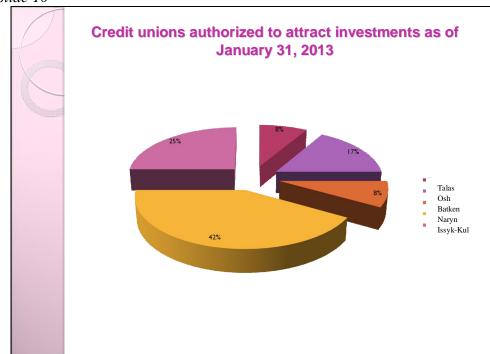






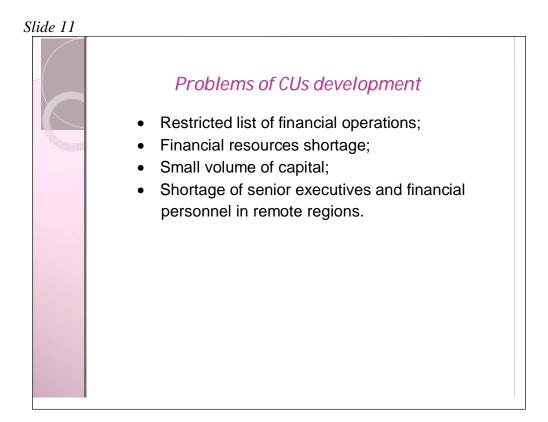




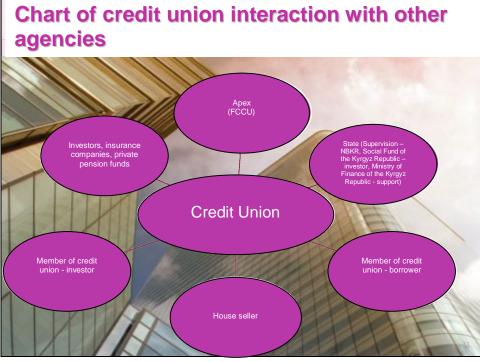




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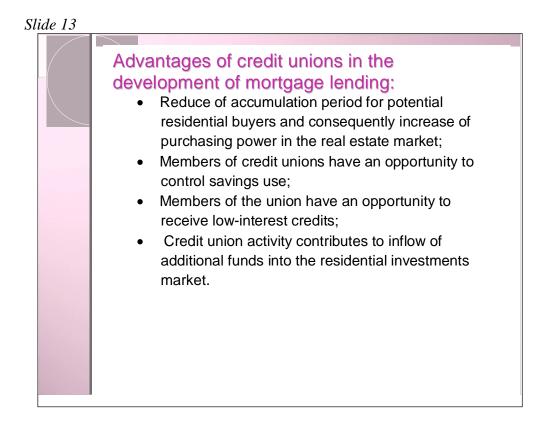


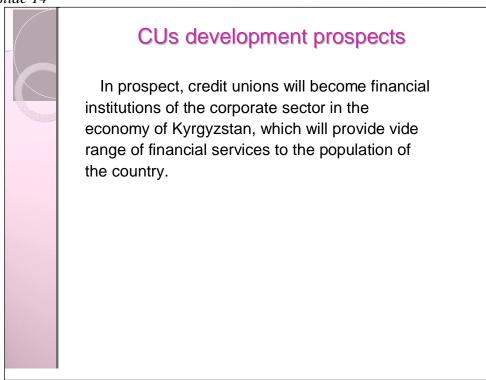
# Slide 12 agencies









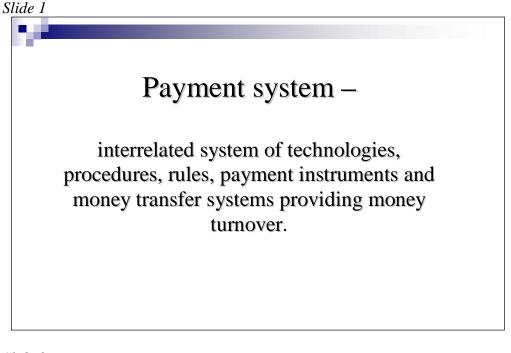




#### PAYMENT SYSTEM OF THE KYRGYZ REPUBLIC: DEVELOPMENT PROSPECTS

Aibek Zarlykovish Sultanaliev, Head of the Payment Systems Analysis and Development Division the NBKR Payment Systems Department

Presentation





History of payment system formation in the Kyrgyz Republic

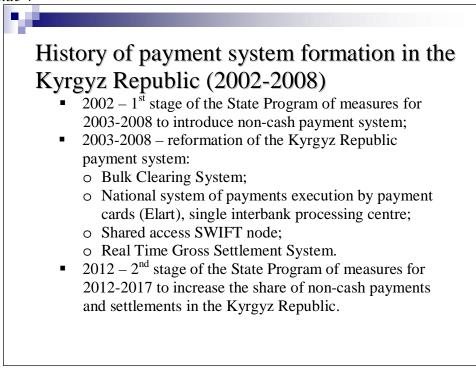
- Payment systems in the USSR State Bank performed functions of carrying out financial accounting of centralized planned economic activity.
- With establishment of the National Bank of the Kyrgyz Republic in March 1992, one of the major objectives thereof was providing efficient, safe and reliable payment system operation in the republic.



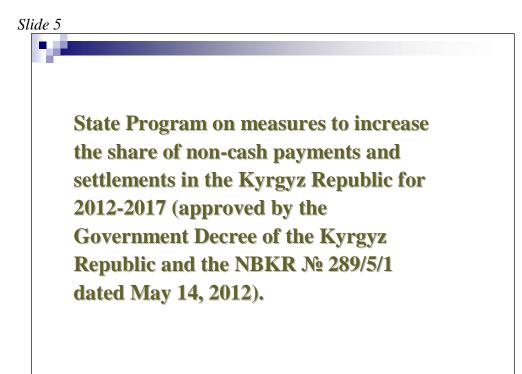
## Slide 3

# History of payment system formation in the Kyrgyz Republic (1996-2001)

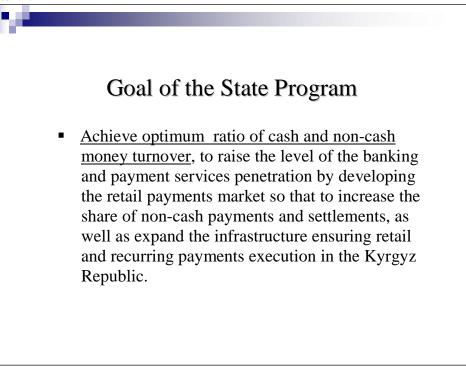
- July 1996 creation of integrated nation-wide clearing system was completed thereby giving impulse to development of inter-bank monetary, currency and equity market;
- 1997 introduction of Gross System of inter-bank payments on the basis of paper payment documents and establishment of the National Automated Clearing House (NACH);
- 1999-2001 improvement of regulatory and legal framework of the payment system and technical support for transition to e-payments system (adoption of the Law "On Electronic Payments" and other regulatory legal acts on the payment system).











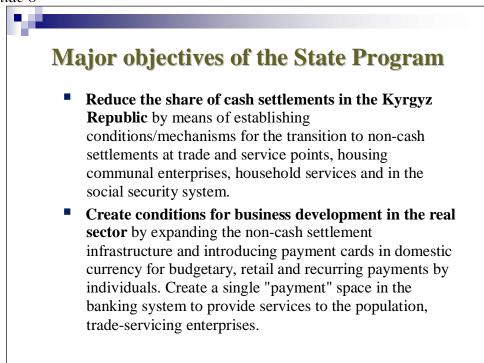






## Major objectives of the State Program

- Provide conditions for effective planning of income and expenditure sides of the republican budget. Strengthen control over cash turnover, reduce shadow cash circulation.
- Create mechanisms ensuring timely and complete payment of insurance fees by enterprises – payers and business entities. Reduce expenditures for pensions and social benefits.
- Create mechanisms and conditions at the central and regional levels ensuring timely payment of wages, pensions, stipends, state allowances, etc.



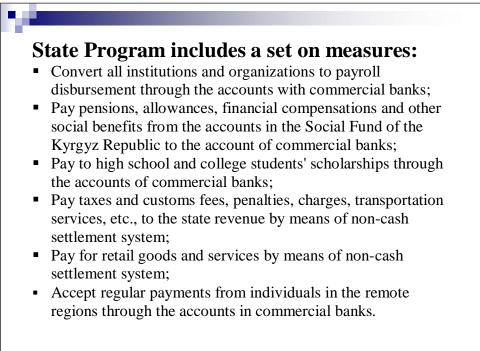




#### Slide 9

## **Major objectives of the State Program**

- Broaden the range of payment and settlement services provided by commercial banks, and develop branch network on the competitive basis. Increase a deposit base for investments in the real sector of economy.
- Create conditions for non-cash settlement of securities and organize trading floors needed to attract domestic and foreign investments to the economy.
- Development of information and telecommunication infrastructure in the remote regions of Kyrgyzstan to provide access to banking services for the citizens of Kyrgyzstan.



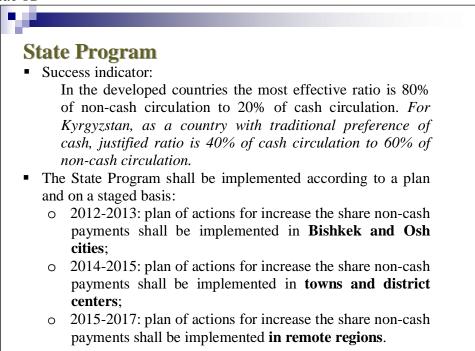




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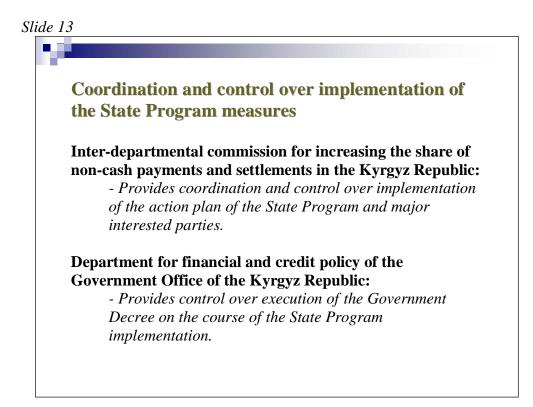
## Key participants of the State Program

- Administration of the President of the Kyrgyz Republic;
- Interagency commission for increasing the share of noncash payments and settlements in the Kyrgyz Republic;
- Ministry of Finance and subordinated agencies (Central Treasury, Central Depository);
- National Bank of the Kyrgyz Republic;
- Ministries and other state institutions of the Kyrgyz Republic (tax and customs authorities, etc.);
- Social Fund of the Kyrgyz Republic;
- Commercial banks, CJSC "Interbank Processing Center";
- Utility companies of the Kyrgyz Republic.



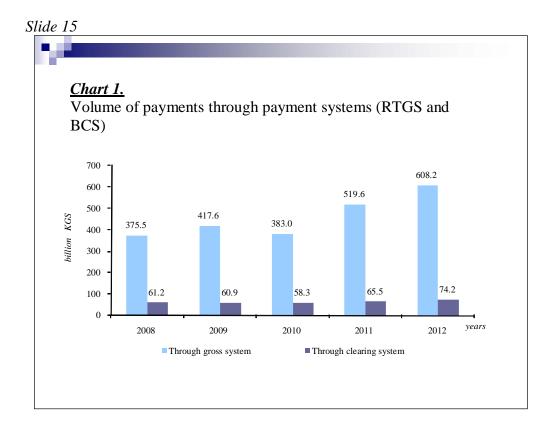


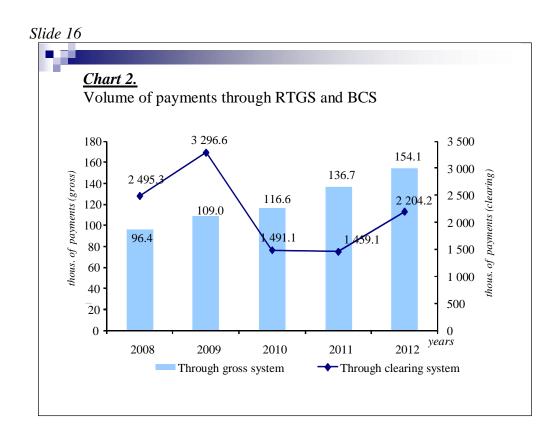




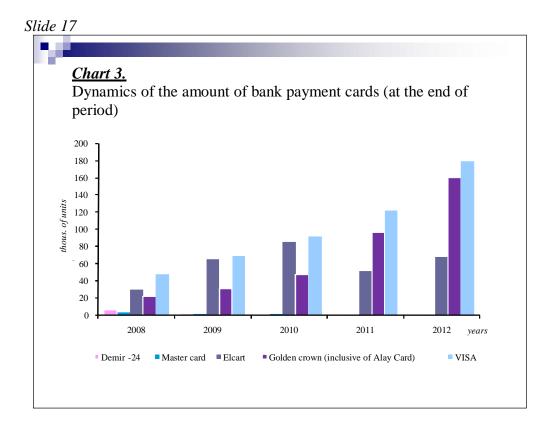
Curre	nt situation in the Kyrgyz Republic	C As of January 01, 2013 (data of 2002 were given
1.	Population: <u>5.6 million people;</u>	for comparison)
2.	Cash in circulation: KGS 58.2 billion;	
3.	Money outside banks: KGS 54.5 billion	<u>ı;</u>
4.	Money in commercial banks: <u>KSG 3.7</u> in circulation;	billion or 6.3% of cash
5.	Total number of bank accounts: 1.04 m	illion (134.8 thousand);
6.	Total volume of payments through inter KGS 682.7 billion (KGS 75.9 billion);	bank payment systems
7.	Total number of bank payment cards: <u>4</u> cards);	08 906 cards (3 069
8.	Amount of card transactions: 7.2 millio	n (115.8 thousand);
9.	Volumes of transactions: <u>KGS 35.3 bill</u> <u>million);</u>	<u>ion (KGS 386.6</u>
10.	. Total number of ATMs: <u>610 (20);</u>	
11.	. Total number of payment terminals: 24	87 (167).



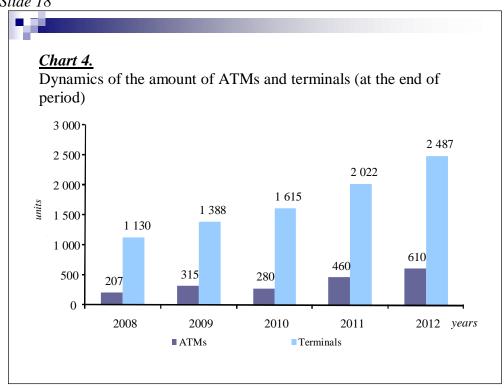




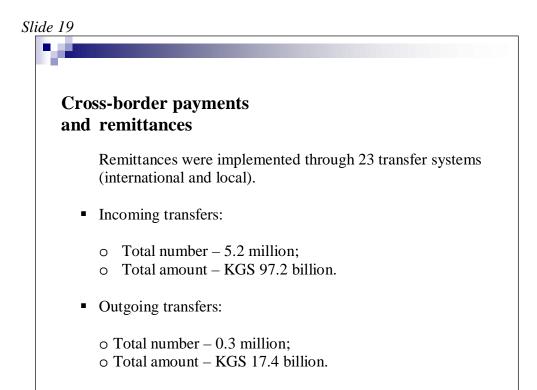




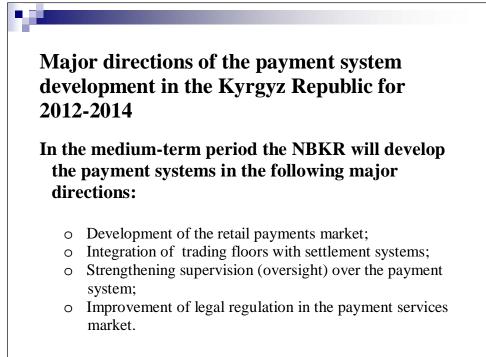




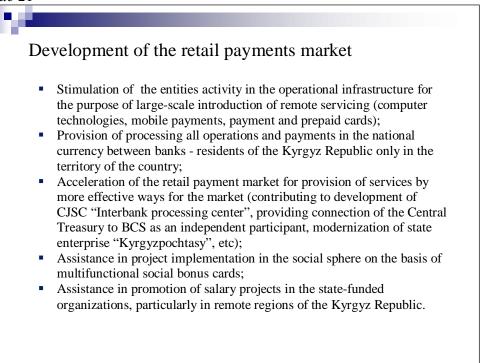




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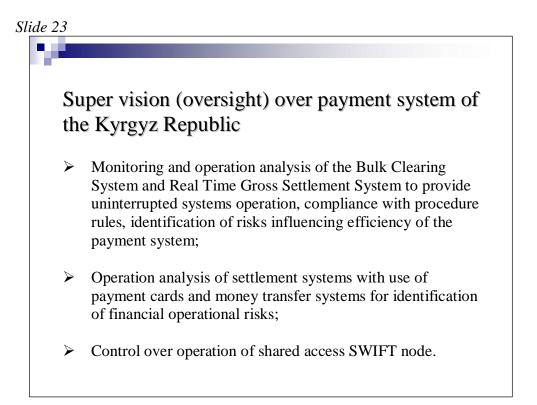


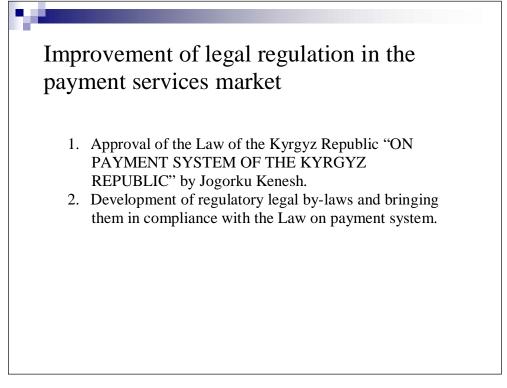




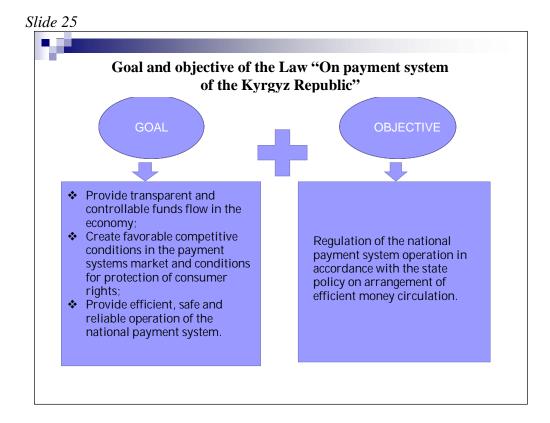


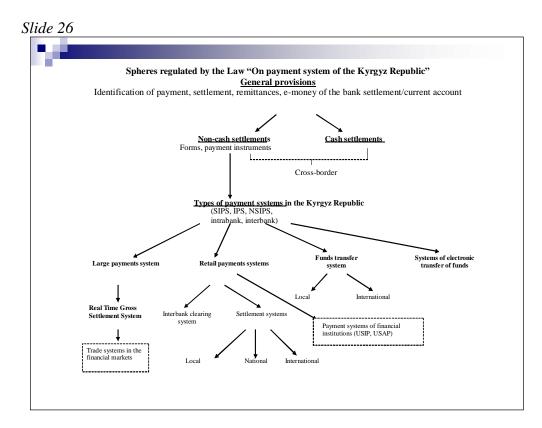










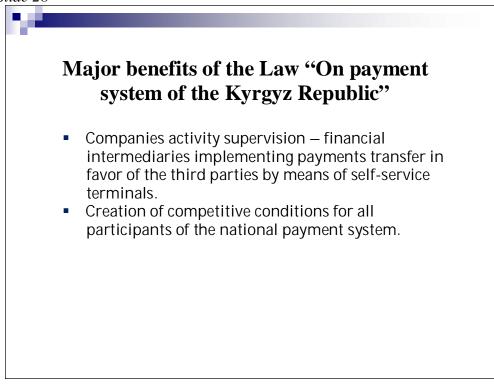






# Major benefits of the Law "On payment system of the Kyrgyz Republic"

- Definition of the national payment system and methods of intrastate market protection under conditions of international systems entry in the domestic market and integration in the international payment systems.
- Minimization of financial losses risks and methods of risk management in the national payment system.
- Definition of major terms and requirements for innovation electronic instruments and methods of payments and settlements, principles of interaction between the participants of these systems.





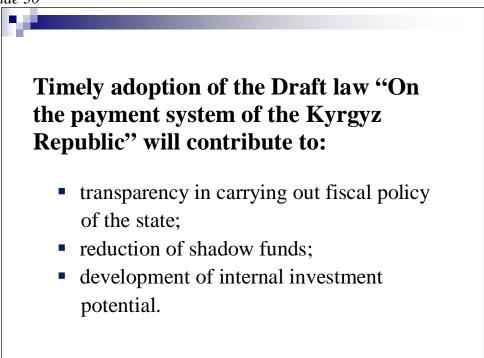
#### Slide 29

## Peculiarities of the Draft law "On the payment system of the Kyrgyz Republic"

<u>Mobile banking</u> – provision of banking service by means of mobile phone through the network of mobile operator.

<u>Internet banking</u> – provision of banking services through the Internet. It is a type of electronic banking services providing the client with the opportunity to control their bank accounts through the Internet 24 hours a day at any convenient time, make payments, receive information on money flow within the account, receive account statements, control account balances, purchase, sell and convert currency, etc.

**Home banking** – provision of banking services at home. Clients receive remote banking services by means of office and home equipment: personal computes and fixed-line phones connected to computer network of the bank. In fact, it is a variation of the Internet-banking.





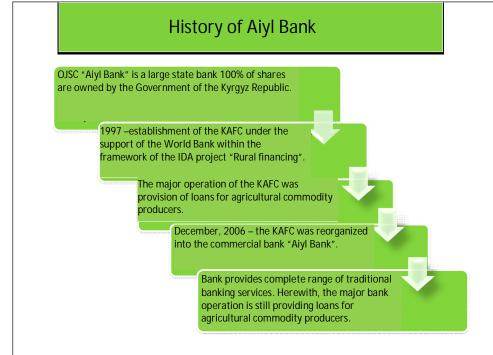
#### DEVELOPMENT OF PAYMENT CARD "ELCART" IN THE REGIONS OF THE KYRGYZ **REPUBLIC** (BY THE EXAMPLE OF AIYL BANK)

Azamat Zholborsovich Zhorobekov, Deputy Chairman of OJSC "Aiyl Bank"

Presentation

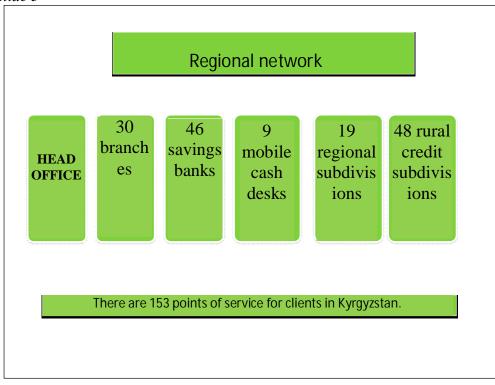
Slide 1 Brief information about OJSC "Aiyl Bank" Mission: Contribution to development of agro-industrial sector by meeting the demands of agricultural commodity producers and population of the Kyrgyz Republic in available and quality banking services and products.



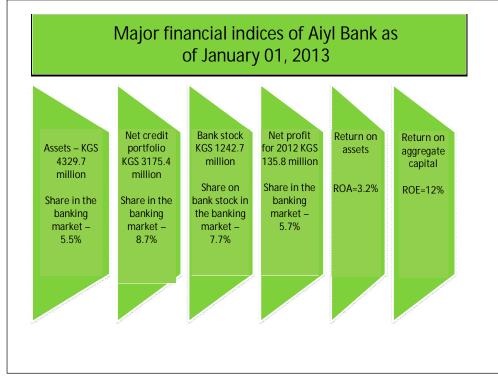






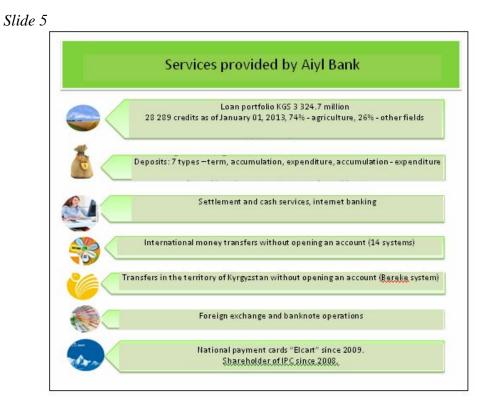








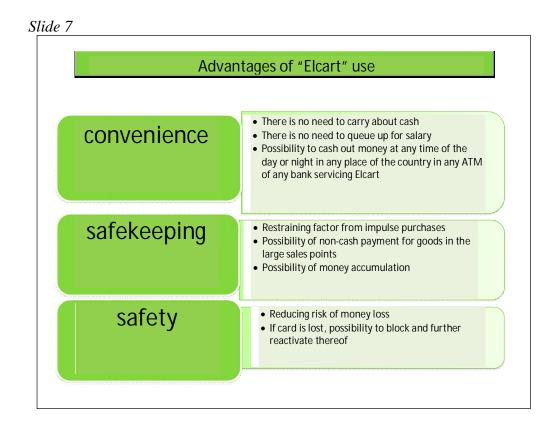




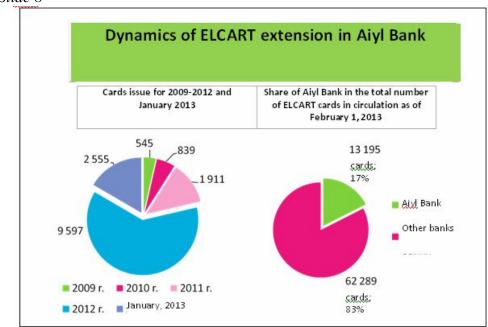




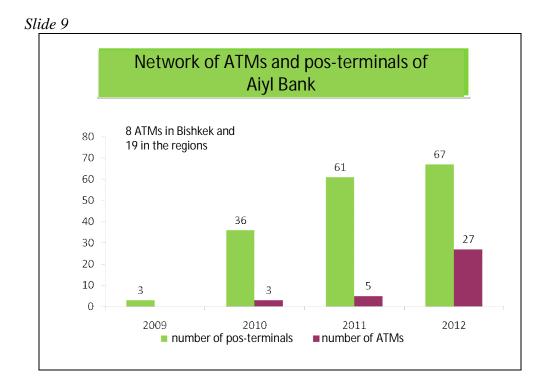




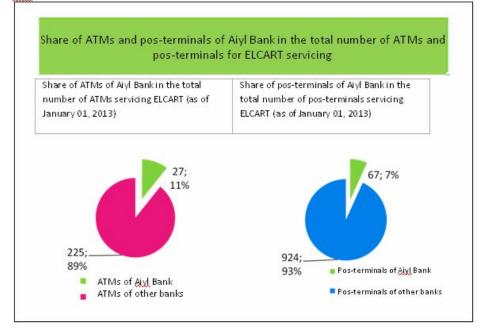




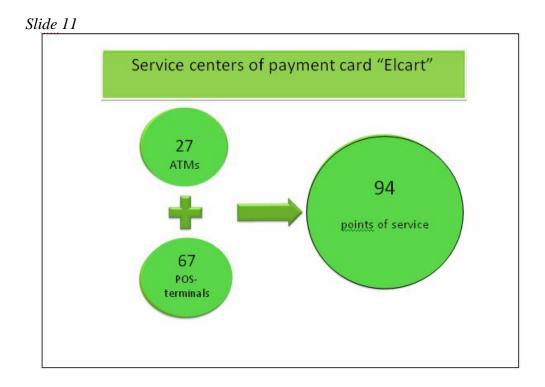




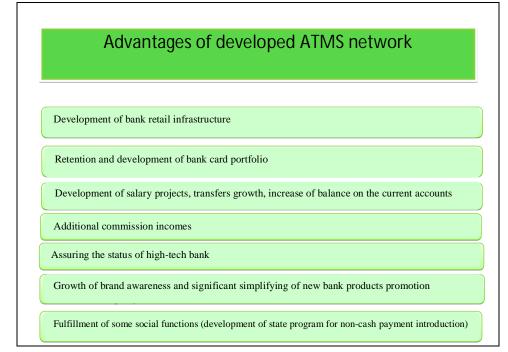








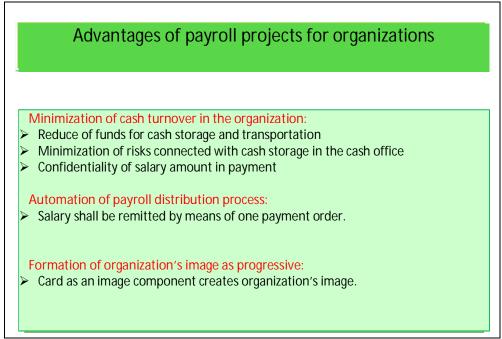
Slide 12



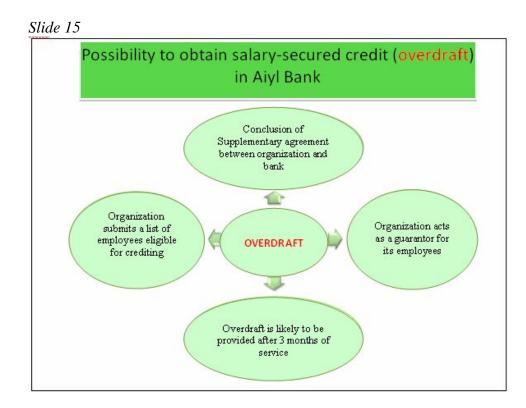


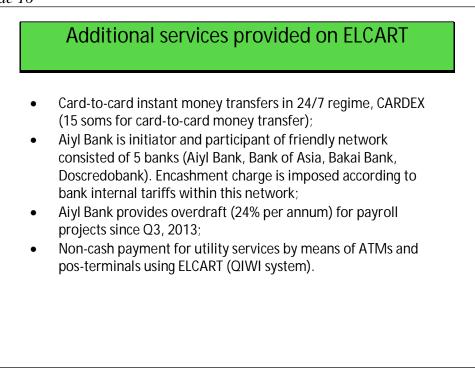


	ELCART products	
	Pensioner's card June, 2012, agreement with the Social Fund and the Ministry of Social Development on payment of pensions and social allowances by means of ELCART. Encashment charge shall not be imposed when withdrawing money from the pensioner's card or receiving social allowance. 5% penannum are charged upon the balance of funds of the pensioner's card.	
	Card for individuals within the framework of payroll projects 70 payroll projects as of January 01, 2013	
	Student's card	
HIT UTGETU 41 05	Card for business circles "Business Azamat"	

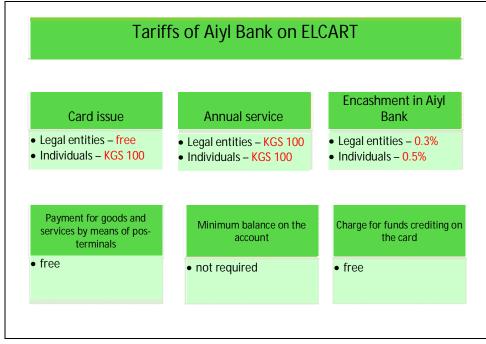




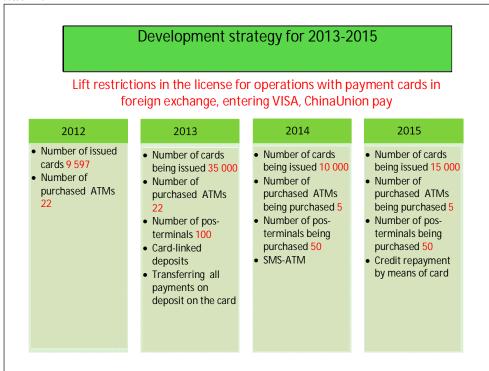














УЛУТТУК АКЧА ЖҮГҮРТҮҮ СИСТЕМАСЫ: ОРНОО ЖАНА ӨНҮГҮҮ КЕЛЕЧЕГИ NATIONAL CURRENCY CIRCULATION SYSTEM: FORMATION AND DEVELOPMENT PROSPECTS

#### PROSPECTS OF MOBILE BANKING DEVELOPMENT IN KYRGYZSTAN

Talant Esengulovich Omuraliev, Deputy Chairman of CJSC "KICB"

Presentation

Level of financial inclusion
in the Kyrgyz Republic

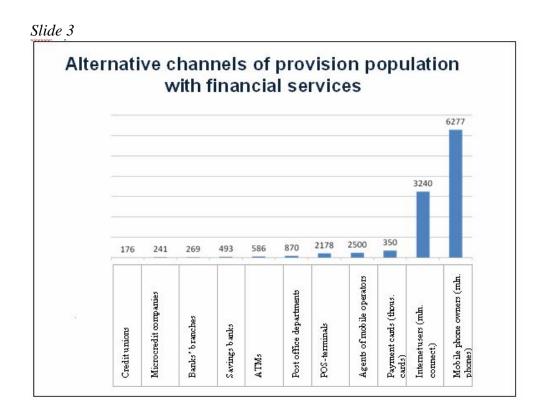
Population:	5.4 mln.
Population living in rural areas:	66% (3.6 mln.)
GDP per capita:	USD 940
Population below income poverty line (%):	43% (2.3 mln.)
Population living for less than USD 2 per day (%):	51% (2.8 mln.)
Remittances to the Kyrgyz Republic from outside	USD 1.4 bln.



## Level of financial inclusion in the Kyrgyz Republic

Number of commercial banks	23
Number of banks' branches	269
Number of microfinance organizations	3
Number of microcredit companies	241
Number of credit unions	176
Number of bank accounts with the population (%)	12.7%
Number of bank cards with the population (%)	6.5%





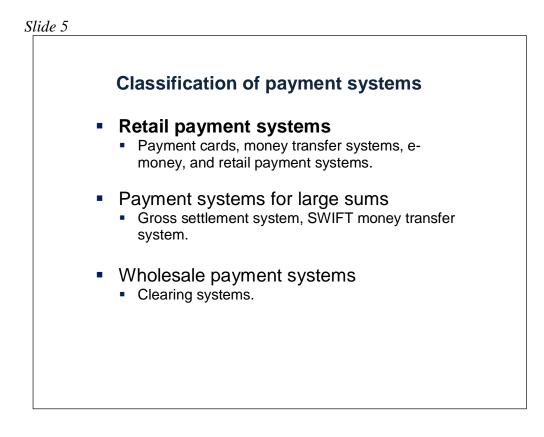


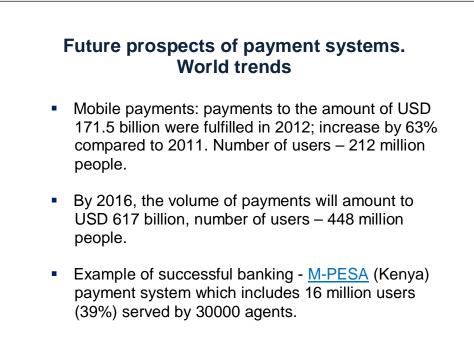
## Future prospects of payment system. Preconditions

- Introduction of up-to-date information technologies;
- Structural changes in the banking sphere;
- Enhancement of the central bank's role and its influence on payment systems.

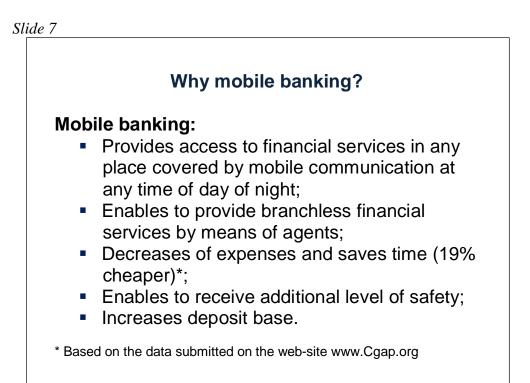


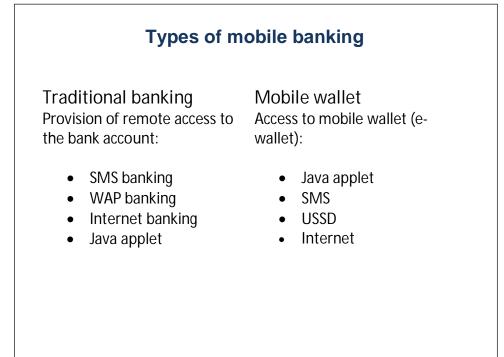








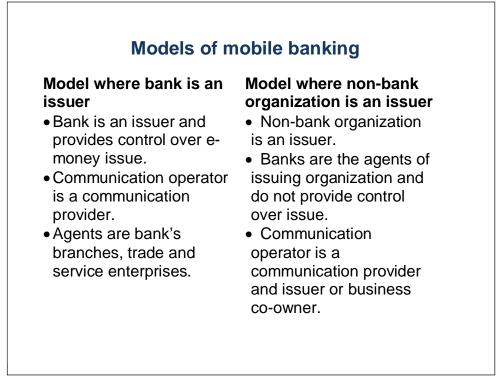






## Which services are available in traditional mobile banking

- Mini-statements of settlement accounts
- Notification about operations with accounts
- Deposits review
- Balance check
- Notification about settlements on regular payments
- Change of PIN-code

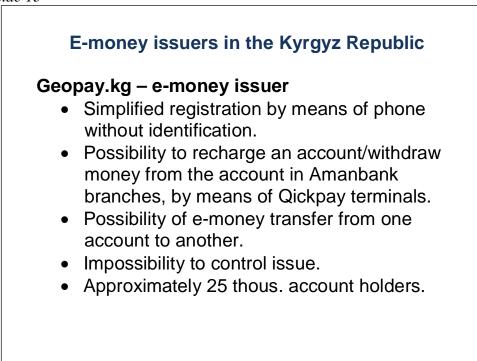




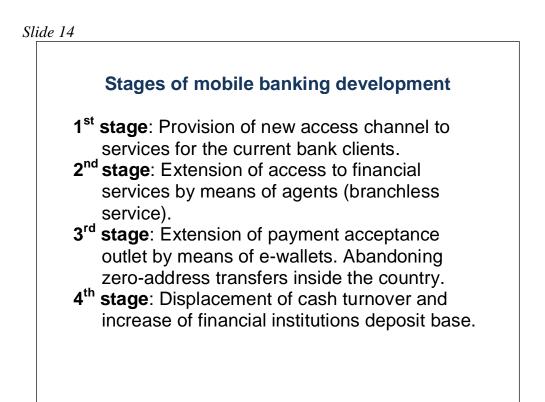


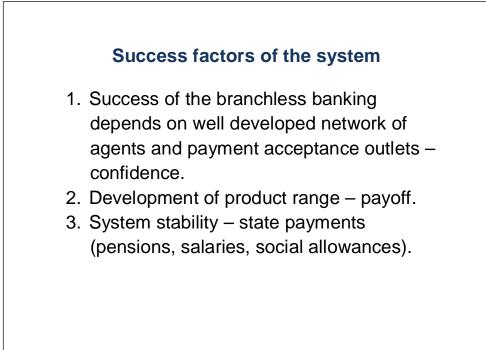
### E-money issuers in the Kyrgyz Republic

- Qiwi wallet service payment, transfers
- Mobil-nik payment on online shops
- Namba web portal purchases on portal
- Ak-bata agent's account recharge
- Neotech agent's account recharge
- MTS agent's account recharge
- Torrent.kg purchases on portal
- Hoster.kg purchases on portal
- Be Smart purchases on portal









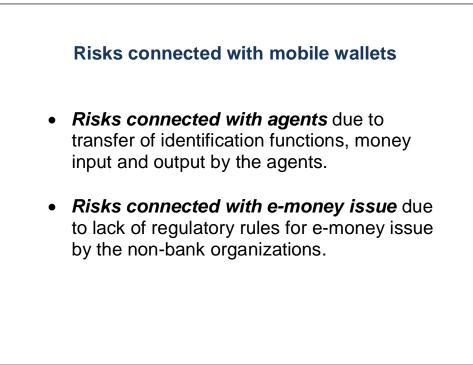


#### Slide 16

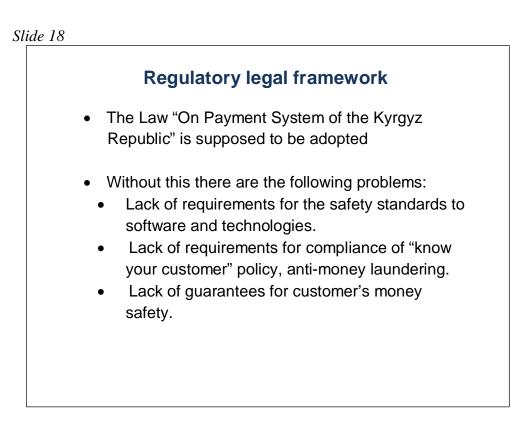
## Major services provided by means of mobile wallet

- 1. <u>State payments (pensions, salaries,</u> <u>social allowances)</u>
- 2. Payments for the account of state (state services, taxes)
- 3. Micro-credits
- 4. Micro-insurance policy
- 5. Micro-deposits
- 6. <u>Remittances</u>
- 7. Purchases and utility payments









<ul> <li>Growth of economic activity in the remote regions,</li> <li>Decrease of expenses for cash turnover,</li> <li>Increase of financial inclusion.</li> </ul>	•	<b>Conclusions:</b> Combination of payment card and mobile phone functional is inevitable. Developing countries use their own model of mobile banking development intended for branchless service. Mobile banking provides the following advantages:
• Necessity in control and supervision over issuers	•	<ul><li>regions,</li><li>Decrease of expenses for cash turnover,</li></ul>



#### Final speech of the conference moderator, the NBKR Deputy Chairman, Suerkul Abdybaly tegin

#### Dear participants of the conference!!!

On reviewing the results of the third research and practice conference I would like first of all to express my appreciation to all participants for carried out work. I think – and everyone would agree with me – that today's conference has become a fruitful ground for exchange of opinions. It was an excellent opportunity of the National Bank to receive constructive proposals both for business community and for representatives of scientists' circle.

Many aspects of the NBKR activity were touched in the course of the conference. We heard the opinions, suggestions and criticism to some extent on such directions of activity as monetary policy, development of banking and micro-financing sector, new directions of payment systems development.

The National Bank will analyze represented works and get in contact with the researches. However, I can say right now that presented models concerning the influence of crediting increase of GDP growth and the influence of exchange rate of inflation in the Kyrgyz Republic will be reviewed at the Scientific advisory meeting of the National Bank where the results of carried our researches will be discussed in detail.

In the course of the conference we heard the recommendations in respect of financial institutions operation including commercial banks which reflect the necessity to increase transparency and accelerate the process of loan application review, as well as reflection of the whole structure of both nominal and real interest rate. In order to solve this issue, the National Bank has been intensely introducing since 2012 the rules providing transparency of formation and calculation of both nominal and effective interest rate.

The report of V.M. Polterovich, member of the Russian Academy of Sciences, is very topical both for Kyrgyzstan and for the countries with transition economies. Offer with regard to home building savings banks is likely to become the basis for creating new instrument for economy crediting and result in savings growth thereby complying with the interests of both the Government and the National Bank. On the examples of Czechia and Slovakia we see how soon it is possible to increase the volume of savings by means of savings banks.

I would like to note that the National Bank possess regulatory base, however, it does not envisage 50 per cent participation of the Government in the resource base formation. This issue should be repeatedly studied.

Development of new technologies creates favorable conditions for extension of banking payment services, increasing availability of financial services and decrease of their value. Amendments should be introduced in the regulatory framework within the framework of new technologies adoption.

In conclusion I would like to emphasize that the National Bank will review all expressed comments and all rational offers will be subject to execution. Besides, all working papers of the conference will be placed of the web-site of the National Bank (www.nbkr.kg).

Dear colleagues! Let me close the work of the third research and practice conference devoted to the 20-th anniversary of the national currency introduction and wish good luck to all the participants of the conference!