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Kazakhstan: An Ambitious Pension Reform

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KAZAKHSTAN: AN AMBITIOUS PENSION REFORM

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*pension n. 1. periodic payment
made on retirement or
above specified age*

**PENSION
PRIMER
REFORM**

*re-form n. 1. & t. 1. make (institution, procedure
etc.) better by removal of faults or errors*

*primer n. 1. elementary book to
equip person with information*

ABSTRACT

The pension reform in Kazakhstan was instituted to remove a deteriorating and costly pay-as-you-go (PAYGO) system with limited revenues, a relatively low worker to pensioner ratio, and accumulating pension arrears. Analysis was conducted to assess whether the economy could sustain a radical reform, which would make the implicit pension debt explicit. Fortunately, Kazakhstan's external debt was relatively light. Further, the pension reform was part of a three-pronged financial sector reform including privatization and development of internal capital markets. Although the analysis of future benefits was far from thorough, the general optimism about future economic growth and high rates of return, in light of the Chilean experience, led Kazakhstan policymakers to discontinue the PAYGO system while maintaining rights accrued before January 1, 1998.

The first section of this report reviews the reform and provides a synopsis of the thinking behind its development, including the events leading up to it and the failings of the PAYGO system. This is followed by an analysis of key macroeconomic and beneficiary issues that were addressed while developing the reform. First, the initial 1997 analysis of fiscal sustainability is reviewed. Next, using an updated forecasting model, the costs of reform are reexamined. In retrospect, it would have been preferable from a fiscal perspective, to reduce current pensions to a greater extent, although this may not have been possible. Nonetheless, the reform does not add unduly to the fiscal burden of Kazakhstan. In the future, issues related to the design of benefits will become increasingly important.

In the second section, the administrative, business, and regulatory structures created by the pension reform legislation are described. These include the establishment of completely new private-sector institutions – pension funds, asset management companies (AMCs), and custodian banks, as well as a state pension fund. In addition, a combined payment center/pension clearinghouse was adopted.

In the third section, the progress of these entities in meeting the objectives of the reform is evaluated, particularly in terms of regulatory and financial market performance. In addition, this section discusses the decision of the World Bank to support the Kazakhstan pension reform. The support was both financial and technical. The review concludes that: (1) the ambitious reform was inevitable; (2) the reform is progressing in a relatively satisfactory manner despite external shocks that restricted economic growth and capital market development; but that (3) many additional steps need to be taken if the pension reform is to live up to original objectives, particularly in the areas of benefits, regulation, and portfolio diversification.

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I. THE BASIS FOR REFORM

A bold and far-reaching Kazakhstan pension reform law was enacted in June 1997 and inaugurated in January 1998. The reform immediately transformed the pension system from an expensive pay-as-you-go (PAYGO) system to one of fully funded, defined contribution accounts. The previous system suffered from three overarching problems: (1) a Soviet-style structure of benefits characterized by early retirement ages, special privileges, and high replacement rates, particularly for short-service workers; (2) excessively high payroll taxes for pensions totaling 25.5 percent of the wage bill; and (3) a continually declining revenue base which resulted in an estimated two-thirds of projected revenue collected from state owned enterprises and corporate employers and, at most, an estimated one percent of revenue from small business in the private sector. In addition, all attempts at a more restricted reform of the PAYGO system had ended in failure – without an increase in revenues or a reduction in cost.

The new system, a funded system based on investments, is intended to promote self-sufficiency instead of government dependence, to reduce government expenditures, to encourage savings and promote the development of the capital market. As of January 1, 1998, the pension system was transformed into one of fully funded, individual, defined contribution accounts mandated for all workers on an immediate basis. Accrued entitlements to old pensions were maintained, however, so that upon pension age workers would receive pensions for service prior to January 1, 1998 from the old system and benefits for service after January 1, 1998 from their individual accounts. Unlike reforms in other transition economies, the new system covered all workers of all ages.¹ Kazakhstan preferred a Chilean approach rather than adopting the

¹ Palacios and Whitehouse (1998)

more cautious approaches of Poland, Hungary, or Latvia,² the other transition economies that had almost simultaneously reformed their pension systems.

Financing. Current PAYGO pensions and future partial PAYGO pensions initially were to be financed from a 15-percent wage tax paid by employers, a reduction from the 1997 contribution rate of 25.5-percent. This form of financing was selected rather than the recognition bond approach instituted in Chile. Over time, as obligations under the old system would be phased-out, the 15 percent payroll tax was to be reduced as well. Starting January 1, 1999, however, payroll taxes earmarked for social programs (pensions, unemployment insurance, and health insurance) were amalgamated into a single 21-percent payroll tax allocated to local government. Nonetheless, when the PAYGO pension expenditures decline in the future, presumably the overall tax burden can still be reduced as well.

Pensions under the new system are based on contributions of 10 percent of earnings allocated to individual accounts and invested in financial instruments through pension accumulation funds. Competing accumulation funds, including one managed by the state, have been established. The pension reform legislation is underpinned by complementary safety-net legislation that provides social allowances for disability, old age, and the loss of a wage earner.

Investments. The allocation of investments by the pension funds, through asset managers, is tightly limited. Both the state and non-state funds must invest a minimum of 50 percent of their assets in Government securities. The State Accumulation Fund (SAF), by law, can invest up to 40 percent of assets in designated national (state-owned) bank deposits and up to 10 percent in the issues of international institutions such the World Bank. The non-state accumulation funds (NSAFs) have greater flexibility in their investments. In addition to investments in bank deposits,

² For a detailed description of Poland's reform, see Chlon, Gora, and Rutkowski (1999). For that of Hungary, see Palacios and Rocha (1998), and for Latvia, see Vanovksa (2000) and Fox and Palmer (1999).

they may place a maximum of up to 30 percent in Class A corporate securities. Class “A” securities are listed on the Kazakhstan Stock Exchange (KSE) and must have had at least one year of audited financial statements in accordance with international standards.

Public Information. Government realized the need to inform the public about this substantial change in the pension system and responded, in part, by a nationwide effort to put key reform officials before the public, in person and through the media, to provide information about the reform at the highest level. Continued concentrated public information efforts still are necessary to win public confidence and ensure that mandatory pension contributions are made. Government prepared a comprehensive plan for such a public information campaign, with a timetable for the implementation of the strategy.

That strategy was first supported by technical assistance from the Asian Development Bank (ADB), which provided some \$900,000 million to conduct surveys on the knowledge and attitudes of the population towards the pension reform. These findings directed further United States Agency for International Development (USAID) technical assistance through grant funding amounting to about \$800,000. USAID assistance included seminars for the press, trade unions, employer organizations, and government officials throughout the country. While posters (some 1,500) and leaflets (around 600,000 copies) were widely distributed, the most innovative approach was the incorporation of number of episodes dealing with pension reform on *Crossroads* (“Perekrestok”), an extremely popular television series. Technical assistance under World Bank funding is about to start, following up on these earlier efforts.³ Educational (and lobbying) has also been provided by the Association of Pension Funds (APF), an organization initiated with TACIS funding.⁴ The APF

³ The World Bank has funding for about US\$1 million for public information. A contract should be signed in the near future.

⁴ A second employer organization has also been started and time will tell whether both will continue to be in operation in the long run.

has distributed a leaflet called “Questions and Answers” informing the population about the new pension system.

Fiscal implications. The pension reform program has incurred significant short-term fiscal costs. But when the reform was developed in 1997, projected costs conformed to a sustainable fiscal policy. The incremental loss of revenues due to the pension reform in 1998 was estimated at 1.7 percent of GDP or US\$395 million. Government programmed an adjustment in the budget of 0.7 percent of GDP for 1998 to offset the transition cost of the reform. In other words, these reductions would finance about 40 percent of the transition deficit. Initially, any additional loss in revenue was to be made up almost entirely by pension fund investments in government bonds.

In 1998, however, payroll tax revenues were only around two-thirds of those collected in 1997. The shortfall was not a result of the reform itself, however. Through the reduction of the income tax, the tax base upon which the payroll tax was collected was smaller. Further, the responsibility for the collection of the 15-percent payroll tax had been shifted from the oblasts to the tax administration. As a result, the local authorities had little remaining incentive to encourage enterprises to pay. And, last but not least, in 1998 and 1999, tax revenues were severely hit by the domino effect of the Russian crisis and failing commodity prices. In the longer run, the centralization of tax collections, combined with improvements tax administration, and a stronger macroeconomic climate should increase revenues substantially.

A. The Need for an Ambitious Pension Reform

The pre-reform system. Government decided on an ambitious pension reform primarily as a result of serious arrears in pension payments in an environment that made a more moderate reform unlikely. The problems under the old system were manifold (Table 1). First, retirement ages, based on the former Soviet system, were extremely low, at 55 years for women and 60 years for men. While these ages were

supposed to be raised in 6-month increments under 1996 legislation, the increase was unusual as workers could still retire at earlier ages with a reduction in benefits, which would subsequently be topped-up to full value upon reaching normal retirement age. In effect, this meant that people continued to retire at the same age. The normal pension formula was extremely generous at 60 percent of the highest past wages averaged over 12 months for workers with full service (20 years for women and 25 years for men). Above that, the base was increased by one percent for each year of service above the minimum. In many occupations, more than one year was credited for each year of service

Table 1: Pre-Reform System, 1996

Retirement Ages	55 years for men, 60 years for men
Pension Formula	60% highest wage, 1% extra per year of service for service over 25 years for men and 20 years for women
Pensioners	2.8 million pensioners
Contributors	5 million contributors
Actual Replacement Rate	36 percent of average wage
Arrears	5 months of pension payments

Pensions were paid to 2.8 million persons in mid-1996. Of these, old-age pensions accounted for some 2.1 million. About 19 percent of old-age pensioners received pensions on favorable terms with supplementary years of credited service. Further, these pensioners received higher than average pensions, as outlays for them amounted to 23 percent of all old-age payments. While statutory replacement rates were very generous, actual average replacement rates were much lower than the formula would suggest because indexation trailed wage growth. In July 1996 average pensions were 36 percent of average wages. In fact, throughout the 1980s and 1990s, the pension replacement rate ranged from a low of 24 percent of the average wage in 1992 to a high of 42 percent in 1991.

Collection. In mid-1996, employers were making contributions on behalf of about 5 million workers. This meant that 1.8 workers were paying for each pensioner, an extremely low ratio compared to the population demographics. In other words, the system dependency ratio, that is the ratio of pensioners to contributors, was 0.56 in 1995 while the old age dependency ratio, that is the ratio of persons age 60 and over to the working age population (age 20-59 years) was 0.18. By comparison, in the United States, these ratios were 0.31 and 0.30 respectively. Kazakhstan, a country with favorable demographics for a pay-as-you-go pension scheme, had a high system dependency burden and correspondingly high payroll taxes due to ineffective collection procedures and early retirement ages. Essentially, the growth of the informal sector and the development of wage arrears led to a relatively small tax base relative to the actual labor share of income in the economy. In fact, estimates suggested that less than half of all potential contributions were actually collected. This, of course, is not just a problem in Kazakhstan but affects virtually all CIS countries, as tax collection shortfalls are much more severe in the CIS than in Central and Eastern Europe.

The system of collection and payment under the old pension system was inefficient and ineffective. The Ministry of Labor and Social Protection (MLSP) and the local departments of social protection were responsible for the collection of pension fund revenues and the delivery of benefits. Each 'raion'⁵ department of social protection had a pension fund department. That department was responsible for the auditing and enforcement of contribution collections. Monthly contributions were deposited into two accounts. Seventy percent of collections went to a raion account and the remaining 30 percent were supposed to be deposited into a central account for reallocation to the oblasts. The result of this arrangement was that funds remained at raion level until all local pensioners were paid. Further, relatively well off oblasts, such as Almaty, appeared not to actively enforce collection compliance once they had

⁵ The relevant administrative units in Kazakstan are raions, oblasts and the center. Raions consist of municipal and rural localities. Oblasts consist of the total of regional raions, and the center oversees the raions.

sufficient funds to pay their own pensioners. While collections under this system were aided by local self-interest, the inefficiencies in allocation called for administrative reform. Local authorities actually used pension fund revenues to pay for family allowances based on the premise that these funds would be reimbursed by local budgets. Since local funds were generally insufficient, these expenditures frequently were not repaid.

Arrears. Under the former PAYG system, considerable arrears in collection were accumulated on the part of contributing employers, with the duration of back-payments differing from oblast to oblast. Prior to reform, the accumulation of arrears -- both in terms of payments and contributions -- was growing. On January 1, 1996, contribution arrears from enterprises totaled 40 billion tenge, 26 billion tenge higher than one year earlier. Contribution arrears from local and republic government ministries and organizations amounted to another 2.3 billion tenge. By July 1, 1996, reported contribution arrears from enterprises were 49.6 billion tenge -- equivalent to five months of pension payments. Further, even if these arrears could have been made up, the pension fund only collected taxes from 5 million out of an estimated labor force of 7.8 million. Moreover, collections only amounted to 45-52 percent of potential revenues due to the underreporting of wages.

Contribution arrears and the general state of non-compliance led to a significant backlog in pension payments. Pension payment arrears were 26 billion tenge at the beginning of the 1996 and peaked at 32 billion tenge (2.5 percent of GDP) by the end of June 1996. As a result, Government transferred 36 billion tenge from the state budget to the pension fund in 1997 to cover payments, including arrears, covering the deficit for the rest of the year, and paying other administrative expenses. But the build-up of back pensions had begun to be a focal point for social unrest, which, ultimately, opened a window of opportunity for the enactment of the Kazakhstan pension reform.

With this as background, the President appointed a task force to develop a plan for pension reform during the first half of 1997 to finally overhaul the system in a fundamental way, as partial measures had not led to any reductions in cost. As a result, the reform concept was outlined early in 1997, and legislation was drafted by a committee of experts, during an April retreat outside the capital city of Almaty.⁶ According to one of the intellectual leaders of the reform, “the pension reform is an integral part of the triangular economic development strategy encompassing privatization, capital markets development and the pension reform.”⁷ Thus, the success of the reform should, in part, be measured by this objective.

B. The Transitional Costs of the Reform

Initial estimates. The fiscal framework for 1998 budget was designed to accommodate an increased deficit of 1.7 percent of GDP resulting from the pension reform for a total deficit of 5.5 percent (Table 2).⁸ The underlying adjustment in recurrent revenues and expenditure items equaled a decline of 0.7 percent of GDP. Projections of the cost of transition based on Government’s actuarial model indicated that the implicit government debt would amount to 110 percent of 1997 GDP.

The actuarial projection model showed that in the absence of reform, the existing system costs would have increased slightly in 1998, from 3.9 to 4.0 percent of GDP, mainly as a result of additional pensioners. With reform, the cost of the new system was estimated to be 5.7 percent of GDP. The transitional cost of reform was due to the reduction in the payroll tax rate from 25.5 percent to 15 percent in 1998, which was estimated to reduce gross inflows to the PAYG system by 30 billion tenge.

⁶ The capital was moved from Almaty to Astana (formerly Akmola) in 1998.

⁷ Marchenko, (1998)

⁸ If funding from privatization is omitted then the overall fiscal deficit for 1998 was an estimated 7.8 percent of GDP.

Table 2: The Transition Costs of Pension Reform

State Budget plus Pension Fund (1997 tenge)	1997		1998	
	Former System	No Change in Policies	1998 New System	Loss of Revenue
Retirement Pensions	89.4	92.4	91.4	-1
Social pensions / allowances	19.8	21	21	0
Military pensions	5.1	5.2	5.2	0
Gov't contrib. to accumulation funds	0	0	10.9	10.9
Total Outlays	114.3	118.6	128.5	9.9
Net payroll taxes	48.4	48.7	28.2	-20.5
Gross inflows to SPPC	70.2	70.5	41	-29.5
less, gov't contrib. - own employees	21.8	21.8	12.8	-9
Net Cost to Government	65.9	69.9	100.3	30.4
Percent of GDP	3.90%	4.00%	5.70%	1.70%

Source: World Bank calculations.

Further analysis by the World Bank suggested that Government could borrow the full amount to finance the increase in the fiscal deficit from the domestic market without causing undue pressure on aggregate demand as losses in public revenue would be compensated by an increase in non-public sector savings. In addition, the revenues from privatization were also intended to buffer the costs of the reform from the impact of the increased deficit resulting from the reduction in the 10-percent payroll tax.

In terms of direct Government compensation costs, the reduction in the payroll tax rate for civil servants (as for all other employers) was offset by the 10-percent cash contribution on behalf of employees to the accumulation funds. Subsequent regulation required the 10-percent contribution to be directly deducted from wages. While, no firm statistical data are available, anecdotal evidence suggests that private-sector employers did not increase wages in 1999 to offset this employee expense, but, during a period of inflation, shifted these costs from employer to employee through lower wages.

Although the loss of revenues due to the pension reform was estimated at 1.7 percent of GDP in 1998, it was projected to rise to 2.4 percent of GDP by 2008. A steady rise in the transition cost resulted from anticipated reductions in the payroll tax rate by one percent per annum, from 15 percent in 1998 to 5 percent in 2008. In subsequent years, the forecasts showed that the incremental cost of the reform would be gradually eliminated. By 2026, the total (not incremental) cost of residual PAYGO pension system was projected to be 2 percent of GDP, considerably less than pension payments would have been under the old PAYGO system.

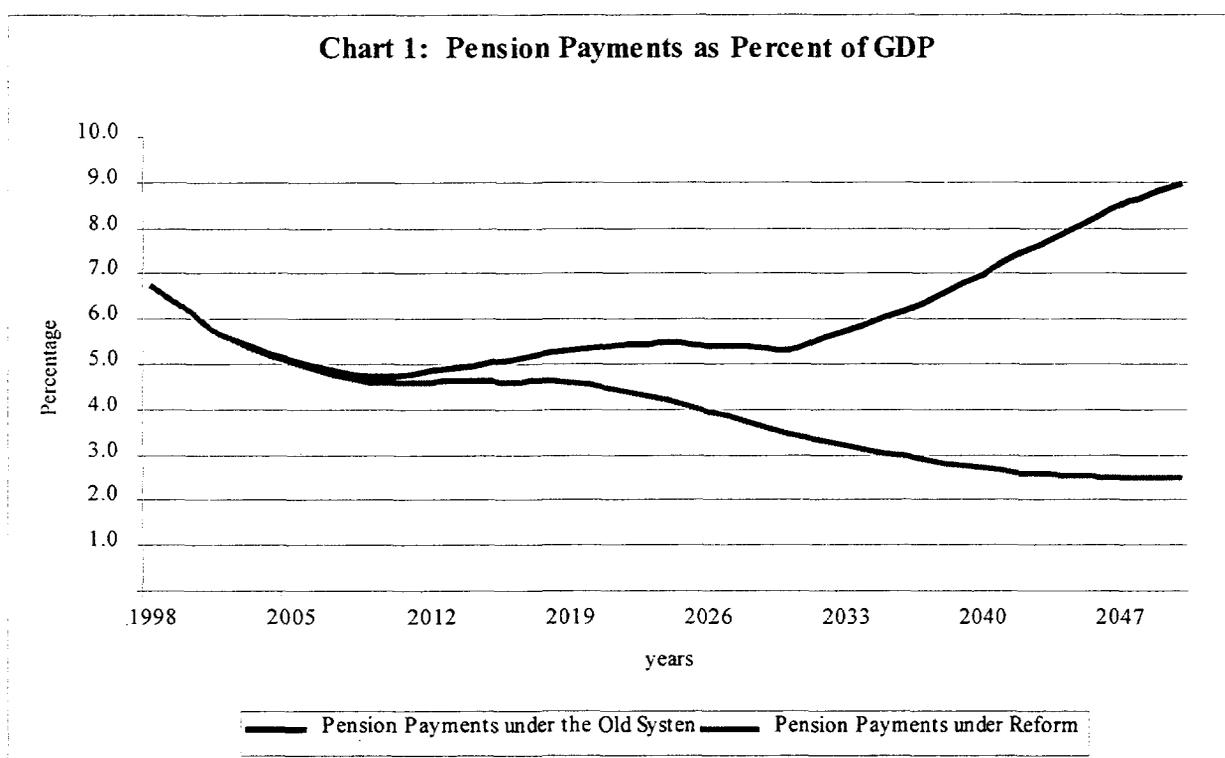
With the institution of general-revenue financing for the residual PAYGO pension system in 1999, the analysis of the incremental costs of reform appeared more complicated, as payroll taxes were no longer connected to the pension reform. The post-reform loss in revenue to the tax system, however, remains at 10 percent of payroll – that is, the amount of the reduction in payroll-tax rates resulting from the reform. Thus, it is possible to the difference between the costs of the unreformed pension system and the costs of the residual PAYGO system less 10 percent of payroll. This difference is the cost of the reform – that is, the loss in tax revenues to the consolidated budget

Updated estimates. In 2000, Government again estimated the annual costs of the PAYGO system as part of its fiscal planning process.¹¹ These projections demonstrate that total expenditures for the PAYGO system will be considerably less as a result of the pension reform (Chart 1). But with life expectancy at retirement reaching 12 years for men and 20 years for women, it is not surprising that current pension costs are not

¹⁰ It is also important to remember that at the time of the reform, the 25.5 percent payroll tax did not cover the costs of the old system.

¹¹ The costs of the pension reform are now assessed based on the World Bank's PROST model (adapted for Kazakhstan) using official economic assumptions to make actuarial projections of the PAYGO system. Earlier estimates were based on a model created for USAID to assist the Kazakhstan authorities in their development of the pension reform.

significantly reduced until 2012, when the cost of the reformed system is below the pre-reform projection by 5 percent of GDP. Further, the reform did not alter the benefit formula for pensioners entitled to old-system benefits, although retirement ages were raised and special early retirement provisions were suspended. After 2012, the costs of the residual PAYGO system decline dramatically as a percent of GDP compared to the former PAYGO system. In fact, the present discounted value of pension payments is reduced by 43 percent after the reform over the period 2000-2050 compared to stream of expenditures under the unreformed PAYGO case.



Source: Projections for Annual Report of Ministry of Finance, PROUST model.

Nonetheless, the new projections also show that transitions costs are greater than initially forecast, probably as a result of reduced tax collections following the Russian crisis, and subsequent employment shifts from the formal to the informal

economy.¹² Consequently, while initial projections indicated a first-year deficit of 1.7 percent of GDP, the actual deficit came in at 2.2 percent of GDP.¹³

Updated forecasts indicate that the transition deficit falls slowly until 2036. The discounted value of the incremental cost (and savings in later years) is less than 0.2 percent of the discounted value of GDP from 2000 to 2050. In other words, on the whole, the reform is essentially cost-neutral, as the reduction in tax rates is close to the reduction in pension expenditures over time. Under the old system, pension costs would have started to rise in 2011 after falling for 10 years, and would have reached their 2000 rate in terms of GDP by 2039, rising thereafter. Thus, the pension reform creates a system that is sustainable for later in the century as these increases are avoided.

The Kazakhstan pension reform is costly relative to those of other countries since the PAYGO formula was not cut back (although retirement ages were standardized and lengthened). Although it is unlikely that an identical pension reform could have been, or would have been, enacted under the deteriorating economic conditions of 1999, these were not the circumstance in 1997. At that time, the economy looked strong and world conditions favorable. Hindsight notwithstanding, with prudent fiscal and monetary policies and market-oriented structural changes, the

¹² These increases in the costs of reform may also result from improvements in the model and the modeling assumptions. In implementing the PROST model, Government consultants updated labor force and demographic assumptions. Unfortunately, funding was not available to compare the output of the two models under identical assumptions. Consequently, the independent impacts of different economic conditions, different databases, and different modeling techniques cannot be determined. The economic and demographic assumptions used in the Kazakhstan PROST model are presented in Appendix I.

¹³ This is defined as the relative shortfall in *total* tax revenues after pension reform (due to the 10-percentage point reduction in the payroll tax).. Over time, the need for this lost revenue is reduced as PAYGO pension expenditures decline under the reform relative to what they would have been otherwise. Because post-reform PAYGO pensions are now financed from general revenues, and not from payroll taxes, usual direct comparisons of pre- and post-reform payroll tax revenues can no longer be used to determine the transition cost.

transitional costs of the pension reform are still affordable and potential future benefits from financial market development positive.

C. Benefit Structure

The pension reform was intended to send a strong signal to the population that times had changed and individual responsibility had to replace the State as the provider of first resort. Such a change in mentality is important if the transition to a market economy is to succeed. Initial estimates by Government, based on very optimistic economic assumptions, projected that a 10-percent contribution could provide a replacement rate of around 60 percent of prior earnings for career workers.

1. Normal Pensions

Whether replacement rates can meet the 60 percent target depends upon the rate of return to the contributors' pension accounts and the length of the contributory period. A simulation model using different assumptions than those of Government indicates that individual replacement rates are likely to be less than the target 60 percent rate.

Pension simulations. Table 3 presents estimates of total pensions (PAYGO plus funded) for several age-cohort and work-history groups based on average wages. In the simulation, individuals contribute 10 percent of their wage from the start of the reform until retirement and receive a price-indexed pension from retirement until death. They also receive a pension from the PAYGO system that is based on their work histories prior to 1998 relative to full eligibility (25 years for men and 20 years for women).¹⁴ Projected pensions are based on that fraction times average earnings over three years. For the funded system, administrative costs are assumed to take up 10 percent of

¹⁴ The pension upon which the pro-rating proportion is applied is equal to 60 percent of average monthly earnings over any three successive years of work from January 1, 1995.

contributions, savings earn a 3.5 percent rate of return, real wages grow at 2 percent, with zero inflation. Individuals start work at age 20 and retire at the official retirement age.

Two conclusions emerge from these simulations. First, initial pensions will typically replace less than 60 percent of earnings. If workers want to have a higher replacement rate, they will have to save more voluntarily. Second, those with short contribution histories (who are likely to include women) may not be able to accumulate enough in their pension accounts to support themselves adequately in their old age. The reform could put these groups at risk.

**Table 3: Initial Total Replacement Rate (%)
As a Function of Work History and Starting Age**

Work history	Age at start of reform		
	25 years	35 years	45 years
40 years	30	34	44
35 years	27	31	36
30 years	24	28	33
20 years	18	22	30

Source: World Bank calculations.

While current rates of return to pensions are far higher than initial Government assumptions, and much higher than the return assumed in the simulation model, these high rates are not likely to last in perpetuity.¹⁵ And, once the stock market develops, funds can expect greater fluctuations in returns. Emerging markets are generally subject to greater fluctuations in than developed market economies are. Consequently, false expectations should not be raised about the level of pensions the reformed system can support. Contribution levels may need to be raised and other changes made to approach a 60 percent target

¹⁵ While there are important issues outstanding with regard to the correct valuation of pension fund assets, the preponderance of investments in the non-state funds have been in Eurobonds, which have had a international market rate of return well in excess of 10 percent.

Benefit design and annuity provisions. The creation of a strong insurance industry is also necessary to support the funded pension system. The National Bank of Kazakhstan (NBK) has made the development of an insurance industry a top priority. In particular, a new insurance law has been completed and is to be submitted to Parliament by the end of June 2000. Although not perfect, it provides a generally sound framework based on international standards. As the system matures, commercial insurers would provide pension payments for the funded system (under options such as fixed-term payments, single life annuities, joint and survivor annuities). Until the industry is established, however, lump-sum distributions will be the major source of financing.

In the interim, the MLSP has also started to develop plans to provide pensions directly through the government payment system. In Latvia, pensions from the notional defined contribution system and the future funded system will be paid in this manner. But, at the moment, neither Latvia nor Kazakhstan has developed a pay-out mechanism that is based on sound annuity principles, and, as such, pensioners are likely to receive amounts that either exceed or are less than a fair actuarial value.

2. Minimum Pensions.

Pensioners with full years of service (equal to 25 years for men and 20 years for women) are eligible to receive a minimum pension if their combined pensions fall below a minimum amount. This minimum was set at 2,400 tenge per month under the 1998 budget law, a level roughly equivalent to 70 percent of the 1997 subsistence minimum described in the World Bank's poverty assessment.¹⁶ Allowing for the fact that pensioners may have other sources of income, including self-production of food and assistance of relatives, a target of 70 percent of the official minimum living standard appeared reasonable. If these benefits were indexed for inflation, pensioners with a substantial contribution history would not be at risk of severe poverty.

¹⁶ World Bank (1998a).

Government has issued a resolution that pensions will be no lower in real terms than the original 2,400-tenge level. By Presidential decree, minimum pensions, have actually increased more than inflation, understandably in response to concerns that pensioners had inadequate replacement rates compared to their past earnings. Further, rising energy prices can often take virtually all of a pensioner's income. In 2000, the minimum pension was 3,500 tenge (US\$24.52), or 28 percent of the average wage. As a general rule, the minimum pension is to be determined annually as part of the budget process, on an ad hoc basis within the guidelines set by the government resolution. The Pension Law simply states that a minimum will be provided.

While the minimum pension does not create a current fiscal drain, in future years, Government may find that the costs of the minimum pension rise considerably. In particular, the contribution rate for funded pensions is quite low and is likely to continue to be low unless informal-sector employment declines. If workers have the opportunity to switch between formal and informal sector employment, future retirees with sufficient work years to qualify under the funded system could increase the number of persons qualified for the minimum pension considerably. If there is little or no substitution between formal and informal sector employment, the number of aged poor is also likely to grow placing pressure on social assistance instead.

3. Disability and Survivors' Benefits.

As a result of pension reform, disability and survivors' benefits are no longer provided as social insurance and are instead flat-rate allowances unrelated to years of service or salary.¹⁷ The allowances are funded directly through the budget and are no longer a part of the pension system. Normal monthly disability benefits range from 3

¹⁷ While unrelated to service or earnings, benefits for disability are not uniform. First, there are three disability groups ranging from partially disabled to fully disabled and requiring care. Second, there are five disability categories including general disability, disabled active duty war veterans including nuclear liquidators, veterans with post-service disabilities, war veterans (not active duty), and ecological and nuclear victims. The general principles for these benefits are in the Pension Law. The benefits themselves are described in the Law on State Social Benefits. The highest benefits, for active military and police, reach 10,875 tenge (US\$76.20).

base-enumerates (2,175 tenge) to 6 base-enumerates (4,350 tenge).¹⁸ Indexation depends on changes in the base enumerate, which is updated annually within the Budget Law according to projected increases in the CPI.¹⁹ Workers eligible for invalidity benefits, whose disabling conditions preclude any possibility of work, face a sharp reduction in their income if they earn above the average wage.²⁰ Similarly, low-wage earners in high disability categories could receive higher income from disability allowances than they did prior to disablement.

These allowances are intended to be an interim measure, however. In the long run, disability and survivor's benefits are to be provided as annuities through private disability and life insurance. Currently, government is working on a draft concept paper for the new disability and survivors insurance system. This change must be predicated on the emergence of a well-regulated insurance industry, which is also in process

II. THE INSTITUTIONAL STRUCTURE OF PENSION REFORM

The new system has challenged the administrative capacity and imagination of the Kazakhstan government to create a sustainable pension industry and requisite regulatory organs. Several new institutions play a key role in the functioning of the system. These include NSAFs (private pension funds), asset management companies (AMCs), custodian banks, and the state accumulation fund (SAF). In addition, new regulatory responsibilities have led to a three-tier regulatory structure (see below) to ensure that the funds and AMCs provide a transparent investment process based on business practices that are not tainted with corruption, Mafia control, or otherwise

¹⁸ The base enumerate was developed as a standard measure upon which to base benefit payments replacing the use of the average wage prior to the development of a poverty line. The base enumerate is currently 725 tenge. In US dollar terms these benefits range from or US\$15.24 to US\$30.48.

¹⁹ Inflation forecast for 2001 for the year on average is 6.9% (year-end is 5.5%), so base numerator for 2001 (according to the draft 2001 Budget Law) is 775.

²⁰ For example, workers earning the average wage of 12,686 tenge monthly would receive only 2,900 tenge for a totally disabling condition, that is, 23 percent of their pre-disablement earnings.

questionable activities. As a result of the pension reform, the regulation of financial institutions has been strengthened, reducing the scope for fraud and abuse. The NBK is one of the most credible institutions in Kazakhstan and many of the pension regulators have benefited from initial experience at the NBK.

Since 1998, a new sector has blossomed with the establishment of NSAFs and AMCs. As of October 1, 2000, total pension assets had grown to 97.2 billion tenge (or US\$681.9 million) in less than 3 years. Within the pension system, 59 percent of all assets are in NSAF accounts. The NSAF share has gradually expanded as the private-sector funds have developed over time and individual contributors, and their employers, have shown preference for the private sector encouraged, perhaps, by statements by the President in favor of NSAF investments.

In terms of structure, each NSAF must hire one AMC while each asset management company can manage assets for multiple funds. While the NSAF may direct the overall allocation of assets, the fund's AMC is in charge of making day-to-day transaction decisions. Each fund keeps the accumulated assets of fund contributors exclusively with one authorized bank custodian that accounts for and reports on all investment transactions, portfolio allocation and investment returns. The custodian bank often acts as the broker for the transactions. The basic three-tier structure was instituted to provide for a clear separation of accounts and responsibilities so that a system of checks and balances could thwart any fraud and abuse.

A. The Pension Funds

Each employee and self-employed worker can become a member of either the SAF or a NSAF. The SAF was offered as an alternative to private-sector funds. In Kazakhstan, there has been mistrust of both state and private-sector financial institutions, after problems arose with initial privatization funds and, particularly, pyramid schemes in which individual investors lost their money and shares were purchased under duress or through fraud at undervalued prices for the benefit of a few.

Further, examples of investment fund collapses, such as the 3M fund in Russia, are well known in Kazakhstan. Thus, the SAF was started so employees wary of NSAFs could select a fund in which they had greater trust. Based on the original concept of the Kazakhstan pension reform, the SAF was to become a residual fund, possibly focused on the older generation of contributors, with the vast majority of workers selecting private funds because of their greater latitude for portfolio diversification, and, presumably, higher rates of return.

1. Non-State Accumulation Funds

NSAFs are established as private, closed-end, joint-stock companies and can be managed as funds open to all contributors or as closed corporate funds only available to company employees. To date, only one fund, Kazakhmys, is a close fund. A minimum charter capital of 55 million tenge (US\$385,735) was originally required for open funds and 10 million tenge (US\$70,134) for closed funds. In 1999, minimum capital requirements were increased to 90 million tenge (US\$631,202) for open funds and 20 million tenge (US\$140,267) for corporate funds.²¹ While NSAF charter capital is legally separate from contributor accounts, it is not intended to serve as a repository to make up for poor investment performance. This is left to the AMCs. Nonetheless, the authorized use of the charter capital needs to be revisited with a more precise definition distinguishing charter capital from operating capital and reserves. Further, conditions related to employer liability for fund losses should be reconsidered if corporate funds are to be encouraged. Currently, employer liability is unlimited for fund losses and this lack of separation limits employer interest in establishing corporate funds.

The primary functions of the NSAFs include the collection of contributions and administration of contributor accounts. These responsibilities encompass

²¹ The dollar value figures are provided at a current exchange rate of approximately 143 tenge per dollar. Of course, when these limits were set, the exchange rate was approximately 70 tenge per dollar.

transferring contributions to AMCs, distributing investment income across contributor accounts, and calculating and paying pensions. In addition, the NSAF provides contributors information about the total value of their accounts, unit values, and the rate of return to investments. Further, NSAFs are responsible for setting general investment guidelines for affiliated AMCs.

Legal entities and/or individuals of the Republic of Kazakhstan can be founders and shareholders of corporate pension funds and open pension funds. Thus, pension funds can be started by local organizations or by international firms with registration in Kazakhstan, although currently only ABN-AMRO is in the pension market. Citizens passing a qualification test can be fund managers. Pension funds have the right to receive commissions and, for reasons of transparency, are obliged to contract with one and only one AMC. The contract defines the distribution of commissions between the NSAF and the AMC for the management of fund assets, the method of transferring funds for benefit payments, and includes the rules of the contract on trust property management.

Fourteen non-state accumulation funds were licensed as of October 2000 (Table 4). This represented an increase of three compared to 1999. As of October 1, 2000, the Narodny Bank Pension Fund controlled the largest portion of NSAF assets at 32 percent. But this was a decrease from its position in 1998, when the Narodny Bank Pension Fund controlled half of all private fund assets. Both Ular and Umit held 13 percent of all private pension assets. The eight largest funds accounted for 88 percent of all private fund assets, a reduction in concentration compared to 1998 when 6 of the 11 (at that time) private funds accounting for 94 percent of total private fund assets. This shift may indicate greater competition.

Table 4: Non-State Accumulation Funds

Pension Fund	Contributors	Net pension assets
1 Narodny Pension Fund	96,697	1,452,996.685
2 CaspiMunaiGas Pension Fund	41,533	1,639,669.687
3 Nefte-Gas-Dem Pension Fund	53,582	1,909,010.097
4 ABN AMRO Pension Fund	25,266	3,442,657.616
5 Ular Pension Fund	238,474	7,586,884.832
6 Kazakhmys Pension Fund	73,327	3,802,816.513
7 Narodny Bank Pension Fund	563,089	18,215,151.073
8 Umit Pension Fund	271,737	7,426,625.650
9 Kazakhstan Pension Fund	46,010	2,222,825.276
10 Kurmet Pension Fund	90,257	2,266,485.145
11 Valyut Tranzit Pension Fund	80,273	1,266,849.225
12 Kunaev's Pension Fund	24,744	334,321.706
13 Senim Pension Fund	89,353	4,521,364.539
14 Korgau Pension Fund	20,471	378,654.425
SUBTOTAL Private Sector	1,714,813	56,466,312.469

Source: National Securities Commission/Committee for the Regulation of Pension Funds.

The current structure of private funds is not that different from other countries. For example, in Argentina, Chile and Mexico, the top five pension funds hold about three-quarters of all assets. Similarly, in Colombia, Peru and Hungary, the largest three cover 60-75 percent of total members. In Hungary, the top five hold 71 percent of all assets.²² But none of these countries has an equivalent to the SAF. Currently, the SAF holds 42 percent of all pension assets, increasing concentration substantially towards state-owned sources. In other countries, the issue has been whether the concentration is a result of market forces or regulation. Only, when the SAF share represents consumer choice, may this question be asked of Kazakhstan as well.

A number of observers have suggested that ultimately only five or six non-state funds will remain in operation. This is likely, given that significant economies of scale that are observed in pension plan operations, and may have started to transpire.²³ In September 2000, the Trade Unions Federation Pension Fund merged with the Umit

²² See Srinivas, Whitehouse, and Yermo (2000).

Pension Fund. As of August 2000, the CaspiMunaiGas Pension Fund has been undergoing reorganization, prior to its merger with the ABN-AMRO Pension Fund. The merger is expected to be official by the end of 2000. This will bring the membership of the ABN-AMRO fund to almost 67,000 contributors.

One of the factors that may ultimately narrow the market is the fee structure of the pension system, which allows a relatively narrow margin for profit. In fact, for the first few years pension funds expect to face losses until their contributor and asset bases build up. It is likely that these recent mergers resulted from the increase in own-capital requirements that were to become effective on August 1, 2000.

Fee Structure. The fee structure for the pension funds is fixed at no more than one percent of contributions and no more than ten percent of investment income. The architects of the system hoped to avoid some of the excessive costs generated in other privatized systems resulting from churning of accounts due to aggressive marketing. Such churning has characterized the funded system in Chile at the expense of the return to affiliates. For this reason, the drafters of the Kazakhstan legislation decided to institute a maximum fee structure. These fees may be divided between the NSAFs and the AMC. The AMC share is set at a maximum of 0.15 percent of contributions and five percent of investment income. Restricting charges is a relatively unusual approach. Whitehouse (2000) indicates that only four countries, Kazakhstan, Poland, Sweden, and the United Kingdom have restricted the level of fees. The risk with this strategy is that if fees are too low, providers will not be able to recover costs, even after start-up costs have been amortized.

Considerable discussion has taken place with regards to the adequacy of the fee structure in terms of fund profitability. Pension fund representatives have indicated that 100,000 to 150,000 contributors are needed to break even. The total number of

²³ Already, the Zhardem pension fund was reorganized and merged with the Kunaev Pension Fund. When Zhardem's temporary license has expired, the Committee issued no new license to it.

contributors in the private funds was 1.7 million as of October 1, 2000, a considerable increase over the 600,000 private fund contributors at the end of 1998. At that time only the Narodny Bank Pension Fund had reached the 100,000-contributor mark. Currently, Ular and Umit each have over 200,000 contributors as well. And four other funds have over 80,000 contributors. As the share of the SAF falls, more funds should reach the 100,000-contributors mark.

Ownership. Initially, the ownership of the fund assets was unclear. As there is no trust law in Kazakhstan, personal pension accounts were not clearly the property of the contributor. This issue was subsequently clarified in amendments to the Pension Law. The law now states that pension assets are property rights and may not be used for debts of the contributor, the pension fund, the AMC, or the custodian bank in case of liquidation or bankruptcy. Assets in individual accounts may only be invested in financial instruments (according to regulation), transferred between funds, and returned to contributions (as pensions or to correct transfer errors). These changes ought to significantly improve the security of pension accounts for current contributors.

2. *Asset Management Companies*

AMCs are legal entities created as closed-end joint stock companies. The minimum charter capital is 80 million tenge (US\$561,089). Any citizen can be a manager of a company upon certification. The AMC has the right to sign contracts with one or more NSAFs. The company's equity must, however, increase in proportion to the assets under management. As of July 1, 2000, the authorized capital stock of AMCs was raised from a nominal 80,000 tenge to 150,000 tenge (US\$561 to US\$1,052). Seven private AMCs were licensed by October 1, 2000, an increase of three over 1998 (Table 5). According to the National Securities Commission (NSC), no change in the number of licensed AMCs is expected. One of the original AMCs had its license suspended by the NSC following an inspection. The assets of that AMC were transferred to other asset managers..

At this point, there are close ties between a number of NSAFs and AMCs through interlocking founders. While this is not *a priori* a cause for concern, initially the NSAFs and the AMCs were intended to be independent of one another. Prior to the passage of the Pension Reform Law, the question was raised whether there should be separate NSAFs and AMCs or whether the AMC function should be combined with the pension fund as is generally done in Latin America. This continues to be a topic for discussion.

Pension fund contributors are guaranteed a rate of return that must be not less than the lesser of two indexes. These indexes are (i) 50 percent of the average real returns of all asset management companies or (ii) the index of average real returns of all asset management companies less two percent. These prudential norms are specified by regulation and approved by governmental decree. The procedure for calculating the index of average real returns is provided in the decree. The NSC publishes the index for the previous month not later than the 15th of the following month. If returns for any AMC are less than the minimum, deficiencies are to be covered from (1) additional reserve capital; (2) principal reserve capital, or, as a last resort (3) AMC equity. To date, there has been no AMC that has fallen below these guidelines.

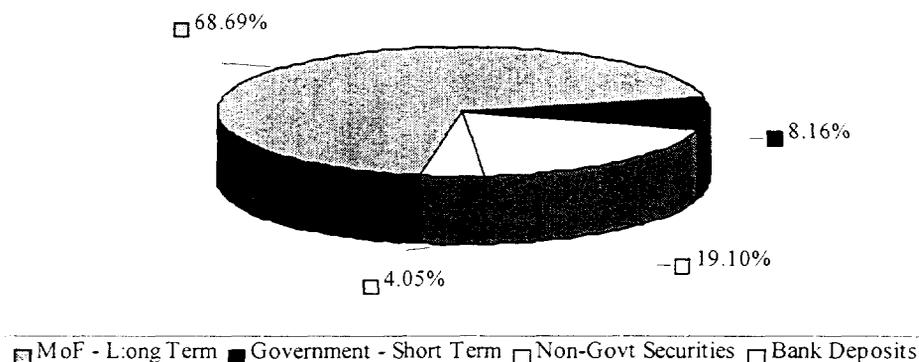
Table 5: Asset Management Companies

Asset Management Company	Pension Fund Assets Under Management	Charter Capital of AMC	Own Capital of AMC	Net pension assets *
1 ABN AMRO ASSET MANAGEMENT	Narodny Pension Fund CaspimunaiGas Pension Fund Nefte-Gas-Dem Pension Fund ABN AMRO Pension Fund	80,000.000	200,875.177	8,444,334.085
2 ZHETYSU	Ular Pension Fund Kazakhmys Pension Fund	152,000.000	245,910.670	11,389,701.345
3 NARODNY BANK	Narodny Bank Pension Fund	180,100.000	250,121.671	18,215,151.073
4 AK NIET	Umit Pension Fund	150,000.000	149,389.358	7,426,625.650
5 BTA ASSET MANAGEMENT	Kazakhstan Pension Fund Kurmet Pension Fund	80,000.000	253,299.322	4,489,310.421
6 AKTIV-INVEST	Valyut Tranzit Pension Fund Kunaev's Pension Fund	110,000.000	123,706.600	1,601,170.931
7 BESTINVEST	Senim Pension Fund Korgau Pension Fund	80,000.000	101,152.040	4,900,018.964

Source: National Securities Commission

The non-state AMCs acted quickly to diversify their portfolios and by the end of 1998, had started purchasing Kazakhstan Eurobond issues. Investments in Eurobonds have continued, making it the most widely held investment for all the non-state pension funds, accounting for all but 1 percent of long-term Ministry of Finance issues (Chart 2). The most recent 7-year Eurobond issue offered a coupon rate of 11.125 percent, which appears to be competitive. While this latter was a special issue, in early July 2000, the KSE plans to offer Eurobonds for sale for the domestic market. The expansion of investment options is one of the greatest challenges for future of the reform (see Section IV.A.2). Currently, all but eight percent of pension fund assets are in some type of government paper.

**Chart 2: Kazakhstan: Distribution of NSAF Assets,
October 1, 2000**



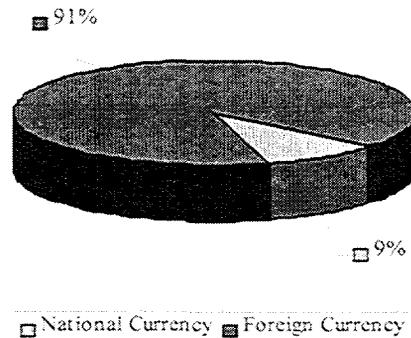
Source: National Securities Commission

The AMC's initially have provided (estimated) high rates of return from their investments as National Bank notes and T-Bills were offering interest rates of 23-25 percent towards the end of 1998. Pension system real rates of return were an estimated 13 percent in 1998 and 45 percent in 1999, the year of the devaluation.²⁴ Monthly real returns for the first half of 2000 have been lower, however, averaging between 5-10 percent.²⁵ One reason for the success of the pension fund investments is that they have been primarily in foreign currency denominated investments (Chart 3). In the long run, such an investment strategy does not do much for the development of the local economy nor is the best way to diversify internationally.

²⁴ These figures are based on calculations made by the USAID Pension Project based on real investment returns. See below.

²⁵ These figures are based on figures calculated for Kazakhstan Economy Trends based on NBK figures.

Chart 3: Kazakhstan: Distribution of NSAF Assets by National and Foreign Currency Denomination, October 1, 2000



Source: Kazakhstan National Securities Commission

While rates of return surely have been high, the calculation methodology still is in transition. The calculation of the unit values of contributor shares was set by regulation, but a number other key issues related to of the measurement process funds have not been settled. Unit values are supposed to be calculated daily for each pension fund. Individual accounts are valued on the basis of the unit value calculations by multiplying the initial contribution by the unit value calculated for the fund. But the current calculation method for unit values has been criticized as exerting a downward bias on the returns of quickly expanding pension funds with contributor transfers from the SAF. In addition, fixed-interest instruments have been valued at cost rather than at market or a reference market rate (based on the valuation of infrequently traded securities on ones with similar term conditions, systems of indexation, nominal coupon interest rates, and other warranties of a similar nature). Consequently, figures for the portfolio distribution of specific funds and their rates of return must be regarded with skepticism until these issues are resolved. Hopefully, this will happen by the end of 2000.

3. *Custodian Banks*

Custodian banks ought to be the lynchpins of the reformed pension system ensuring that neither the NASFs nor the AMCs can make felonious use of the assets in the accounts of plan contributors. The NBK had 10 custodian banks licensed (not including the NBK for the SAF) as of October 2000; but only five banks were actually acting as custodians (Table 6). One custodian, the Caspian Bank, was dropped after the merger of the Trade Union Pension Fund with Umit. Others banks with licenses have not yet been called upon by the NSAFs to be custodians.²⁶

Table 6: Custodian Banks, October 1, 2000

Custodian Bank	Pension Fund	Net pension assets *
1 Narodny Bank	Narodny Pension Fund	1,452,996.685
	CaspiMunaiGas Pension Fund	1,639,669.687
	Nefte-Gas-Dem Pension Fund	1,909,010.097
	ABN AMRO Pension Fund	3,442,657.616
	Ular Pension Fund	7,586,884.832
	Kazakhmys Pension Fund	3,802,816.513
	Umit Pension Fund	7,426,625.650
		<i>27,260,661.080</i>
2 Almaty Merchant Bank	Narodny Bank Pension Fund	18,215,151.073
	Kunaev's Pension Fund	334,321.706
	Korgau Pension Fund	378,654.425
		<i>18,928,127.204</i>
3 Kazcommercbank	Kazakhstan Pension Fund	2,222,825.276
4 Temirbank	Kurmet Pension Fund	2,266,485.145
	Valyut Tranzit Pension Fund	1,266,849.225
		<i>3,533,334.370</i>
5 Eurasian Bank	Senim Pension Fund	4,521,364.539

Source: National Securities Commission

The Narodny Bank has the lions share of private fund assets, just over 48 percent. Almaty Merchant Bank currently holds another third. Thus, the two largest custodian banks hold 82 percent of all assets. Each Bank is considered to be financially

²⁶ The inactive custodian banks are ABN-Amro, Bank Credit Senter, and HSBC Bank of Kazakhstan, in addition to the Caspian Bank.

stable. Nonetheless interlocking financial interests between the NSAFs, the AMCs and the custodian banks have raised questions about the potential for abuse.

If the custodian bank also is closely linked to the other two entities, the potential for conflict of interest multiplies with the possibility of party-in-interest investments and non-competitive practices that would benefit the founders and not maximize returns for the plan contributors. Given the rudimentary development of the private-capital market, however, party-in-interest investments were initially lesser concern. Initial asset holdings were not sufficient to provide substantial deposits to banks that could subsequently be used to provide credit to founders' enterprises. Nonetheless, such connections have now become more critical as pension assets represent a substantial proportion of national savings.²⁷ Consequently, the custodian bank must be trusted to review stock and bond purchases made on behalf of the fund by the AMC with due diligence. Improvements in corporate governance to mitigate these risks will be of great importance.

4. The State Accumulation Pension Fund.

The Government of Kazakhstan is the founder of the SAF, which is established as a closed-end joint stock company. The Ministry of Finance provided the SAF initial capital equal to 10 million tenge. The SAF has a board of directors that consists exclusively of representatives from government ministries and from the NBK.²⁸ The safety of worker contributions is guaranteed directly by Government. The head of the SAF responsible for day-to-day management is appointed directly by the Minister of Labor. Contributors are free to select the SAF as their pension fund of choice. Contributions also flow to the SAF from contributors who have not designated a

²⁷ In only three years, pension assets have grown to equal one-third of the value of banking deposits of residents of Kazakhstan.

²⁸ These are the Minister of Labor and Social Protection, a vice-minister of the MLSP, a vice-minister of the Ministry of Finance, a vice-minister of the Ministry of Revenues, and a deputy governor of the NBK. The respective Ministers (Governor) decides who will be the representative at the vice ministerial level.

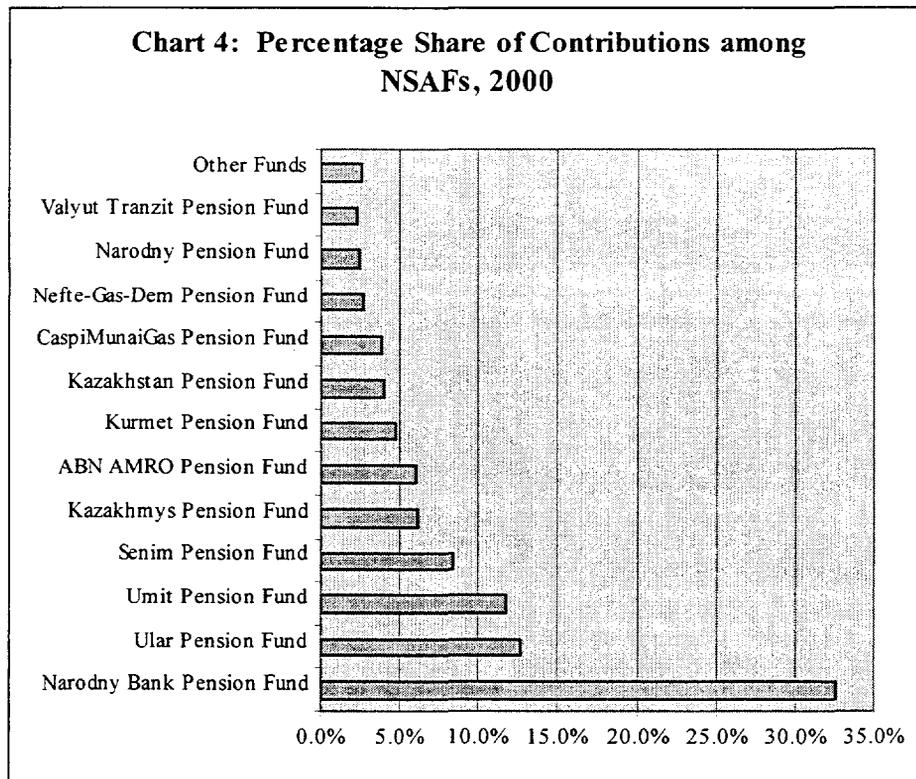
particular NSAF. The MOLSP and the MOF are jointly responsible for approving the supervising committee. The NBK originally provided asset management services for the SAF. The NBK continues to serve as the custodian bank.

The percentage share of SAF holdings has decreased since inception. As of January 1, 1999, the NSC reported total assets in pension accumulation funds amounting to 23.6 billion tenge. At that time, just over 76 percent of total assets were invested in the SAF. The shift toward the NSAFs continued so that by October 2000, the SAF held only 42 percent of assets, a decline of 10 percentage points since May 2000. It is anticipated that the SAF will be privatized, although the manner in which this will take place has not yet been determined. It appears likely, however, that the state will keep a significant stake in the ownership as an initial measure.

Shifts in contributions. The stream of contributions has shifted substantially from the SAF to the NSAF, suggesting that the allocation of assets between the SAF and private AMCs will begin to favor the NSAFs. In 1999, the share of contributions directed towards the SAF decreased from 60.5 percent of contributions to 47.5 percent, averaging 56 percent over the year. As of October 5, 2000, the share of contributions directed towards the NSAFs for the year averaged 36 percent, with further declines in recent months. If this trend continues, the SAF share could be reduced to one-third of total contributions by the end of the year.

Millions of tenge have been transferred from the SAF to the NSAFs for contributors who had initially not selected a fund. Since the SAF was the default fund, monies were automatically credited to it during the first months of the reform when employee decisions had not all been formalized and the NSAFs had not all been established. But these transfers virtually came to a standstill during the latter part of 1999, as government instituted new rules for transfer procedures that placed considerable administrative burdens on contributors. This problem was resolved, however, by means of an opinion from the General Prosecutor's Office so that the speedy transfer of assets to the NSAFs has resumed.

In 2000, up to October 4th, transfers to NSAFs through the SPPC followed a similar pattern to the distribution of assets with the Narodny Bank Pension Fund receiving 33 percent of contributions followed by Ular at 13 percent and Umit at 12 percent (Chart 4). This may indicate future trends to follow if both initial contributions and transfers from the NSAF are following similar patterns.



Source: State Pension Payment Center

There are still 1.8 million contributors to the SAF (by choice or by default), or 53.1 percent of all contributors, indicating that, on average, SAF contributions are lower than NSAF contributions. This suggests that contributors to the SAF have lower incomes and/or include more individuals with income stemming in large part from the informal sector. Some of these individuals could consider their assets to be safer with the state, while others could just have less interest in participating in the system than do employees with a greater stake in the formal sector. The challenge that government and the NSAF face is to encourage such workers, whose contributions

have come to the SAF by default, to take an active role in planning for their own retirement years.

The SAF manages and maintains its own database, although this function was originally under the State Pension Payment Center (SPPC).²⁹ In taking over the database, the SAF identified numerous problems with the way in which the information was held by the SPPC. The SAF is currently working to improve the quality of the data and the accuracy of the information it controls. In both cases, an outside computer firm has been providing support based on the specifications provided by the government entities.

B. Regulatory and Administrative Structures

Three Government entities are responsible for regulating of the pension system: (1) the NSC supervising the asset management companies; (2) Committee for the Regulation of Pension Funds³⁰ supervising the pension funds (reporting to the MLSP); and (3) the NBK supervising the custodian banks. The SPPC, also reporting to the MOLSP, is the key administrative institution for the residual PAYGO pension system and moderates the transfer of contributions to the pension funds. Unlike Chile and other Latin American countries, Kazakhstan divided regulatory duties among government organizations. This was decided in part, because a unified agency would have been difficult to establish in a country with limited regulatory experience, and, in part, to place specific functions under the aegis of the organization with the greatest related experience.

²⁹ The SPPC is responsible for PAYGO pension payments and the allocation of contributions to the SAF and the NSAFs. It is discussed in detail in the next section.

³⁰ The Committee was formerly the National Pension Agency (NPA). It was changed to a Committee to more accurately reflect the fact that it is an office within the Ministry of Labor and Social Protection and not an independent agency.

1. Committee for the Regulation of Pension Funds.

The Committee is responsible for: (1) licensing and supervising NSAFs; (2) approving pension contract practices; (3) regulating benefit payments, (4) ensuring confidentiality of individual pension accounts, (5) safeguarding inter-fund account transfers; and (6) regulating the operation, accounting, reorganization, merger and liquidation of funds. It is also responsible for control and supervision of SAF activities. The Committee is part of the Ministry of Labor and Social Protection, reporting directly to the Minister. As such, it carries out ministerial policies with regard to pension regulation. The organization is relatively small, although growing, with current staffing up to 30 personnel.

The Committee has increased its viability as a pension fund regulatory agency, issuing and revising regulations for the operation of pension funds, and inspecting licensed pension funds, including the SAF. After the first year of operation, eight non-state accumulation funds received general licenses for an unlimited time, in place of the initial temporary licenses. New regulations have been issued on accounting and reporting procedures, independent external auditing, the reorganization-liquidation of pension funds, and minimum capital requirements.

The Committee increased its visibility as a regulator by suspending the general license of Korgau pension fund for a period of three months when it was discovered that one of the founders owed more than 25 percent of the Fund's shares. The Committee also suspended the general license of the Narodny Pension Fund (as distinct from the Narodny [Halyk] Bank Pension Fund) because of irregularities in its financial reports. While such scrutiny is desirable, these findings also indicate that the original licensing procedures were defective.

2. National Securities Commission

The NSC is responsible for (1) licensing and supervising AMCs; (2) licensing and supervising custodian banks (with the NBK); and (3) regulating the investment activity of NSAFs. The NSC has established a separate pension unit for this purpose. Relatively early in the reform, the NSC suspended the license of one AMC (which undoubtedly should not have been licensed in the first place) after an inspection showed unsatisfactory accounting practices. Generally speaking, the NSC has been the most effective of the pension system regulators.

3. National Bank of Kazakhstan

The NBK is responsible for licensing and regulating the custodian banks, which safeguard the assets of the NSAFs. The NBK has assigned the Banking Supervision Department critical responsibilities for pension oversight. The Department has gained a fine reputation for managing and modernizing the current banking system. To date, the actions of the NBK as custodial regulator appear to be well received. The NBK continues to maintain daily records of pension fund transactions along with the NSC.

While, the NBK used to have a separate unit acting as asset manager for the SAF, this function was taken out of the NBK and placed with the SAF (including the staff managing the portfolio). This reduced the potential for conflict of interest, as the NBK was both responsible for asset management and for monetary policy. The NBK is also the custodian bank for the SAF. This is an area where a future conflict of interest could be possible should the NBK not be independent of Government. The NBK as custodian bank should flag investments that are inappropriate even if issued by the Ministry of Finance. The current Governor of the NBK has been quoted in the press saying that he would not have accepted his position had such independence as a condition of his acceptance.³¹ . Yet, the role of the NBK and of the custodian banks

³¹ Euromoney (2000)

needs to be reconsidered as the custodian banks currently provide other services for the AMCs.

4. The State Pension Payment Center

The SPPC has had an unenviable and checkered history, partly due to external events such as the Russian crisis, and partly due to management problems and a lack of clearly stated objectives. The current role of the SPPC is threefold: (1) to calculate and pay PAYGO pensions; (2) to ensure that the working population participates in the system through the issuance of identification numbers; and (3) to ensure that contributions are accurately assigned to the fund chosen by the contributor.

The role of the SPPC has been one of constant change since its inception. For example, initially the SPPC was responsible for maintaining the SAF database. Now, this function is performed by the SAF itself. Both payroll taxes and funded contributions were originally collected by the SPPC. Now, payroll tax-collection and enforcement are the responsibility of the state revenue collection service. The SPPC continues to receive the 10-percent contributions for the funded system, however, and directs them accordingly.

Pension payment is one of the basic functions of the SPPC. Initially, the SPPC caught up on PAYGO pension payment arrears at end-November 1998.³² Pension arrears again appeared during the first quarter of 1999 when the Government revenues started to erode following the Russian crisis and the sharp downturn in commodity

³² The World Bank provided a US\$300 million Loan to the Government of Kazakhstan in July 1998 to support the pension reform. Timely payment of pensions is a condition for the release of each tranche of the Pension Reform Adjustment Loan (PRAL) and has been a government priority.

prices. This second wave of pension arrears was paid up after the Second Tranche of the World Bank's Pension Reform Adjustment Loan (PRAL) was disbursed.³³

The SPPC is responsible for issuing Social Individual Codes (SICs) to ensure to all persons of working age have a unique identifier for their funded pension accounts. Because the issuance of these numbers was initially hampered by delays in the installation of the central and regional computer systems, the World Bank relaxed initial PRAL³⁴ conditionality for SIC assignment to 10 percent of persons identified as working in the formal sector. Subsequently, 3.2-million SICs were issued to workers in the formal sector. However, many mistakes in SIC assignment were also made.

The efficient transfer of contributions by employers on behalf of employees and the self-employed is necessary to build public confidence in the system and to maximize the returns contributors receive on their contributions. The SPPC has improved the time taken to record and transmit contributions to the accumulation funds. When there are no substantial errors, the SPPC transmits all payments received before mid-afternoon on the day of receipt and other payments within one day. These improvements have resulted in significantly fewer funds held in transit by the SPPC. However, because the SPPC returns all errors to the enterprise rather than initiating corrective measures, contribution transmission to the accumulation funds is still delayed.

III. THE FUTURE OF THE PENSION REFORM

Although the new pension system officially began on January 1, 1998, many steps are needed to complete the reform, as policies, institutions, and regulatory capacities are developed. Pension reform is a process, not an event, and the actual

³³ A second tranche waiver was granted to excuse the accumulation of arrears on the knowledge that the second tranche disbursement was necessary to make the pension payments.

³⁴ See Section III.B for a discussion of the history behind the decision of the World Bank to support the Kazakhstan pension reform.

implementation and improvement of the reform will continue for years. This has certainly been the case in Latin American countries that have instituted funded pension systems.

A. Steps to Ensure Sustainability

The World Bank supported Kazakhstan's ambitious approach to pension reform realizing the considerable risks involved. These risks are economic and political. At this point, a second tranche of the PRAL has been disbursed, and the third tranche has been requested for later in 2000, as Government insists it will be ready to satisfy all Loan Agreement conditions by that time.

While much progress has been made, including an expanding network of NSAFs and AMCs, greater progress is required. Steps to ensure sustainability must be taken in four areas: (1) the structure of benefits; (2) the financial structure; (3) the regulatory structure; and (4) the administrative structure. Events during 1999 (described below) have underlined the fragility of the reform. Nonetheless, if the authorities remain committed to the reform concept and the implementation process, Kazakhstan will succeed in introducing a radical market reform in a transition economy.

1. The Benefit Structure

Benefit design issues were not a major consideration for the developers of the pension reform. To date, little analysis has been conducted to assess the level of benefits that future pensioners can expect. While this has not been an immediate priority, technical assistance is anticipated, through competitive bidding under the World Bank's Pension Reform Implementation Loan (PRIL), to assess future benefit issues.³⁵ Without this assessment, and subsequent steps to reconfigure the reform, the

³⁵ The PRIL was funded by the World Bank as a component the restructured Finance and Enterprise Development Project (FEDP)

Kazakhstan authorities may be surprised to find in the future that pensions are insufficient even for workers with average earnings contributing over a full career. To date, analysis of expected benefits for different cohorts of retirees is yet to be undertaken. Certainly, pension adequacy for women and low-wage earners will need to be considered within the overall context of the reform. This analysis should be conducted in conjunction with the development of the insurance industry to ensure that the provision of pensions under the funded system is adequate.

In the absence of a viable insurance industry, the Pension Law did not indicate how pensions are to be provided but left that decision for the future. To date, contributions to retirees and emigrants have been paid as lump-sum distributions. Recent MLSP draft regulations on future funded-system pensions have been premature and unsophisticated; and greater expertise needs to be developed in this area if options are to be developed which meet the standards of best international practice. Many types of pensions are possible, ranging from lump-sum distributions, which are currently offered, to complex joint and survivor annuities, which offer lifetime pensions to both participant and spouse.

If Government eventually decides to require pensions in the form of an annuity, many questions will need to be answered. For example, should the annuity be paid over the life of the pensioner only, or over the life of the pensioner and his or her spouse? Should lump sum benefits never be allowed or allowed only for small sums when an annuity would be inconsequential? Should exceptions be made for lump-sum distributions in cases in which the contributor has a terminal disease?

Similarly, behavioral interactions between contribution compliance and minimum pensions need to be explored. In all pension systems, individuals will act in their own best interest and plan for their retirement on a least-cost basis. In other words, if contributions are too high and benefits too low, some workers will figure out how to qualify for a minimum pension by limiting their contributions. Another minimum pension issue is related to the type of explicit or implicit inflation indexing that accumulation fund pensions are expected to provide. If pensions are not well

indexed, pensioners may find that their payments gradually erode in real terms and that they end up with the minimum pension. For similar reasons, Government may decide to restrict payments to annuities (rather than fixed-term payments which draw down fund assets after a certain number of years) to ensure that pensioners do not qualify for the minimum pension after that time.

Kazakhstan still has time to address these issues, if government officials take them seriously. In an accumulation system, the financial aspects of annuity provision are as complex and important as portfolio strategies. With the NBK taking the lead on the organization of the insurance industry, supported by technical assistance by USAID, pension products may be developed within a useful time span. Similarly, planning for the transformation of the disability and survivors program into one founded on insurance principles has been started.

2. The Financial Structure

Originally, the pension reform was to develop capital markets in Kazakhstan by “tendering off major blocks of shares to attract strategic investors and then gradually selling out the remaining state blocks of shares through the stock exchange.”³⁶ This was to be implemented, in part, through the “issue of novel financial instruments, i.e. corporate and municipal bonds, mortgage instruments, and derivatives that will allow investor portfolio diversification and mobilization of financial resources to new segments of the pension system.”³⁷ Perhaps these objectives were overoptimistic. Certainly, they have been pursued less vigorously than originally anticipated.

Privatization. In theory, NSAFs can invest in shares of Class A companies, those which have been subject to an independent audit based on international standards. Shares of Kazakhstan companies were to be made available to pension

³⁶ Marchenko, op. cit.

³⁷ Marchenko, op. cit.

funds through the 'Blue Chip' privatization in which majority blocks of shares were first to be tendered to strategic investors and then gradually sold through the KSE. Government was to achieve its multiple objectives of privatization, securities market development, and pension reform by selling its remaining shares in large enterprises on the KSE. This approach, to be implemented gradually, would have taken into account budgetary needs for privatization revenues along with the pension funds' ability to absorb equity shares, and was to provide the pension funds with the opportunity to acquire quality Kazakhstan companies in a competitive manner.

These objectives were stalled from the start, as the 'Blue Chip' program was delayed by the time the PRAL went to Board in July 1998. The delay was regarded as temporary by many observers, however. Further, it was even welcomed to a certain extent as it provided traders on the KSE, which was in its infancy, additional experience trading government bonds and short-term paper. While the KSE was small, it had developed a system for computerized trading with the help of substantial USAID technical assistance. But trades were infrequent, not necessarily even on a daily basis, and the official market extremely thin. Although the delay in the 'Blue Chip' program was disappointing, the pension reform had just started and many other regulatory and administrative concerns required more immediate attention.

Unfortunately, the pension reform was followed closely by the Asian Crisis, the Russian meltdown, and the substantial fall in commodity prices, which overturned Government's carefully constructed macroeconomic projections and made a shambles of fiscal and monetary policy. The Asian Crisis also prevented some strategic investors from meeting their obligations. With the Russian crisis and precipitous declines in all emerging market stock exchanges, the Blue Chip program was further delayed. These conditions stymied the development of the capital market, and, as a consequence, the possibility for the NSAFs to diversify their portfolios.

The 2000 budget envisaged privatization revenues of over US\$400 million – that is revenues from the reactivation of the 'Blue Chip' program. During the first

quarter of 2000, however, only 11 percent of that total was raised. Originally, the schedule called for the privatization of 10 blue chip companies. Subsequently, four companies were removed from the list (Sokolov-Serbai Mining, Aluminium of Kazakhstan, Kazchrome, and Kazakhmys). Currently, only 16.7 percent of state shares of Narodny Bank have been sold. According to the Ministry of Finance, out of the remaining 'Blue Chip' companies, some state shares of the Manystaumunaigas old company and Kazakhtelecom were scheduled for sale by the end of the year. The Ministry of Finance also confirmed that the budget was in no need of accelerated privatization. In other words, privatization is now regarded solely as a method for macroeconomic stabilization, and not as an end in and of itself. Unless Government considers it important to develop the private sector, pension funds will not have alternative investments.

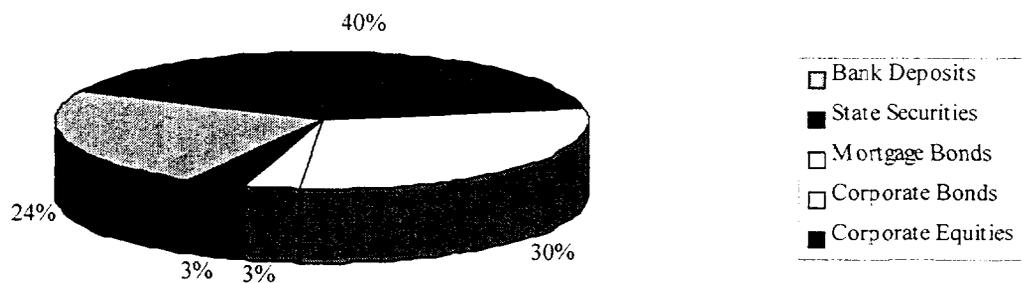
Diversification. Another worrisome development is the reduction in the limits for investments into deposit certificates and accounts of second level banks. This resolution was promulgated to prevent improper use of pension fund assets by means of bank deposits. This represents an unnecessary limitation of portfolio diversification, however, as improper investments ought to be investigated on an individual basis without reducing the opportunity to design constructive portfolio strategies.

This raises a more general issue about the limits set on investments, in particular the requirement that 50 percent of investments must be held in Government securities. The degree of limitation on investment opportunities for pension plans developing and transition economies during the start-up of pension reform has engendered considerable recent discussion. While there are a number of sound reasons to limit investments, too much limitation for too long is likely to dilute incentives for the maximization of investment returns to the detriment of the contributor.

In Chile, banking deposits during the first 10 years of operation, from 1981-1990, amounted to 24 percent of total assets (Chart 5). These figures fluctuated from year to year, as did the others, to take into account market conditions. While

investments in corporate equities did not start until 1985, bank deposits and mortgage bonds represented important investments into the Chilean economy. These investments in the banking sector resumed even after a significant reduction in bank deposit holdings in 1983 when Chile experienced a banking crisis. Investments in mortgage bonds have also been an extremely important part of the Chilean pension portfolio. A similar market development in Kazakhstan would be particularly fruitful as one of the constraints to business development and labor mobility has been due to rigidities in the property market.

**Chart 5: Chile: Pension Fund Asset Allocation
10 year average (1981-1990)**



Source: Calculations base on Edwards (1997)

In Kazakhstan, most pension investments are in government instruments. Further, most pension investments, whether government or corporate, are in foreign-currency denominated securities, reflecting the dollarization of the Kazakhstan economy. In the longer term, it is vital that Kazakhstan's economy and financial markets develop sufficiently so that domestic investments are available and profitable. This can only take place effectively after state ownership is reduced through privatization. Further, the banking sector should become a normal source of finance for domestic business development. Currently, the difficulties and uncertainties of business establishment and operation appear to have discouraged the banking sector from basing their operations on normal business loans. Consequently, foreign and

domestic investments in the internal Kazakhstan economy outside of the energy sector have not developed.

The banking system, in general, is still in the development stage despite the high credibility of the NBK and good first tier banks that have been used as pension fund custodians. As of July 2000, there were 48 licensed second tier banks including 20 with foreign participation and 12 foreign banks. During 2000, licenses were withdrawn from five banks by the NBK as a result of licensing violations. This is a positive sign that supervisory scrutiny is being increased. Apparently increased confidence in the banking system and a more vibrant economy led to an increase in deposits to 287.4 billion tenge (US\$1.7 billion), a gain of 46 percent since the start of the year. Further, there has been a shift from demand deposits towards time deposits, also indicating increased confidence in the banking system. But, before the banking sector makes significant loans to businesses, the governance and regulatory structure within Kazakhstan will have to be improved and the returns from investment in business will need to outstrip foreign currency operations.

Progress is being made on the investment front, however slowly. Several new issues of local dollar-denominated bonds and Eurobonds have been or are ready to be issued. Issuers include KazakhOil, Temir Zholy (railroads), Narodny Bank and some smaller companies. USAID projections suggest that there could be \$400 million or more in corporate bonds in the market by the end of the year. Estimates suggest that up to 25 percent of pension fund portfolio investments could be in corporate instruments by 2001. This would be a higher percentage than in Chile at the same stage of development. Hopefully, these plans will proceed on target.

Valuation and Rates of Return. In April 1999, just after the devaluation of the tenge following the Russian crisis, the Ministry of Finance offered pension funds the opportunity to purchase 5-year, 6.14-percent dollar-denominated government bonds. These bonds were offered at the pre-devaluation exchange rate of 88.3 tenge per US dollar, rather than at the higher post-devaluation rate. The SAF swapped virtually all

of its short-term tenge-denominated securities for these new instruments, converting Government's short-term obligations into longer-term liabilities. This both helped Government financing and provided a false sense of security to SAF contributors who may have thought that they were compensated for the devaluation. Unfortunately, this left the SAF with assets that were illiquid except at a sharp discount – which the SAF was not willing to provide. Consequently it was not possible for the SAF to transfer funds to the NSAFs promptly when contributors selected another fund. A recent Eurobond issue was substituted for these 5-year bonds with the intent of furnishing the SAF with more liquid assets. Even if these steps do provide liquidity to the SAF, the use of 5-year bonds by Government to shore up macroeconomic policy at the expense of pensioners signals the need to remove the SAF from public control.

Other valuation issues discussed earlier are being settled through the efforts of a committee to establish rules for the valuation of assets on a market-to-market basis. These new procedures, which also affect calculated rates of returns, should provide contributors a firmer basis of comparisons for rates of return achieved by the various pension funds. It is anticipated that market valuation will be in place by the end of the year.

An appropriate and consistent structure with which to calculate rates of return will also affect AMC performance guarantees. At this point, private funds only had to ensure that their returns were above those of the SAF. This was not difficult given the initial investment policies of the SAF, first in short term paper and subsequently in the low return 5-year bonds. In fact, the dominance of the SAF effectively ensured that the average return for all pension funds would closely track the SAF return. While this problem could have been mitigated by eliminating the SAF from the average, as the SAF's market share declines, the explicit valuation of assets and provision of consistent rules for computing rates of return becomes an even higher priority for performance guarantees. Another element of this process is the development of risk rating services for the country, an area that is also under consideration by the NSC.

State Accumulation Fund. Because the SAF is not required to use a 'for profit' AMC, it has a cost advantage over the NSAFs. Further, the Government has subsidized the SAF in terms of office space and salaries and in a number of other ways. Of course, the diversity of investments permitted the NSAFs ought to offer higher rates of return and, consequently, better investments for contributors. In the near term, however, with limited outlets for investments, the SAF has a cost advantage. One way to equalize this difference would be to permit the NSAFs to invest at least 10 to 20 percent of fund assets in high quality international equities. With the bulk of investments currently in Government securities, the possibility to invest in equities worldwide would open up much greater diversification for the NSAFs and provide higher rates of return for contributors. After more companies are privatized and are listed on the KSE, NSAFs will be in a position reconfigure their portfolios to achieve a desired balance of risk and return.

3. The Regulatory Structure

While progress has been made in improving regulation, further steps are needed. For example, from the onset, Committee and the NSC reporting requirements have been considered excessive, particularly since their ability to make efficient use of the information has been in question. As a transition economy, Kazakhstan had little experience with regulation outside the banking sector, and much experience with direct state control. Consequently, the approach to regulation has all too frequently been bureaucratic, with innumerable reporting forms required for licensing and supervision. The original licensing of NSAFs and AMCs was a paper checking operation without scrutiny of the underlying trustworthiness of the founding organizations. Similarly, during this learning process, each of the regulatory agencies flooded the NSAFs and AMCs with paperwork on a weekly basis, changing forms almost as often and creating duplicative reporting requirements in more than one instance.

Consequently, the NSC needs to coordinate with the Committee, at the least, in issuing instructions for pension fund mergers and transfers of pension assets. The establishment of a permanent working committee of the three regulatory agencies would be an initial step in the coordination of reporting requirements using common standards and sharing information. In the near future, the development of a unified regulatory structure, initially under NSC leadership and eventually as an independent agency, ought to be a priority.

Both USAID and the World Bank have recommended that Kazakhstan take steps to combine the regulatory agencies into one entity, initially under the NSC, since the primary regulatory issues are financial. Discussions are still in progress as the MLSP has argued that it still needs to be involved to guarantee protection for contributors. The guarantees of safety required for pension fund contributors, however, are similar to financial safeguards for participants in mutual funds and individual investors.

The experience with the 5-year low-interest bonds raises a serious concern that the new funded pension system could continue to be used as an arm of Government fiscal and monetary policy, rather than a program for retirement savings managed solely in the interest of the fund contributors. Similar concerns have arisen with the insistence of the Committee to adopt transfer procedures for pension accounts that particularly slow down transfers from the SAF to NSAFs. While the authorities have reiterated that the complex transfer measures were intended to protect contributors from unauthorized removal of assets, they effectively stopped asset flows from the SAF after fund liquidity had been seriously reduced. The development of an independent regulatory agency, similar to the NBK, would reduce the possibility of actual or perceived Government interference. A unified agency would also be able to provide simplified reporting and filing standards for annual or quarterly reports.

Another issue that needs to be resolved is the provision of banking services by custodian banks for the NSAFs and AMCs. The Central Depository is the actual

custodian for assets other than Eurobonds, and banks involved in Eurobond transactions are the *de facto* custodians of the Eurobonds. These issues need to be acted upon to ensure the safety of pension fund holdings before unscrupulous persons challenge the integrity of the system through party-in-interest dealings or outright theft.

4. The Administrative Structure

The two non-regulatory agencies involved in the pension system are the SPPC and the SAF. The SPPC has never lived up to its potential as a clearinghouse for the funded system. The SAF is still a public entity with the risk that its investments may serve other purposes than the maximization of assets for future pensioners.

State Pension Payment Center. The first tasks the SPPC must complete are the clean up of the SIC file and the issuance of SICs. Many duplicate SICs are outstanding; further work is needed to issue identification numbers to all adults of working age if contributions are ever to be collected from the informal sector. While Government initially underestimated the urgency of SIC development, the necessity to issue SICs to the entire population is now taken seriously. Government plans to use information from the 1999 Census of the Population to register the working-age population. Government has accepted assistance through USAID to clean up and merge duplicate accounts working through the SAF and SPPC.

One of the drawbacks of the former PAYGO pension system was its inability to collect more than half of all payments due. To change this situation, the tax authorities are planning to consult with the SPPC and other agencies to identify individuals and businesses that avoid or evade their obligations. For some time, inter-agency meetings have been held to determine whether to use the SIC for tax collection purposes or to develop a crosswalk between tax numbers and SICs. Unfortunately, no agreement has been reached. If a single identification number were used across the

board, the tax authorities' enforcement capacity would be vastly improved, as the personal income tax base could be reconciled with the SPPC's pension contributor base. In other words, the SPPC could play a significant role in the identification of taxpayers. To date, the SPPC has not been an active partner, as management was given no mandate to undertake this function.

Soviet accounting practices that are not in keeping with international standards were used by the PAYGO pension system to track pension payments. These practices, in combination with decentralized collection and payment of benefits, and minimal reporting requirements, prevented the MLSP from having any fiscal control of the pension system prior to the reform. To ensure fiscal accountability, international accounting and auditing standards need to be established in the SPPC. An independent audit conducted by KPMG indicated that substantial improvements in SPPC accounting practices are still needed and should be an SPPC priority.

The SPPC has never lived up to its potential as a pension clearinghouse. Currently, employees must notify their employers of their choice of pension fund; their employers then submit the information to the SPPC along with each employee's SIC. Probably most employees in a company belong to a plan selected by their employer. While the development of employer-based pensions provides scale economies in marketing and administration, the Kazakhstan pension reform is officially based on individual choice. If employees could change funds by simply notifying the new fund of their selections, employers would not need to provide the information to the SPPC. The SPPC would make the change and act as a clearinghouse for all transactions. Clearinghouse functions have been developed in many countries including Latvia and Sweden. Without this function, little is gained by siphoning off collections through the SPPC.

The information technology of the SPPC has been developed in-house with the help of local experts.³⁸ Because of the changing roles of the SPPC, a useful MIS has never been developed. In particular, hardware and software has been developed without a strategic view of the functions of the organization. As a result, the SPPC produces reams of computerized reports but few of any interest to a manager wishing to improve, monitor, and develop operational policies. Until the focus of the SPPC is based on a core set of functions, and the purpose of information technology (IT) is to carry out these mandates, the SPPC will continue to struggle ineffectively.³⁹

State Accumulation Fund. Under the original concept of the pension reform, the SAF was to be a fallback fund for those workers who were wary of the private sector. The intent of restricting investment options for the fund was to provide a safe haven for risk-averse contributors, and one that would not compete with the private sector. The issuance of the illiquid 5-year bonds and their acceptance by the SAF raised doubts about its independence. Consequently, recommendations have been made to have independent private-sector AMC's invest funds for the SAF under the same limited portfolio guidelines. This system is to be used under the Latvian pension reform. While the decision of Government to place asset management within the SAF was an improvement, as it removed a potential conflict of interest for the NBK, the SAF is not fully independent of government pressure. Given the governance structure

³⁸ Unlike countries like Argentina, which close to select international consultants to establish their data operations to support pension reform, regulatory and operational agencies in Kazakhstan never considered tendering to international consultants. In part, the lack of interest in outside IT support was a result of the very successful IT applications for the NBK undertaken by Kazakhstan experts. As NBK specialists were also involved in the pension reform, they did not consider that technical assistance was necessary. Further, implicit government policy has always been to avoid spending funds for technical assistance whenever possible.

³⁹ An additional problem appears to be the wage structure for the IT operations, which is not sufficient to reward senior IT professionals. It has been recommended elsewhere a separate pay scale for IT specialists be provided throughout Government to ensure high-quality long-term staff. Separate salary scales for selected professions in short-supply have been used by governments around the world. An alternative solution suggested by the authorities, that of starting a joint-stock company for IT management, is less transparent and could create a monopoly outside of government control dealing with sensitive government documents.

of the SAF, the context for political interference is obvious. Further, the opportunity to balance interests even within government and the NBK and provide practical oversight has been slight, as the Board of Directors does not meet regularly.

Plans are being developed to privatize the SAF after its asset base declines to about one third of the total. This would be excellent if privatization is transparent and based on competitive bidding procedures. Further, to ensure that investments are made purely in the interest of contributors, the state should completely divest itself of SAF holdings.

B. World Bank Involvement

Pension reform in Kazakhstan was designed and developed by Kazakhstan's officials and legislators. As such, it is original to Kazakhstan. Although Kazakhstan officials were fully cognizant of the World Bank's volume, *Averting the Old Age Crisis*, they did not use World Bank technical assistance in the development of their pension concept paper. In fact, the authorities chastised the Bank for not providing prompt enough support. Further, while the USAID encouraged a radical reform, the champions of the reform accepted USAID technical assistance only when they considered it productive. The new law was very much the result of a group of reformers who sought to implement the three-pronged development strategy announced in 1997 – privatization, capital market development and pension reform. Those reformers understood that an incremental reform of the PAYGO system was not possible as it faced too much political opposition. In addition, as the reformers came from the financial sectors, financial imperatives for the reform were stressed.

Pre-reform. In March 1997, it became clear to the Bank that pension reform was underway. The Bank responded to the request of Government for comments on the initial design of the system. Bank comments identified concerns related to (a) the benefit structure, (b) the rapid pace of the reform, and (c) the lack of financial sector and regulatory experience. Nonetheless, from the start the response of the Bank was

to support the structure of the reform, as it was close to that suggested in *Averting the Old Age Crisis*. Following the passage of the pension reform legislation in June 1997, a preparation mission was sent to Kazakhstan to assess the advisability of providing an adjustment loan and present recommendations to Bank management.

The Bank had one of two options. It could support the Kazakhstan pension reform with an adjustment loan, including stringent conditionalities to ensure that the reform was successful, or not support the reform on the premise that it could not succeed. A decision was taken to support the reform, as the basic structure was considered sound as long as Government agreed to strong conditionalities and accepted technical assistance provided through the Bank to ensure that the Loan conditions could be met. Further, to ensure transparency, all possible pitfalls and deficiencies of the reform were to be documented to assist Government and apprise Bank management of these risks. In other words, assistance was provided to the Government of Kazakhstan knowing the risks of supporting the Government's policy. The end result of these deliberations was to grant the Republic of Kazakhstan the PRAL in 1998 combined with the PRIL.

Post-reform. Since the enactment of the pension reform, considerable progress has been made in its implementation with the second tranche of the PRAL released in December 1999. Initially, that implementation appeared to be bound for disaster as regulatory offices were unqualified to act as regulators and computer equipment was insufficient to handle the barrage of data making its way through the system. With time, more Government officials began to realize the enormity of the task that had undertaken. With time, professionalism in both regulation and administration started to take hold. With the assistance of international donors, including the ADB, the World Bank, and USAID, the Kazakhstan pension system began to stabilize.

This is not to say that there are no further problems. The challenges are tremendous, as are the challenges in many other areas if full employment and sustained economic growth is to become a reality. The external shock of the Russian crisis

unambiguously slowed down the pace of the pension reform. If the reform is to be sustainable, more progress will need to be made in the area of regulation and portfolio diversification. The commitment of the authorities to building a strong private-sector economy will be the deciding factor in determining whether or not government efforts are focused on regulation rather than control. As with the Chilean reform, success will only be apparent after a decade of operation, for pension reform requires a long-term commitment – hopefully, one which will be kept in Kazakhstan.

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Annex Table 1: SCENARIO SUMMARY TABLE

Scenarios	Baseline: Reformed Pension System		Baseline: Continuing Solidarity System	
	Base Year 1998			
GDP	1,747,720 million tenge in 1998 (Information from the Ministry of Finance)		1,747,720 million tenge in 1998 (Information from the Ministry of Finance)	
Pension Fund Balance	Zero balance in the beginning of 1998 (Information from the Ministry of Finance)		Zero balance in the beginning of 1998 (Information from the Ministry of Finance)	
Reference Wage: Male	Average monthly wage for males in 1998 - 10,904 tenge (NSA)		Average monthly wage for males in 1998 - 10,904 tenge (NSA)	
Reference Wage: Female	Average monthly wage for females in 1999 - 8,260 tenge (NSA)		Average monthly wage for females in 1999 - 8,260 tenge (NSA)	
Total Pension Payments to Male Old Age	25,209 million tenge in 1998 (MinLabor, -94 without favorable terms and "dead souls")		25,209 million tenge in 1998 (MinLabor, -94 without favorable terms and "dead souls")	
Total Pension Payments to Female Old Age	44,675 million tenge in 1998 (MinLabor, -94 without favorable terms and "dead souls")		44,675 million tenge in 1998 (MinLabor, -94 without favorable terms and "dead souls")	
Total Pension Payments to Male Favorable	12,697.07 million tenge in 1998 (MinLabor, -94); "dead souls" added		12,697.07 million tenge in 1998 (MinLabor, -94); "dead souls" added	
Total Pension Payments to Female Favorable	12,285.67 million tenge in 1998 (MinLabor, -94); "dead souls" added		12,285.67 million tenge in 1998 (MinLabor, -94); "dead souls" added	
Demographic Trends				
Sex Ratio at Birth (boys/100 girls)	105.74 ("Female and Children of RK", 1998, NatStatAgency, p 9)		105.74 ("Female and Children of RK", 1998, NatStatAgency, p 9)	
Mortality Rate Multiplier (%): Contributors	100% (same as overall population mortality)		100% (same as overall population mortality)	
Old Age	100% (same as overall population mortality)		100% (same as overall population mortality)	
Favorable	100% (same as overall population mortality)		100% (same as overall population mortality)	
Survivors	100% (same as overall population mortality)		100% (same as overall population mortality)	
Disabled	100% (same as overall population mortality)		100% (same as overall population mortality)	
Macroeconomic Trends				
GDP Growth (at Market Price, Real)	1998 - (-2.5%); 1999 - (-1.5%); 0.5% in 2000, 3% in 2001-2030, 3.5% in 2031-2039, and 4% thereafter		1998 - (-2.5%); 1999 - (-1.5%); 0.5% in 2000, 3% in 2001-2030, 3.5% in 2031-2039, and 4% thereafter	
Productivity Growth	1998 - 4.6%; 1999 - 0.0%; 0.9% in 2000-2010; 1.9% in 2011-2015; 2.6% in 2016-2030; 3.0% in 2031-2035; 3.3% in 2036-2039; 3.8% in 2040; and 4.0% thereafter		1998 - 4.6%; 1999 - 0.0%; 0.9% in 2000-2010; 1.9% in 2011-2015; 2.6% in 2016-2030; 3.0% in 2031-2035; 3.3% in 2036-2039; 3.8% in 2040; and 4.0% thereafter	
Inflation Rate	1998 - 1.9% (actual); 1999 - 21.8%; 2000 - 9.0%; 2001 - 5.9%, 2002 - 4%, and 3.2% thereafter		1998 - 1.9% (actual); 1999 - 21.8%; 2000 - 9.0%; 2001 - 5.9%, 2002 - 4%, and 3.2% thereafter	
Real Interest Rate	1998 - 14.4%; 1999 - 10%; 2000 - 7.5%; 5% thereafter		1998 - 14.4%; 1999 - 10%; 2000 - 7.5%; 5% thereafter	
General budget transfers as percent of GDP	We assume zero		We assume zero	
Other income as % of contribution revenue	We assume zero		We assume zero	
Other expense as % of pension expense	We assume zero		We assume zero	
Retirement Age				
Male	1998 - 61.5; 1999 - 62; 2000 - 62.5; 2001-2050 - 63 (Pension Law of RK, Article 9)		1998 - 61.5; 1999 - 62; 2000 - 62.5; 2001-2050 - 63 (Pension Law of RK, Article 9)	
Female	1998 - 58.5; 1999 - 57; 2000 - 57.5; 2001-2050 - 58 (Pension Law of RK, Article 9)		1998 - 58.5; 1999 - 57; 2000 - 57.5; 2001-2050 - 58 (Pension Law of RK, Article 9)	
Length of service at retirement				
Male	40 years in 1998 with gradual decrease to 0 in 2043		40 years for the whole projection period	
Female	35 years in 1998 with gradual decrease to 0 in 2038		35 years for the whole projection period	
Pension Contribution				
Contribution Rate	21% in 1999, General Revenue financing thereafter		25% for the whole projection period	
Collection Rate	1998 - 63%; General Revenue financing thereafter		1998 - 63%; 1999 - 73%, then the rate goes up to 85% in 2010; 85% thereafter	
Replacement Rate				
Survivors	1998 - 39.8%; declines to 22.4% in 2030 (the decline is due to the assumed real wage growth and zero real growth rate of the base numerate); and then recovers to 33.2% in 2050 due to the assumed real growth of the base numerate		1998 - 39.8%; declines to 22.4% in 2030 (the decline is due to the assumed real wage growth and zero real growth rate of the base numerate); and then recovers to 33.2% in 2050 due to the assumed real growth of the base numerate	
Disabled	1998 - 30.2%; declines to 20.3% in 2030 (the decline is due to the assumed real wage growth and zero real growth rate of the base numerate); and then recovers to 30.2% in 2050 due to the assumed real growth of the base numerate		1998 - 30.2%; declines to 20.3% in 2030 (the decline is due to the assumed real wage growth and zero real growth rate of the base numerate); and then recovers to 30.2% in 2050 due to the assumed real growth of the base numerate	
Pension Indexation (%)				
Inflation	1998-2020 - 78.5%; then goes up to 100% in 2030 (corresponds to 100% indexation of minimum pension); zero in 2031-2050		1998-2020 - 78.5%; then goes up to 80.8% in 2020 and to 100% in 2030 (corresponds to 100% indexation of minimum pension); zero in 2031-2050	
Nominal Wage Growth	Zero in 1998-2030; 80% in 2031-2035; goes up to 90% in 2040; 90% afterwards		Zero in 1998-2030; 80% in 2031-2035; goes up to 90% in 2040; 90% afterwards	
Weight of Economy Wide Wage for Entry	100%		100%	

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Annex Table 1: SCENARIO SUMMARY TABLE

Scenarios		Baseline: Reformed Pension System	Baseline: Continuing Solidarity System
GENERAL	Administrative Cost		
	Transactions as % of expenses	1998 transactions cost - 2.9% of total expenditures of pension system; same level assumed for the whole projection period	1998 transactions cost - 2.9% of total expenditures of pension system; same level assumed for the whole projection period
	Assets Management	1998 asset management cost - 1% of total assets; same level assumed for the whole projection period	1998 asset management cost - 1% of total assets; same level assumed for the whole projection period
POPULATION	Rates of Returns		
	Investment Returns	1998 - 14.4%; 1999 - 10%; declines to 5% in 2005; stays at 5% thereafter	1998 - 14.4%; 1999 - 10%; declines to 5% in 2005; stays at 5% thereafter
	For the Whole Projection Period		
LABOR	Population	End of 1998 population computed based on end of 1997 age/sex distribution, 1997 mortality rates, and 1998 migration	End of 1998 population computed based on end of 1997 age/sex distribution, 1997 mortality rates, and 1998 migration
	Fertility	1997 total fertility rate of 1.86 maintained up to year 2005; gradual rise to replacement fertility (TFR=2.10) by 2010; stable thereafter	1997 total fertility rate of 1.86 maintained up to year 2005; gradual rise to replacement fertility (TFR=2.10) by 2010; stable thereafter
	Probability of dying (immigration)	Gradual convergence from 1997 high mortality rates to 1987 level by 2010; stable thereafter 1998 - (-1.0 %) net migration; converges to zero by 2005; gradually goes up to 0.6% in 2015; stable at 0.6% thereafter	Gradual convergence from 1997 high mortality rates to 1987 level by 2010; stable thereafter 1998 - (-1.0 %) net migration; converges to zero by 2005; gradually goes up to 0.6% in 2015; stable at 0.6% thereafter
LABOR	For the Whole Projection Period		
	Labor Participation rate	1997 labor force participation rate was 84.4%; same LFPR is maintained for the whole projection period (1998-2050)	1997 labor force participation rate was 84.4%; same LFPR is maintained for the whole projection period (1998-2050)
	Unemployment Earning Profile	1998 - 13.7%; 1999 - 13.5%; declines to 7% in 2010; and 7% thereafter 1998 profile computed based on data provided by the State Center for Benefit Payments. It is maintained for the whole projection period	1998 - 13.7%; 1999 - 13.5%; declines to 7% in 2010; and 7% thereafter 1998 profile computed based on data provided by the State Center for Benefit Payments. It is maintained for the whole projection period
PENSION	Pension System in 1998		
	1998 Contributors	1998 age/sex distribution data from the State Center for Benefit Payments	1998 age/sex distribution data from the State Center for Benefit Payments
	1998 Old Age	1998 distribution prepared based on RIC-94 and 1-SOBES reports provided by the Ministry of Labor	1998 distribution prepared based on RIC-94 and 1-SOBES reports provided by the Ministry of Labor
	1998 Disabled	1998 distribution prepared based on 1-SOBES report provided by the Ministry of Labor	1998 distribution prepared based on 1-SOBES report provided by the Ministry of Labor
	1998 Survivors	1998 distribution prepared based on 1-SOBES report provided by the Ministry of Labor	1998 distribution prepared based on 1-SOBES report provided by the Ministry of Labor
	1998 Favorable	1998 distribution prepared based on RIC-94 report provided by the Ministry of Labor, favorable group consists of early retirees and "dead souls"; the latter accommodated to age cohort >75	1998 distribution prepared based on RIC-94 report provided by the Ministry of Labor, favorable group consists of early retirees and "dead souls"; the latter accommodated to age cohort >75
	As % of Population for the Whole Projection Period		
	Contributors as % of Population (inputted as effective contributors = formal sector as % of population)	1998 - 52% (computed based on data from the State Center for Benefit Payments); 1999 - 43.8% (NSA data); then formal sector share in total employment is assumed to grow to 75% in 2030 and then stay at 75%	1998 - 52% (computed based on data from the State Center for Benefit Payments); 1999 - 43.8% (NSA data); then formal sector share in total employment is assumed to grow to 75% in 2030 and then stay at 75%
	Old Age as % of Population	Current rate (based on 1998) is maintained for the whole projection period	Current rate (based on 1998) is maintained for the whole projection period
	Disabled as % of Population	1998 rates for males maintained for the whole projection period, except for 1942-44 effect; 1998 rates for females under 23 maintained for the whole projection period; female rates for age cohorts over 23 converge gradually to male rates by 2050	1998 rates for males maintained for the whole projection period, except for 1942-44 effect; 1998 rates for females under 23 maintained for the whole projection period; female rates for age cohorts over 23 converge gradually to male rates by 2050
Survivors as % of Population	1998 rates maintained for the whole projection period	1998 rates maintained for the whole projection period	
Favorable as % of Population	No new favorables assumed beginning 1999; 1998 favorables assumed to age over the legal retirement age gradually at surviving rate by 2016 for males and 2011 for females; "dead souls" as percent of population decline gradually to 0% in 2016 for males and	No new favorables assumed beginning 1999; 1998 favorables assumed to age over the legal retirement age gradually at surviving rate by 2016 for males and 2011 for females; "dead souls" as percent of population decline gradually to 0% in 2016 for males and	
Evasion and Emption Rate (%)	Assumed to be zero for the whole projection period as effective contributors are entered in the contributors as-%-of-population section	Assumed to be zero for the whole projection period as effective contributors are entered in the contributors as-%-of-population section	
Replacement Rate for New Old Age	1998 RR for new and existing old-age pensioners computed based on RIC-94 report; for 1998-2050, RR was estimated based on macroeconomic projections (formal sector share and unemployment). RR goes down with declining number of years in service in solidarit	1998 RR for new and existing old-age pensioners computed based on RIC-94 report; for 1998-2050, RR was estimated based on macroeconomic projections (formal sector share and unemployment). RR goes down with declining number of years in service in solidarit	
Replacement Rate for New Favorable	No new favorables assumed beginning 1998, pension for existing favorable is indexed according to the above schedule (see pension indexation section)	No new favorables assumed beginning 1998, pension for existing favorable is indexed according to the above schedule (see pension indexation section)	

Annex Table 2: Kazakhstan: Economic and Demographic Indicators

	1998	1999	2000	2001	2002	2003	2004	2005	2010
Total Population	15,503.7	15,445.6	15,413.1	15,406.7	15,426.8	15,474.0	15,549.0	15,652.9	16,483.6
Population Growth Rate		(0.4)	(0.2)	(0.0)	0.1	0.3	0.5	0.7	1.3
Share of People above Ret. Age in Population	11.5	11.3	10.6	10.6	10.5	10.5	10.5	10.6	11.2
Old Age Population Dependence	67.3	64.5	61.0	58.8	56.7	54.6	53.1	51.9	49.9
Life Expectancy at Birth: Male	59.0	59.5	59.9	60.4	60.9	61.4	62.0	62.5	65.7
Life Expectancy at Birth: Female	70.2	70.6	71.0	71.4	71.8	72.3	72.7	73.2	76.4
Life Expectancy at Retirement: Male	12.1	12.1	12.1	12.1	12.3	12.6	12.8	13.1	14.7
Life Expectancy at Retirement: Female	20.5	20.4	20.4	20.3	20.7	21.1	21.5	21.9	24.7
Macroeconomic Environment									
GDP Growth Rate	-2.5%	-1.5%	.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Real GDP	1,747,720.0	1,721,504.3	1,730,111.8	1,782,015.1	1,835,475.6	1,890,539.9	1,947,256.1	2,005,673.8	2,325,125.3
Nominal GDP	1,747,720.0	2,096,792.1	2,297,141.5	2,504,470.0	2,682,014.5	2,850,874.0	3,030,365.0	3,221,156.8	4,371,157.0
Real Interest Rate	16.7%	10.0%	9.2%	8.3%	7.5%	6.7%	5.8%	5.0%	5.0%
Nominal Interest Rate	18.9%	34.0%	19.0%	14.7%	11.8%	10.1%	9.2%	8.4%	8.4%
Inflation Rate	1.9%	21.8%	9.0%	5.8%	4.0%	3.2%	3.2%	3.2%	3.2%
Price Index	1.0	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.9
Productivity Growth	4.6%			.9%	.9%	.9%	.9%	.9%	.9%
Avg. Nominal Wage of Effective Contributors	114.0	141.1	154.3	165.2	173.5	180.7	188.0	195.6	240.9
Effective Contributor Real Wage Growth		1.6%	.3%	1.1%	1.0%	.9%	.8%	.8%	1.0%
Total Labor Force	7,315.5	7,388.9	7,500.6	7,619.6	7,738.8	7,866.5	8,010.1	8,167.2	8,978.3
Labor Force Participation Rate	47.2	47.8	48.7	49.5	50.2	50.8	51.5	52.2	54.5
Total Nominal Contributors	3,318.5	2,800.0	2,927.8	3,061.9	3,199.9	3,348.3	3,492.4	3,648.8	4,543.7
Total Effective Contributors	3,318.5	2,800.0	2,927.8	3,061.9	3,199.9	3,348.3	3,492.4	3,648.8	4,543.7
Wage Bill: All Employees	691,136.9	853,437.4	952,308.4	1,040,830.6	1,115,786.1	1,187,530.5	1,265,766.0	1,351,942.5	1,901,769.0
Wage Bill: male	453,238.7	558,432.0	620,363.3	675,607.1	720,592.3	763,157.0	810,420.6	863,452.8	1,209,961.1
Wage Bill: female	237,898.2	295,005.4	331,945.1	365,223.6	395,193.8	424,373.5	455,345.4	488,489.8	691,807.8
Average Nominal Wage	109.5	133.5	145.8	155.8	163.3	169.8	176.6	183.7	227.8
Total as % of Nominal GDP	39.5%	40.7%	41.5%	41.6%	41.6%	41.7%	41.8%	42.0%	43.5%
Wage Bill: Nominal Contributors	378,398.1	395,090.7	451,711.6	505,738.5	555,038.5	604,926.4	656,486.1	713,784.1	1,094,546.6
Wage Bill: male	207,650.9	240,744.8	274,338.5	307,185.0	336,245.3	365,190.6	395,159.7	429,137.9	664,076.9
Wage Bill: female	170,747.2	154,345.9	177,373.1	198,553.5	218,793.2	239,735.8	261,326.4	284,646.3	430,469.7
Average Nominal Wage	114.0	141.1	154.3	165.2	173.5	180.7	188.0	195.6	240.9
Total as % of Nominal GDP	21.7%	18.8%	19.7%	20.2%	20.7%	21.2%	21.7%	22.2%	25.0%
Contributors' Wage Bill as % of Employees' Wage	54.8%	46.3%	47.4%	48.6%	49.7%	50.9%	51.9%	52.8%	57.6%

Annex Table 2: Kazakhstan: Economic and Demographic Indicators (con't)

	2015	2020	2025	2030	2035	2040	2045	2050
Total Population	17,691.7	18,833.4	19,788.7	20,631.4	21,458.6	22,271.3	23,014.9	23,651.8
Population Growth Rate	1.4	1.1	0.9	0.8	0.8	0.7	0.6	0.5
Share of People above Ret. Age in Population	12.6	14.3	15.7	16.5	17.5	18.5	19.8	21.2
Old Age Population Dependence	55.6	60.6	61.7	59.6	60.5	63.7	68.3	71.8
Life Expectancy at Birth: Male	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
Life Expectancy at Birth: Female	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4
Life Expectancy at Retirement: Male	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
Life Expectancy at Retirement: Female	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7
Macroeconomic Environment								
GDP Growth Rate	3.0%	3.0%	3.0%	3.0%	3.5%	4.0%	4.0%	4.0%
Real GDP	2,695,457.3	3,124,773.8	3,622,469.3	4,199,434.5	4,987,610.5	5,952,334.0	7,241,924.5	8,810,908.0
Nominal GDP	5,931,724.5	8,049,438.5	10,923,209.0	14,822,956.0	20,607,962.0	28,789,112.0	41,000,908.0	58,392,708.0
Real Interest Rate	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Nominal Interest Rate	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%	8.4%
Inflation Rate	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%
Price Index	2.2	2.6	3.0	3.5	4.1	4.8	5.7	6.6
Productivity Growth	1.9%	2.6%	2.6%	2.6%	3.0%	3.8%	4.0%	4.0%
Avg. Nominal Wage of Effective Contributors	312.4	418.5	557.6	741.2	1,007.9	1,396.9	1,986.8	2,826.2
Effective Contributor Real Wage Growth	2.1%	2.7%	2.6%	2.6%	3.0%	3.8%	4.0%	4.0%
Total Labor Force	9,461.0	9,771.5	10,089.2	10,574.4	10,976.3	11,218.3	11,326.7	11,417.5
Labor Force Participation Rate	53.5	51.9	51.0	51.3	51.2	50.4	49.2	48.3
Total Nominal Contributors	5,274.1	5,899.8	6,581.5	7,358.6	7,667.7	7,881.9	7,951.7	7,963.1
Total Effective Contributors	5,274.1	5,899.8	6,581.5	7,358.6	7,667.7	7,881.9	7,951.7	7,963.1
Wage Bill: All Employees	2,634,414.0	3,646,230.3	5,004,841.0	6,954,983.0	9,834,029.0	13,995,674.0	20,138,270.0	28,791,360.0
Wage Bill: male	1,685,139.0	2,343,426.5	3,206,009.5	4,449,152.0	6,309,988.0	9,011,380.0	13,017,423.0	18,635,010.0
Wage Bill: female	949,275.0	1,302,803.8	1,798,831.4	2,505,831.0	3,524,041.0	4,984,293.5	7,120,847.0	10,156,351.0
Average Nominal Wage	299.1	401.1	533.2	706.1	960.7	1,335.9	1,903.6	2,704.1
Total as % of Nominal GDP	44.4%	45.3%	45.8%	46.9%	47.7%	48.6%	49.1%	49.3%
Wage Bill: Nominal Contributors	1,647,595.3	2,469,185.3	3,669,949.8	5,454,400.0	7,728,587.0	11,010,418.0	15,798,298.0	22,505,156.0
Wage Bill: male	1,011,227.9	1,530,251.5	2,267,988.3	3,374,403.5	4,812,327.0	6,896,428.0	9,934,335.0	14,151,066.0
Wage Bill: female	636,367.3	938,933.7	1,401,961.5	2,079,996.4	2,916,259.8	4,113,989.5	5,863,962.5	8,354,089.5
Average Nominal Wage	312.4	418.5	557.6	741.2	1,007.9	1,396.9	1,986.8	2,826.2
Total as % of Nominal GDP	27.8%	30.7%	33.6%	36.8%	37.5%	38.2%	38.5%	38.5%
Contributors' Wage Bill as % of Employees' Wage	62.5%	67.7%	73.3%	78.4%	78.6%	78.7%	78.4%	78.2%

Annex Table 3: Kazakhstan: Summary for New System

	1998	1999	2000	2001	2002	2003	2004	2005	2010
Total Beneficiaries	2,582.0	2,496.1	2,436.9	2,349.7	2,303.5	2,265.6	2,238.1	2,219.2	2,245.4
Old Age	1,490.1	1,476.9	1,434.0	1,393.2	1,390.9	1,391.2	1,405.4	1,425.3	1,574.3
Favorable	515.5	429.3	396.8	342.4	297.2	256.8	214.0	174.1	41.8
Survivors	232.2	231.6	232.1	233.5	235.7	238.6	242.1	245.9	266.9
Disabled	344.2	358.3	373.9	380.5	379.8	378.9	376.6	373.9	362.4
Old Age-Effective Contributors Ratio	44.9	52.7	49.0	45.5	43.5	41.6	40.2	39.1	34.6
Total Beneficiaries-Effective Contributors Ratio	77.8	89.1	83.2	76.7	72.0	67.7	64.1	60.8	49.4
Total Expenditure	120,718.6	138,314.7	145,243.7	147,017.3	149,865.4	152,448.0	155,995.0	160,293.4	194,291.8
Total Pension Benefits	117,244.4	134,334.2	141,063.7	142,786.3	145,552.4	148,060.7	151,505.6	155,680.3	188,700.2
Benefits for Old Age	69,884.0	81,752.1	85,386.9	87,236.1	90,918.4	94,403.7	99,045.4	104,233.9	137,667.1
Benefits for Favorable	24,982.7	24,324.7	24,019.4	21,545.1	19,136.7	16,854.2	14,390.2	12,053.4	3,587.6
Benefits for Survivors	10,531.1	13,000.1	14,246.7	15,206.7	15,970.7	16,692.3	17,464.5	18,292.0	23,370.7
Benefits for Disabled	11,846.6	15,257.3	17,410.8	18,798.4	19,526.6	20,110.4	20,605.5	21,101.0	24,074.9
Relative to GDP									
Pension Payments As % of GDP	6.7%	6.4%	6.1%	5.7%	5.4%	5.2%	5.0%	4.8%	4.3%
Total Expenditure As % of GDP	6.9%	6.6%	6.3%	5.9%	5.6%	5.3%	5.1%	5.0%	4.4%
Avg pension - Average Wage Ratio	41.1	39.2	38.6	37.9	37.7	37.6	37.5	37.4	36.3

Annex Table 3: Kazakhstan: Summary for New System (con't)

	2015	2020	2025	2030	2035	2040	2045	2050
Total Beneficiaries	2,586.8	2,666.9	2,752.4	2,838.9	2,925.1	4,375.0	4,765.5	5,133.9
Old Age	1,902.0	1,976.9	2,057.4	2,140.2	2,223.7	3,553.7	3,934.3	4,318.1
Favorable	2.2							
Survivors	290.8	293.7	295.2	295.5	294.8	303.1	314.1	313.5
Disabled	391.8	396.3	399.9	403.2	406.5	518.2	517.1	502.2
Old Age-Effective Contributors Ratio	36.1	36.6	37.2	37.8	38.5	45.1	49.5	54.2
Total Beneficiaries-Effective Contributors Ratio	49.0	49.4	49.8	50.2	50.6	55.5	59.9	64.5
Total Expenditure	269,073.9	285,429.2	304,904.6	323,972.7	341,585.5	790,540.6	1,065,340.3	1,524,893.4
Total Pension Benefits	261,330.3	277,214.9	296,129.8	314,649.1	331,755.0	767,789.7	1,034,680.9	1,481,008.5
Benefits for Old Age	200,438.2	213,875.0	230,165.7	246,150.0	260,793.0	472,937.1	565,919.9	758,392.8
Benefits for Favorable	242.0							
Benefits for Survivors	29,992.7	31,298.2	32,527.7	33,655.2	34,679.5	115,474.4	187,812.7	294,242.4
Benefits for Disabled	30,657.4	32,041.7	33,436.4	34,843.9	36,282.5	179,378.2	280,948.3	428,373.4
Relative to GDP								
Pension Payments As % of GDP	4.4%	4.4%	4.4%	4.4%	4.4%	2.7%	2.5%	2.5%
Total Expenditure As % of GDP	4.5%	4.5%	4.5%	4.5%	4.5%	2.7%	2.6%	2.6%
Avg pension - Average Wage Ratio	33.7	32.7	31.9	30.9	29.7	9.5	7.2	6.2

Annex Table 4: Kazakhstan Summary for Old System

	1998	1999	2000	2001	2002	2003	2004	2005	2010
Total Beneficiaries	2,582.0	2,496.1	2,436.9	2,349.7	2,303.5	2,265.6	2,238.1	2,219.2	2,245.4
Old Age	1,490.1	1,476.9	1,434.0	1,393.2	1,390.9	1,391.2	1,405.4	1,425.3	1,574.3
Favorable	515.5	429.3	396.8	342.4	297.2	256.8	214.0	174.1	41.8
Survivors	232.2	231.6	232.1	233.5	235.7	238.6	242.1	245.9	266.9
Disabled	344.2	358.3	373.9	380.5	379.8	378.9	376.6	373.9	362.4
Old Age-Effective Contributors Ratio	44.9	52.7	49.0	45.5	43.5	41.6	40.2	39.1	34.6
Total Beneficiaries-Effective Contributors Ratio	77.8	89.1	83.2	76.7	72.0	67.7	64.1	60.8	49.4
Total Revenue	59,597.7	72,104.1	84,507.7	96,933.2	108,926.3	121,489.4	134,853.2	149,894.7	232,591.2
Contribution Revenue	59,597.7	72,104.1	84,507.7	96,933.2	108,926.3	121,489.4	134,853.2	149,894.7	232,591.2
Total Expenditure	120,718.6	138,363.6	145,354.4	147,221.3	150,310.4	153,197.3	157,185.8	162,046.3	201,384.1
Total Pension Benefits	117,244.4	134,381.6	141,171.3	142,984.4	145,984.6	148,788.5	152,662.2	157,382.8	195,588.5
Benefits for Old Age	69,884.0	81,799.5	85,494.3	87,434.0	91,350.4	95,131.3	100,201.8	105,936.1	144,558.0
Benefits for Favorable	24,982.7	24,324.7	24,019.6	21,545.3	19,136.9	16,854.5	14,390.4	12,053.7	3,584.9
Benefits for Survivors	10,531.1	13,000.1	14,246.7	15,206.7	15,970.7	16,692.3	17,464.5	18,292.0	23,370.7
Benefits for Disabled	11,846.6	15,257.3	17,410.8	18,798.4	19,526.6	20,110.4	20,605.5	21,101.0	24,074.9
Relative to GDP									
Contribution Revenue As % of GDP	3.4%	3.4%	3.7%	3.9%	4.1%	4.3%	4.5%	4.7%	5.3%
Total Revenue As % of GDP	3.4%	3.4%	3.7%	3.9%	4.1%	4.3%	4.5%	4.7%	5.3%
Pension Payments As % of GDP	6.7%	6.4%	6.1%	5.7%	5.4%	5.2%	5.0%	4.9%	4.5%
Total Expenditure As % of GDP	6.9%	6.6%	6.3%	5.9%	5.6%	5.4%	5.2%	5.0%	4.6%
Avg pension - Average Wage Ratio	41.1	39.3	38.6	38.0	37.9	37.8	37.9	38.0	38.1

Annex Table 4: Kazakhstan Summary for Old System (con't)

	2015	2020	2025	2030	2035	2040	2045	2050
Total Beneficiaries	2,586.8	3,011.7	3,390.6	3,671.6	4,018.5	4,375.0	4,765.5	5,133.9
Old Age	1,902.0	2,309.1	2,681.8	2,932.7	3,238.3	3,553.7	3,934.3	4,318.1
Favorable	2.2							
Survivors	290.8	292.9	276.2	270.0	282.7	303.1	314.1	313.5
Disabled	391.8	409.7	432.5	468.9	497.6	518.2	517.1	502.2
Old Age-Effective Contributors Ratio	36.1	39.1	40.7	39.9	42.2	45.1	49.5	54.2
Total Beneficiaries-Effective Contributors Ratio	49.0	51.0	51.5	49.9	52.4	55.5	59.9	64.5
Total Revenue	350,114.0	524,701.9	779,864.4	1,159,060.0	1,642,324.6	2,339,714.0	3,357,138.5	4,782,345.5
Contribution Revenue	350,114.0	524,701.9	779,864.4	1,159,060.0	1,642,324.6	2,339,714.0	3,357,138.5	4,782,345.5
Total Expenditure	293,004.7	428,504.2	592,747.2	768,105.1	1,258,209.6	2,058,575.1	3,464,072.5	5,759,752.5
Total Pension Benefits	284,572.3	416,172.3	575,688.6	745,999.9	1,221,999.6	1,999,331.5	3,364,380.0	5,593,993.0
Benefits for Old Age	223,682.0	342,888.3	487,406.3	630,477.0	1,038,975.9	1,704,479.0	2,895,619.0	4,871,377.5
Benefits for Favorable	240.2							
Benefits for Survivors	29,992.7	35,552.3	39,211.8	44,809.0	70,403.8	115,474.4	187,812.7	294,242.4
Benefits for Disabled	30,657.4	37,731.7	49,070.5	70,713.8	112,620.0	179,378.2	280,948.3	428,373.4
Relative to GDP								
Contribution Revenue As % of GDP	5.9%	6.5%	7.1%	7.8%	8.0%	8.1%	8.2%	8.2%
Total Revenue As % of GDP	5.9%	6.5%	7.1%	7.8%	8.0%	8.1%	8.2%	8.2%
Pension Payments As % of GDP	4.8%	5.2%	5.3%	5.0%	5.9%	6.9%	8.2%	9.6%
Total Expenditure As % of GDP	4.9%	5.3%	5.4%	5.2%	6.1%	7.2%	8.4%	9.9%
Avg pension - Average Wage Ratio	37.6	35.5	32.6	29.0	31.8	34.3	37.0	39.9

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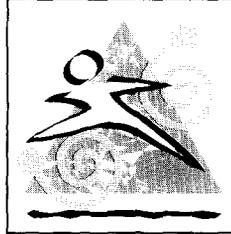
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Summary Findings

The pension reform in Kazakhstan was instituted to remove a *deteriorating* and costly pay-as-you-go (PAYGO) system with limited revenues, a relatively low worker to pensioner ratio, and accumulating pension arrears. Analysis was conducted to assess whether the economy could sustain a radical reform, which would make the implicit pension debt explicit.

The first section of this report reviews the reform and provides a synopsis of the thinking behind its development, including the events leading up to it and the failings of the PAYGO system. In the second section, the administrative, business, and regulatory structures created by the pension reform legislation are described. In the third section, the progress of these entities in meeting the objectives of the reform is evaluated, particularly in terms of regulatory and financial market performance.

HUMAN DEVELOPMENT NETWORK

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The World Bank Pension Reform Primer aims to provide a timely and comprehensive resource for those engaged in the design and implementation of pension reforms around the world. Policymakers and those who advise them will find useful information on other reform experiences, the current thinking of pension specialists and a vast array of cross-country evidence. A flexible and dynamic format ensure that key developments are updated as they occur.

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For more information, please contact Social Protection, Human Development Network, World Bank, 1818 H Street NW, Washington, D.C. 20433; telephone +1 202 458 5267; fax +1 202 614 0471; e-mail socialprotection@worldbank.org. All Pension Reform Primer material is available on the internet at www.worldbank.org/pensions