6-3 Brief explanation and premises of forecasts

6-3-1 Population

Plan A

For the past couple of years, the population in the Kyrgyz Republic has been decreasing, due mainly to the emigration of non-Kyrgyzs, primarily Russians. Beginning in 1997, however, the population is expected to take an upwards turn as a result of the Kyrgyz government's policies to prevent emigration and the Russian government's policies to prevent immigration. However, the rate of increase will probably be low, around 1992-1993 levels, due to problems in daily living caused by a decline in actual income.

Annual population increase rates;

1994-1996: same as 1993-1994, -0.9%

1997 and after: 0.5% (slightly more than the 0.4% of 1992-3)

Reference:

According to the government forecasts, population decreases annually by -0.9% in 1994-2000.

Plan B

Even if all else go well, the emigration of non-Kyrgyzs will continue, and the people won't feel the recovery of the economy, until around 1996. Until then, therefore, the population trends outlined in Plan A will obtain. Afterwards, however, the population will increase faster than forecast in Plan A. It will probably increase at the same rate as that prior to Independence: 1.8% a year.

6-3-2 Employment conditions

(1) Working population

Plan A

Based on the age structure of the population (Table 3-2), the working population was calculated to have a natural rate of increase of 0.94% a year. Due to emigration, however, the rate of increase is forecast to be only 0.65% through 1996. Starting in 1997, however, emigration is expected to stop, so that the rate of increase will return to its natural level.

Basis:

Proportion of new entrants into working population:

35.9% (population aged 0–16) / 17 = 2.11%

Proportion of population leaving working population:

50.3% (population aged 17–59) / 43 = 1.17%

Rate of annual natural increase in working population:

2.11% – 1.17% = 0.94%

Of those who comprise each year's natural increase in the working population, 30%, it is assumed, will emigrate.

The above forecast is based on the assumption that the current practice of both husband and wife working will continue in the future.

Reference:

In the government forecasts, the working population increases annually by 1.7% in 1994–2000.

Plan B

Through 1996, Plan B is the same as Plan A. After that, however, beginning in 1997, people who emigrated are expected to return due to the economy's revival and friendly relations with neighboring countries. As a result, the working population will increase at an annual rate of 1.3%.

Note: The returning population is expected to constitute 40% of the annual increase in the working population.

(2) Unemployment rate (average of 6.3% in 1993)

Plan A

According to this plan, there will be a natural increase in the working population each year, and personnel cutbacks and the number of bankruptcies will increase as the privatization of nationally operated corporations, which have a large amount of surplus personnel, continues as a result of which the number of unemployed persons will increase to 240,000, or 10% of the working population, by the year 2000.

Reference:

In the government forecasts, the unemployment rate peaks in 1995 at 6.7%, and then drops to 4.1% by the year 2000.

Plan B

Due to various factors – the government's policy for creating employment opportunities, an increase in foreign investment, the rise of small and medium-sized companies, and the development of the service industry – a market economy will take root; and even if this causes jobs to be lost, the number of new jobs offered will be still greater. Accordingly, it will be possible to achieve a situation like the former one, in which there were no unemployed persons.

6-3-3 GDP

(1) Real GDP growth rate

Plan A

Negative growth (-5.0%), it is forecast, will occur again in 1996, but growth will turn positive (+2%) in 1996 and subsequently double to an average of +4% a year. These figures are close to those in the government forecasts and to IMF estimates, and are considered reasonable.

In contrast to the real GDP growth rates mentioned in Chapter 3, which are based on data obtained through December, 1994, the rates forecast here are based on data obtained in August, 1994, accordingly, do not agree with the data on the economy's actual performance during all of 1994.

Reference:

a. In the government forecasts, there is growth of -5.4% in 1994, +1.5% in 1995, +3.4% in 1996, and an average of +3.9% in 1996-2000.
b. In the IMF report (August, 1992), growth is -3 to -4% in 1994, +4% in 1995, and +5% in 1996-9.

Plan B

According to this plan, the scenario for economic recovery and development mentioned in Chapter 3 is attained fully, without any major difficulties, and the GDP recovers to its maximum level, achieved in 1990. For the GDP to return to its 1990 level by 2000, it must grow rapidly (by an average of 9.3% annually) from 1995 onwards. Based on the examples of other countries (China, Japan of previous decades, etc.), such growth is considered possible. It is expected, however, that growth will not

suddenly jump from a negative figure in 1994 to +9.3% and then continue at that level, but that it will rather accelerate gradually. Based on this expectation, this plan forecasts a low growth rate in 1995, which coincedes with the government forecast.

(2) GDP deflator

Plan A

The current declining trend in inflation will continue, and the GDP deflator's rate of increase will rapidly diminish. In 1995–6, it will be lower than forecast by the government, but from 1997 onwards it will be slightly higher.

Reference:

In the government forecasts, inflation increases 237% in 1994, 56% in 1995, 16% in 1996, and an average of 5.8% from 1997 onwards.

Plan B

The government forecasts are used.

(3) Nominal GDP Growth Rate

Plan A

Nominal GDP is calculated using the above-mentioned inflation rates as the GDP deflator.

Plan B

Same as Plan A.

6-3-4 Industrial structure

Plan A

In this plan, the changes that will probably occur in Kyrgyz industrial structure, and the industrial structure that will result by the year 2000, are seen as follows.

a. As the transition to a market economy continues and the economy expands, tertiary industry, as yet undeveloped, will grow significantly, and end up accounting for a large share of the GDP.

b. Primary industry, or agriculture, will achieve solid growth and continue to be a main pillar of Kyrgyz industrial structure.

c. In the manufacturing sector of secondary industry, food processing and light industry will grow based on growth in agriculture. Heavy industry, on the other hand, will probably decline.

d. The construction industry will recover some of its share of the GDP because of the need for infrastructure, housing, etc.

e. Given the government's policy of developing natural resources and using domestic resources efficiently, the mining industry will have an important role to play. However, given its need for large sums of capital, it will probably have to wait until after the economy recovers and the necessary capital becomes available, or until foreign companies enter the country.

Based on the above factors, the industrial structure in the year 2000 is forecast to be as follows.

Primary industry (agriculture)	30~35%
Secondary industry (mining, manufacturing, construction)	30~35%
Tertiary industry (transportation/communications, finance, commerce, services)	30~40%

Reference:

The government forecasts do not mention industrial structure.

Plan B

Through foreign aid, the modernization of the financial systems, and the economic recovery of neighboring countries, the government's various policies will have various and significant effects, and, as a result, the industrial structure will change greatly by the year 2000. Specifically:

a. Based on the government's structural reform policy, the rebuilding of the manufacturing industry will progress and trade with neighboring countries will increase, resulting in manufacturing again becoming Kyrgyz leading industry. Moreover, the mining industry will gradually grow more active, primarily through developing gold mines.

b. Agriculture will also make a smooth recovery. By supplying raw materials for

light industry and food processing, and by supplying foodstuffs to neighboring countries, it will maintain its position as a basic industry. In monetary terms (share of GDP), however, it will fall from first place to second, behind manufacturing.

c. As a market economy takes root, the service industry will develop in various ways, contributing, in return, to the development of the market economy.

d. The construction industry will grow through activities related to infrastructure construction (for which the funds will come from foreign aid), and once again achieve a large share of the GDP.

e. The transition to a market economy, the construction of infrastructure, and the growth of the service industry will generate new activity involving people, things and information, and, as a result, transportation and communications will vigorously develop.

Considering the above, the industrial structure (each industry's share of the GDP) in the year 2000 is forecast to be as follows.

Primary industry (agriculture)	30%
Secondary industry (mining, manufacturing, construction)	35~40%
Tertiary industry (Services)	30~35%

6-3-5 Number of companies

Plan A

The data mentioned below and the plan for privatising the original plan were used as the basis for estimating the number of companies. According to the data of the State Committee on Economy, the total number of companies at the end of 1993 was 32,235. These companies break down as follows.

		End of 1992	End of 1993
Agricultural sector;	State farm	481	390
	Private farm	8,695	13,000
	Subtotal	9,176	13,890
Non-agricultural sector;	State enterprise (estimation)	9,100	5,800
	Private enterprise	7,925	13,045
	Subtotal	17,025	18,845

Plan B

The data mentioned above under Plan A also served as the departure point for Plan B. In Plan B, however, the economy is seen to recover and develop faster than in Plan A. In addition, the privatisation plan is based not on the original plan, but on its revised version.

6-3-6 Trade and international balance of payments

(1) Trade

Plan A

The degree of Kyrgyz dependence on trade will increase as the economy recovers. It is forecast that, over the years 1994–6, the importing of materials through foreign aid will result in an amount of trade equivalent to approximately 60% of GDP; and that in subsequent years, during which the economies of neighboring countries can be expected to recover, trade with those countries will grow, so that total trade will increase to an amount equivalent to 70% of GDP.

As mentioned in Chapter 3, in 1994 there was a surplus in the balance of trade, but for temporary reasons. The basic trend, it is forecast, will be for the balance of trade to continue on a deficit track. Based on data obtained through July, 1994, it seems that, over the next 2–3 years, due to an influx of aid and materials, the trade deficit will rise to an amount equivalent to 11% of GDP. However, as export industries develop based on the government's structural reform policy and exports to neighboring countries increase, this proportion will probably shrink to 7% by the year 2000.

Reference:

In the government forecasts, the balance of trade reaches equilibrium by the year 2000.

Plan B

Trade will gradually grow more active starting in 1996, and, by 2000, it will recover to an amount equal to 75% of GDP, as the government has forecast.

The trade deficit will rise temporarily, from the equivalent of 7% of GDP in 1994 to 9% in 1995, due mainly to an increase in imports based on foreign aid. After that, however, the export industry will develop and strengthen based on reforms in the

country's industrial structure; exports to neighboring countries will increase; and the trade deficit will drop to the equivalent of 4% of GDP by the year 2000.

Trade with the FSU countries will continue at a low level in 1994–6, but will then recover, and by 2000 it will account for 80% of exports and 65% of imports.

(2) International balance of payments

Plan A

Large amounts of financial aid have flowed into the Kyrgyz Republic from international agencies and foreign governments, and this situation is expected to continue in the future. In forecasting Kyrgyz international balance of payments, it was taken into account that the Kyrgyz Republic receives, annually, $150 million in loans and $30 million in grants. It was also assumed that the amount of foreign investment would be negligible. Furthermore, the exchange rate of the Som against the dollar is expected to slowly decline, reaching 17–18 Som/dollar by the year 2000.

Plan B

The amount of loans and grants is the same as in Plan A. It was assumed, however, that, beginning in 1997, the amount of foreign investment would increase $10 million a year. Moreover, the exchange rate of the Som is seen as stabilizing at 11 to the dollar.

Chapter 7 Forecast of Financial Transactions and Settlements (Target Year 2000)

Chapter 7 Forecast of Financial Transactions and Settlements (Target Year 2000)

7-1 Forecasts for Types of Financial Transactions and Their Volumes

7-1-1 General Remarks

The present Chapter presents a forecast of the types of financial transactions and the volume of these transactions expected to occur in the target year of 2000, taking into account the socioeconomic framework (as postulated in Chapter 6) and the financial framework (as postulated in Chapter 8) of the Kyrgyz Republic.

7-1-1-1 Types of Financial Transactions Concerned

The following varieties of financial transaction are covered by the forecasts.

(1) Cash currency in circulation outside of banks, Deposit money (demand deposits) and Quasi money (time deposits).

(2) Loans (advances and debts)

(3) Inter-Bank Market Transactions

(4) T/B Market Transactions

(5) Foreign Exchange Market Transactions

7-1-1-2 Framework for Forecasts of Financial Transactions

In predicting the volume of transactions under the above headings we have used the following framework. Since the Kyrgyz Republic is now undergoing enormous structural changes it is impossible to apply model analysis to the situation and so analysis and forecasts have been carried out using a staged approach method.

(1) Forecasts of Money Supply

1) Forecasts of the volume of cash currency, deposit money (demand deposits) and quasi money (time deposits, etc.) held by private non financial sectors

(private households or individuals and business enterprises) and of the increase and balance of broad money which is the total of the above were estimated using a macroeconomic analysis based on the nominal GDP as shown in national accounting, money supply and income velocity.

2) The forecast results were verified using the reserve money factor and the money multiplier.

(Note 1) in the following reserve money is defined as "the total sum which results from adding the amount of cash currency issued and the amount of deposits received from deposit money banks among liabilities of the central banks".

(2) Forecast of Savings

1) Separate forecasts have been made for the personal deposits balances and for the company deposits balance in view of the ratio trends which personal and company deposits account for in the total deposits balance.

2) Further the evolution of the balance of deposits in real terms has been predicted so as to verify the overall forecast and also to check whether the volume of deposits expected to arise will be able to meet capital shortages of the Kyrgyz Republic.

(3) Forecast of the Volume of Bank Lending

1) Advances to companies have been divided into those accorded in response to demands for operating capital and those for facility or equipment capital. The volume of advances of operating capital has been forecast on the basis of data for nominal total output value, turnover period and inter firm settlements as shown in national accounting. The volume of advances of equipment capital has been forecast from data for nominal company equipment investment shown in national accounting.

2) Further, advances to the personal sector have been made on the basis of trends in housing investment and the total volume of bank lending has been estimated from the sum of the results of these projections.

(4) Forecasts for the Inter Bank Market and TB Market

1) The market size has been estimated by referring to the nominal GDP. Verification has been carried out by international comparative analysis to show what market size corresponds to a given nominal GDP for each of the markets during a specific phase of economic development.

2) Forecasts for TB markets were carried out on the basis of data for public spending trends while the sales balance was also forecast using the TB balance and turnover rate.

(5) Forecast of Foreign Exchange Markets

1) The size of the foreign exchange market was first estimated on the basis of export-import data based on the balance of trade.

2) Next forecasts for the current account and capital account leaving aside the balance of trade were made and on the basis of the above forecasts the size of the overall foreign exchange market predicted.

7-1-2 Projection of Money Supply

7-1-2-1 Recent Trends of Broad Money and Income Velocity

(1) Broad Money Situation

The balance of broad money(hereafter Mb) in the Kyrgyz Republic represents the total resulting from currency in circulation outside of deposit money banks plus demand deposits plus near or quasi money (hereafter this last is referred to as Mq). This is calculated to have been 702 million Som at the end of 1993. This breaks down as 398 million Som for cash currency in circulation and 202 million Som for deposit money (demand deposits) so that these two together taken to be the figure for Money (hereafter M) account for 600 million Som while the quasi money factor (Mq) equals 102 million Som (refer to Table 7-1).

Analyzing economic scale on a year on year basis we find that because of the extremely high inflation rate (calculated to be 745.3% over the level of the previous year on a GDP deflator basis) meant that while the nominal GDP for 1993 rapidly expanded to a level of 606.2% over the previous year the expansion

of Mb was only 179.7% over the previous year so that the ratio of Mb to nominal GDP (Marshal's k coefficient) fell considerably from a level of 0.31 in 1992 to 0.12 in 1993 (refer to Table 7-1).

The reason why the rate of increase of Mb has evolved at a level considerably below that of the rate of increase of nominal GDP is seen to be the maintenance of tight financial controls by the NBK taken with the aim of containing inflation and stabilizing the new national currency introduced in May of 1993.

(2) Trends in Income Velocity of Broad Money

Looking at trends apparent in the most recent data for income velocity of Mb in the Kyrgyz Republic (where income velocity is defined as the number of circulations of the money stock used to meet the annual flow of income in an economy, hereafter referred to as Vmb) we see that the Vmb rose considerably from a level of 3.23 in 1992 to 8.15 in 1993 (refer to Table 7-1). This data shows that while the Mb of 1 Som was used for the purchase of goods and services worth 3.23 Som in 1992 the same Mb of 1 Som was being used in 1993 to purchase goods and services to the value of 8.15 Som. Put in other words this means a situation had arisen where a relatively smaller Mb had to be used to meet an income flow blown up by inflation. It would seem that this situation resulted from the fact that in response to anti-inflationary measures taken by the NBK to restrain money supply at a level considerably below the expansion of incomes, many households and companies reacted by the purchase and holding of physical assets and a reduction of Mb as a means of overcoming their reduced purchasing power in the context of mounting inflation.

7-1-2-2 Forecast of Broad Money

(1) Prediction Method Used

We have forecasted the balance, growth rate and increment of Broad Money (Mb) to permit subsequent estimates to be made of the volume of transactions for cash currency, demand deposits and quasi money (hereafter Mq, referring to fixed or time deposits, etc.).

We have made use of both Plan A (realistic scenario) and Plan B (high growth scenario) as postulated in Chapter 6 considering Socioeconomic frameworks of reference when predicting Mb here and have postulated the following two cases with regard to these;

1) The income velocity of Mb (Vmb) is taken to remain constant from 1993 to 2000

2) Alternatively, the Vmb rises as a result of maintenance of the tight financial policies assumed to be continued by the NBK.

In the event of case 1) above the evolution of broad money can be assumed to remain stable and to follow exactly the same level of increase as the economic growth rate. With case 2) above since inflationary restraint is taken to continue to be an important policy in the future the evolution in the rate of increase of broad money would fall below the economic growth rate. Since the second postulated case seems the more probable of the two and since it is regarded as a desirable financial policy we have adopted this scenario for the following forecasts of cash currency, deposit money and quasi money. Further, for forecasts of fluctuations in Vmb and for forecasts of the ratio of Mq to Mb we have adopted a method of international comparison.

For case 2) indicated above as well as carrying out a verification of forecast results using the money multiplier and data for reserve money (total of balance of cash currency issued together with balance of deposits received from deposit money banks of the NBK's liability) it is possible to refer to this analysis when examining the relation of improvement of financial and payment systems and capital shortage aspects through bank credit creation capability.

(2) Forecasts using a Fixed Level of Income Velocity

In this scenario it is assumed that the income velocity (Vmb) of broad money (Mb) remains steady at the same level so that the evolution of Mb will be at the same rate as the changes in income (GDP). Therefore it is assumed that the situation of 1993 in which the Mb of 1 Som was used for the purchase of goods and services of a value of 8.15 Som and in which an average Mb of 0.12 Som existed for 1 Som of income, will continue up to the year 2000. On this basis and

using forecasts of the nominal GDP established with socioeconomic frameworks postulated, we have carried out forecasts for the evolution of Mb in the Kyrgyz Republic.

On the basis of the socioeconomic framework set for Plan A (Realistic Scenario, hereafter Plan A) the Mb balance at the end of 2000 will be 5 billion 250 million Som. In the case of Plan B (High Growth Scenario, hereafter Plan B) the Mb balance at the end of 2000 is predicted to become 8 billion 659 million Som (refer to Tables 7-2-A and 7-2-B).

(3) Forecasts on the Assumption of an Increase in Income Velocity

Below we shall consider possible factors which might cause the Income velocity (Vmb) of Broad Money either to rise or fall.

1) Vmb will rise when the rate of increase of Mb is kept below the growth rate of GDP as a result of the maintenance of tight financial policies by the NBK aiming at inflation restraint and currency stabilization.

2) Vmb will fall in a situation of increased accumulation of quasi money (Mq, fixed or time deposits, etc.) consequent on economic development. This means that as income increases in absolute terms then the accumulation of financial assets with a high profitability such as quasi money will develop at a rate faster than the rate of increase in income. As the accumulation of Mq proceeds the ratio of Mb accounted for by Mq increases. The trends in the Mq/Mb ratio can therefore be seen as an indication of the stage of development financial systems have reached and of the level of financial asset accumulation.

Regarding 1) above it is highly likely that the policies to restrain inflation will be continued hereafter and the influence this will have on changes in Vmb is considered very strong. As regards factor 2) above though the Mq/Mb ratio will rise as a result of improvements in payment systems and the rise in profitability coming from fixed deposits, etc. which occur in conjunction with inflationary restraint since income will remain small in absolute terms the actual level of Mq/Mb ratio will remain low. It is therefore expected that the influence of factor 2) above on the Vmb will be much weaker than that of factor 1) above (refer to

Tables 7-3-A and 7-3-B). On the basis of the above scenarios the Mb balance for 2000 with Plan A would be 3 billion 230 million Som and with Plan B the Mb balance in 2000 would be 4 billion 925 million Som (refer to Tables 7-3-A and 7-3-B).

Moreover, the breakdown of these forecasts has been explained in section 7-1-2-4 in which verification is carried out using data for reserve money and the money multiplier.

7-1-2-3 International Comparison with Forecast Results

In the following we have attempted to carry out an international comparison with the forecast results obtained for broad money and income velocity of the Kyrgyz Republic. Countries chosen for comparison are Japan, South Korea, and five ASEAN countries taking the period from 1960 for a comparison with data on income velocity of broad money and the ratio of broad money accounted for by quasi money.

The per capita GDP for the control countries in 1992 was US$29,455 for Japan, US$16,321 for Singapore, US$6,799 for South Korea, US$3,066 for Malaysia, US$1,728 for Thailand (in 1991), US$824 for the Philippines, and US$661 for Indonesia. In contrast to these figures the per capita GDP of the Kyrgyz Republic in 1993 was US$214 (taking nominal GDP to be 5 billion 720 million Som and national population as 4.45 million so that per capita GDP in Som was 1,285.39 and taking the exchange rate with the dollar to be US$1 to 6 Som). Please refer to table 7-4.

1) Comparison of Income Velocity of Broad Money (Nominal GDP/Broad Money)

The following points emerge from a comparison of the evolution of the income velocity of broad money in the eight countries concerned (please refer to Figures 7-1 and 7-2).

(A) Leaving aside the Kyrgyz Republic we can note that the level of Vmb is generally at a low level in those countries where the per capita GDP is high. Further, looking at the evolution of Vmb we note that as income increases there is a marked trend for a significant fall in Vmb which eventually falls to a level below 3.0. In the Kyrgyz Republic

the per capita GDP is low and over the period from 1992 to 1993 Vmb rose rapidly reaching a level of 8.15 in 1993.

(B) Countries among those being considered which recorded a Vmb near the 10 level besides the Kyrgyz Republic were South Korea and Indonesia. South Korea had a level of 11.2 in 1964 while Indonesia registered a figure of 16.6 in 1968. Both countries witnessed a very rapid decline in the level of Vmb after these respective years and levels have since tended to stabilize at low levels.

(C) In order to compare the 1993 figure of per capita GDP of the Kyrgyz Republic with past data of the other countries being considered, the history of per capita GDP in real terms was set out and considered. It was found that the only country with a level of per capita GDP near to that of the US$172 of the Kyrgyz Republic for 1993 was Indonesia which had a figure of US$219 in 1970. All of the other five countries being compared registered figures superior to this level from the 1960s (refer to Table 7-5). Further, the Vmb of Indonesia in 1970 was 10.40 which is slightly above the figure of 8.15 for Vmb registered in the Kyrgyz Republic in 1993. In South Korea and Indonesia after this high level of Vmb had continued for a few years it started to drop rapidly and in both countries money demand expanded over a period of several years and it is significant that money supply increased at a rate in excess of the growth rate for GDP. This situation brought about the rapid fall in the level of Vmb in both countries (however, subsequently both countries suffered from inflation). If money supply in these countries had been restricted to within levels within the limits of GDP growth rates this would have meant that high levels of Vmb would have continued.

Consequently, in view of predictions for the Kyrgyz Republic up to 2000 since we have postulated a growth rate of Mb which will remain within the levels of the GDP growth rate as a reflection of the influence of tight financial policies assumed to be maintained, we can forecast that Vmb will continue at levels in excess of 10% after 1994 and that for some time to come levels of Vmb in the Kyrgyz Republic will differ from those prevailing in the countries chosen here for

comparison. However eventually as financial capital is diversified and accumulated it is expected that the Vmb of the Kyrgyz Republic will gradually fall.

2) Comparison of the Quasi Money / Broad Money Ratios

Comparing the ratio of Broad Money accounted for by Quasi money in the 8 countries considered produces the following results (please refer to Figures 7-3 and 7-4). These ratios give an indication of the degree of accumulation of financial assets among households (individuals) and companies in each of the countries.

(A) The general trend is for the Mq/Mb ratio to rise so that recent figures for the various countries are almost all roughly at levels in excess of 70%.

(B) In Japan the ratio had already reached a high level of around 60% in the 1960s, and in the 1980s the level rose even higher.

(C) In the remaining countries with the exception of Indonesia the ratio surpassed the 50% line in the latter half of the 1960s after which there was a general trend towards further rise. In Indonesia the ratio rose rapidly in the early half of the 1980s.

(D) In the Kyrgyz Republic the ratio fell rapidly from a level of 24% in 1992 to 15% in 1993. In the case of the Kyrgyz Republic it can be noted that there was a marked inadequacy in the accumulation of quasi money in the form of fixed or time deposits, etc. The Kyrgyz Republic only attained a level of 15% in 1993 which is low even compared to the level in Malaysia which registered the lowest figure of the these countries for 1992 with 69%. The level registered for the Kyrgyz Republic roughly corresponds to that recorded in South Korea in the early 1960s, in Thailand before 1960 and in Indonesia at the end of the 1960s. For the Mq/Mb ratio of these countries to surpass the 50% line it required five years, ten years and fifteen years respectively. and the speed with which financial assets were accumulated as insdicated by this ratio seems to have varied from country to country.

Considering the situation which will prevail in the Kyrgyz Republic up to 2000 we can expect the Mq/Mb ratio to rise gradually from 1998 to 2000 as inflation is controlled and payment systems improve. However, since the level of income in absolute terms will remain low the ratio can be expected to remain at low levels up to the year 2000.

7-1-2-4 Verification of Forecast Results using the Data for Reserve Money and the Money Multiplier

In the following we have verified the above forecast results using data for Reserve money and the money multiplier. At the same time forecasts for the breakdown of cash currency, deposit money (demand deposits) and quasi money (time deposits, etc.) have been carried out.

(1) Situation regarding Reserve Money

In the case of the Kyrgyz Republic the definition of Reserve money (hereafter referred to as R) is taken to be the total of deposits from deposit money banks held by the NBK together with the cash currency issued of the NBK's debt (including the cash held for commercial banks). The balance of R at the end of 1993 was 521 million Som. This breaks down as 398 million Som of cash currency held by the private non financial sector (households and companies), 6 million Som held by banks, and 117 million Som in deposits from deposit money banks (Table 7-6).

The rise in R for 1993 over the previous year was 242.8% which is considerably below the rise in nominal GDP over the previous year which was 745.3%. This is explained by the very tight financial policies which were maintained by the NBK to dampen inflation and stabilize the value of the new currency introduced in May of 1993.

(2) Money Multiplier, Currency/Deposit Ratio and Reserve/Deposit Ratio

The money multiplier (hereafter m) refers to the ratio of the cash stock to high powered money that is to the ratio existing between Broad money(Mb) and Reserve money(R). The m indicates the increase which will occur in Mb if one unit is supplied to R that is m shows the degree of credit creation which arises.

Therefore the larger the m coefficient the greater the amount of Mb will be reduced with a given amount of R, so the larger the m factor the greater the credit creation. Further, it is possible to calculate the m factor on the basis of currency/deposit ratio of households and companies (hereafter referred to as c hereafter) and from reserve deposits ratio of deposit money banks (hereafter r). (Note 2)

The smaller c or r become the larger the resulting m.

The level of c in the Kyrgyz Republic rose considerably in 1993 to 1.31 in contrast to 0.56 for the previous year. This shows that households and companies increased their holdings of deposits in relation to cash. This reflects the fact that the conversion of demand deposits into cash currency was not easy as a result of currency shortages, that the immaturity of payment systems meant that settlement by cash currency had to be depended upon, etc. so that households and companies increased their holdings of cash even though inflation was causing a situation of slipping value (refer to Table 7-6).

Further in 1993 r had reached a level of 0.41 being a slight increase of 0.39 points over the previous year. This reflected the fact that the level of reserve requirement ratio to be met by banks was increased from 15% to 20% in that same year (refer to Table 7-6).

(Note 2) reserve money is the total of cash currency held by the private non-financial sector (households and companies), the cash currency held by banks and the deposits of banks placed with the NBK (NBK's bank deposits). Since the total of the cash currency held by banks added to the NBK's bank deposits is the bank reserves, the figure for Reserve Money (R) is obtained by adding the bank reserves (Rd) to cash currency held by the private non-financial sector, so that,

$$R = Rd + C \qquad (1)$$

Also, Broad money is calculated as the sum of private non-financial sector deposits (D) added to cash currency (C), so that,

$$Mb = D + C \qquad (2)$$

Dividing equation (2) above by equation (1) gives the following;

$$\frac{Mb}{R} = \frac{D+C}{Rd+C} = \frac{1+C/D}{Rd/D+C/D} \qquad (3)$$

Since Mb/R in the above represents the money multiplier(m), C/D represents the ratio of currency to deposit (c) and Rd/D is the ratio of reserve to deposit (r) we can rewrite formula (3) as follows;

$$m = \frac{1+c}{r+c} \qquad (4)$$

(3) Verification of Forecasts of Broad Money using the Multiplier and Reserve Money

In order to verify the forecasts made of Broad Money (Mb) on the basis of income velocity (Vmb) data we have predicted the money multiplier for both postulated scenarios of Plan A and Plan B. Subsequently we have checked the trends for Reserve Money (R) which are produced on this basis. First, m is predicted using the trends established for the currency deposit ratio of households (individuals) and companies (c) and for the reserve/deposit ratio (r).

Looking at the evolution of c we note that this rose considerably in comparison to the previous year in the early half of 1993 to reach a level of 1.31. Given the increase in demand for cash currency which arises with an inadequately equipped settlement system it is expected that c will continue to rise up to 1994 (the level in 1994 being estimated at 2.05 in Plan A and 1.91 in Plan B). Subsequently as inflation comes under control and confidence in banks is restored there will be a relative increase in deposits. Moreover improvements in settlement systems will also be a factor reducing the demand pressure on cash so that c is expected to gradually decline up to 2000 (becoming 0.95 with Plan A and 0.68 with Plan B in that year). The lower value accorded to c over the period being considered under Plan B compared than to Plan A is thought due to the faster accumulation of deposits by households and companies expected to occur under Plan B since this postulates a higher growth rate than Plan A (refer to Table 7-7-A and 7-7-B).
As regards factor r this is expected to rise to a level of 0.41 in 1994. Subsequently a gradual fall is predicted from 0.34 in 1995 to 0.29 in 1997 on the assumption that the required reserve rate for banks will be lowered. Further in 1998 as a result of new settlement system provisions and the implementation of improvement programs the balance of correspondent accounts linking commercial banks will either relatively fall or be done away with so that R is expected to drop considerably to 0.15, and from there to drop to 0.10 in 2000 (refer to Table 7-7-A and 7-7-B).

Reflecting these trends in the evolution of c and r the m factor is expected to fall in 1994 from its level of 1.35 for 1993 (to become 1.24 under Plan A or 1.25 under Plan B). 1994 will witness the lowest point for m after which it will

steadily increase to regain and surpass its 1992 level (1.65) to become 1.86 under Plan A and 2.15 under Plan B in the year 2000. The rise will be particularly marked between 1997 and 1998 (rising from 1.40 to 1.59 under Plan A and from 1.52 to 1.79 under Plan B). Improvements in the currency to deposits ratio and the reserve to deposits ratio brought about by improvements in settlement systems will reinforce the money multiplier in other words the above trends will contribute to an solving capital shortage problems in the Kyrgyz Republic and so strengthen the creation of confidence in banks (refer to Table 7-7-A and 7-7-B).

If we now proceed to predict R on the basis of the forecasts for Broad money and m outlined above the results will be as shown in Tables 7-7-A and 7-7-B. The rate of increase of R on a year to year basis is predicted to remain at a level inferior to the rate of increase in nominal GDP on a year to year basis which accords with the overall forecast of trends expected for Broad money in view of the tight financial controls maintained by the NBK. In particular the implementation of a program for strengthening and modernizing settlement systems after 1998 will be a major factor towards a considerable reduction in the amount of bank held by the Central Bank and this will cause a considerable deceleration of the year to year increase in R. Despite the slowdown in the growth rate of R (from 10.6% in 1997 to 2.2% in 1998 with Plan A, and from 10.3% to 0.2% with Plan B) it should be noted that the money multiplier will undergo a considerable rise (as credit creation capability is increased) so that the growth rate for Mb between 1997 and 1998 will either remain steady or even tend to increase (from 16.0% in 1997 to 16.2% in 1998 under Plan A or from 14.9% to 17.5% under Plan B).

(4) Forecasts of Cash Currency, Deposit Money (Demand deposits) and Quasi Money (Time deposits, etc.)

Forecasts of the cash currency, deposit money (demand deposits, checking account deposits) and quasi money (fixed term or time deposits, etc.) held by households and companies for both scenarios of Plan A and Plan B will be carried out on the basis of the above assumptions. First, the cash currency and deposits (both deposit money and quasi money) held by the private non-financial sector (households and companies) will be predicted using the trends postulated for c in section (3) above.

Since the poor provisions for settlement systems will mean that there is still a strong demand for cash currency the rate of growth of cash currency will outstrip that of broad money for 1994. Subsequently with the restraint of inflation and a return of confidence in banks there will be a relative increase in deposits and the shift from cash currency to deposits as settlement money as settlement systems are improved so that it is predicted that after 1995 cash currency will have a growth rate inferior to that of Mb. As a result of the above the balance of cash currency in 2000 is expected to be 1 billion 570 million Som with Plan A or 2 billion Som with Plan B (refer to Table 7-8-A and 7-8-B).

As regards deposits with the improvements in settlement systems and the return of confidence in banks as inflation is controlled the rate of increase in deposits will surpass the growth rates of Mb and nominal GDP as of 1995. The balance of deposits in 2000 taking deposit money and quasi money together is predicted to be 1 billion 660 million Som with Plan A and 2 billion 925 million Som with Plan B (refer to Table 7-8-A and 7-8-B).

Looking at deposit money (demand deposits) in real terms and on a year to year basis, as convertibility of demand deposits with cash becomes reliable and confidence is restored in banks the level of demand deposits is expected to by and large stabilize from 1996 to 1997 (with a yearly increase of 6.3% in 1996 and 7.8% in 1997 under Plan A, and 15.8% in 1996 and 11.3% under Plan B). Subsequently after 1998 as bank systems reinforce transfer services such as wage transfer deposits and automatic transfers the balance of demand deposits will grow (including the shift away from cash currency) so that the actual growth rate will be quite high at about 13% under Plan A and 18% under Plan B. The nominal balance in 2000 is expected to be 1 billion 180 million under Plan A and 1 billion 149 million under Plan B (refer to Table 7-8-A and 7-8-B).

Further, as regards quasi money (fixed term or time deposits) these are expected to evolve at real rates of increase so that in 1998 there will be a 10% increase over the previous year under Plan A and a 23% increase over the previous year under Plan B a result of the shift away from cash currency due to settlement system improvements, to the increase in real profitability of fixed term deposits as inflation decreases and to the increase in actual incomes. As a result of the above,

the nominal balance of quasi money in 2000 is forecast to become 48 million Som under Plan A and 85 million Som under Plan B (refer to Table 7–8–A and 7–8–B).

In view of the above results the ratio of broad money accounted for by quasi money will reach a minimum in 1994 after which the ratio will steadily increase so that it is expected to reach a level of 14.86% under Plan A and 17.26% under Plan B in 2000. However since the level of incomes will remain low in absolute terms the levels attained are expected to remain quite low as can be seen from the previously mentioned figures 7–3 and 7–4 which indicate that levels are 70% of the levels of countries which were chosen for comparison. The reason why levels indicated under Plan A are lower than those of Plan B is that income levels in Plan A are on a much lower level in absolute terms compared with those of Plan B (refer to Table 7–8–A and 7–8–B).

Further if we compare the absolute balance of deposits up to 2000 with the forecast results for advances (demand for borrowing) under Plans A and B (shown in 7–1–4) we find in both cases that levels are not sufficient to make up for the shortage of capital of the Kyrgyz Republic. Chapter 8 examines various measures and policies for reinforcing deposit creation.

(Note 3) When the private non–financial sector (households and companies) receive supplies of broad money (Mb) if we take the ratio held in the form of deposits (deposit yield ratio) to be α and then the ratio of cash held will be $1-\alpha$. The cash currency to deposit ratio (c) will be as follows,

$$c = (1-\alpha)/\alpha \qquad (5)$$

if this is expressed by α then we get,

$$\alpha = 1/(c+1) \qquad (6)$$

while $1-\alpha$ can be represented

$$1-\alpha = c/(c+1) \qquad (7)$$

so that deposits (D) of the private non–financial sector are calculated as follows,

$$D = \alpha \times Mb \qquad (8)$$

while the cash balance (C) of the same sector is calculated by the following,

$$C = (1-\alpha) \times Mb \qquad (9)$$

so that once the trends for c are given it is possible to predict D using equations (6) and (8) while c can be forecast using equations (7) and (9).

7-1-3 Forecast of Amount of Personal Deposit

7-1-3-1 Estimating the Amount of Personal Deposit

Personal deposits are estimated here using the figures given for total household and company deposits in section 7-1-2 for both plans A and B, and deflating these using the GDP deflator to give a forecast figure for the balance of personal deposits on a real term basis. Looking at the balance of deposits in real terms we find that the extremely high rate of inflation has meant that this has continued to drop on a year to year basis from 1993 which showed a 77.7% drop over the previous year. Thus under Plan A real deposits are expected to drop 60.3% compared to the previous year while the corresponding figure under Plan B will be a 47.7% drop. In 1995 both Plans assume that inflation will start to come under control and that there will be a return of confidence in banks so that the trend will turn to an increase over the previous year of 22.4% under Plan A and of 30.2% under Plan B (refer to Tables 7-9-A and 7-9-B). Subsequent to 1995 since incomes are expected to start increasing with a level between 20 and 24% under Plan A and of around 30% with Plan B which postulates relatively higher increases. Both scenarios assume that there will be a significant increase over the previous year in 1998 since the banking system will develop significantly around this date as provisions and improvements in settlement systems such as wage payment transfers and automatic transfers come into their own.

The above means that on a nominal basis personal deposits are expected to be 75 million Som in 1994, then 311 million Som in 1998 and increase up to 581 million Som in 2000 under Plan A. Corresponding figures under Plan B are for 102 million Som in 1994, 548 million Som in 1998 and 1 billion 24 million in 2000 (refer to Tables 7-9-A and 7-9-B).

It is therefore expected that the ratio of personal deposits to overall private non-financial sector deposits (i.e. deposits of households and companies) will gradually increase as accumulation of personal deposits progresses and the ratio of personal deposits to overall deposits is forecast to rise from 0.19 in 1993 to 0.30 in 1998 up to a level of 0.35 in 1998 (refer to Table 7-9-A and 7-9-B).

7-1-3-2 Estimating the Amount of Company Deposits

In 1993 the share in private non-financial sector deposits held with banks accounted for by company deposits was of at a relatively high level of 0.81.

As personal deposits increase hereafter the share of company deposits in total deposits of this sector will gradually decrease (being expected to reach a level of 0.65 in 2000). A significant increase in the absolute nominal value of company deposits is expected as the company deposit yield rate (share of money advanced to companies which remains with banks in form of deposits) is expected to rise with improvements in settlement systems and the return of confidence in banks and the resulting credit creation (new advances). In concrete terms forecasts for Plan A are for 365 million Som of such deposits in 1994, increasing to 725 million Som in 1998 and then to 1 billion 79 million Som in 2000 while Plan B predicts 383 million Som of such deposits for 1994, increasing to 1 billion 278 million Som in 1998 and then reaching 1 billion 901 million Som in 2000 (refer to Tables 7-9-A and 7-9-B).

7-1-4 Forecasts of Bank Lending (Bank Advances)

7-1-4-1 Forecast of Balance of Advances of Working Capital to Companies

First for both scenarios of Plan A and B we shall predict the total output value in national accounting from the predicted evolution of nominal GDP and use this as a representative variable for national company sales proceeds in the Kyrgyz Republic. Using the average yearly increase of total output value to calculate the average monthly increase in total output value to be expected we find that from the level of 579 million Som recorded in 1993 forecasts are for 741 million Som in 2000 under Plan A and 1 billion 298 million Som under Plan B (refer to Table 7-10-A and 7-10-B).

Next the following assumptions are postulated,

(1) that capital settlement sites will be roughly of three months with a turnover period of three months up to capital recovery.

(2) the inadequacy of settlement systems means that settlement procedures currently require about a week (which represents 0.23 of a month in the turnover period) but with the establishment and realization of improvement programs for

settlement systems by 2000 settlement will take place on the same day as procedures are initiated.

On the basis of these assumptions the required increase of working capital has been predicted. Starting at a level of 1 billion 870 million Som in 1993 this is expected to become 2 billion 222 million Som under Plan A and 3 billion 895 million under Plan B in the year 2000 (refer to Table 7-10-A and 7-10-B).

However, if we predict the amount of bank advances to companies of working capital on the basis of the following assumptions.

(3) That since a large share of the required working capital is considered to rely on inter-company credit in the Kyrgyz Republic and in view of the disruption caused by a switch over to a market economy and the inadequate provisions made for settlement systems the share of required working capital which will be met by inter-company credit will rise to 80% over the period from 1993 to 1994.

(4) Subsequently, once improvements of banking systems and settlement systems get under way the reliance of companies on banks will gradually start to increase and so inter-company credit will decline to a level of around 60% by 2000.

We predict figures for 2000 under Plan A of 889 million Som and under Plan B of 1 billion 558 million Som starting from a level of 374 million Som in 1993 (refer to Table 7-10-A and 7-10-B).

7-1-4-2 Forecast of Balance of Advances of Equipment Capital to Companies

Nominal equipment investment can be predicted on the basis of the economic framework postulated in Chapter 6. If companies are assumed to borrow 30% of that investment from banks then the total borrowing of equipment capital for investment (balance of new advances) will increase from its level of 649 million Som in 1993 to 3 billion 593 million Som under Plan A and 5 billion 927 million Som in 2000. (refer to Table 7-10-A and 7-10-B).

Next we shall predict the Net increase in equipment capital advances.

As banking and financial systems are developed and strengthened and Development Banks and Long Term Finance Institutions are set up it is expected that the possibilities of offering to companies long term advances suited to long term capital applications such as equipment investments will gradually increase. If we predict the equipment investment advances on the assumption that the average period for such long term advances will be three years then starting from a level of 1 billion 92 million Som for 1993 we arrive at a forecast for 2000 of 9 billion 650 million Som under Plan A and of 15 billion 524 million under Plan B (refer to Tables 7-10-A and 7-10-B).

7-1-4-3 Forecast of Amount of Advances to Private Individuals

Since it seems unlikely that there will be any significant diffusion of financial commodities such as consumer loans in the immediate future the main item concerned under this heading will be housing loans or mortgages.

Assuming the postulated socioeconomic framework we shall predict the value of the nominal housing investment and on the basis of the yearly increase we shall predict the value of advances made by banks to private individuals mostly in the form of housing advances. Starting with a figure of 7 million Som for 1993 we find that in 2000 this item is expected to become 795 million Som under Plan A and 806 million under Plan B (refer to Table 7-10-A and 7-10-B).

7-1-4-4 Forecast of Balance of Bank Lending

The total figure for bank lending can be calculated by adding the above forecasts of (1) through to (3), and we find that the initial total of 1 billion 589 million Som in 1993 is forecast to become 11 billion 334 million Som under Plan A and 17 billion 888 million under Plan B in 2000 (refer to Tables 7-10-A and 7-10-B).

Incidentally, the amount forecast here of bank lending exceeds the forecast given for money supply (broad money) in section 7-1-2-2. The forecast for broad money was carried out on a deposit money bank basis while the bank lending amount was forecast on the basis of figures for all financial institutions so that the part of the bank lending amount which exceeds the broad money figure is taken to come from financial institutions other than deposit money banks. In concrete terms this means the advances of government capital made through the NBK or government financial institutions or the advances made by insurance companies (in the case of the Kyrgyz Republic the

former is taken to account for the major part of this differential excess). In the future if a Development Bank or Government Financial Institution is set up for lending government capital then obviously such lending will be channeled through these bodies.

7-1-5 Forecast of the Scale of the Inter-Bank Market

7-1-5-1 Present Situation and Prospects for the Inter-Bank Market

As yet there is no inter-bank market for capital transactions establishing in the Kyrgyz Republic. However, in order to improve credit creation functions in the banking sector it is necessary that lending and borrowing be carried out smoothly between banks which have disposable cash reserves and banks which lack such funds. In this connection the establishment of an inter-bank market for capital transactions is most desirable. The scale of a given inter-bank market can be considered in relation to the prevailing stage of economic development in a given country. In economic situations where transactions on both the operating and supply sides of a given economic body are both active there is a balanced development of both aspects of transactions and where balanced deposit for loan transactions are infrequent it would seem that the scale of the inter-bank market can be supposed to evolve in a stable manner accounting for a fixed share of the overall economic activity. Looking at Japan in the early 1980s before such balanced deposit for loan transactions became common the inter-bank market (taking together the call money market and bills market) progressed at a level representing roughly 3.0% of nominal GDP (refer to Figure 7-5).

In the case of the Kyrgyz Republic after establishment of an inter-bank market in 1995 this will gradually develop to meet the existing scale of the economy and after 2000 is expected to have reached a level of steady evolution in relation to the nominal GDP.

7-1-5-2 Forecast of the Scale of the Inter-Bank Capital Transactions Market

Since the economic framework which we have postulated assumes that steep inflation will start to come under control by 1995 and that the problem of real interest rates which are actually of a minus nature will be resolved it is considered that the unprofitability of lending from the lender's viewpoint will gradually disappear so that the inter-bank capital transactions market should get off the ground from 1995.

As regards the size of the inter-bank market for capital transactions from 1995 onwards this is expected to show a gradual development during its formative period up to 2000. In particular in 1998 when financial and settlement systems are expected to undergo dramatic improvement there should be a quickening of the tempo of development of the market size. In terms of amounts it is expected that with Plan A in 1995 there will be 43 million Som in the market which will increase to 165 million Som in 1998 and then to 257 million Som in 2000. With Plan B the corresponding figures for market size are estimated at 63 million Som for 1995, 266 million Som for 1998 and in the year 2000 the market will amount to 423 million Som (refer to Tables 7-11-A and 7-11-B).

Looking at the predicted evolution of the market balance in relation to nominal GDP the ratio of market balance to nominal GDP will progress at a level between 0.22 and 0.26 % in the case of both scenarios A and B for the period from 1995 to 1997, after which the ratio is expected to be 0.53% in 1998 then 0.57% in 1999 and after 2000 the ratio will stabilize at a level around 0.60% of nominal GDP (refer to Tables 7-11-A and 7-11-B). Further the ratio of market balance to bank lending balance will represent around 1.00% of nominal GDP under both plan A and B over the period between 1995 and 1997 while it is expected to progress at a level around 2.22% of bank lending balance between 1998 and 2000 (refer to Tables 7-11-A and 7-11-B).

7-1-6 Forecasts of Size of T/B Market

In the Kyrgyz Republic T/B are sold to the financial markets by T/B auctions. Because some banks lost their participation rights in auctions as a result of excessive overdrafts it became impossible to work the issuing system smoothly, the Overdraft Reform of April, 1994 reorganized the overdrafts to mid-term lending to banks so that the number of banks participating in auctions increased again. The future issue of T/B is expected to operate smoothly. Direct inter-bank transactions for buying and selling of T/B has only just begun and the secondary market has not yet really been formed.

Hereafter, it is expected that there will be an increase in the issue of T/B sufficient to finance the general public fiscal deficit and that this issued amount will be secured to some extent. Moreover the amount of T/B which is sold on an inter bank level is expected to increase as a result of the above issuing. In view of the above the T/B market is expected to develop as of 1995. With regard to the size of the market being

formed after 1995 this should gradually expand up to 2000 in the same way as the inter-bank market.

With regard to the general public fiscal deficit (with entry of overseas aid) Plan A postulates a public policy of austerity with the government directing efforts to reduce all varieties of capital expenditure, compensation capital or subsidies and doing its utmost to secure tax income. Nevertheless the public deficit will not be overcome and it is forecast that up to 2000 it will continue to account for a level near the 5.44% of nominal GDP which this recorded in 1993. The cumulative public fiscal deficit on a cumulative basis from 1992 will amount to 6 billion 687 million Som (equaling 21.48% of nominal GDP) in 1998 and 11 billion Som in 2000 (25.71% of nominal GDP).

If it is assumed that internal financing of the debt will stay on the same level as in 1993 (that is 74% of the debt) then domestic funding of the debt will grow from 230 million Som in 1993 to 1 billion 722 million Som in 2000. On a cumulative balance this represents an increase from 251 million Som in 1993 to 4 billion 951 million Som in 1998 on to 8 billion 142 million Som in 2000 (refer to Table 7-12-A).

As the T/B issue and balance increase the balance of the T/B market is expected to gradually increase to become 43 million Som in 1995 then 371 million Som in 1998 on to 611 million Som in 2000. Looking at the ratio of this balance in relation to nominal GDP we find that it is forecast to evolve from 0.22% in 1995 to 1.19% in 1998 on to 1.43% in 2000. (refer to Table 7-12-A).

During this period the sales of T/B should gradually become active so that in 2000 sales of the order of 10 billion 992 million Som in value are expected (refer to Table 7-12-A).

With scenario B the government will carry out austerity policies to counter the size of the public fiscal debt (after entry of foreign assistance) and will try to reduce compensation capital and subsidies and increase its tax income. The high growth rate postulated under plan B will contribute to bettering the situation so that the ratio of the fiscal debt to GDP is predicted to show a gradual fall from its level of 5.44% in 1993 to 3.20% in 2000 (refer to Table 7-12-B). The cumulative amount of general fiscal deficit in 2000 will be 13 billion 272 million Som (that is 18.81% of nominal GDP) while the cumulative amount of public debt funding met domestically will be 9 billion

823 million Som, the T/B market balance is forecast to be 737 million Som (1.04% of GDP) and the sales of T/B to be 13 billion 261 million Som (refer to Table 7-12-B).

7-1-7 Forecast of Size of Foreign Exchange Market (Dollars and Som)

At present in the Kyrgyz Republic the main system for foreign exchange involves the NBK borrowing from the IMF or World Bank and then carrying out foreign exchange auctions to sell the foreign currency to banks and exchange offices. Inter bank trading of foreign currency has been started but it is assumed that the level of trading is not up to that involved in foreign currency auctions. The general economic framework postulated assumes that hereafter trade with non FSU countries will gain in relative importance and that from 1994 on there will be an intensification of capital and technical assistance coming from non FSU countries so that direct investment from overseas will increase gradually after 1996. In turn as a result of the above inter-bank trading will increase. so that the market size in terms of traded amounts is expected to grow gradually up to 2000. In concrete terms this will mean that under Plan A sales of 9 million US$ will take place in 1994 increasing to 73.1 million US$ in 1998 and up to 232.8 million US$ in 2000 (refer to Table 7-13-A). Under Plan B the corresponding figures are for 15.8 million US$ in 1994, 146.5 million US$ in 1998, and then 309.2 million US$ in 2000 (refer to Table 7-13-B).

7-2 Forecasts of the Varieties and Number of Payment Transactions

It is obvious that the macroeconomic and financial policies which are adopted by the Kyrgyz republic will have considerable influence on determining the nature and number of payment transactions. At the same time if development is to take place in the context of recent technological innovations then the multiplier effect of the policies themselves will partly depend on the methods and forms of technical support chosen, while certain limits will be placed on policies themselves by the technological factors. Policies will be partly shaped by the feedback from technological aspects, so that policies and technology are intimately related and mutually influential. It is therefore essential to consider just how far policies can be supported in technological terms.

Table 7-15 indicates forecasts for the variety and number of payment transactions. The basic assumptions lying behind these calculations are briefly explained below.

7-2-1 Basic Concepts

(1) The Object of Forecasts

In some forecasts concerning the nature and number of payment transactions expected in a given country attention to the theory and models underlying such forecasts is sometimes insufficient. The economic and financial environment and the level of technology in an individual country, and consideration of what policies have been formulated concerning these have a significant influence on the kind of forecasts which arise.

The method chosen here is to postulate a scenario for the supporting technology on the basis of and analysis of the present situation of the economy, finances and technology and on the economic and financial policies which have already been examined. Forecasts are made on the basis of predictions of future circumstances based on the above scenario.

With regard to the different kinds of payment transactions these are seen as related to financial policies for reinforcing the credit producing functions of the banks. The main topics are as follows;

- capital transfers relating to inter-bank market transactions
- cash transfers for wages and pensions
- automatic payment of public expenses
- money transfers using CD/ATM
- settlements using credit cards

First forecasts of the volume of transactions for individual years up to the year 2000 were made for the above items. Then in line with the outline for postulated payment systems for the Kyrgyz republic transactions were classified as inter-bank and as intra-bank payments. As a result of processing a given number of related transactions the capital imbalances which result will be replaced so that new transactions which take place inside the system will occur. According to the processing procedures of payment systems which are made available to the Kyrgyz Republic at a given time the number of transactions arising within the system will vary for a specific year. Table 7-15 reflects these factors.

(2) The Two Plans

Two main plans were postulated for the scenarios when forecasting frameworks for both the macroeconomic situation and for payment systems as follows;

Plan A; the economy of the Kyrgyz Republic will continue to be dull and while gradually moving towards recovery there will be no dramatic surge towards economic recovery, and the current status of payment transactions volume is based on recent more decreased status of the summer in 1994.

Plan B; The economy of the Kyrgyz Republic will show signs of recovery and this will develop into a period of brisk economic activity, and the current status of payment transactions volume is not affected by the recent more decreased status of the summer in 1994, but based on annual average trend on 1994.

In accordance with the above two plans Table 7-14 is composed of two sections Table 7-14 A (based on the Plan A) and Table 7-14 B (based on the Plan B). In the top half of each of the tables the relevant data used for forecast calculations has been indicated. Here, saving bank is treated as one of the commercial banks. In the middle of the table are shown the forecasts of the volume of transactions classified by the type of transaction. Since the processing of the assembled data together is accompanied by the additional occurrence of inter-bank transactions internally within the system the total of these forecasts is larger than the predicted volume of transactions classified by transaction type. This is indicated in the table as the entry line showing the Ratio to total number of payment transactions which is recorded under the entry for Inter-bank/Intra-bank transactions. Any amount in excess of 100% refers to the transactions which are generated internally.

The volume of transactions is extremely sensitive to general economic activity and economic policies prevailing in the Kyrgyz Republic. In particular the payment methods which are to be introduced hereafter will have a great influence. Keeping in mind such basic assumptions let us proceed to an explanation of the actual forecasts.

7-2-2 Actual Forecasts Made

(1) Payments on the Inter-bank Market

As well as making provisions for the smooth operation of capital payment operations for transactions on the inter-bank market it is important to establish the systems to nurture the inter-bank market since these measures will form the basic foundations for the payment system of the Kyrgyz Republic. The commercial banks must carry out their own independent management while the central bank (NBK) plays its central coordinating role and in order to assure the smooth and efficient running of banking activities in the Kyrgyz Republic the commercial banks must maintain their separate identity and avoid over dependence on the NBK while mutual ties between the two levels are kept up. At the same time mechanisms for mutual assistance should exist between the commercial banks. The above measures are judged to provide the basis for the nurture of an inter-bank market to be operated in accordance with market demands.

Inter-bank market transactions themselves can be managed independently of supporting systems but the existence of such systems is essential to permit effective management and expansion of the volume of the aforesaid transactions. In this regard the following plans have been postulated.

The projection of inter-bank payment transactions volume is started from the current status of the Kyrgyz Republic, which is not clear enough for exact estimation. As noted in Chapter 5, the study team could suppose the existence of payment transactions which is based on inter-bank market trade. But the exact number of such transactions has not been able to find out. So, the projection will start from the general trend recognized in the field survey. It is forecasted that the transactions in the inter-bank market will be steadily increased hereafter in keeping with the improvement of monetary system.

The transactions in inter-bank market play an central role in the Kyrgyz, and the actual volume is not so large, then the study team do not identify clear difference between plan A and B.

Plan A and Plan B

1) Immediate initiation of measures to provide independent supporting systems in connection with the nurture of the inter-bank market, with an estimated 10 transactions daily.

1995-1997 10 transactions daily for 250 days = 2,500 transactions handled per year

2) Expansion of the volume of such supporting transactions with the provision of supporting systems for inter-bank payments. Volume is estimated to expand to a level of 1 to 2 transactions for each bank daily.

1998 1.5 transactions daily x 19 banks x 250 days
= 7,125 transactions handled per year

1999 with the volume of such transactions expected to be double that for 1998.

3 transactions daily x 19 banks x 250 days
= 14,250 transactions handled per year

3) By the target year of 2000 the following volume of daily transactions for each bank is expected.

2000 5 transactions daily x 19 banks x 250 = 23,750 transactions per year

The estimates based on the above scenario are as follows;

unit: transaction/year

Scenario	1993	1994	1995	1996	1997	1998	1999	2000
A and B	-	-	2,500	2,500	2,500	7,125	14,250	23,750

(2) Payment Transactions carried out for Customers

Payment transactions carried out in response to requests received from customers are expected to form the main sector concerned by the present project. Since it has not been possible to obtain sufficient data regarding the volume of present

transactions on a nationwide basis the following points analyzed in Chapter 5 are confirmed briefly for reference.

- The volume of transactions in the Chui region in 1994 amounted to 10,000 transactions daily. However for the summer period of 1994 the level of transactions declined to a level of 7,000 to 7,500 transactions daily.
- The transactions carried out in the Chui region represent about 40% of the total volume of national transactions.

The volume of transactions has declined from 1988 to one fifth of the level for that year. This is mainly based on the fact that corporations and individuals hesitate to depend on banks, and they prefer cash settlement. With these background, payment transactions volume decrease much more than the decrease of fund transfer needs. This means that there exists potential needs for fund transfer, and they hope the improvement of payment system in the Kyrgyz. In case that the economy of the Republic would recover, and corporations would return to rely upon banks, then the payment transactions volume would recover rapidly.

Further, sometime between the end of 1994 and the beginning of 1995 implementation is expected to get underway of the Clearing House project. evolved after careful evaluation by the NBK and the commercial banks working together. This implementation is expected to vastly improve the financial environment for payment transactions. Processing operations will initially be manual but sometime in mid 1995 a basic computer network will be introduced and this is expected to further improve conditions. Therefore an expansion in the volume of payment transactions is expected to arise between 1995 and 1996.

Plan A

Plan A takes a relatively reserved and conservative position on the estimation of the volume of payment transactions carried out in the Kyrgyz Republic for 1994 taken to be about 17,500 transactions daily.

Daily payment transactions for Chui province / 40 % = Daily payment transactions for the Kyrgyz Republic

7,000 / 40% = 17,500 transactions

According to the following calculation the annual total is estimated to be about 4,375,000 transactions.

17,500 transactions/day X 250 days = 4,375,000 transactions/year

The following scenario is accordingly postulated.

1) With the realization of the clearing house program and an eventual picking up of the macroeconomic situation there will be a trend towards increase in transactions from the end of 1995 with economic recovery. Initially transfers of small sums will increase, 1995 and 1996 will show an increase of about 30% over the level attained in the previous year.

   As a result of this increase the 1993 level of transactions will be approximately reached again over these two years.

2) Subsequently there will be a slowing down in the rate of increase in the volume of transactions as the amounts involved for a given transaction become larger, so that estimates are set at 15% for 1997, 10% for 1998, 6% for 1999 and in 2000 the rate will come down to 4% being the same level as the expected growth rate for GDP for that year.

   By 2000 the volume will have returned to the level previously experienced in 1991 to 1992 but will still remain at half the level recorded in the peak year of 1988.

In Table 7-15 the growth rate (%) is shown below the entry for customer requested transfers. In actual fact the estimates for the volume of customer requested transfers have been calculated on the basis of this growth rate itself.

Plan B

The starting point for this plan is the assumption of an annual volume of payment transactions for the Kyrgyz Republic based on a daily volume in the region of 25,000 transactions. In other words the figures recorded for the summer of 1994 are considered exceptional and so undue significance is not attached to them. Accordingly the annual volume is estimated to be in the region of 6,250,000 transactions.

25,000 transactions x 250 days = 6,250,000 transactions/day

Furthermore, the scenario for the volume of customer requested transactions for Plan B has been postulated as follows.

1) Assuming that annual volume for 1994 is 6,250,000 transactions.

2) With the realization of the Clearing House project and an eventual picking up of the macroeconomic situation there will be a trend towards rapid increase in transactions from the end of 1995 with economic recovery. Initially transfers of small sums will increase, 1996 will show an increase of about 50% over the level attained in the previous year.

   Consequently the level of 1990 will roughly be reached over these two years.

3) Subsequently there will be a slowing down in the rate of increase in the volume of transactions as the amounts involved for a given transaction become larger, and increases will continue at a level of 15% increase over the previous year so that by the target year of 2000 the peak level of volume recorded in 1988 will again be reached.

   The forecasted results of this scenario can be shown in table form as follows.

unit: 1000 transactions/year

Plan	1993	1994	1995	1996	1997	1998	1999	2000
Plan A;								
Rate of Increase	–	Base	30%	30%	15%	10%	6%	4%
Volume of transactions	7,493	4,375	5,688	7,394	8,503	9,353	9,914	10,311
Plan B;								
Rate of Increase	–	Base	50%	50%	15%	15%	15%	15%
Volume of transactions	7,493	6,250	9,375	14,063	16,172	18,598	21,387	24,595

(3) Introduction and Expansion of Payment Transfer Systems for Wages and Pensions (Retirement Schemes)

In order to reinforce functions which create customer confidence in banking services there are two services which it is desirable to render an integrated part of the banking functions available. First deposits must be reinforced and it is important to make active provisions for the reception of deposits from private individuals. Secondly, transfer payment provisions must be strengthened and expanded. The switch from cash payments to transfer payments must be made actively and it is advisable to maximize the credit multiplier.

To this end the introduction of systems for the payment of wages (including pensions) by bank transfer and systems for automatic transfer of public utility charge payments are important measures and their early introduction is most desirable.

Early implementation of the system for wage payment by bank transfer is expected to provide an excellent means of securing deposits from citizens of the Kyrgyz Republic and to contribute to the provision of bank gateways. Introduction is planned as of 1998 and the system is to be gradually expanded from then on.

The two Plans A and B have been postulated in accordance with diverging forecasts on the speed with which such systems can be introduced and furthered as well as on the strength of the policies adopted and the speed of their integration.

Plan A

1) Is based on the assumption that such systems will be introduced in 1998 and that in the initial year 20,000 accounts will be concerned by the systems.

   Since wage payments are made twice monthly in the Kyrgyz Republic this has been taken into account when estimating the volume of expected transactions.

   20,000 x 2 payments/month x 12 months = 480,000 transactions per year

2) In the following year of 1999 the accounts handled are forecast to double to reach a level of 40,000 accounts and in the target year of 2000 they will again double to become 80,000 accounts.

Plan B

1) It is postulated that the systems under consideration will be introduced in 1998 and that 50,000 or so accounts will be handled in the initial year.

2) By the following year of 1999 some 100,000 accounts will be concerned and in the target year of 2000 the total number of accounts concerned will be 200,000.

   The forecasted results of the two scenarios can be presented in tabular form as follows;

(Unit: 1000 accounts, thousand transactions/yr.)

Plan	1993	1994	1995	1996	1997	1998	1999	2000
Plan A;								
No. of accounts	–	–	–	–	–	20	40	80
Volume of settlements	–	–	–	–	–	480	960	1,920
Plan B;								
No. of accounts	–	–	–	–	–	50	100	200
Volume of settlements	–	–	–	–	–	1,200	2,400	4,800

Looking at the individual scenarios from the technology aspects involved and taking account of the present situation in the Kyrgyz Republic it might be objected that introduction of a system for wage transfer payments by 1998 will be

very difficult to realize given the time factor involved. It is possible that other supporting service systems will not yet be firmly in place to permit the smooth introduction of the wage transfer systems by that time while in view of the preparations and workload which introduction will necessitate the deadline may seem a bit premature given the current situation. On the other hand, since the system is expected to provide a suitable and sufficient boost to the functions inspiring confidence in the commercial banks of the Kyrgyz Republic and since a limited but early introduction of wage transfer payments would be possible there is a strong consensus emphasizing the importance of establishing such systems. The Study Team has examined the provision of services in line with this latter view.

(4) Introduction and Development of Automatic Transfers

Along with the system for wage transfers the introduction of systems for automatic payment transfers for public utility charges is also of great importance. The study team expects systems for automatic payment of public utility charges to take place in 1998 in conjunction with the introduction of the systems for wage transfer. The five major public utility charges will be concerned; that is apartment fees, telephone charges, gas charges, water costs and electricity.

At present, local telephone calls are not charged, while gas, water and electricity fees are not calculated according to consumption but are levied in line with a capita count in a given household. In many cases the actual charges are calculated together with rent and so represent fixed charges. However it is recognized that with the increase in the price of public utility charges, expansion of the market economy sector and as new systems become established the amounts to be paid should be calculated according to the actual amount of a utility consumed. It is expected that such new systems will take firm root with the diffusion of meters hereafter. When that becomes so it is expected that automatic payment systems will enjoy increasing demand in order to ensure the collection of the sum to be paid.

At the same time as with the introduction of wage payment by transfer it must be admitted that the technical feasibility of an early introduction of automatic transfer systems may not be realistic. The Study Team is of the opinion that it is

necessary to aim for an early introduction of systems even if this has to be limited in scope in order to ensure the establishment of the deposit transfer system. At the same time it will be necessary to make system services available.

Plan A

1) It is estimated that the system will be introduced in 1998 and that 20,000 accounts will be concerned in the initial year of operations.

   Assuming the five major public utility charges to be concerned by the system the volume of transactions to be handled can be calculated as follows;

   20,000 accounts x 5 types of charge x 12 months = 1,200,000 transactions per year

2) The number of accounts concerned in the second year of operation will double to reach a level of 40,000 accounts and will increase again to 60,000 accounts by the target year of 2000.

Plan B

1) It is estimated that the system will be introduced in 1998 and that 50,000 accounts will be concerned in the initial year of operations.

2) The number of accounts concerned in 1999 will double to reach a level of 100,000 accounts and will increase again to 150,000 accounts by the target year of 2000.

The forecasted results of the above scenarios can be presented in tabular form as follows;

(Unit: 1000 accounts, 1000 transactions/year)

Plan	1993	1994	1995	1996	1997	1998	1999	2000
Plan A;								
No. of accounts	–	–	–	–	–	20	40	60
Volume of settlements	–	–	–	–	–	1,200	2,400	3,600
Plan B;								
No. of accounts	–	–	–	–	–	50	100	150
Volume of settlements	–	–	–	–	–	3,000	6,000	9,000

(5) Use of CD/ATM

It is understood that the employment of CD/ATM (Cash Dispenser / Automatic Tellers Machine) will be possible as a result of introduction carried out at the discretion of the individual banks concerned. On the other hand the introduction of inter-bank two way connecting systems or systems for inter-bank shared use is considered possible by the target year of 2000.

Scenarios for the estimated volume of transactions are as shown below. The basic thinking behind Plans A and B is the same. The main difference between the two plans is the expectations regarding the number and increase of wage transfer accounts and of general accounts which have been assumed to form the basis for the forecasts.

Plan A and B

1) It is expected that individual banks moving quickly will be able to introduce these systems independently in a matter of one to two years. Initially a volume of transactions of the order of 1,000 transactions per day is expected.

   1996 1,000 transactions per day x 250 days= 250,000 transactions per day

   It is estimated that the annual rate of growth in the volume of transactions will be about 20%.

2) Assuming that wage transfer systems are introduced in 1998 use of these services is expected to expand rapidly. In this event the wage transfer accounts are expected to enjoy a much higher frequency of operational transaction that is the case with the general accounts.

all accounts; 0.5 withdrawal transactions per month per account

wage transfer accounts; 2 payment operations per month per account

In the above case each bank provides its own exclusive service and provision of payment functions to other accounts of other banks is not considered.

3) In 2000 a network for mutual linking of CD/ATM services will be provided making it possible to make payments and deposits in accounts of other banks.

The number of ATM payments is assumed to be the same as in 2) above.

ATM deposits employed 0.1 times per month per account

The forecast results of the above scenario are presented in tabular form as follows;

(Unit: 1000 accounts, 1000 transactions)

Plan	1993	1994	1995	1996	1997	1998	1999	2999
Plan A								
Number of Corporation Account	39	44	55	62	74	88	100	109
Number of Private Customer Account	50	60	80	100	145	190	260	330
sub total	89	104	135	162	219	278	360	439
Number of wage transfer accounts in above	–	–	–	–	–	20	40	60
volume of debit operations	–	–	–	250	300	2,150	3,120	4,554
volume of credit operations	–	–	–	–	–	–	–	527
Plan B								
Number of Corporation Account	39	70	96	129	151	153	154	154
Number of Private Customer Account	50	60	80	100	175	250	375	500
sub total	89	130	176	229	326	403	529	654
Number of wage transfer accounts in above	–	–	–	–	–	50	100	150
volume of debit operations	–	–	–	250	300	3,617	5,571	8,722
volume of credit operations	–	–	–	–	–	–	–	784

(6) Use of Credit Cards

The introduction of credit card systems to the Kyrgyz Republic is expected to occur in the relatively near future since this will satisfy the needs of both foreigners visiting the country who are already familiar with credit card usage and of those companies dealing with such foreign customers for whom credit cards represent an effective means of securing foreign currency income. On the other hand the use of credit cards by Kyrgyz Republic nationals is not expected to develop rapidly since their diffusion is not expected to take place until after customers have become familiar with the use of such settlement procedures as wage transfers, automatic transfers and ATM, and when there is a general acceptance of cashless and credit transactions.

The following scenario has been postulated in view of the above.

Plan A

1) Within a space of one or two years it is expected that credit card systems will be introduced whose major users will be foreigners. In 1996 it is estimated that over 500 firms will be involved in handling credit cards (including firms handling a variety of different cards), subsequently the number of such firms will increase annually at a rate of about 50%.

2) The number of card holders in the Kyrgyz Republic will start of at around 10,000 in 2000. These holders will make use of their card on average 0.5 times per month in that year.

3) The effect on capital settlement will consist of transactions for monthly settlement carried out between the company issuing the credit card and companies accepting the card payments on the one hand together with the transactions relating to the settling of accounts held by card holders for use in the year 2000.

   The volume of transactions for monthly settlement taking place between the card issuing company and the card accepting companies is estimated as number of companies accepting credit cards x 12 months and settlement transactions of credit card holders is estimated as number of credit card holders x monthly use of card x 12 months.

Plan B

1) The plan assumes the same as Plan A with regard to the forecast of the number of credit card companies.

2) Taking the number of Kyrgyz Republic nationals who are credit card holders in 1998 to be 10,000 the number is predicted to increase rapidly to 50,000 by 1999 and to 100,000 by 2000. The average monthly use of the card is calculated at 0.5 times a month in the initial year 1998-1999 (with holders making use of cards once every two months or one out of two holders using the card in a given month). This is expected to increase up to 0.8 per month (i.e. a use ten times in a year).

Forecast results of this scenario can be shown in tabular form as follows;

(Unit; one shop; 1,000 people ; times/month ; thousand transactions/year)

Plan	1993	1994	1995	1996	1997	1998	1999	2000
Plan A								
No. of shops accepting cards	–	–	–	500	750	1,125	1,688	2,531
No. of card holders	–	–	–	–	–	–	–	10
Times card used	–	–	–	–	–	–	–	0.50
Transactions handled	–	–	–	6	9	10	10	90
Plan B								
No. of shops accepting cards	–	–	–	500	750	1,125	1,688	2,531
No. of card holders	–	–	–	–	–	10	50	100
Times card used	–	–	–	–	–	0.50	0.50	0.80
Transactions handled	–	–	–	6	9	74	320	990

(7) Summary

Estimating the volume of settlement transactions as set out above gives the following forecasts for the target year of 2000.

(Unit: 10,000 transactions/year)

Type of Settlement Transaction	Plan A	Plan B
Inter-bank market transactions	2.4	2.4
customer requested remittances	1,031	2,460
wage transfers	192	480
automatic transfers	360	900
CD/ATM debit transactions	455	872
CD/ATM credit transactions	52	78
Credit card transactions	9	99
Total	2,101.4	4,891.4

Figure 7-6 presents the forecasts reached in graphical form.

There is a considerable difference between the forecasts of Plans A and B. Many of the transactions concerned represent new varieties and will have to be introduced and introduction, development and diffusion will be significantly influenced by prevailing government policies. In turn the leeway and scope of

government policies will depend on the direction the economy of the Kyrgyz Republic takes and the economic situation will be reflected in the statistics for the volume of settlement transactions.

After the economy of the country is well developed and the payment system is well working, the volume of payment transactions has a close correlation with the population of the country. Table 7-15 shows a comparison of payment volume and values of population in the eleven developed countries and Kyrgyz in 1993, and plan A and B in 2000 for Kyrgyz. Figure 7-7 shows this relation in graphical way.

Both projection of Plan A and B are ten times smaller in ratio "Per Head Volume" compared with the eleven developed countries. Kyrgyz is now a developing country, then the projection of payment volume is considered to be an acceptable one.

7-2-3 Inter-Bank Transactions and Intra-Bank Transactions

The forecasts made above concerning the volume of transactions are for the Kyrgyz Republic but no distinction is made between those transactions which are of an inter-bank nature and those which are of an intra-bank nature. However methods for estimating these different types of transaction are very important when considering computerized systems of settlement. Currently in the Kyrgyz Republic various individual banks are in a hurry to evaluate information systems and some of the banks, especially those with a large volume of transactions, are pursuing a policy of developing their own internal systems in an energetic fashion. There are of course at present limitations in the shape of budgetary considerations, the number of communication lines available and levels of computer technology which are realizable but there is a strong possibility of some banks being able to run their own exclusive computer network systems by 1997-98.

On the other hand whatever systems a particular bank adopts for dealing with inter-bank transactions there are some aspects concerned which will remain the same, and these form a central core of the settlement system in the Kyrgyz Republic. It is important for banks to think about ways of classifying transactions into those which come under the inter-bank and those under the intra-bank groups while at the same

time evaluating measures to systematize the vital, fixed functions involved in banking services.

(1) The Volume of Inter-Bank Transactions Handled

It is first necessary to systematize the volume of inter-bank transactions which are handled. The basic thinking for such an undertaking is as follows.

1) Transactions involved in trading on the inter-bank market are to be of an inter-bank nature only.

2) It is estimated that about 45% of customer requested settlement transactions are of an inter-bank nature.

3) It is estimated that 30% of the requests for wage transfer will involve transactions with accounts in different banks. Under the present settlement system project these are assumed to be handled individually as is the case with basic payment transactions. Subsequently in 2000, regional communications centers will have their data collecting and input functions reinforced. As a result of such strengthening of services it should possible to handle on average the collection and input of 1000 transactions or data units. It is expected that the individual banks will be able to adjust the outstanding capital for each separate transaction.

4) It is estimated that 30% of the requested automatic transfers will involve transactions with accounts in other banks.

Over the period from 1998 to 1999 these transactions will be handled individually in the same way as with basic settlement transactions. Subsequently in 2000, regional communications centers will have their data collecting and input functions reinforced. As a result of such strengthening of services it is assumed that the individual banks will be able to adjust the outstanding capital for each separate transaction.

5) The use of CD/ATM systems. This will initially be started by individual banks on an in house level, and introduction of shared inter-bank use will be examined in the target year of 2000. It is expected that the inter-bank transactions will account for 10% of ATM use in the year 2000, and add

inter-bank payment transactions for settling net-position for every bank, every day.

6) With regard to credit card use individual banks will issue outstanding capital adjustments once per month for each of the credit card companies.

(2) The Volume of Intra-Bank Settlement Transactions

We can break down and set out the main constituents of the volume of intra-bank settlement in a similar way to that carried out above.

1) It is assumed that the remaining transactions (55% of settlement transactions) after deducting inter-bank transactions will be of an intra-bank nature. Strictly speaking these will consist of remittances among branches of the same bank.

2) It is expected that 70% of the wage transfers will be for accounts in the same bank as the party requesting transfer. In the period 1998 to 1999 these will be handled individually in the same way as basic settlement transactions. The regional communication centers will have their data collection and input functions reinforced in 2000 and thereafter it will be possible to handle 1000 transactions on average while the individual branches will issue adjustments to the main office account statements for each individual transactions.

3) It is expected that 70% of the requests for automatic transfers will be for accounts in the requesting party's own bank. In the period 1998 to 1999 these will be handled individually in the same way as basic settlement transactions. The regional communication centers will have their data collection and input functions reinforced in 2000 and thereafter will be possible to handle 1000 transactions on average while the individual branches will issue adjustments to the main office account statements for each individual transactions.

4) It is expected that 90% of the volume of transactions using CD/ATM will be related to accounts in the same bank.

5) In conjunction with the use of credit cards a billing operation will occur once every month for each credit card holder.

(3) Summary

The following presents in tabular form the forecasts for inter-bank and intra-bank transactions in the year 2000.

(unit: thousand cases)

	Plan A	Plan B
Inter-bank transactions	approx. 5,240/year (approx. 21/day)	approx. 12,174/year (approx. 49/day)
Intra-bank transactions	approx. 16,932/year	approx. 39,564/.year

Figure 7-8 presents a comparison of transactions classified as inter-bank and intra-bank.

Chapter 8 Formulation of Financial System Development Strategy

Chapter 8 Formulation of Financial System Development Strategy

8-1 Control of Business Activities of Financial Institutions

8-1-1 Establishment of Principle of Commercial Banking

Since bank transactions have not yet become sufficiently incorporated in the national economy of the Kyrgyz Republic, making it impossible as yet for banks to adequately absorb funds from a large number of depositors, the existence of restrictions on the time conversion function is highly probable. That being the case, it is desirable for banks, as those playing the central role in the settlement system, to consistently adhere to the principle of commercial banking and avoid liquidity risk to the greatest extent possible.

The definition of banks and their scope of business activities as stipulated by the Bank Law of the Kyrgyz Republic basically have an orientation in the direction of the principle of commercial banking, and it is important that such orientation be appropriately applied.

8-1-2 Rules Regulating the Activities of Banks

The Bank Law of the Kyrgyz Republic stipulates control of the ratios K 1 - K 3, which, as explained below, are the most important business indicators for commercial banks in that country. It is therefore necessary that commercial banks abide by the rules, and that the NBK carry out sure monitoring thereof.

(1) Control of Provision of Large Loans (K 1)

From the viewpoint of asset selection theory, the basic source of the capability of banks to bear risks is spreading of risk. That is to say, overconcentration of credit in a small number of borrowers lowers the risk bearing capability of banks. In this connection, see 4-3-5, "Relationship Between Financial Capital and Industrial Capital." The Kyrgyz Republic being in a period of transition to a market economy, there is not a very clear line drawn between financial capital and industrial capital, and one frequently sees financing behavior on the part of commercial banks that is dubious from the viewpoint of assumption of risk, such as large-scale financing on their own of energy development and other "national" projects. Since that is closely connected as well with the problem of the form of management of

commercial banks and the problem of "policy" financing, it is important that rule K 1 continue to be adhered to in ste with resolution of such problems.

Note: K 1 = Amount lent to one company/Net worth of the bank < or = 25%
(15% if the borrower is a capital participant in the bank)

(2) Control of Ratio of Net Worth to Total Capital (K 2)

The theoretical appropriate level of net worth is the equivalent amount of excess liabilities on a present value basis, i.e. with deduction of the present value of assets from the present value of liabilities. However, since in actual practice it is not all that easy to constantly determine the present value of assets and liabilities, it is necessary to make some net assets available in advance to cope with the "probability" of decline in value of the bank's assets.

Note: K 2 = Net worth/Total assets > or = 5%

(3) Control of Liquidity Ratio

In the Kyrgyz Republic the level of savings of the population is still low, and it is therefore to be expected that in general there is a strong tendency to emphasize the liquidity of deposits and other financial assets.
What is more, bank transactions per se have not yet become a very integral part of the national economy. That makes it possible for banks to absorb funds from a sufficiently large number of depositors, which in turn makes existence of limitations on the time conversion function very likely.
That being the case, commercial banks have to take liquidity risk sufficiently into account in their operations.

Note: K 3 = Liquid assets/Deposits and settlement current accounts > or = 30%

8-1-3 Deposit Insurance System

As already explained in 4-7-1, "Deposit Business," deposit attraction capacity of banks in the Kyrgyz Republic is extremely weak, one of the reasons being the fact that confidence in financial institutions there is low.

That being the case, from the viewpoint of fostering greater confidence in financial institutions and deposit transactions on the part of the population it is necessary to consider creation of a deposit insurance system. In that connection the country has already itself started studies with a view to establishment of such a system. However, in establishment and operation of such a system one must always bear in mind the difficult problem of occurrence of "moral hazard" in connection with deposit insurance, as is clear from the example of the United States in recent years.

Because of the backup provided by the deposit insurance system, deposits are generally considered to be financial assets bearing definite interest and characterized by guarantee of the principal, and banks are able to issue liabilities at a level close to risk free rates. Since that means that banks receive transfer of income from the public sector in the form of the deposit insurance system, it is returned to the public sector in the form of insurance premiums. In other words, deposit insurance premiums are considered to be bankruptcy risk premiums of individual banks with respect to risk free rates, and therefore in principle they ought to vary according to the degree of risk of the individual bank. That being the case, the "moral hazard" of financial institutions can be avoided by introducing a system of risk-based variable insurance premiums. That is because engaging in unsound operations out of a sense of security provided by the deposit insurance system will result in an additional cost burden in the form of higher insurance premiums.

Furthermore, if fixed insurance premium rates are adopted, it is necessary to reflect the difference between the appropriate insurance premium and the actual insurance premium in an appropriate level of net worth. That is to say, since it is rational for banks to try to obtain as great a guarantee as possible from the deposit insurance system if repayment of deposits is guaranteed against payment of a particular insurance premium, that will induce high-risk asset selection. That being the case, when the actual insurance premium is lower than the appropriate insurance premium, the bank should be made to take into account the higher probability of decline of the value of its assets by being required to have greater net worth. On the other hand, if the actual insurance premium is higher than the appropriate insurance premium, the bank's net worth should be commensurately reduced since that is the same as overevaluation of the amount of liability settlement deficiency (see Note).

Note: The theoretical value of appropriate net assets is "the present value of liabilities minus the present value of assets," i.e. the equivalent amount of liability settlement deficiency as viewed on a present-value basis.

8-2 Types and Sizes of Financial Institutions

8-2-1 Commercial Banks

In the period of a little more than two years since the Kyrgyz Republic became independent of the former Soviet Union twenty-one commercial banks have been established there (presently nineteen). In this chapter saving bank is also included in a commercial bank category, because it has potentialities to develop into a large commercial bank based on accumulation of personal savings in the balance sheet, which is relatively large, although saving bank has not yet been given a license upon Banking Law in 1992 as of August 1, 1994. It is reasonable to conclude, considering the size of the country's economy and the volume of its financial transactions or its state of market competition, that that is already an appropriate number of banks. Although it also depends on the stance that the NBK takes as the entity with the power to grant bank licenses, it is safe to assume, considering market capacity and other factors, that the pace of establishment of new banks will slacken considerably in the months and years to come.

Furthermore, in the future some banks will no doubt choose to merge in order to enhance their capital power, and it is possible that some will also convert to financial institutions with the kinds of roles that are discussed further on. Accordingly, the present number of about twenty banks can be expected to remain substantially unchanged considering also the trend with respect to establishment of new banks. The branches of these banks are projected to be numbered about 500 in year 2000, including local units under the branches of saving bank.

Little change in the number of banks is also desirable from the viewpoint of the NBK, which is responsible for supervision over them. As already indicated in 4-2-1, "Outline of Financial Control Mechanisms," the NBK's Bank Inspection Division presently has to make do with a staff of only eight persons, which could result in substantial impairment of its monitoring capacity if the number of banks should continue to increase at a high pace. From the standpoint of ensuring a sound financial system that needs to be avoided.

8-2-2 Long-Term Financing Institutions

Since banks playing a central role in the settlement system are expected to operate on the basis of the principle of commercial banking, besides commercial banks it is necessary to consider creation of a financial institution the main business of which is supply of long-term investment funds. It can be newly established or result from future specialization of an existing bank or existing banks in long-term financing operations.

In that connection there is the operational problem of how to secure available funds for provision of long-term credit. Since, generally speaking, the savings of the population can be expected to be concentrated in financial assets characterized by outstanding safety and liquidity when the level of savings is low, it is highly probable that in such a case long-term financial institutions will experience difficulty in procuring long-term funds directly from ultimate suppliers of funds. Therefore it will be necessary to try to get around that problem by, for instance, having savings banks supply a part of their holdings of savings funds to the long-term financial institution for it to use as funds for industrial investment purposes, in which case the supply of funds by the savings banks to the long-term financial institution can not only be in the form of loans, deposits, etc. involving loan contracts but also be accomplished through purchase of securities issued by the long-term financial institution.

The advantage of the later form is that the saving bank can easy obtain funds when it needs them by selling off such securities.

8-2-3 Development Bank

In the Kyrgyz Republic financial institutions, too, are being privatized in transition to a market economy, and that basic policy is correct. However, one cannot deny the fact that in a situation of serious deficiency of savings in the domestic private sector there are limits to provision of plant and equipment investment funds for improvement of industrial infrastructure entirely by private financing and that therefore "policy" financing by the government also has to be relied on.

In the past, supply of such "policy" funds was based on "special-purpose" credit furnished commercial banks by the NBK. However, if the NBK, the entity in charge of implementing government monetary policy, at the same time carries out "policy" financing, which also has a government finance policy aspect, that could result in

confusion of monetary policy and government finance policy. As we have already seen, in actual practice "special-purpose" credit has given rise to various problems, and that has resulted in discontinuation of granting of new credit.

It would therefore appear to be necessary to consider setting u a development bank as a government financial institution for implementation of "policy" financing. In that connection the Government of the Kyrgyz Republic published the "Kyrgyz Republic Government Ordinance Concerning Establishment of the Kyrgyz Republic Recovery and Development Bank" on July 9, 1994. According to that ordinance and comments on it by Prime Minister Jumagulov, the purposes of establishment of such a development bank are:

(1) Financing of the energy industry and other projects of national importance.

(2) Support to activities of small and medium-size enterprises in priority areas of the economy taking into account regional characteristics.

(3) Support to housing construction.

Needless to say, establishment of such a public financial institution must not be allowed to lead to backpedaling as regards orientation toward a market economy. It must be clearly understood that the role of the government lies in providing an environment in which market mechanisms can function properly. In principle, only if policy goals are even then still not attainable should public financial institutions be established within the limits of compensation of deficiencies to undertake direct involvement in loan markets, etc. In order to make sure that that principle is applied in actual practice, the rule of thumb "investment channeling of private savings by private financial institutions and government funds and foreign aid funds by public financial institutions" should be followed.

In other words, a financial system in which the government is allowed to absorb private savings by financial techniques and then redistribute them could run counter to orientation toward a market economy. In principle, private savings should be channeled to investment by private financial institutions. However, considering the present state of the economy of the Kyrgyz Republic, "policy" investment of government funds and foreign aid funds in industrial areas forming the basis of economic development and industrial areas in which investment has a relatively strong multiplier effect is of great

importance. There are too many problems in having that accomplished in the form of supply of credit to the private sector by the NBK, particularly considering past experience with "special-purpose" credit, and hence the need to establish a public financial institution that can function as a government finance policy institution. In that sense, the recently announced establishment of a development bank can be considered a timely decision.

8-2-4 System for Supplementation of Credit Furnished by Financial Institutions Catering to Small- and Medium-Size Enterprises

Although it is desirable that the private small and medium-size enterprises that have started to be established with transition to a market economy receive financial support, it is very likely that in actual practice the available funds will go mostly to former State enterprises and other large firms characterized by relatively small credit risk. That being the case, it would appear to be necessary to devise institutional means of encouraging some private financial institutions to actively engage in financing of small and medium-size enterprises such as providing them with some kind of incentives to do so.

Consideration should be given to a system for supplementation of credit to small and medium-sized enterprises as such an incentive to provide them with financing.

Such a system should, in principle, be established by a public institution, but it might be a good idea for the users of the system, too, i.e. industry and private financial institutions, to contribute their share of funds to the system from the viewpoint of avoiding occurrence of "moral hazard."

Furthermore, assuming that such a financial institution for providing financing to private small and medium-size enterprises is established, in a situation in which there is a serious shortage of domestic savings it is very likely that funds for plant and equipment investment will continue to be limited even if commercial financing of small and medium-size enterprises is facilitated. In such a situation arising from absolute shortage of funds it is permissible to consider promotion of small and medium-size enterprises by "policy" financing. It is gratifying to note that the announced plans of the Government of the Kyrgyz Republic for a development bank call for that as one of its functions.

8-3 Form of Management of Financial Institutions

Since the Kyrgyz Republic has not yet seen adequate fostering of investors in the domestic capital market, it is difficult to raise capital from a large number of investors in general in connection with privatization of State enterprises and new establishment of private enterprises, and therefore banks very frequently invest large amounts in them. Furthermore, a situation has arisen in which banks and such large enterprises own a considerable amount of each other's stock since the latter strengthen their relationships with the banks and actively acquire their stock in order, for one thing, to gain an advantage in loan transactions. When large enterprises are at one and the same time both the main shareholders and the main clients of commercial banks, there is inadequate separation of financial capital from industrial capital. Such a situation could have the following adverse affects on the financial and economic development of the country:

(1) Concentration of provision of loans by the bank in a small number of borrowers, thereby lowering the bank's risk bearing capability.

(2) Prevention of rational judgment concerning whether or not credit should be provided because of strong interference by capital relationships.

That results in failure to appropriately allocate funds to economic entities that are truly characterized by high efficiency, which in turn weakens the economy.

One must admit, it is true, that separation of financial capital and industrial capital is not something that can be achieved overnight, particularly as one of the prerequisites for it is successful fostering of domestic investors. Nevertheless, as already mentioned in 3-3-1, "Present Situation and Their Effect of Economic Stabilization and Structural Reform Policies," considering the fact that institutional premises for wide participation of the population in the capital market, including plans for distribution of vouchers giving entitlement to ownership of stock in privatized enterprises, are taking shape, it is not appropriate for solution of the problem of separation of financial capital and industrial capital to be postponed too far into the future. It will therefore be necessary to progressively work for reform of the way that financial institutions are managed while in the meantime suppressing the above-mentioned adverse effects by means of the rules for controlling bank activities, including control of lending of large sums.

8-4 Financial, Capital and Foreign Exchange Markets and Their Size

In the strategy for development of financial, capital and foreign exchange markets by about the year 2000 establishment of adequate short-term financial markets and an adequate foreign-exchange market is identified as the most pressing need. As those two, the most urgent tasks regarding short-term financial markets are organization of an inter-bank market as a means of temporary procurement and utilization of funds between banks and a T/B market as an object of open market operations by the NBK. In the way of capital markets it will be necessary to organize a market for bank bond issues as a means of procurement of funds by the long-term financial institution and a market for negotiation of stocks, which is expected to make headway along with promotion of privatization.

8-4-1 Inter-Bank Market

(1) Need to Create a Suitable Environment for Providers of Funds

In order to promote formation and development of an inter-bank market it is advisable to improve the environment for providers of funds.

1) First of all, it is necessary to abate inflation in order for providers of funds on the inter-bank system not to suffer prejudice. In other words, it must be made a market on which providers of funds receive a real operating profit by putting the real interest rates on the market at a positive level.

2) Secondly, it is desirable that there be a situation in which it is possible for financial institutions that are normally (or net) takers of funds to be providers of funds in the case of temporary fund raising. At present commercial banks other than savings banks are constantly supplied with enormous amounts of credit by the NBK. In such a situation spare funds are immediately applied to repayment of credit from the NBK, and therefore there would appear to be very little opportunity for temporary placement of funds on the inter-bank market. If borrowing from the NBK is reduced as a result of implementation of reforms such as transfer of policy financing to government financial institutions, there will be leeway for commercial banks to be providers of funds at times depending on day-to-day change in their fund positions in order to put temporarily spare funds to use.

3) Thirdly and more basically, it is desirable for the sake of development of the inter-bank market that financial institutions be fostered that are capable of effectively absorbing and accumulating funds of individuals and that therefore can act as stable fund providers on the inter-bank market.

(2) Need to Improve the Fund Transaction Settlement System

The main function of the inter-bank market is to adjust temporary fund surpluses and shortages and make it possible for the banking sector as a whole to make efficient use of funds. It is necessary that facilitation of adjustment of fund surpluses and shortages be accomplished in the form of finality of payment with minimum time lag in settlement between banks. In this connection plans will be formulated for improvement of the inter-bank fund transaction settlement system as the main task of the planning by this study group for improvement of the settlement system.

(3) Scale of the Inter-bank Market

Let us consider how the scale of the inter bank market can be expected to change in the coming years taking into account the factors mentioned above. First of all, the inter-bank fund transaction market is expected to get started in 1995 because forecasts in the economic framework see rampant inflation basically coming under control and hence movement toward overcoming of prejudice suffered by providers of funds in fund transactions.

After 1995 the fund transactions market is expected to gradually expand up to the turn of the century. Specifically, its scale on a balance base is expected to be about 1% of the anticipated lending balance of banks in the period 1995-1997 and about 2% in the period 1998-2000, when greater progress is made in improvement of the financial and settlement systems. In terms of percentage of nominal GDP it is expected to be about 0.2% in 1995-1997 and 0.5-0.6% in 1998-2000 (see Table 7-11-A).

8-4-2 T/B Negotiation Market

(1) Need for Improvement of T/B Issue Market and Trading Market

At the present time in the Kyrgyz Republic T/B's are being sold to the private sector in T/B auctions carried out by the central bank as an agent of the government. The annual volume of T/B issues in 1993 was 11 million Som, and the issue balance stood at 1.4 million Som as of the end of that year, all of the T/B's being for 3 months. As for the state of T/B auctions in 1994, the amount issued is gradually increasing, and since we are starting to see cases of sales transactions involving already issued T/B's, there is reason to hope that the T/B market will play a central role in fostering of a short-term financial market.
Specifically, it would seem that it will be necessary to improve the T/B issue and trading markets from the following viewpoints:

1) In order to facilitate issue of T/B's for the purpose of covering government spending deficits.

2) In order to make it possible to carry out open market operations on the T/B market as a means of financial adjustment by the NBK.

3) Increase of T/B needs, for example as security in case of recognition of NBK correspondent account overdrafts in the settlement system.

Against such a background the Government of the Kyrgyz Republic is expected to work for improvement of the T/B auction system and the bank overloan situation with respect to the NBK and facilitation of T/B issues. As the issued volume gradually increases along with improvement of the issue market on the basis of implementation of such measures, the T/B trading market is expected to be gradually formed in the years remaining till the turn of the century.

(2) Scale of T/B Trading Market

The T/B trading market is expected to undergo full- fledged formation starting in 1995 because with a widening deficit in the general balance of government spending and income and progress in improvement of the issue market by the government, the volume of T/B issues is expected to increase, bringing the issued balance to a level that will make formation of a trading market possible.

It is expected to increase to a scale of about 0.70% of nominal GD by 1997 and 1.43% by the year 2000 on a balance basis. The volume of trading is also expected to trend upward as the trading turnover rate gradually rises during that period (see Table 7-12-A).

8-4-3 Foreign Exchange Market

At present the foreign exchange market in the Kyrgyz Republic consists mainly of foreign exchange auctions in which the central bank sells foreign exchange to banks and money changers on the basis of funds borrowed from the World Bank and the IMF. Foreign exchange transactions have also started on the inter-bank market, but the volume is estimated to be lower than that of foreign exchange auctions.

Both the market balance and the volume of trade of the foreign exchange market are expected to gradually increase u to the year 2000 on account of the following factors and increase in the volume of transactions on the inter-bank market as a result thereof (see Table 7-13).

(1) Rise in the percentage of total trade volume represented by trade with non-CIS countries.

(2) Start in earnest of provision of assistance by non- CIS countries in the form of funds and technology beginning in 1994.

(3) Gradual increase in direct investment from abroad starting in 1996.

8-4-4 Bank Bond Issue Market

A financial institution capable of stable supply of long-term funds to the industrial sector is indispensable to the economic development of the Kyrgyz Republic. In the past, supply of government funds to the industrial sector has been accomplished in the form of provision through the NBK of short-term loans on the basis of "special-purpose" credits, but, as already mentioned, the ne d has arisen to establish a new government financial institution (development bank) and accomplish such supply of funds in the form of long-term loans based on government "policy" financing because of the many problems that such "special- purpose" credits entail. Furthermore, it is also desirable that a long-term

financial institution be established in the private sector as well in order to provide long-term funds, mainly to enterprises.

Possible ways for such a private long-term financial institution to procure funds include receipt of deposits from individuals and obtaining of short-term funds from the short-term financial market, but it will be exposed to liquidity risk and interest rate risk through time mismatching if it depends on such methods of procurement of funds. That being the case, it will be necessary for it to devise a method such as issue of bank bonds for purchase by commercial banks with high deposit attracting capacity or savings banks. That will make it possible to convert funds of individuals with high liquidity preference to long-term fixed funds for enterprises and provide the latter with a stable supply thereof. Establishment of a bank bond issue market is desirable from that point of view.

8-4-5 Stock Trading Market

So far in the Kyrgyz Republic in privatization of State enterprises introduction of shares has taken the form of private offerings, and a stock trading market virtually does not exist.

However, as explained in 3-3-1, "Present Situation and Their Effect of Economic Stabilization and Structural Reform Policies," the State Property Fund (SPF), the committee in charge of privatization, is considering commencement of allocation of privatization vouchers to the population, such vouchers being negotiable instruments in two denominations, 100 points and 500 points, whereby the citizens of Kyrgyz people are allocated State property free of charge. Each person is allocated vouchers in a quantity that depends on his or her income (with a minimum guarantee of 12 Som worth per person), 100 points being equivalent to 1 Som, and he or she can become a shareholder by acquiring stock of an enterprise undergoing privatization at a voucher auction.

Since stock trading needs are expected to rise sharply as a large number of people come to acquire stock of privatized former State enterprises through voucher auctions, it will become necessary to organize a stock trading market. Consideration is already being given to establishment of a securities exchange, but in that connection it will be necessary to overcome certain difficulties, including the need to determine whether or not such a securities exchange will be able to pay its own way. It will also be important

to establish rules for it to ensure transparency of price formation and publication of necessary information as well as establishment of the principle of responsibility of investors for their own actions on the basis of such transparency and publication. Since the country is still in transition toward a market economy, it will be necessary to pay particular attention to that so as not to give rise to trouble in securities trading.

8-5 Government Administrative Supervision Over Financial

Institutions, the Relationship Between the Government and the Central Bank and the Relationship Between the Central Bank and Private Banks

8-5-1 Government Administrative Supervision Over Financial Institutions

In principle, administrative supervision over banks by the government is accomplished by the NBK, the central bank. In other words, the NBK is invested with the authority to approve bank licenses, examine banks, require banks to submit documents concerning their finances, set standards and norms for banks and so on and so forth.

Furthermore, the central bank is considered to be the main entity concerned with monetary policy. Such functions are in line with the provisions of the Law Concerning the Central Bank of the Kyrgyz Republic, which has already become effective.

8-5-2 The Relationship Between the Government and the Central Bank

The NBK, the country's central bank, is guaranteed independence from the Government. In particular, the actions or discretionary judgments of the NBK must not be violated by the Government in the following respects:

(1) The NBK does not bear any responsibility for the Government's debts and should not issue currency for the purpose of meeting the Government's debt payment obligations.

(2) The NBK should be prohibited from providing credit or underwriting government bonds for the purpose of covering fiscal deficits.

(3) Although it is necessary for the NBK to consult the different departments of the government concerning monetary policy, only the parliament can intervene in final decisions by the NBK concerning such policy, and the government should refrain from making it change its decisions. Furthermore, the central bank carries out treasury tasks as "the Government's bank."

The above points are guaranteed by the Law Concerning the Central Bank of the Kyrgyz Republic, which has already become effective, and it is necessary that they be observed in actual practice.

8-5-3 The Relationship between the Central Bank and Commercial Banks

As already mentioned, the NBK, the country's central bank, has a role of supervision over private banks. Furthermore, it is hoped that it will have a "last resort" function with respect to private banks and provide an inter-bank settlement system and other services. Such matters are stipulated in the Law Concerning the Central Bank of Kyrgyz that has already become effective.

Also, regarding the bank supervision powers of the NBK, information disclosed to the NBK by private banks should not divulged to third parties, even the Government, and should not be used for purposes other than such control itself, and it is necessary to establish a democratic system in that respect as well as democratic operation thereof.

8-6 Monetary Policy

8-6-1 Deposit Reserve System

Presently commercial banks have an extremely high deposit reserve rate of 20% imposed on them, which has the effect of suppressing their function of creating credit. That has already been discussed in detail in 4-7-4, "Problems Regarding the Credit Creation Function," and 4-5-1, "Deposit Reserve System." Basically, it is desirable for the present problem of surplus liquidity to be resolved by reduction of the free payment reserves of banks through withdrawal of the excess credits provided by the NBK and for the deposit reserve rate to be gradually lowered in order to enhance the effectiveness of creation of credit.

8-6-2 T/B Market Manipulation

Whereas credit auctions are presently the main means of monetary adjustment in the monetary policy of the NBK, it would be appropriate for T/B market manipulation to take their place in the future as the main method of monetary adjustment. That has already been discussed in 4-5-5,"T/B Auctions." Furthermore, since it is to be hoped that T/B's will play an important role in the financial system, including the ability to serve as security for NBK credit and provision of credit in the settlement system, it is necessary to work for fostering of the T/B market in various ways, including the T/B auctions that the NBK is presently carrying out.

8-7 Framework of the Financial System

The following is a description of the framework of the financial system to be established by the year 2000 on the basis of the financial system development strategy that has been formulated for the remaining years of this century.

8-7-1 Financial Institutions

The constituents of the financial system in the year 2000 on the government side will be the NBK (central bank), a development bank for the purpose of supplying enterprises with long-term funds, a small and medium-size enterprise bank for the purpose of supplying such enterprises with long-term credits and an export-import bank in charge of financing of trade, mainly in order to promote exports (or a development bank will fill these roles). All "policy" financing by the government is to be accomplished by such governmental financial institutions (Figure 8-1).

The financial institutions on the private side will fall under the category of either financial intermediary institutions or other financial institutions. Among those financial intermediary institutions which handle deposits will be commercial banks, the main business of which is supply of short-term funds, a long-term financial institution the main task of which is supply of long-term funds and small and medium-size enterprise financial institutions with the main role of supplying that category of enterprises with funds as well as branches and local subsidiaries of foreign banks. All of those financial institutions will receive deposits, but commercial banks will play the biggest role in attraction of deposits of individuals. The long-term financial institution will be allowed to issue bank bonds as a means of procurement of funds.

Insurance companies, which engage in life insurance and nonlife insurance operations, will constitute the category of financial intermediary institutions that do not handle deposits. As for the category of financial institutions other than those that fall under financial intermediary institutions, it consists of securities companies, but their role in the financial system will be very limited.

8-7-2 Financial, Capital and Foreign Exchange Markets

Let us take a general look at what the state of the financial, capital and foreign exchange markets can be expected to be by the year 2000. In the way of financial markets, as short-term financial markets the T/B market and the inter-bank market are expected to have a scale equivalent to about 1.21% and 0.60%, respectively, of nominal GDP (Table 8-1). With improvement of the settlement system with respect to large fund transactions and the situation regarding commercial bank overdrafts, the inter-bank market should start to function smoothly as a mechanism for adjustment of fund surpluses and shortages between banks. As for the T/B market, in view of beginning signs of development of a T/B trading market, the possibility of its becoming a place for open market operations by the NBK should increase, and it is also possible that the T/B trading yield will come to serve as the bench-mark interest rate.

As for capital markets, bank debentures will be issued on the bond market as a means of procurement of funds by private long-term financial institutions and others, and a stock trading market will by then be in the stage of being gradually formed along with the progress that is made in conversion of privatization vouchers for former State enterprises to stock.

With free exchange of the Som, the foreign exchange market will have grown to a scale proportionate to the volume of trade, the volume of fund assistance from abroad and the volume of direct foreign investment in the country.

8-7-3 Monetary Policy and Government Administrative Supervision over Financial Institutions

Let us now take a general look at what the state of monetary policy and government administrative supervision over financial institutions can be expected to be by the year 2000. In monetary policy the NBK will be maintaining its tight stance, and broad money

supply will continue to take place at a rate somewhat lower than the rate of growth in nominal GDP. The reserve rate required of banks will be being lowered in steps under the policy of enhancing their capacity to create credit. Furthermore, in connection with lowering of the bank reserves/deposits ratio because of fall the ratio of cash on hand of enterprises and households to deposits, the credit creating capacity of banks will have recovered to about the level that it was at in 1992.

Credit auctions will still be the main tool of monetary policy, but since policy financing ("special-purpose" credits) of large enterprises by the NBK and commercial banks will have been improved by having it accomplished by government financial institutions instead, credit auctions, which are a monetary policy tool utilizing NBK loans, will have become more effective. Furthermore, since the scale of the T/B trading market will have expanded, although only gradually, the possibility of carrying out open market operations utilizing that market will have increased.

As for government administrative supervision of banks, the NBK's bank supervision capability will be increasing as a result of reinforced staffing of its Bank Inspection Division and other measures. Moreover, with closer coordination between the NBK and the State Insurance Inspection Organization, the strict stance of supervision over credit insurance by insurance companies will be continuing to be maintained.

8-7-4 Financial Assets and Financial Liabilities

According to Plan A the situation regarding financial assets and financial liabilities should be roughly as follows by the year 2000. The balance of cash on hand of households and enterprises should be about 1,570 million Som, and the balance of deposits about 1,660 million Som, the breakdown of deposits being as follows: demand deposits 1,180 million Som and time deposits, etc. 480 million Som. The balance of bank deposits of individuals should be about 580 million Som.

The balance of loans by financial institutions to individuals and enterprises should be about 11,334 million Som.

8-8 Consideration of the Effects of Improvement of the Financial System

The financial system of the Kyrgyz Republic is beset by the problems identified in Chapter 4, and in this chapter we have already considered the different measures that are needed to cope with them. Let us now consider again the overall effect of such problems and the measures for dealing with them on the finances and economy of the Kyrgyz Republic (Figure 8-2).

8-8-1 Effects of Improvement of the Settlement System

With improvement of the settlement system, considerable improvement should be possible regarding many of the problems presently occurring in the financial system. Let us therefore first consider the effects that improvement of the settlement system can be expected to have.

8-8-1-1 Effect of Backing Up the Transition to a Market Economy

Because of the undeveloped state of the settlement system in the Kyrgyz Republic u to now, it is difficult to have a clear idea of when fund settlement resulting from economic transactions is scheduled to be completed or when it has been completed, and that has even resulted in vagueness in the sense of responsibility to meet payment obligations. However, fair competition, the mainstay of the market economy, is possible only on the basis of trust between the parties to the transactions that the contracts will be faithfully performed. That being the case, should the settlement system be improved, thereby lowering the risk of transactions by making the state of settlement clear and making it possible to firmly establish business operations based on the concept of responsibility for one's actions, that should considerably invigorate business activity in the market economy and stimulate economic recovery.

8-8-1-2 Making Bank Management Sound

The present weakness of the capacity of banks in the Kyrgyz Republic to attract deposits is a big problem. One of the factors behind that is the large amount of bad debts that commercial banks have on their hands, which is considered to be responsible for loss of the population's trust in banks. In order to cope with that there are possibilities such

as creation of a deposit insurance system, but more basically necessary is regaining of the population's trust in the soundness of bank management.

Improvement of the settlement system will have the effect of disposing of arrears in settlement and establishing a sense of responsibility for one's actions in business management. In the course of improvement of the settlement system the former vagueness of failure to meet payment obligations will be dispelled, possibly initially resulting in bankruptcies and in "surfacing" of "latent" bad debts on the hands of banks. But if that enhances the transparency of bank assets, thereby dispelling unnecessary doubts about the soundness of bank management, it is reasonable to expect that the result will be recovery of trust in banks.

8-8-1-3 Improvement and Expansion of the Financial Market

The financial market is a mechanism for adjustment of temporary fund surpluses and shortages of the different entities involved in the economy and enhancing the fund efficiency of the economy as a whole as well as a means whereby the central bank accomplishes final adjustment of fund raising as the sole high-powered money supplier and thereby controls interest rates on the short-term financial market, which are control variables of monetary policy, and is indispensable for stability of the value of the country's currency and sustained economic growth.

Improvement of the financial market and improvement of the settlement system affect one another. That is to say, not only is improvement of the settlement system so as to make it possible to process a large volume of settlement transactions in a short period of time something indispensable as infrastructure for development of the financial market, but improvement of short-term financial markets and particularly the inter-bank market accomplishes the function of facilitating the day-to-day fund raising of financial institutions and lowering liquidity risk, which is an extremely important element in stable operation of the settlement system.

Furthermore, overdrafts, a serious problem of the financial system of the Kyrgyz Republic, and the financial market also affect one other. That is to say, with improvement of the financial market, fund accommodation between banks will be facilitated, and the overdrafts that occur every day at the central Bank can be expected to be considerably reduced. On the other hand, however, considering that most commercial

banks are frequently provided with credit by the NBK by means of overdrafts or receive refinancing loans from it, essentially that constitutes a major obstacle to creation of a financial market because even if surplus funds should occur temporarily, fund providers do not appear since financial institutions have a stronger incentive to use such surplus funds for repayments on credits from the NBK than to put them in the financial market.

Besides that, overdrafts could narrow the range of alternatives in plans for improvement of the settlement system. In other words, in order to make the settlement system more effective, there normally would be the possibility of having the alternative of allowing as a system, on the basis of security such as government bonds, overdrafts during the day with regard to NBK deposits which are inter-bank settlement accounts. But with the present situation of a constant enormous cumulative deficit balance, there is considerable limitation on building such a system.

One can see, therefore, that overdrafts, the settlement system and improvement of the financial market are closely related to one another. If in the coming years it is possible to basically resolve the problem of overdrafts in a rapid fashion through interaction between them, implementation of the NBK's monetary policy should also be facilitated. Furthermore, if de facto cash withdrawal restrictions against the background of correspondent account shortages are eliminated, savings and investment will be stimulated, and economic growth will also be contributed to tremendously.

8-8-1-4 Improvement of Deposit Transfer Function

Presently in the Kyrgyz Republic because of lack of development of a commercial bank settlement network promissory notes, checks, bank transfers, credit cards and other means of settlement using bank deposits have not been adequately developed. As a result the cash/deposit ratio (ratio of cash to deposits) of the population is high, and there is an extremely high degree of outflow of funds from the banking sector, and, as we have seen, that is seriously braking the credit creating function of banks and hindering expansion of investment. A basic condition for economic development is creation of an environment in which the population can accomplish fund settlement without using cash by urgently improving the settlement system and enhancing the deposit transfer function of banks.

8-8-2 Effects of Improvement of the Banking System

The financial system of the Kyrgyz Republic has several other major problems besides the settlement system, a particularly important one being that of the need for improvement of the banking system. Let us now consider it.

8-8-2-1 Effect of Development of Network of Bank Branches

At the present time the branches of commercial banks in the Kyrgyz Republic are located mainly in the provinces of Chui and Osh, and the provincial branches cover very considerable geographic areas. It is therefore to be supposed that in such areas deposit and savings, loan transaction and settlement transaction opportunities of the people are probably not at a satisfactory level. Hence the need to reinforce the network of bank branches, including invigoration of savings bank branch networks, and booster the deposit transfer function.

8-8-2-2 Establishment of Long-Term Financial Institutions and Small and Medium-Size Enterprise Financing System

If the banking system of the Kyrgyz Republic is developed chiefly on the basis of the principle of commercial banking, there is the risk of not being able to smoothly accomplish supply of investment funds for the purpose of development of industrial infrastructure. That being the case, it is important to stimulate expansion of investment by establishing long-term financial institutions and a small and medium-size enterprise financing system for realization of efficient distribution of funds.

8-8-2-3 Establishment of Policy Financing Institutions

In a market economy in principle there is no recognized need for economic activity on the part of the government. It cannot be denied, however, that in cases such as that of the Kyrgyz Republic in which a country is in the initial stage of economic recovery and development, limited economic activity on the part of the government until such time as market mechanisms become fully operative can be advisable. However, the existence of a huge amount of refinancing loans by the NBK to commercial banks is problematic in terms of both enhancement of the effectiveness of monetary policy and attainment of sound management of private banks. That being the case, in order to put the Kyrgyz economy on the right track it is necessary to solve the problem by establishing policy

financing institutions for placement of government funds in priority industries in order to replace the present method of provision of refinancing loans.

8-8-2-4 Separation of Financial Capital and Industrial Capital

In view of the fact that privatization of State enterprises, including banks, is just getting started in the Kyrgyz Republic, there is not yet clear separation of financial capital and industrial capital, as shown by the fact that the main shareholders of commercial banks are at the same time their main clients. That reduces the risk bearing capacity of financial institutions and impairs efficient distribution of funds. Therefore it is desirable that expansion of investment be stimulated by getting out of such a situation as soon as possible and realizing efficient distribution of funds.