Recommendations for Strengthening Armenia's Proposed Pension Reform

David Snelbecker

Armenia Social Protection Systems Strengthening Project

USAID SO 3.4

111-C-00-06-000676-00

AECOM International Development
June 25, 2007

USAID FROM THE AMERICAN PEOPLE

USAID ARMENIA, SOCIAL PROTECTION SYSTEMS STRENGTHENING PROJECT
ԱՄՆ ՄԶԳ Հայաստան, Սոցիալական պաշտպանության համակարգերի հզորացման ծրագիր

Prepared by:

David Snelbecker[1]
Expert in Pension Policy
Social Protection Systems Strengthening Project (SPSS /USAID)

Disclaimer: the consultant's views given below do not necessarily reflect the views of the United States Agency for International Developments or the United States Government

Recommendations for Strengthening Armenia's Proposed Pension Reform

15 June 2007

[1] This paper was prepared by David Snelbecker, with contributions from Lena Zezulin and the USAID SPSS Project, Component 1: Social Insurance Team. Richard Webb, of the USAID Financial Sector Deepening Project, provided extensive editing suggestions. Additional suggestions were made by USAID and World Bank staff. Anna Kordunsky and Upasana Khadka, from the TSG home office, provided research support.

Executive Summary

Armenia is about to embark on a historic reform of the pension system, aimed at alleviating poverty among elderly poor and ensuring adequate retirement income for present and future generations. The main elements of the reform concept, which draw on lessons from recent pension reforms in the region and worldwide, are as follows: a social pension for all elderly (even those who do not work), paid from general revenues; a modest basic pension linked to length of service, paid on a PAYG basis; and a mandatory funded pension with centralized collection and accounts administration. Nevertheless, a number of aspects of this proposed reform require further attention and consideration. Success of the reform hinges on appropriately resolving a number of key issues. The box at right suggests six core questions that any successful pension reform must answer. Our specific recommendations are as follows:

> **Six Core Questions a Pension Reform Should Address in Order to Succeed**
>
> 1. How will a funded pension component be *governed* in order to ensure that assets are appropriately invested on behalf of participants?
> 2. How should the entity that implements the system of pension accounts be *supervised*?
> 3. In which types of instruments and in which markets should pension *investments* be made?
> 4. How should contributions be *collected* and *reconciled* in order that funds are correctly allocated to individual accounts?
> 5. Who should *manage individual accounts*, keeping track of accumulated assets and changes in portfolio choice?
> 6. What should the *parameters* of the system (contribution rates, benefit formulas, etc.) be, to ensure that the system provides a fair allocation of resources within and between generations, alleviates poverty, provides positive incentives, and is fiscally sustainable?

- Responsibilities for implementing the funded pensions are fragmented across numerous institutions, and governance of the system is weak. No single legal entity is given the mandate of *implementing* the funded system. This includes the following critical tasks: 1) selecting, instructing and monitoring performance of asset managers; 2) specifying default asset managers and portfolios; 3) reconciling contributions; 4) liaising with participants to collect portfolio choices and beneficiary and other information; and 5) generally assuming fiduciary responsibility for managing the system. To some extent, these functions are proposed to be undertaken by the supervising entity (i.e., the Central Bank). Assigning implementation tasks to the entity responsible for supervision would be risky, since it would not provide the usual checks and balances that come from separating implementing and supervising functions. We recommend that there should be an implementing agency that is a legal entity, separate from the supervising entity, with strong governance rules and abilities. This implementing entity (which is not included in the current proposal) should be the core of the funded component, taking on responsibility for a number of tasks that are currently dispersed or unassigned to any particular entity. This could be a public-private partnership with participation of international private or multilateral institutions (such as the IFC). We suggest that this entity be named the “Pension Savings Fund of Armenia (PSFA)”.
- Given Armenia’s shallow capital markets, a large share of pension assets would have to be invested abroad, at least initially. Macroeconomic issues need to be considered. Hedging instruments need to be developed to manage currency risk. A careful assessment needs to be made regarding what domestic investments are appropriate and available, and what foreign investments are currently required and appropriate.
- Because the State Tax Service lacks proper capacity and incentives for collecting and reconciling contributions, the PSFA should be responsible for this task. The STS

could, however, play a role in enforcement and in monitoring the collection of aggregate payments.

- Contributions should flow directly from employers to the PSFA, not through the State Treasury. Funded pension contributions should not be commingled with taxes or other state funds. Full individual-level information should be provided with each transaction.
- An international firm such as OMX, could assume responsibility for managing individual accounts once contribution information is verified. (The government of Armenia has proposed that OMX—which is currently in negotiations with the GOA with respect to acquisition of the Armenian stock exchange and depositary—perform this role). OMX could be a shareholder in the PSFA, or the PSFA could contract with OMX for this service.)
- System parameters need to be set so that: state resources are concentrated on eliminating poverty; participants are fairly rewarded for their contributions; positive incentives for participation are provided; measures are developed to guard against evasion and other labor market distortions; and the system is fiscally sustainable. The benefit formula for the basic pension could be linked to length of service (as currently proposed) but should not be linked to wages. Available state resources should be allocated to increasing the very low minimum pension levels in Armenia, not to creating larger pensions for higher-income workers.
- The reform should be introduced in phases. The first phase should include enough participants so that the system immediately achieves sufficient economies of scale. (Starting the system only with voluntary participants would not achieve this.) All workers in large organizations could be included in the first phase, with workers in small firms, sole entrepreneurs, and agricultural workers included in a later phase.

Part I of this paper analyzes issues. Part II presents recommendations.

Part I: Analysis of the Issues

I.A Current reform proposal

The current reform proposal for reforming the PAYG pension system and for creating mandatory funded accounts consists of the following key elements:

- The PAYG component will consist of a social pension paid to elderly who do not qualify for the basic pension, and a basic pension paid to those who make contributions for five or more years. The basic pension will be linked to length of service but not to wages or amount of contributions.
- Individual accounts will be centrally maintained by the Central Depositary of Armenia (CDA), which is to be partially or wholly acquired by OMX, a firm which provides the IT backbone and supports stock exchanges and pension systems in Sweden and Estonia.
- The Central Bank of Armenia (CBA) will license and supervise asset managers and will supervise the CDA.
- The CBA will require that all asset managers offer three portfolios (low risk, medium risk and high risk).
- Individual participants will select portfolios offered by licensed asset managers.
- The State Tax Service (STS) will collect contributions, reconcile them, and pass information and money to the CDA.

I.B. Issues

The following sections discuss issues that are relevant for designing and implementing a successful pension system in Armenia.

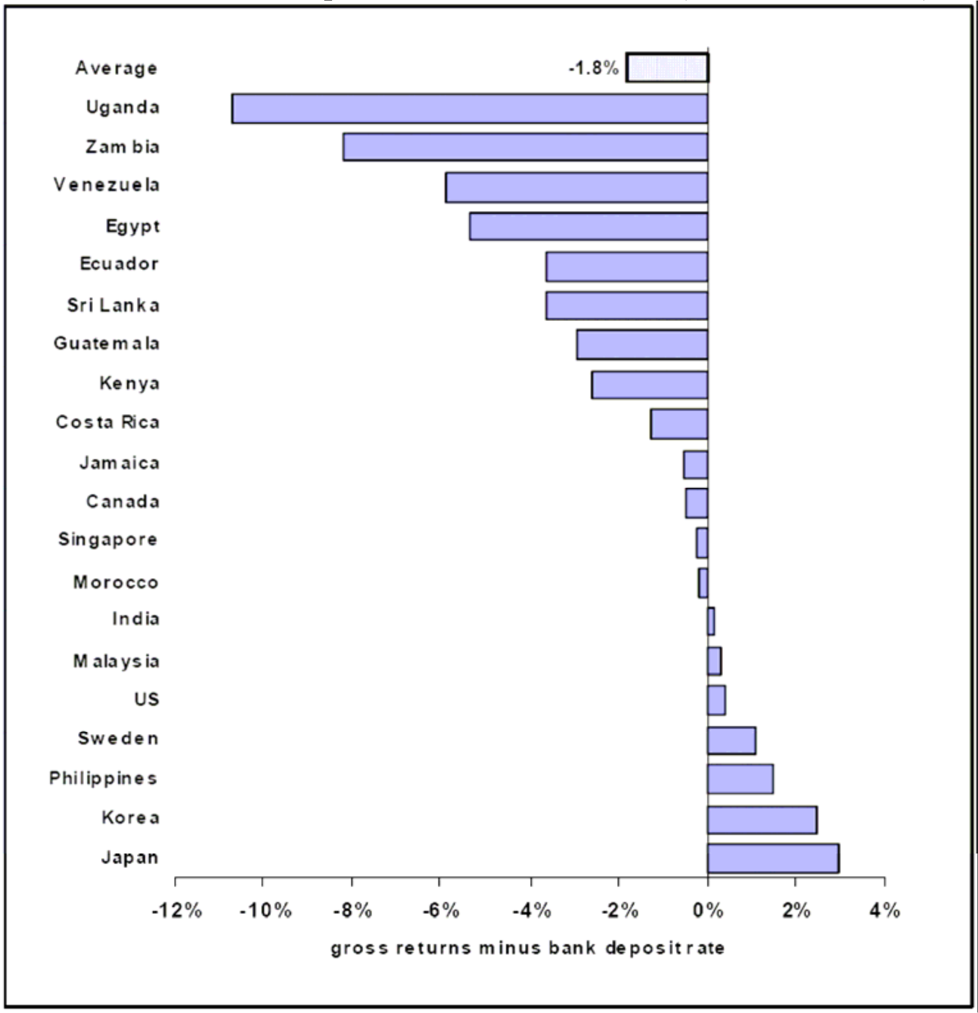
Issue 1: Armenia is a small country.

Many medium and large countries have successfully implemented mandatory funded pensions by introducing a system of numerous, private, competing pension funds. Private ownership and competition between many funds are two important market forces that help ensure sound investment of pension assets and maximum value to contributors. Because economies of scale are required to create efficient pension funds, in a small country like Armenia this is not a viable option. The small size of the active labor force in the Armenian formal sector does not provide sufficient economies of scale to create more than one mandatory pension institution. Consequently, it is recommended that Armenia follow the model of a centralized mandatory pension system, in which individual pension accounts are maintained and managed by one entity. (This entity could channel funds to multiple asset managers, who could be chosen by tender so as to provide some competition.) Unfortunately, world experience with such centralized pension systems has not been as satisfactory as the experience with a number of private, competing pension funds, and no preferred model has yet emerged for management of such a system.

Issue 2: Armenia has weak governance.

The quality of mandatory pension investments tends to vary with the quality of a *country's* governance and capacity. ("Governance" refers broadly to the quality of government services and regulation, corporate governance, and governance of financial institutions.) The greater the governance and capacity, the greater the risk-adjusted returns to investments. The following chart shows the performance of a number of pension systems based on a model of centralized account administration. (Iglesias, Palacios, 2000, p26) Public pension fund returns are shown as the difference between *public* pension fund returns and bank deposit rates over the same time period. Obviously, in order to be judged successful, pension funds should yield higher returns than those offered by domestic bank deposits.

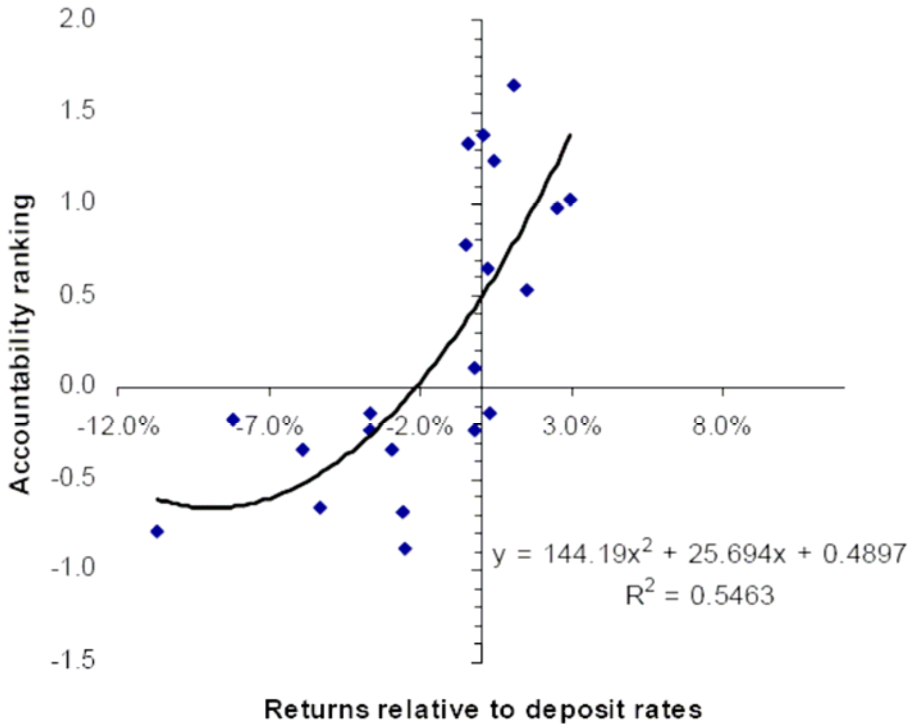
Difference Between Real Annual Compounded Publicly-Managed Pension Fund Returns and Bank Deposit Rates in 20 Countries (from worst to best)



The next chart is from related research conducted by the World Bank (Palacios, 2002, p37), which shows the correlation between quality of governance, on the one hand, and public pension fund returns, on the other hand. Quality of governance is measured by Governance Indicators developed by the World Bank. (Kaufmann, Kraay, Mastruzzi, 2006). (The specific indicator used here is the Voice and Accountability Indicator, which is an aggregated indicator that includes measures of business conditions and risk, business environment, and world competitiveness, and which is also one of the indicators that the Millenium Challenge Corporation (MCC) uses.)

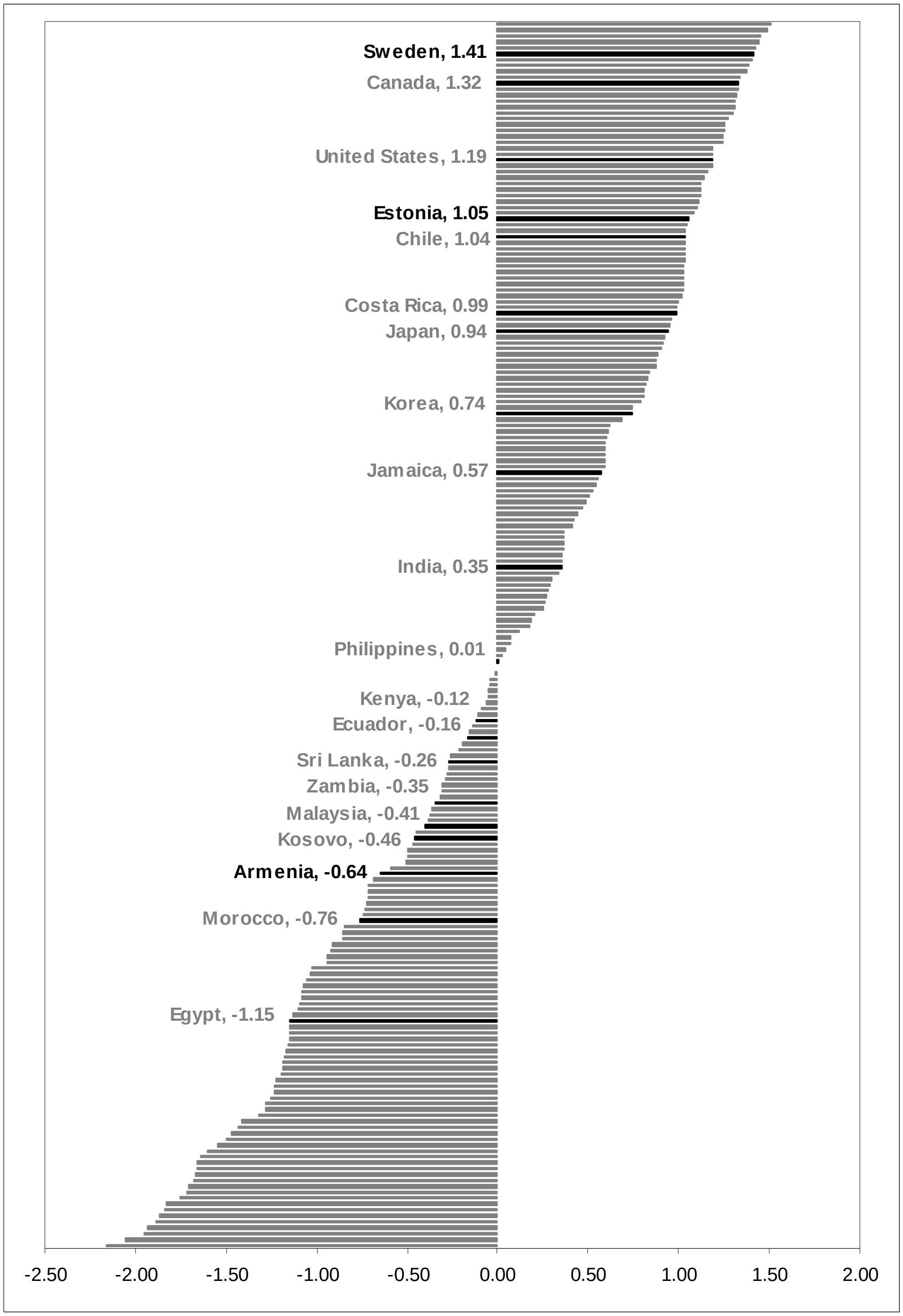
Accountability of Government and Public Pension Fund Returns:

The Correlation Shown by World Bank Research



The following chart shows the Voice and Accountability Indicator for all countries, including Armenia, Sweden, and Estonia, for 2005.

Governance Indicators



The following table uses the correlation equation determined by the World Bank research to predict the expected difference between pension fund returns and bank deposit rates in three countries:

Expected Difference Between Pension Fund Returns and Bank Deposit Rates, as per Correlation Equation From World Bank Research, Using the 2005 Voice and Accountability Governance Indicator

Country	Voice & Accnt. Indicator	Expected Difference
Sweden	1.41	+3.1%
Estonia	1.05	+2.0%
Armenia	-0.64	-7.9%

Using the 2005 Governance Indicators and the correlation formula, Sweden would be expected to provide pension fund returns 3.1% greater than bank deposits, and Estonia 2.0% greater. (The number for Sweden is relatively similar to what is actually observed in the above analysis.) Armenia is predicted to provide pension fund returns of 7.9% *less than* bank deposits.

It has been noted that Armenia scores particularly poorly on this indicator. The SPSS staff has repeated this research using other governance indicators. This research shows a similarly negative picture, though not quite as bleak as that shown by the Voice and Accountability indicator. Estimates are that pension investments will yield returns that are between 2.0% and 3.9% *below* bank deposit rates. These estimates are shown below. More detailed information is presented in Appendix One.

Expected Difference Between Pension Fund Returns and Bank Deposit Rates in Armenia, Using Several Different Governance Indicators

Governance Indicator	Indicator Value	Expected Difference
Rule of Law, World Bank	-0.46	-3.9%
Political Stability, World Bank	-0.22	-2.0%
Regulatory Quality, World Bank	+0.12	-3.0%
Government Effectiveness, World Bank	-0.17	-3.0%
Control of Corruption, World Bank	-0.64	-3.6%
Corruption Perceptions Index, Transparency International	+2.9	-3.2%

Source: USAID SPSS staff estimates

These simple correlation equations do not determine Armenia's fate; they are just an illustration of how a mandatory pension system in Armenia would fare if it were to fall along the correlation path suggested by world historical data. The equations do, however, underscore the message that Armenia must pay careful attention to governance issues in designing its pension system, to ensure that pension assets are prudently invested.

Issue 3: Governance and supervision in the currently proposed pension system are weak.

International best practice suggests that a pension implementing entity should be strong, with strong governance and strong supervision; however, the governance and supervisory mechanisms contained in the current Armenian proposal are very weak. In fact, the Armenian proposal appears to envisage almost non-existent governance at the implementation level. A good summary of international best practices is provided by Jeffrey

Carmichael (former Chairman of the Australian Prudential Regulation Authority) and Robert Palacios (World Bank), in "A Framework for Public Pension Fund Management". (Carmichael, Palacios, 2003). They recommend the following principles for governance and accountability:

Governance

- There should be clarity of roles and responsibilities within the pension fund.
- The law establishing the management agency should provide unambiguous conditions under which members of the governing body of the agency can be appointed and removed.
- The managing agency should be free from inappropriate interference from the government in pursuing its objectives and meeting its responsibilities.
- The processes for formulating and executing scheme policies should be open and transparent.
- The structure of delegations permitted within the scheme should be clearly defined.
- The management agency should be required by law to establish internal governance structures and processes to minimize corruption, mismanagement, and fraud.
- The government should require that the management agency be regulated and supervised by the same agency that is responsible for regulating private pension providers and, where feasible, that it should meet the same standards imposed on private providers.

Accountability

- There should be full and open disclosure about the governance structure of the scheme and the managing agency.
- As part of its disclosure of governance arrangements the managing agency should be required to publish its formal delegations of powers and responsibilities.
- Funding shortfalls should be identified and disclosed, along with the government's proposed remedial actions.
- The management agency should be subject to regular governance and performance audit.
- The management agency should be required to report comprehensively on its decisions and performance.
- To the greatest extent possible, rewards for performance should be linked to delegated responsibilities and should be risk-based.
- Managers should be required to review periodically the exercise of delegations they have made.

The fundamental problem with the proposed Armenian reform is that it does not explicitly provide for a management agency or entity overseeing the investment process. The role of the depositary (to be managed by OMX) is set out, but this is merely a clearing and accounts management system. There is no entity with clear fiduciary responsibility for implementing investment decisions. Specifically in the type of reform proposed, where participants can choose between multiple portfolios, there is no entity with responsibility for choosing asset managers, for selecting or approving the portfolios that asset managers will offer, or for constructing a default portfolio. Perhaps this is to be done by some government body or by the regulator; however, this would result in inadequate checks and balances, as the same entity would be both the implementing entity and the supervising entity.

To remedy this governance weakness, a legal entity must be created and given clear responsibility for implementing and managing mandatory pension accounts. In addition, the design and implementation of this entity must comply with the preceding list of principles.

The text box describes the Swedish system of mandatory pension accounts. With some modifications, this model has much to offer Armenia.

The Swedish Second Pillar

The Swedish second pillar is administered by the Premium Pension Authority (known by its Swedish acronym, PPM). This is a legal entity created by the pension reform legislation. It is governed by a Governing Board comprised of members who are chosen through a careful selection process and appointed by the government. The PPM employs around 200 people.

Initially in 2000, there were 465 funds from which participants could choose. This number grew to 664 funds in 2004. Those who make no selection are automatically enrolled in a default portfolio. This default fund is called the Premium Savings Fund, and is offered by the Seventh Swedish National Pension Fund. Initially in 2000, around two-thirds of participants made selections, and one-third were enrolled in the default fund. The high rate of participation in selection likely was due to a widespread public education campaign. Active selection by new entrants to the system has been much lower more recently. In the five subsequent rounds of registration, less than ten percent of those eligible made selections, with the other 90 percent being enrolled in the default fund.

Participants are allowed to make switches in their fund selection. Few exercise this option. In 2004, less than six percent made even one fund switch, and only around 600 individuals out of more than 5.3 million total participants made more than 20 switches in the course of a year.

In 2006, 59% of total investments were allocated to global equities, 30% to Swedish equities, and 11% to bonds. 31% of assets were held by the Premium Savings Fund—the default portfolio.

Sources: Premium Pension Authority (2005); Swedish Social Insurance Agency (2006); Weaver (2005).

Issue 4: Limited experience regulating capital markets.

Proposals have been made to create a new institution in Armenia, an independent financial sector regulator, which would supervise the entire financial sector, including mandatory pensions. While such proposals have merit, it is important to keep in mind that this new institution could be quite weak initially and could take considerable time to grow into a strong, experienced supervisor. Such an institution would have much more limited capacity to successfully supervise the system than counterparts in Sweden, Estonia, or many other countries that have introduced funded accounts. In those countries, the regulatory institutions are older and supervisors have had greater experience in supervising capital markets and non-bank financial institutions. The Armenian reform needs to recognize the limited supervision capacity, and as much responsibility as possible should be placed on the implementing entity rather than on the supervising entity.

Issue 5: Shallow financial markets.

Armenia's financial markets are shallow. As a share of GDP, the capitalization of the banking sector, of the stock market, and of other non-bank financial sectors is lower than most other countries—even those of the former Soviet Union. Furthermore, the quality of investments is low. For instance, the risk ratings of fixed income opportunities are significantly lower than those in most countries that have introduced funded pension systems.

This has two key implications:

- First, whereas in Sweden and Estonia it is reasonable to assume that most licensed institutions (such as asset managers) are robust and reliable, the same is not the case in Armenia. Many financial institutions that have received licenses and operate in Armenia's capital markets would not be appropriate entities for investing mandatory funded pensions. A very strong pension implementing entity is needed to screen and select qualified asset managers and other institutions to participate in the system.
- Second, given weak domestic financial markets, it is important to allow a substantial role for international actors (including asset managers) and for investments abroad. However, external investments raise macroeconomic questions that need to be considered, including the extent to which hedging mechanisms can be created in order to help participants reduce exposure to currency risks.

Issue 6: Limited capacity of STS to collect contributions.

In the US, the Internal Revenue Service (IRS) collects Social Security contributions and forwards them to the Social Security Administration. The same is true in Sweden and Estonia. However, the US IRS has certain advantages over the Armenian STS that make it better suited for the role of pension contribution collection. These advantages are more than just stronger overall capacity. In the US, most tax revenues come from personal income tax, and most American workers file individual returns. The IRS is an agency specialized in the collection of individual payments and reconciliation of individual payment statements, functions that are similar to collecting and reconciling pension contributions. In Armenia, most revenues come from taxes *other than* the personal income tax, and most Armenians do not file individual returns—personal income tax is collected only as a component of an aggregate wage withholding tax. The STS receives monthly statements from employers showing income taxes received. It does not reconcile these reports to the individual employee level at any time. Consequently, not only is the Armenian STS much weaker overall than the IRS and tax administrations in other countries that have successfully introduced funded pension accounts, it also has little experience in collecting personal income tax and processing individual returns. The STS is particularly poorly suited to collecting and processing contributions in a mandatory funded pension system.

The State Social Insurance Fund (SSIF) receives annual reports from employers, which reports do contain individual employee data; however, it has no authority to reconcile data to individual employees and does not currently do so.

Therefore, currently, there is no agency in Armenia that engages in even an approximation of the process required in reconciling second pillar contributions.

The table below highlights the differences in capacity between the various countries.

Comparison of Tax Administration Capacity for Collecting Funded Pension Contributions

Country	Tax Revenues (% of GDP)	Personal Income Tax (% of Total Revenues)	Population (million)	Number of Individual Tax Filings
US	22	76	301.1	132.2 million
Armenia	14	8	3.0	Almost none
Sweden	52	39	9.0	n/a
Estonia	31	21	1.3	n/a

Sources: Tax revenues and share of personal income tax: World Development Indicators, Armenian and Estonian Ministries of Finance, Eurostat. Population: CIA World Factbook (2007). Number of individual tax filings: IRS.

It is quite rare for a tax administration to collect and reconcile individual contributions to a funded pension system, as indicated by the following table, which presents information on who performs the reconciliation function in a number of different funded pension systems.

Reconciliation Entity – Responsible for Tasks of Reconciling Contributions, and Identifying and Verifying the Individuals for Which Contributions Are Made

Country	Reconciliation Entity		Details
	Tax Admin	Other	
Latin America			
Argentina		x	Private pension fund managers
Chile		x	Private pension fund managers
Colombia		x	Private pension fund managers
Europe			
Croatia		x	Tax admin oversees aggregate payments. Special clearinghouse reconciles
Estonia	x		Tax administration
Kosovo		x	Tax admin oversees aggregate payments. Civilian registry, Pension Trust reconcile
Poland		x	Social insurance fund (ZUS)
Sweden	x		Tax administration
Asia			
Indonesia		x	Provident funds
Malaysia		x	Provident funds
Philippines		x	Provident funds
Singapore		x	Provident funds

Part II: Proposed Solutions

Based on the analysis presented in Part I, the following recommendations are made for the design and implementation of mandatory funded pension accounts in Armenia. A summary of the reform proposal, with comments and recommendations, is provided in Appendix Two.

II.A. Governance, structure and roles of the implementing entity

In this paper, we use the term "Pension Savings Fund of Armenia" (PSFA) to refer to the organization that would perform the main functions necessary for implementing and managing funded pension accounts. In the current proposal, these functions are allocated to several different institutions or not allocated at all. We make recommendations for fundamentally changing the structure, roles and responsibilities of the implementing institution.[2]

An important concern is that, while the current proposal presents an appropriate IT solution for managing individual accounts by including OMX, the proposal has very weak governance provisions. Given that Armenia rates poorly overall on numerous international governance indicators, strong governance for mandatory funded pension accounts is critical. World experience indicates that failure to provide for strong governance may lead to failure of the entire reform.

We take the current reform proposal as a starting point, highlight elements of the proposal that are positive and should be maintained, and further suggest additional elements for the proposal that would greatly strengthen governance and address other important issues.

<u>Maintaining current reform proposal elements.</u> The following elements in the current pension reform proposal address important matters and should be maintained:

- The PSFA should have ultimate responsibility for managing individual accounts, with the possibility of outsourcing this function. For instance, this function could be performed by OMX, the firm that is in negotiations to acquire the Armenian stock exchange and depositary. OMX could become a shareholder in the PSFA or could work on a contract basis for the PSFA. OMX brings important systems and experience to help solve the specific problem of managing data of individual accounts, and it provides a mechanism for correctly allocating funds among asset managers as participants shift their portfolios.
- Participants should be offered a choice of private, licensed asset managers, from which they can select portfolios.

<u>Recommended additional roles for the PSFA .</u> An enhanced PSFA should undertake the following additional functions, beyond those listed above:

- Make any decisions regarding investments that are not already set in legislation or by the supervisor.

[2] An early version of draft legislation refers to a Centralized Administration of Mandatory Accumulation Pensions that would implement the mandatory pension accounts. Later versions clarify that this would be done by the Central Depositary of Armenia (CDA). The PSFA would have lead responsibility for implementing functions, perhaps in come cases outsourced to the CDA, or to OMX, the international firm currently in negotiations to acquire the CDA.

- Select private asset managers through competitive tenders and monitor their performance against contractual benchmarks. That is, the PSFA should act as the procurement agent for the pension system.
- Set default portfolios for those who do not choose their own asset managers. This is a critical function since maybe half to two-thirds of workers will end up in the default portfolios.
- Collect and reconcile contributions, with enforcement only (and perhaps monitoring of aggregate payments) performed by the STS. (This last point is discussed in a later section below.)
- Make payments in cases of phased withdrawals or lump sums.
- Manage ongoing public education.
- Provide for entry points across the country where participants could join the system, specify asset managers and portfolio shifts, pick up account statements, and receive customer service. (This function could be outsourced.)

Stronger governance. Governance of the PSFA needs to be far stronger than is currently proposed:

- The PSFA should be a legal entity created by enabling legislation, autonomous from its supervising agency and other government entities.
- The PSFA should have all the features indicated by international best practices: internal governance structures and processes to minimize corruption, mismanagement, and fraud; clear roles and responsibilities; protection from political intervention; clear processes for appointing and removing managers of the entity; clear definition of managers' roles and appropriate incentives in compensation packages; accountability and transparency; etc.
- The PSFA should be a private entity or public-private partnership.
- It is recommended that one or several of the shareholders in the PSFA could be international private or multi-lateral institutions.
- There should (could?) be other shareholders as well. OMX could be a shareholder, or it could merely contract with OMX to manage accounts. Other private or governmental shareholders could be invited.
- A concession could be granted to implement the mandatory funded pension system for, say, 10-20 years. (A long time horizon is needed so the PSFA can recover investment costs and benefit from larger amounts of assets accumulated as time goes on.)
- The form of the concession should be a contract, internationally enforceable, and not merely legislation. This solidifies the autonomy of the institution and its capacity to fulfill a fiduciary responsibility without undue political interference.
- Because the PSFA essentially would act as a for-profit monopoly, setting the administrative fee it charges is important. The fee determines whether it is profitable for the implementer to operate and, the flip side of this coin, whether the costs to participants are reasonable. The fee also determines the incentives the implementer faces. Estelle James, a leading international pension reform expert, suggests a fee structure in Armenia that is based both on asset manager performance (measured against some benchmarks) plus efficiency in reconciling contributions. Significant consideration is needed in order to get the fee structure right. Possible fee arrangements are: contribution fees (especially during early stages); fees based on assets under management, fees based on investment returns, or combinations. Investment return fees are performance based but present considerable moral hazard. Fees could be flat percentages, or decreasing percentages as accumulations build.

Control of “one off” fees (e.g, transfer fees, or fees for non-prescribed information) might also be considered. Efficiency in reconciling contributions should be its own reward, as it would result in more profit from the existing fee levels.

II.B. Supervision and External Auditing

The PSFA should be supervised by the same entity that regulates private institutions in the financial sector. Currently this is the CBA. A number of recommendations have been made to create a separate financial sector regulatory entity. While this makes sense, it is important to keep in mind that any new financial sector regulatory body will be a fairly weak institution for many years, until it becomes well established, well staffed, and experienced. This may be unavoidable, but the fact that there will be a weak regulator underscores the importance of making the pension accounts implementer itself very strong.

Additionally, it is important to require that the PSFA be audited annually by a leading international private audit firm experienced in auditing large private pension funds. This adds a layer of checks and balances, and increases the extent of professional skills applied to ensuring proper financial management.

II.C. Collection and reconciliation of contributions

We recommend that the PSFA should take on the responsibility of collecting contributions and reconciling them. (Once reconciled, information can be passed to OMX for the purpose of account management.) The STS could have responsibility for enforcing contributions, but not for managing the reconciliation process. (The STS could be given responsibility for monitoring collection of lump sums of contributions from firms in order to improve compliance, but the STS should play no role in reconciling contributions to individual accounts.) The STS of Armenia is relatively weak, gives little emphasis to personal income tax, and has limited experience processing individuals’ tax returns. It does not have the skills and capacity necessary for accurately managing the collection and reconciliation of hundreds of thousands of individual pension contributions. In fact, no existing institution in Armenia has this capacity. Furthermore, given weak governance, it is important to keep contributions to funded accounts segregated from government funds, even at the collection stage. This concern is an argument for not having another government agency made responsible for collections of pension contributions. For these reasons, the most prudent approach is for the PSFA to develop its own capacity to collect and reconcile contributions. As a private institution with clear incentives to get this right, it should be well positioned to take on this role, but it will have to develop complex systems and trained staff from scratch.

Payment processes are also important for facilitating efficient, accurate allocation of funds to accounts. Two important guidelines are, first, that the flow of money and information from firms to the PSFA be as direct and short as possible, and, second, that full information at the individual level be provided each time payments are made. Firms should make payments directly from their commercial banks to the PSFA account, which would presumably be maintained at the CBA. Money should not be sent first to the STS, the treasury, or any other entity and then forwarded to the PSFA, and pension contributions should never be commingled with other government or private funds, including tax revenues.

There is an important legal point here as well. Money collected by the STS and deposited in the state treasury by law is government property, not individuals' property. This is counter to international best practices. Funded pension contributions legally should be the property of individuals, not of the state. To facilitate this legal categorization, it is important that contributions be separated from tax payments, not be commingled with government funds, and not flow through the treasury.

Furthermore, each time a payment is made, firms should provide full information on the individuals for whom contributions are made, including their identification numbers. Other payment schemes, for instance in which firms submit only aggregate information with payments and individual-level information, or information only on a quarterly or annual basis, create numerous problems in matching money and information and would lead to far lower accuracy in allocation of funds to accounts.

II.D. System parameters

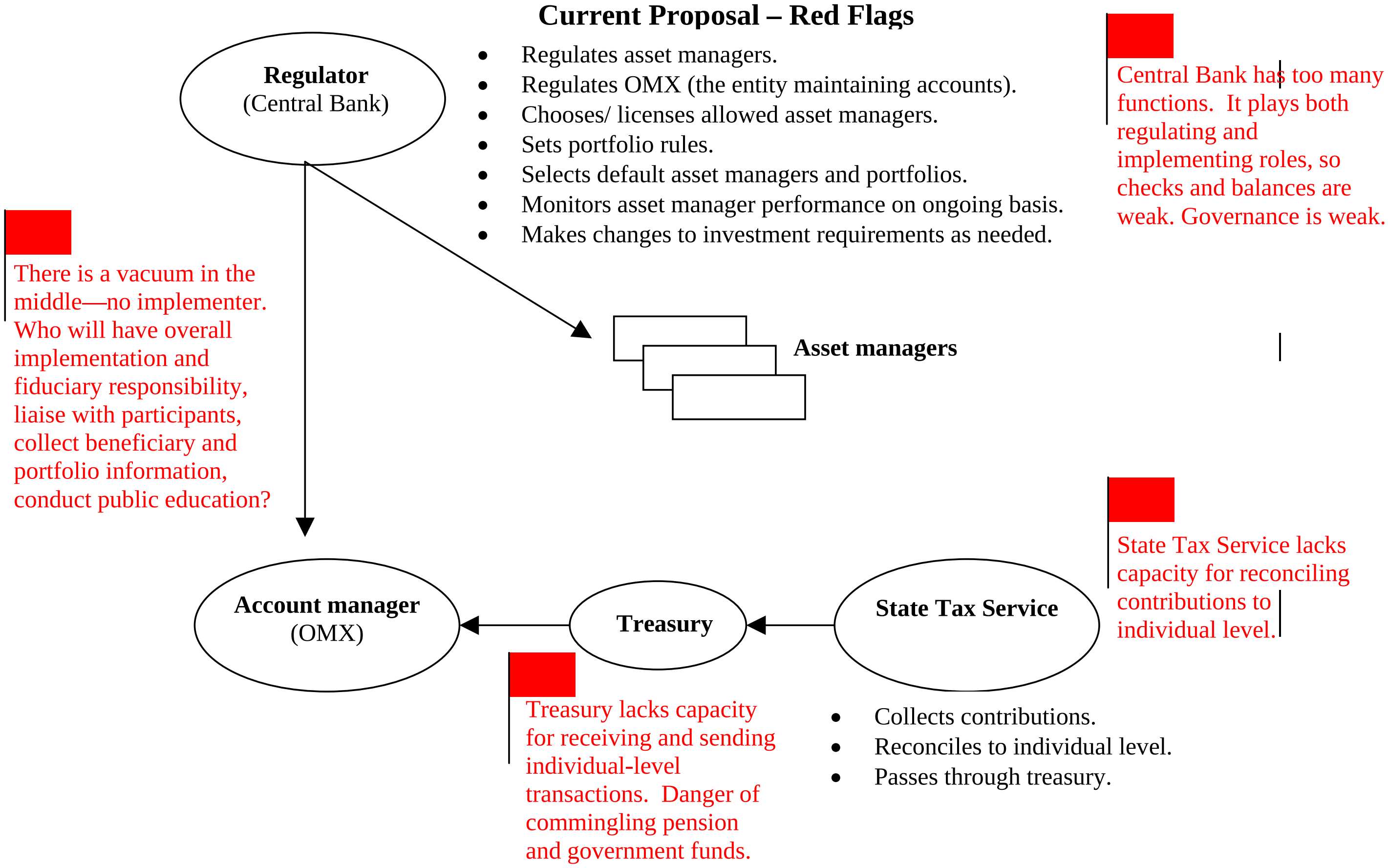
System parameters need to be set so that: state resources are concentrated on eliminating poverty; participants are fairly rewarded for their contributions; positive incentives for participation are provided; measures are developed to guard against evasion and other labor market distortions; and the system is fiscally sustainable. Further quantitative analysis is needed in order to make specific recommendations for changing parameters. General observations on system parameters are as follows:

- The minimum social pension needs to be set at a level that will better alleviate poverty than current levels, while remaining fiscally sustainable.
- The extent of differentiation in the contribution-linked basic pension needs to be minimal. That is, there cannot be too great a difference between minimum and maximum pensions within the basic pension. The reason for this is that greater differentiation requires either that more resources be spent in order to facilitate higher maximum pensions (which threatens fiscal sustainability) or that minimum pensions must be reduced (which would be a bad social policy given how low the minimum pensions are at present). A reasonable approach is for pensions to vary by length of service but not by salary level.
- It would be sensible to offer a higher minimum pension to those over 80. This achieves an important social objective of concentrating resources on the very oldest and would assist participants who receive programmed withdrawal payments from the funded system who might otherwise outlive their resources.
- A contribution rate of 10% (5% from employers and 5% from employees) is reasonable—large enough to generate modest pension capital but small enough not to be an onerous burden.
- The overall tax and social contribution burden on labor should be kept constant or reduced. Given high evasion levels and weak STS capacity, it does not make sense to further raise contribution rates.
- Eligibility for pension should not be contingent on retirement status. Given low pension levels, many participants will need to work to supplement their pension income.

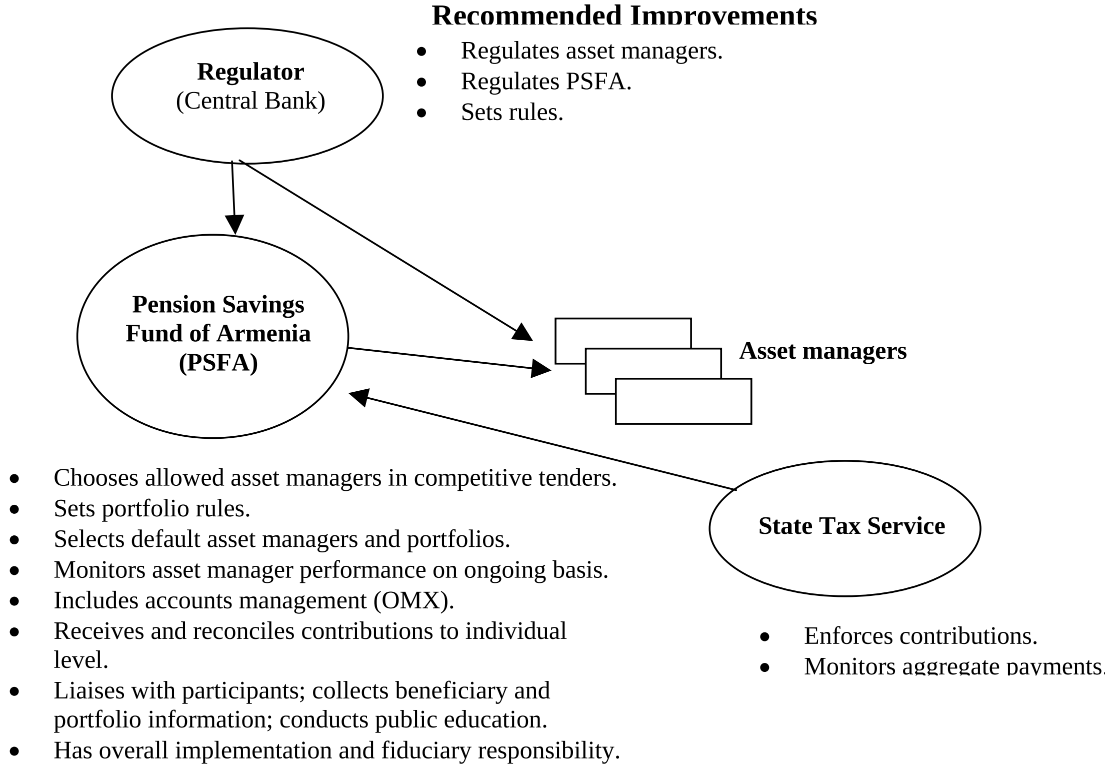
II.E. Summary recommendations on system structure

The following chart presents the currently proposed pension system structure, issues of concern about that structure, and recommendations to address these issues.

Current Proposal – Red Flags



Recommended Improvements



References

Jeffrey Carmichael and Robert Palacios (2003), "A Framework for Public Pension Fund Management," Paper presented to 2nd Public Pension Fund Management Conference, World Bank, May.

Augusto Iglesias and Robert Palacios (2000), "Managing Public Pension Reserves, Part I: Evidence from the International Experience," World Bank, January.

CIA (2007), World Factbook.

D. Kaufmann, A. Kraay, M. Mastruzzi (2006), "Governance Matters V: Governance Indicators for 1996-2005," World Bank, September.

Robert Palacios (2002), "Managing Public Pension Reserves, Part II: Lessons from Five Recent OECD Initiatives," World Bank, July.

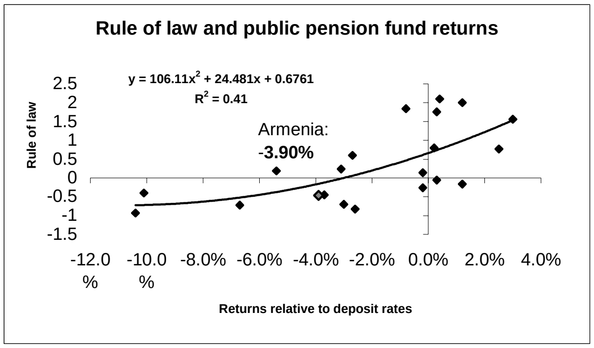
Swedish Social Insurance Agency (2005), "The Swedish Pension System: Annual Report".

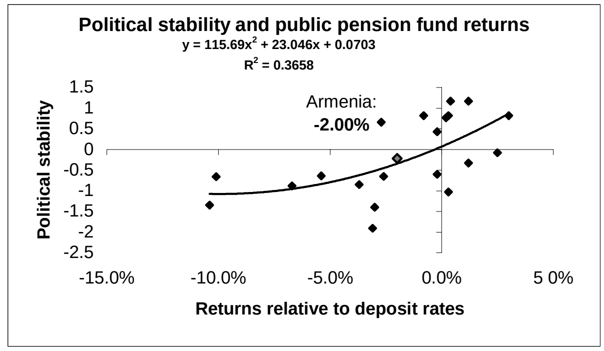
Premium Pension Authority (2006), "This is PPM".

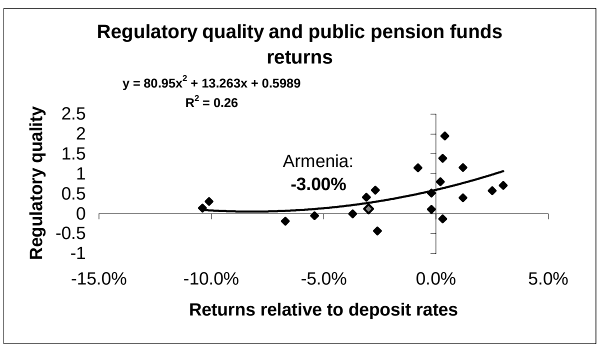
Kent Weaver (2005), "Social Security Smorgasbord? Lessons from Sweden's Individual Pension Accounts," Brookings Institution, Policy Brief #140.

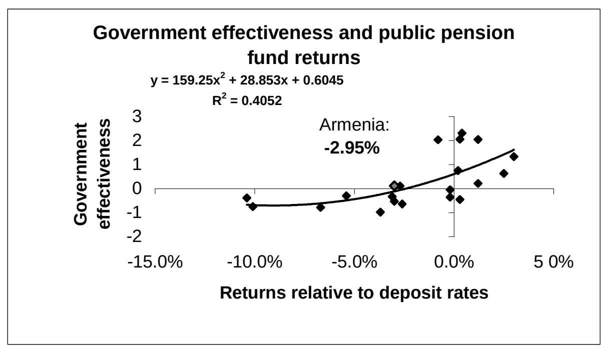
Appendix One: Analysis of Relationship Between Governance Indicators and Funded Pension Returns

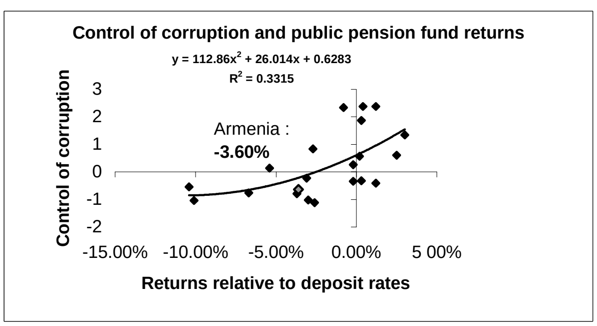
The USAID SPSS Team supplemented the World Bank research on the correlation between governance and performance of funded pension systems, using several other governance indicators besides those used in the original World Bank research.[3] Pension fund returns are taken from the original World Bank research. Governance indicators are taken from World Bank and Transparency International sources. The results of econometric analysis are shown below. (All indicators are from World Bank except one from Transparency International.)

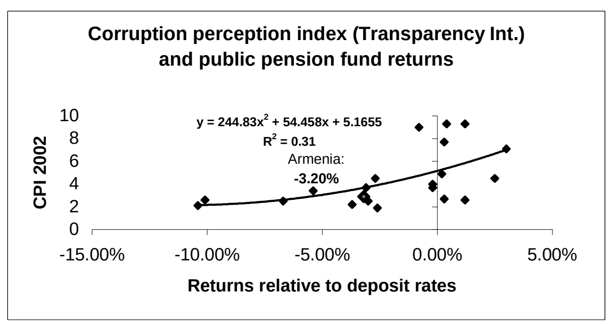












[3] This research was conducted by Upasana Khadka, from the TSG Home Office.

Appendix Two: Overview of Current Government Reform Proposal and Recommendations for Improvements

Proposed reforms	Recommendations
Pillar Zero – Social Pension for anyone over retirement age who has no other pension.	• Set benefit level high enough to better alleviate poverty (minimum consumption basket). • Consider higher benefit level for elderly over 80. (This helps the truly infirm, and cushions those receiving programmed withdrawals from the funded pillar whose resources may be used up by then.) • Integrate with other forms of social assistance in the social assistance law. • Should *reduce* by other pension income, rather than *any* other pension income being a *complete bar*
Pillar One – for persons in new system (40 years old and less in 2009, and those voluntarily switching) • "Flat Benefit" based on years of service (but not based on contributions or wages), minimal service for a benefit raised from 5 years to 10. • Funded from a combined social and income tax 20% of payroll. **Pillar One – for persons in the old system (40 or older in 2009, not voluntarily switching)** • Apparently they receive pensions according to the old formula. This is not clear. • Also not clear if they too contribute a combined social and income tax of 20% of payroll.	• A slightly differentiated benefit level (based on service but not wages and contributions) seems appropriate. A fully differentiated pension based on wages and contributions either requires more resources or reduction in minimum pension so should be avoided. • No transition rules yet. • Set minimum benefit level high enough to better alleviate poverty. • Consider higher minimum benefit level for elderly over 80. (This helps the truly infirm, cushions those receiving programmed withdrawals from the funded pillar whose resources may be used up by then.) • It is not clear what the social insurance and personal income tax contribution rates will be; proposals keep changing. Overall contribution rates should not rise (including funded contributions), and people in old and new systems should be treated fairly. • Voluntary switching for those over 40 should be allowed. • Fiscal sustainability and incentives for participation need to be assessed.
Pillar Two – parameters • For persons 40 years old and less. • Defined contribution • Funded by 5% employee contribution and an additional 5% of payroll paid as	• Individual accounts should be the property of participants, or otherwise strongly protected (analogous to bank accounts). • Legal problem with defining the

combined social and income tax by employer. Contributions sent to treasury with tax payments.	employer's payment of 5% as a "tax" – it cannot belong to individuals and requires different legal treatment; also administrative problem of contributions first being paid to the Treasury and then to the Pillar Two accounts • Possible age discrimination issue.
Pillar Two – structure and administration • Collections and data storage to be centralized, with participant choice between private asset managers. • State Tax Service collects, reconciles to individual level, sends to state treasury, and state treasury then sends to accounts manager (Central Depositary of Armenia, CDA, to be acquired by a Swedish firm, OMX). • Centralized custodial services and individual account management to be provided by CDA. • CBA (or subsequent independent financial sector regulator) performs supervisory and many implementing functions: chooses/ licenses asset managers; regulates asset managers and OMX; sets portfolio rules and investment restrictions and guidelines; selects default managers and default portfolios; and monitors asset manager performance against benchmarks.	• There is a vacuum at the core of the funded system because there is no clear entity implementing the funded system. Consequently, overall governance, and checks and balances are weak. The system would be strengthened by creating a Savings Pension Fund of Armenia (SPFA), as a private entity or public-private partnership to implement, with strong governance following international best practices. • The State Tax Service of Armenia does not have capacity to collect contributions and does not presently reconcile to the individual level. The SPFA should perform this function. • Funded pension contributions should not flow through the treasury or be commingled with other government funds. They should flow directly from firms' private bank accounts to SPFA account at the CBA, with individual-level information sent with each payment. • CBA has too many functions, including supervision and implementation, which should be separated. CBA should regulate SPFA and asset managers, and set overall rules. The SPFA should choose asset managers through competitive tenders, set portfolio rules, select default managers and portfolios, monitor asset manager performance against benchmarks, and make periodic adjustments. • Accounts management (OMX) could be incorporated into the SPFA, or the accounts management could be outsourced by SPFA to OMX. • The SPFA should report to participants, provide "entry" services, collect beneficiary and portfolio information, and conduct public education.

Pillar Two – investments • Investments are to be chosen by participants from asset managers licensed by CBA. • Each asset manager is to provide three portfolios: aggressive, balanced and conservative. • No default asset manager, but each asset manager has a default portfolio.	• It is unlikely that international asset managers will find it worthwhile to design three portfolios each for Armenia – initial size will be too small. Requirements for asset managers need to be sufficiently minimal, and few asset managers chosen, to attract quality managers. • There should be a default option, but extreme political pressure will be applied to this decision. The SPFA should assume this role. • Unclear where investments will be made. Armenia has insufficient financial markets for significant domestic investments (if any at all) to be made. Foreign investments carry currency risks, and hedging products are needed to address.
Pillar Two – payout phase • Payments of Pillar Two can be in the form of annuities (single life and spousal options), phased withdrawals or lump sums • Heirs inherit balance of phased payments and of amounts on individual accounts prior to retirement	• Need to determine amount needed for annuity payment; it is likely that few participants entering system at age 40 will have enough for an annuity. • Need to determine situations justifying lump sum withdrawals • May need to develop annuity-like product if private capacity does not exist (State Annuity Corporation?) • Optimal phased withdrawals need to be set based on life expectations, possibly with additional period. • It would be sensible to provide a significantly higher Pillar One minimum pension from age 80, to provide income for individuals with phased withdrawals that end by around age 80.
Disability • Disability in Pillar One to be based on actual capacity to work. • No disability provision yet in Pillar Two.	• Need to design a different process for making disability determinations • Pillar Two needs a disability provision.
Early retirement for selected professions (i.e. high-pressure, high-risk)	• Professions need to be certified. • Employers need to fund.