
APPENDIX B: PENSION SYSTEMS IN WORLD BANK–ASSISTED COUNTRIES

This appendix reviews the diverse kinds of pension reforms that the World Bank has supported. It provides information on the amount of Bank lending provided to countries by Region and type of reform, including multi-pillar and PAYG. Nearly three-quarters of the loans were issued to Europe and Central Asia (ECA) and Latin America and the Caribbean (LAC), the only Regions to have enacted multi-pillar systems. Most ECA countries maintained a relatively substantial PAYG pillar, with pensions related to contributions, while LAC countries did not. Overall, Bank assistance for PAYG reforms was aimed at achieving fiscal sustainability. Reforms in ECA were more likely than those in LAC to include PAYG and funded-pillar assistance, as well as support to improve social assistance.

Countries with Multi-pillar Systems

Latin America and the Caribbean

The Bank issued loans and credits to 15 countries in Latin America and supported second-pillar reforms in 11, including Chile (table B.1).¹ Most of the Bank's funds were lent to six countries: Argentina, Bolivia, Colombia, Mexico, Peru, and Uruguay.² The Bank also provided technical assistance to multi-pillar reforms in Costa Rica, the Dominican Republic, and Nicaragua, but funding for these countries was relatively small.

LAC pension reforms vary considerably, although the Chilean example had a substantial influence. Chilean consultants often provided advice and counsel, but differences from the Chilean reform abounded. Some countries included a first pillar, others allowed for choice between a PAYG system and a funded second pillar. Some permitted participants to switch between the two. Like the Chilean system, Peru's pension system

lacks a PAYG pillar. Peru also retains a separate civil service pension system. Uruguay's new system consists of a PAYG pillar, based on notional accounts similar to a notional defined contribution (NDC) scheme. The funded pillar operates simultaneously with the PAYG system and is compulsory for contributors under age 40 whose incomes exceed a minimum. The add-on concept, in which the funded pillar is mandatory only for higher earners and voluntary for lower earners,³ is unique to Uruguay.

Bolivia's pension system has a flat universal benefit and a funded second pillar. However, the universal pension, the Bonosol, is *not* tax-financed; rather, it is *funded* using the government's shares in 10 privatized enterprises, an innovation unique to Bolivia. The pension funds for the fully funded second pillar also manage the Bonosol assets.

Argentina, Colombia, and Mexico instituted pension systems that give participants the choice of a PAYG system or a funded pillar. Argentina's system includes a flat benefit, as well as supplemental PAYG and funded tiers. Nearly half of the provinces maintain their own pension plans. Workers can make a one-time switch from the PAYG to the funded tiers at any time. Mexico's reformed system is a fully funded plan, with a minimum guarantee and subsidies for low-income participants. Mid-career workers can choose between the old and new systems,⁴ and have a lifetime switch option at the time of retirement. In Colombia, a mixed system provides a choice between a defined benefit (DB), partially funded PAYG scheme and a privately managed, funded plan. Low-income contributors are subsidized and a minimum-pension guarantee is provided for participants with at least 10 years of contributions if their accounts provide a pension that is lower than the guarantee.

Table B.1: Mexico, Argentina, and Peru Received the Most Assistance among LAC Countries Implementing a Mandatory Funded Pillar

Country	Year of reform	Amount of loans (\$ mm)	Number of loans
Mexico	1995/1996	604.3	4
Argentina	1993/1994	481.1	8
Peru	1992	363.6	6
Uruguay	1996	149.3	5
Colombia	1995	63.7	3
Bolivia	1993–2000	13.6	6
Ecuador	2001	10.0	1
Nicaragua	2004	8.3	3
Costa Rica	2000	6.7	3
Dominican Republic	2001	1.5	1
Chile	1980/1981	1.4	1
Total		1,703.6	41

Source: IEG Pension Database.

Europe and Central Asia

Eleven of 24 Bank-supported ECA countries implemented multi-pillar reforms, including Bulgaria, Hungary, Kazakhstan, and Latvia (table B.2). The Bank assisted ECA countries in improving fis-

cal stability and reducing demographic pressures by strengthening the relationship between contributions and benefits, most often through funding. Relative to LAC, reforms were more likely to be phased in by age cohort and are only mandatory for younger workers. Older participants choose between the existing or old PAYG system and the funded tier, but their resulting placement in the funded tier is usually binding.

Multi-pillar systems implemented in Bulgaria, Croatia, Hungary, and Latvia include a fairly substantial contribution-based PAYG pillar. Hungary's funded pillar is mandatory for new entrants and voluntary for those already covered by the PAYG plan. Latvia has an NDC PAYG pillar with a guaranteed minimum pension, as well as a funded tier. Participants aged 50 and older remained in the old system, workers under age 30 had to join the funded system, and those between 30 and 49 years could choose between the two. Similarly, Croatia's system retained participants over age 50 in the PAYG system, placed those under age 40 in the new funded scheme, and gave those in between the option to choose their system. Bulgaria's second pillar was mandatory for those younger than age 40.

Kazakhstan is the only ECA country that implemented a Chilean-style reform, which trans-

Table B.2: Kazakhstan, Russia, Ukraine, and Hungary Received the Greatest Amount of Assistance among ECA Countries with Mandatory Funded Pillars

Country	Year of reform	Amount of loans (\$ mm)	Number of loans
Kazakhstan	1998	323.8	4
Russia	2002	287.8	6
Ukraine	2004	147.0	5
Hungary	1998	124.1	4
Romania	2004	58.7	6
Croatia	1998/2002	52.1	3
Bulgaria	2000	47.3	4
Lithuania	2002/2004	26.5	2
FYR Macedonia	2000/2002	26.2	8
Slovak Republic	2004	25.4	2
Latvia	1995 plus	20.9	4
Poland	1998	2.6	2
Total		1,115.8	48

Source: IEG Pension Database.

ferred all participants to a fully funded plan with a minimum-pension guarantee for those meeting contribution requirements. However, unlike Chile, past obligations are financed on a current basis rather than through recognition bonds. In addition, contributors are given a choice between a private and a state-run plan managed by asset managers chosen by the government.

Countries with PAYG Systems

Latin America and the Caribbean

Although the majority of Bank loans in LAC supported a combination of first and second pillar reforms, the Bank also supported pure PAYG reforms in four countries (table B.3). First pillars supported by Bank operations ranged from pure PAYG system to partially funded systems, or systems with notional accounts.

Among the pure PAYG reformers, Brazil, the largest recipient of Bank assistance in LAC, instituted a plan resembling an NDC plan. Bank assistance was focused on reducing inequities between public and private sector workers, upgrading municipal management, strengthening regulatory regimes for private sector workers, reducing pension pressures on the fiscal deficit, and increasing pension benefits for rural and disabled workers. Jamaica's reform included grants to the elderly.

Many parametric reforms among LAC countries with multi-pillar systems focused on strengthening the safety net by centralizing disparate pension regimes and raising contributions, as in Colombia, and improving collections and administration, as in Argentina and Colombia. Argentina targeted noncontributory pensions to the poor and to eliminating arrears. The Bank's projects supported the reduction of contribution rates in Argentina, Mexico, and Peru.

Europe and Central Asia

The Bank supported a large number of small loans for parametric reforms in ECA (table B.4). The majority of Bank assistance for the first pillar was intended to improve fiscal sustainability by lowering the dependency ratio, ensuring the timely payment of pensions, and paying off arrears. A number of systems also eliminated privileged pensions to civil servants.⁵

Table B.3: Brazil Received the Majority of Bank Assistance for PAYG Reforms in LAC

Country	Amount of loans (\$ mm)	Number of loans
Brazil	1,326.3	9
Panama	24.5	3
Jamaica	8.9	2
Honduras	4.2	2
Total	1,363.9	17

Source: IEG Pension Database.

Table B.4: Turkey Received the Largest Loan among ECA Countries without a Mandatory Funded Pillar

Country	Amount of loans (\$ mm)	Number of loans
Turkey	197.7	3
Bosnia & Herzegovina	43.5	6
Moldova	37.8	4
Kyrgyz Republic	33.9	4
Serbia	25.2	5
Georgia	14.7	6
Uzbekistan	10.0	1
Armenia	8.9	5
Slovenia	7.7	1
Albania	7.1	5
Azerbaijan	5.9	1
Tajikistan	2.9	1
Turkmenistan	0.6	1
Total	422.3	45

Source: IEG Pension Database.

The Bank increasingly supported the development of NDC plans in its pension reform lending in ECA, in conjunction with other reform options, including DB formula and point systems. Kyrgyz Republic, Latvia, and Poland adopted NDC systems, while FYR Macedonia, Hungary, and Moldova maintained DB formulas. Credits in Bosnia-Herzegovina supported DB PAYG systems. Bulgaria, Croatia, Serbia, and the Slovak Republic all adopted systems that transformed the pension formula from one that was adjusted on an *ad hoc* basis to a point system, similar to the formula

Table B.5: Zambia Received the Greatest Amount of Funding in Africa for Pension Reform

Country	Amount of loans (\$ mm)	Number of loans
Zambia	68.8	4
Senegal	19.4	2
Madagascar	5.4	1
Guinea-Bissau	5.0	1
Mauritius	4.9	2
Cape Verde	4.0	3
Cameroon	4.0	2
Ghana	3.9	3
Mali	1.7	1
Mozambique	1.5	1
Sierra Leone	1.2	1
Niger	0.9	1
Tanzania	0.8	2
Uganda	0.8	2
Total	122.2	26

Source: IEG Pension Database.

used in Germany. Turkey's PAYG reforms were instituted to stem operating losses, strengthen the system's organizational structure, and increase pensions. Legislation to implement administrative reforms is awaiting passage.

Reforms in ECA were more likely to include noncontributory assistance for the aged than those in LAC. For example, in Latvia and FYR Macedonia, the Bank assessed the full social pro-

tection system rather than just the employment-based pensions. Poverty benefits for the elderly are generally a residual part of a larger social benefits system in many transition economies. The difference is that these programs had improved design and administration.

Africa

The Bank provided small loans to a number of African countries to help stabilize and restructure civil service pensions and provident funds (table B.5). The goal was to reduce the pension liability to the overall budget by strengthening the link between contributions and benefits and by reviewing investment policies to improve returns. The Bank also supported expanding coverage in Cape Verde and paying off arrears in Guinea-Bissau and Sierra Leone.

Other Regions

Except for two large loans to Korea, East Asia and the Pacific, the Middle East and North Africa, and South Asia received only a few small World Bank loans for pension reform (table B.6). In South Asia, credits to India were provided to improve actuarial forecasting and reduce liabilities in the pension fund.⁶ In the Middle East and North Africa, the Bank has promoted contractual savings through the establishment of voluntary funded systems. Fragmented pension systems were integrated in Morocco, and the introduction of DC plans in Jordan was explored.

Table B.6: Support to Korea for Pension Reform Far Exceeded That for Other Countries in Asia or the Middle East and North Africa

East Asia and Pacific			South Asia			Middle East and North Africa		
Country	Amount of loans (\$ mm)	Number of loans	Country	Amount of loans (\$ mm)	Number of loans	Country	Amount of loans (\$ mm)	Number of loans
Korea	501.9	3	India	32.5	6	Morocco	34.4	2
China	10.0	2	Pakistan	17.5	3	Tunisia	29.9	2
Laos	5.7	1	Sri Lanka	9.0	2	Jordan	7.7	2
Mongolia	0.8	1	Afghanistan	0.1	1	Djibouti	2.5	1
						Algeria	1.2	1
						Yemen	0.3	1
Total	518.4	7	Total	59.0	12	Total	76.0	9

Source: IEG Pension Database.