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Public Pensions in Turkey: Reforming the System to Achieve Fiscal Balance

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Introduction

The government of Turkey has received credit rating upgrades from the major independent rating agencies such as Standard and Poor's, Moody's, and Fitch[1] during the recent global downturn. Currently Turkey is at its highest sovereign credit rating score (BB) since 1992, and sovereign credit default swap (CDS) spreads[2] are at very low levels. The positive rating actions and strong international demand for Turkish government bonds ("Turkey's Biggest Bond . . .") show the growing confidence in monetary and fiscal discipline, and consequently in the Turkish financial system. Having weathered the financial crisis in 2001 and earlier inflationary episodes, the Turkish economy is now more resilient.[3]

In this article, I show how pension reform has contributed to the development of capital markets and strengthened the country's balance sheet. In 2009 the social security deficit constituted half of the overall budget deficit.

[1]On January 8, 2010 Moody's Investors Service upgraded Turkey's (foreign currency denominated) government bond rating by one grade to Ba2, approximately one month after Fitch Ratings had upgraded the bond rating by two grades to BB+. S&P followed these upgrades approximately one month later and upgraded Turkey's rating to a BB. ("S&P Raises . . .")

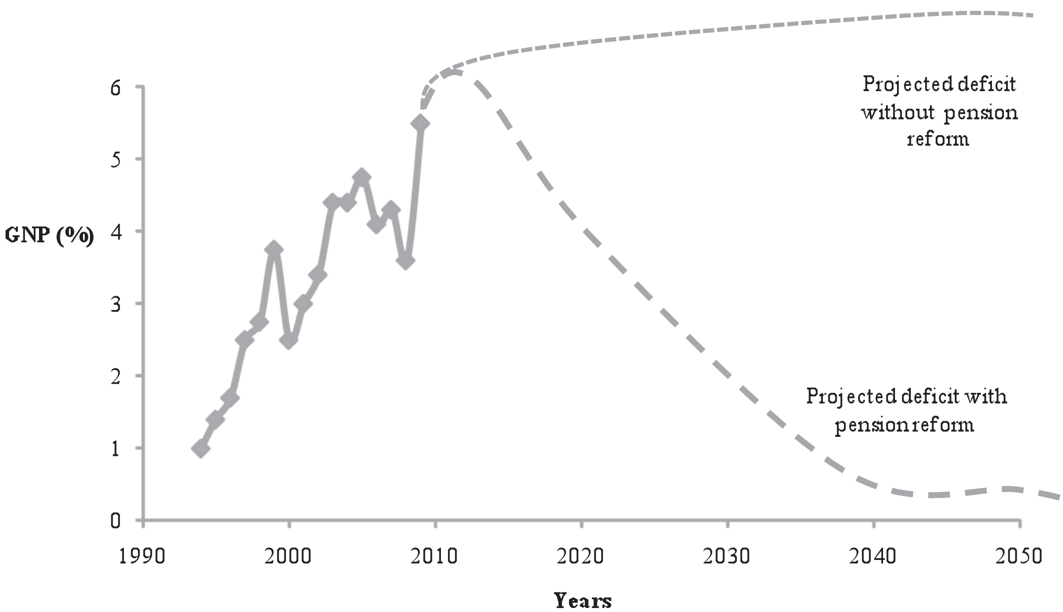
[2]Another barometer for measuring sovereign risk is the credit default swap market, in which the insurance on government bonds is traded. The cost of insuring a $10 million five-year Turkish government bond is around $175,000 (annually, as of 1/5/2010) which is also expressed as a premium of 1.75%. This figure was around 6% in early 2001, and spiked to 12% in 2003. (Bloomberg)

[3]However, due to tight monetary policy and inflation targeting, concerns about the high unemployment rate (13.4% as of August 2009) and poor growth still remain. Compared to a 5.7% contraction in 2001, the economy has contracted by 6.5% in 2009, after growing by 6% on average between 2002 and 2008. ("Country Briefings: Turkey . . .") But compared to a 70% inflation rate in 2001, the current rate is below the Central Bank's target of 7.5%, and the current account balance (–2%) is at very low levels. (Cimenoglu et al.)

Figure 1

Deficits in the Social Security System in Turkey

Budget Transfers to Social Security



Source: Brook and Whitehouse, Verbeken, and various Turkish newspapers.

However, Figure 1 suggests that with serious reform, the fiscal pressure of maintaining a pension system is well within sight. The next section presents a demographic profile of the country and discusses some of the crucial variables in pension fund design. A brief overview of the existing public pension system including the reform initiatives of 1999–2008 is included in the third section. Section four contains a discussion of pension design. Personal savings accounts, a component of pension reform, will be discussed in section five. The last section offers some concluding thoughts on the future of the Turkish pension system.

Demographics

At present, the population of Turkey is 72 million,[4] with a median age of 28.3. According to UN forecasts, the population will reach 100 million by 2050, which will greatly exceed the population of Germany, the most populous country (82 million) in the EU at the moment. (Stokes and Vardal) Considering the rapidly aging European Union with a median age of 40.4, Turkey stands as a much younger and more dynamic nation. ("The 2009 Ageing . . .")

Figure 2 shows population growth prospects for Turkey and selected other countries. Panel A of Figure 2 indicates that the growth in the labor force (i.e., population aged 15 to 59) will stabilize around 2020. Panel B of Figure 2 shows that the population will exceed those of Italy, France, and Germany by 2020. Panel B also points out the rapid reduction in the population of Eastern Europe over time.

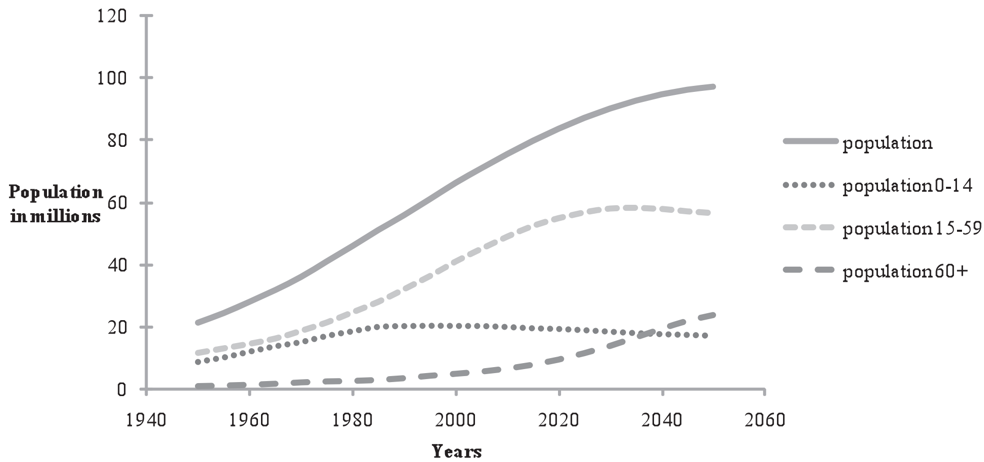
Table 1 (Panels A and B) shows further details about the demographics of Turkey and

[4]Within the Turkish population, we have approximately 10 million Kurdish (origin) people. Kurdish people are the majority in the eastern regions (69%), whereas they are not as concentrated in the other areas (16.5% west, 8.8% south, 5.9% central, 0% north). It is also the case that the fertility rates of Kurdish women are more than twice that of Turkish women. So one should also be aware of the rapid growth of Kurdish population within the Republic of Turkey when it comes to demographics. (Koc, Hancioglu, and Cavlin)

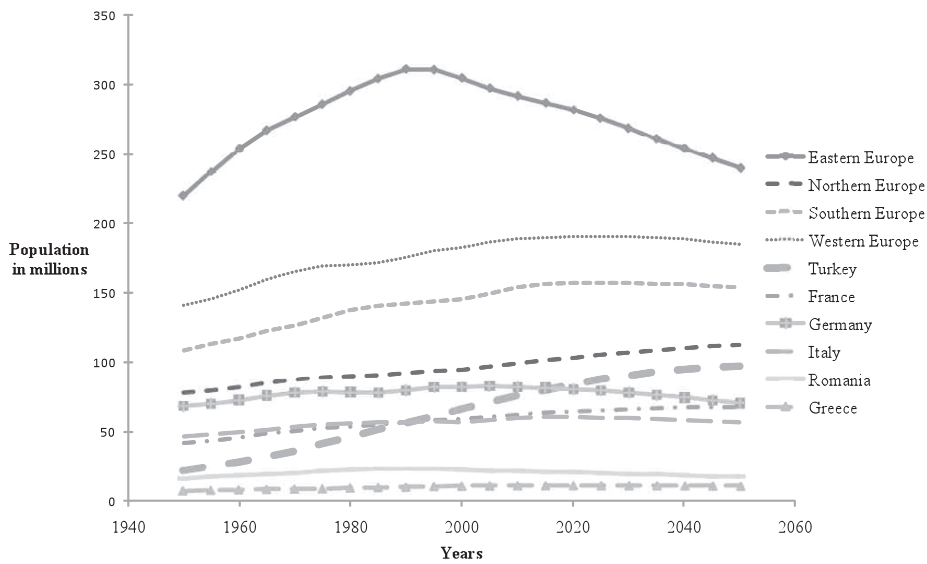
Figure 2

Population Growth in Turkey

Panel A. Distribution across age categories



Panel B. Comparison with selected regions and countries



Source: UN World Population Prospects: The 2008 Revision Population Database (values are in millions).

selected countries of Europe. Generally, lower birth rates and longer life expectancies are observed over time. In addition, two crucial parameters of a pension system, fertility rates and dependency ratios, are shown. Even though Turkish women are more fertile compared to their European counterparts, there was a significant deterioration in fertility from 1960 to 2010. This was most likely due to Turkey's transition from an agricultural society to a more urbanized one. The dependency ratio, which is defined as the ratio of the population aged 0–14

Table 1

Demographics of Turkey

Panel A. Demographics over time

Turkey - UN Population Prospects 2008

Year	Median Age	Population Growth (%)	Birthrate*	Fertility**	Life Expectancy***	Population****
1960	19.5	2.8	48.2	6.6	48	28.2
1970	19.0	2.5	40.2	5.7	54	36.2
1980	19.5	2.3	33.5	4.7	60	46.2
1990	21.5	1.8	26.8	3.3	63	56.1
2000	24.5	1.7	22.7	2.6	69	66.5
2010	28.3	1.2	18.4	2.1	72	75.7
2020	31.9	1.0	15.8	2.0	74	83.9
2030	35.4	0.7	13.7	1.9	76	90.4
2040	38.5	0.4	12.5	1.9	77	94.9
2050	40.7	0.2	11.7	1.9	79	97.4

* births per 1000 population
** children per woman
*** at birth, both sexes combined (years)
**** in millions

Panel B. Demographics compared to selected regions and countries

Country	Median Age	Life Expectancy		Population Growth (%)	Dependency Ratio*	Total Fertility**
		Male	Female			
Turkey	28.3	70.3	75.2	1.1	48	2.04
Eastern Europe	38.5	65.2	75.6	-0.34	40	1.43
Northern Europe	39.8	77.2	82.2	0.46	51	1.83
Southern Europe	41.1	77.4	83.3	0.33	49	1.5
Western Europe	42.2	78.2	83.8	0.13	52	1.59
France	40.1	78.6	85.1	0.4	55	1.85
Germany	44.3	77.8	83.1	-0.17	51	1.34
Italy	43.3	78.6	84.6	0.17	53	1.41

* Dependency ratio is the ratio of the population aged 0-14 and 65+ to the population aged 15-64.
** Total fertility (children per woman).

Source: UN World Population Prospects: The 2008 Revision Population Database.

and 65+ to the population aged 15–64, indicates that the labor force in Turkey has a lighter burden compared to the burden of its European counterparts (except for Eastern Europe).

Compared to the median ages of populations in major emerging markets such as Brazil (28.9), Russia (38.5), India (25.9), and China (35.2), that of Turkey (28.3) is comparably low. The population growth prospects of Turkey (1.1% per year) are similar to those of India (1.4%) and Brazil (1.2%), and significantly better than the aging populations of Russia (–0.47%) and China (0.5%). (CIA World Factbook) As a consequence of the various population characteristics mentioned above, Turkey has a demographic advantage for its pension system. In fact, Acar and Kitapci call the 2000–2025 period the “demographic opportunity window” for Turkey.

Characteristics of the Turkish Pension System

The current public pension system in Turkey is based on the defined benefit (DB) model. Pensions are a function of years worked and wages earned, and are financed on a pay-as-you-go basis. There are three crucial parameters in a DB model: retirement ages, replacement rates, and accrual rates. Accrual rates combined with the total number of years worked determines the replacement rates. Details about these parameters can be found in the next section, which elaborates on the analytics of the public pension system.

Recently, Turkey has also introduced individual retirement accounts. These accounts are based on the defined contribution (DC) concept. In a DC framework, contributions are made and invested on behalf of the employee. In this regime, a prudent investment strategy becomes crucial in managing personal savings accounts. Participation in the Turkish public pension system is mandatory; taking advantage of the individual accounts is, however, voluntary.

The advantage of a DC over a DB model is that the former is an "investment based system" which links future benefits directly to the individual contributions. Therefore, the contributions made under a DC model are not perceived of as a tax, but rather as tiny bits of investments for the future. More importantly, a DC model eliminates existing early retirement incentives and it is far from being under government control.[5] In the U.S., the pension system is already a mix of the DB and DC models. Private Individual Retirement Accounts (IRAs or 401Ks) constitute a large portion of savings for retirement. In the EU, there has been a tendency to move towards more DC-based systems, but only a few (the UK, Netherlands, and Sweden) have accomplished this task. (Feldstein and Siebert)

Currently, the Turkish public pension system is financed with a payroll tax of 20%: 9% on the employee and 11% on the employers. For the health insurance portion, the employer has to contribute an additional 7.5% and the employee has to contribute an additional 5%. ("Social Security Reform Guide") There is also a monthly earnings ceiling (3,955 New Turkish Liras (TRY) or $3,295) which is adjusted several times each year. ("Summary of Social . . .") However, farmers and self-employed individuals who cannot afford the contributions are exempt from this mandatory scheme. As of December 2008, 15.3 million people ("actives"[6]) paid social security contributions, while 8.7 million ("passives"[7]) received pension benefits in Turkey, and 33.2 million were counted as dependents. This comes to a total number of 57.2 million people, or 81% of the population, that is covered by the social security. ("Social Security Institution Magazine," Volume 2) In 2008 revenues covered approximately 70% of expenses, and the deficit of the social security system was around $17 billion, or 2.5% of GDP. ("Social Security Institution Magazine," Volume 3, and author's calculations) Since the current system is a state-funded pay-as-you-go system, the deficits are financed by the treasury. Even though the current situation in the pension system is worrisome, the steps taken towards a more sustainable and standardized system are encouraging. Table 2 shows the significant differences between the Turkish system and those of other selected countries with respect to crucial pension variables. As of 2008, the average retirement age in Turkey is only 46.[8] This translates into about 15 to 20 years of earlier retirement compared to other systems. Although Turks (on average) expect to live fewer years than people in other nations, the number of years spent in retirement is significantly higher.

Since 1999 the system has undergone several changes. As a result, three different pension designs are simultaneously in effect. Most of the current retirees' benefit payments are calculated according to pre-1999 legislation with a gradual phasing towards the new parameters, with a new set of rules and regulations (May 2006–October 2008) applying only to the people who enter the labor force after 2007. The new system and the old (pre-1999) system are expected to converge to a single standardized one by 2030.

The history[9] of the Turkish pension system begins in the 1940s. The system provided universal coverage, lump-sum retirement bonuses and high replacement rates. (Sayan) The system was not a single-unified plan but rather a tripartite one, which had different formulations for three major groups. First, there was the SSK (Sosyal Sigortalar Kurumu) established in 1945. The SSK

[5]There is some government control over DC systems via regulation of the privately managed pension funds.

[6]Those who are working and actively contributing to the system.

[7]Those who receive pension benefits.

[8]Average of male and female retirement ages. The retirement age is increasing by one every year until 2020.

[9]A brief description of the pension system structure can be found in the Appendix.

Table 2

An International Comparison of the Public Pension Schemes

	Retirement Age		Life Expectancy*		Years in Retirement	
	F	M	F	M	F	M
Hungary	62	62	85	80.8	23	18.8
Germany	65	65	86.6	83.2	21.6	18.2
Japan	65	65	88.7	85.8	23.7	20.8
USA	67	67	87.3	83.8	20.3	16.8
Slovakia	62	62	85.1	81.1	23.1	19.1
Mexico	65	65	84.8	80.9	19.8	15.9
Poland	60	65	85.6	81.5	25.6	16.5
Turkey	58 (currently 44)	60 (currently 48)	83 (76**)	80 (75***)	25 (32)	20 (27)

* For 2040, at the age of 65

** For 2008, at the age of 44

*** For 2008, at the age of 48

Source: "Social Security Reform Guide"; Brook and Whitehouse; "Social Security Institution Magazine," Volume 1.

covered blue collar workers in the public sector, and blue and white collar workers in the private sector. The ES (Emekli Sandigi), a second group, was created in 1949 for white collar workers employed by local governments and the central government. The third group, BK (Bag-Kur), was created in 1971 to help farmers, artisans, and other self-employed workers. (Duyulmus) A chronological summary of all the rules and regulations introduced in the pension system from 1954 to 2008 can be found in Table 3.

The initial setup of the system was sensible in terms of the retirement age (60) at the time. The first decades of the system did not catch any political attention since it covered very few people. The first significant date in Table 3 is March 1969, the beginning of "early retirement" policies. In 1969 the retirement ages were reduced from 55 to 38 for females, and 60 to 43 for males.

Even though the 1986 legislation aimed to correct this drop in retirement ages, the 1992 legislation brought the retirement ages back to 38 and 43 for females and males respectively. The rules introduced in 1992 required men to be registered for 25 years and women for 20 years, and to have contributed for at least 5,000 days. These rules were created to promote early retirement and to reduce unemployment by opening up more positions for the young. However, some unintended consequences ensued, such as early retirees taking another job or joining the informal sector, and companies preferring low-cost and better-qualified retirees instead of the young. These outcomes led to higher unemployment and a larger informal sector. In addition, the social security deficit, which was approximately 1% of GNP in the early 1990s, climbed to 4% by 1999.

Moreover, the pension system came under pressure when the share of the social security deficit in the budget deficit became substantial and unsustainable. (Alper et al.) Even though Turkey had a young and dynamic population, the distorted design of the pension system, high levels of corruption, and political instability created a major social security problem (along with other problems) for Turkey in the late 1990s.[10]

From 1999 to 2008, a series of reforms were enacted. First, in September 1999 the parliament passed Reform Bill 4447, an amendment to the Social Insurance Act of 1964 ("IOPS Country Profiles . . .") which raised the retirement age for females to 58 and for males to 60. The act also increased the minimum number of contribution days from 5,000 to 7,000. However, this bill was quite controversial and was later ruled unconstitutional.[11] Later in 2001, the parliament revised the reform bill and accepted a transition plan which would increase the retirement age by one year each year until 2020.

In May 2006, with pressure from the

[10]The deficit in the social security system increased from 1% of GNP in 1994 to close to 5% of GNP in 2005. The cumulative value of the deficits between 1994 and 2004 was 475 billion TRY (110% of GDP) in 2004. (Brook and Whitehouse; Acar and Kitapci)

Table 3

History of the Public Pension Regulations in Turkey

Law Number	Date	Retirement Age	Min. Contribution Period (years)	Minimum Days of Contribution (total)
5417	April 1954	F = 60	25	5000
		M = 60	25	5000
6391	April 1954	F = 60	25	5000
		M = 60	25	5000
6900	June 1957	F = 60	25	5000
		M = 60	25	5000
506	March 1965	F = 55	25	5000
		M = 60	25	5000
1186	March 1969	F = 38	25	5000
		M = 43	25	5000
1992	May 1976	F = 38	20	5000
		M = 43	25	5000
3246	January 1986	F = 55	N/A	5000
		M = 60	N/A	5000
3774	February 1992	F = 38	20	5000
		M = 43	25	5000
4447*	September 1999	F = 58	N/A	7000
		M = 60	N/A	7000
4447 Revised**	April 2001	F = 58 (38)	N/A	7000
		M = 60 (43)	N/A	7000
5502***	May 2006	F = 58 (44)	25	7000
		M = 60 (47)	25	7000
5510 ****	October 2008	F = 58 (44)	25	7200 (SSK), 9000 (ES, BK)
		M = 60 (48)	25	7200 (SSK), 9000 (ES, BK)

*Transition to start after 8 years, i.e. in 2007
** Law number 4447 was revised due to the constitutional court's ruling in February 2001. In addition, the 2001 ruling extended the transition period to 2020, and it stated that the retirement age would increase by one year each year effective immediately.
***Gradual phasing of the retirement age to 65 for both genders after 2036.
**** Minimum number of days of contribution will increase by 100 (per year) for SSK workers, and will reach 9,000 by 2028. For BK and ES, the minimum number of days of contribution is 9,000.

Source: Acar and Kitapci; Sayan; "Social Security Reform Guide"; Brook and Whitehouse.

International Monetary Fund and the European Union, a broader social security reform (Law No. 5502) was enacted that would combine the three separate social security institutions (ES, SSK, BK) under a single umbrella. However, under this new reform, the effect of the 1999 reform was substantially reduced, and the immediate impact was spread over a longer time horizon. For instance, the new legislation would only fully apply to those who enter the labor market after 2007, or those born in 1980 or later. (Brook and Whitehouse) Therefore, the minimum retirement ages would stay very low (48

[11] In February 2001, the constitutional court ruled out the Reform Bill 4447 due to "the violation of equity principle." This principle simply stated that the equity principle is violated for certain age groups due to the non-linear nature of the reform. For instance, a female who was born in 1960 could retire when she is 40 in 2000, whereas a female who was born only two years later (1962) could not retire before 2020, i.e. not until she is 58 years old. This was held to be a violation of the constitutional rights of workers.

for males, 44 for females as of 2008) for a long time. ("Turkey Tackles . . .")

The 2006 reform was designed to make it easier to monitor and enforce the system, as well as to create additional efficiencies in the labor market by promoting mobility between the public and private sectors. (Brook and Whitehouse) Additional features of the 2006 reform included a reduction in the replacement rates (from approximately 145% in the 2000–2006 period to 100% for the average earner), and a transition to a higher minimum retirement age (60 for males and 58 for females). In sum, the reform increased the period of contributions, lowered the pension (benefit) payments, and reduced the length of retirement. Therefore, it was projected to lower the deficit created by the public pensions to a zero level by 2045. (Verbeken) However, Turkey still had the second highest replacement rate within the OECD countries after Greece (the OECD average was 70.2%), and the speed of transition was very slow (e.g., by 2020 there will still be many people retiring in their early 50s).

The latest reform, the Social Security and General Health Insurance Law 5510 (October 2008) brought some additional changes to the 2006 reform. Some of the details are given below. First, from 2036 to 2048 the retirement age will gradually increase to 65 for both genders (it will be 58 for females and 60 for males until 2036). Second, the minimum number of contribution days for a full pension will increase from 7,000 days to 7,200. The contribution days will increase by 100 every year and will reach 9,000 by 2028. Third, 2008 legislation stated that the first-pillar substitute funds[12] transfer their funds to the public social security system. ("IOPS Country Profiles . . .") Overall, the latest reforms brought all Turkish citizens into one social security scheme (including the financial institutions and citizens living abroad) and provided additional health regulations.

[12]The Social Insurance Act (Law No. 506) excluded financial institutions such as banks, insurance companies, the stock exchange, and chambers of commerce from the mandatory social security system. Consequently, these institutions had to come up with their own pension plans (defined benefit). These plans are called "first-pillar substitute funds."

Analytics of the Turkish Public Pension System

Net replacement rates[13] in the old system (pre-1999) were approximately 117% on average.[14] The 2001 legislation and revisions in the following years unexpectedly raised the replacement rates to approximately 145% for the average income group, 135% for the low (half of the average) income group, and 148% for the high income (double the average) group. (Brook and Whitehouse) This anomaly was soon corrected by the 2006 legislation, and the replacement rates were further reduced with the 2008 reform. The benefit formula and Tables 4 and 5 lay out the analytics of the pension benefits.

Benefit Formula[15]

$$P_t = R_t = W_t * I_t$$

$$R_t = \sum_{1}^{t} A_t * H_t$$

Where:
P_t: Pension income at time t
R_t: Replacement rate at time t
W_t: Average real wage income adjusted for the earnings cap or maximum conrtributions
I_t: Adjustment for inflation and growth
N_t: Number of years of contribution
A_t: Accrual rate at time t takes different values in various time intervals

$$A_t = \begin{cases} 3.5\% \text{ } when \text{ } 0 \leqslant t \leqslant 10 \\ 2\% \text{ } when \text{ } 10 \leqslant t \leqslant 25 \\ 1.5\% \text{ } when \text{ } 25 < t \end{cases}$$

Source: "Social Security Reform Guide . . ."; Sayan; Brook and Whitehouse.

Table 4 summarizes the values of A_t and threshold levels for t. For example, a worker who retires from BK after working for 30 years would have a replacement rate of 72.5% (10x3.5% + 15x2% + 5x1.5%).[16] The formulation above is

[13]Pension income as a percent of income in the year prior to retirement.

[14]In the pre-1999 system, pension payments were calculated according to the last income received prior to retirement. The new system takes the average of income earned during the active work period (adjusted for inflation and growth).

[15]Currently, ES also provides a bonus payment and SSK severance pay to retirees at the time of retirement. BK does not provide any lump-sum payment at the time of retirement.

Table 4

Key Parameters of the Turkish Public Pension System

Minimum Retirement Conditions

	System 1: Pre-1999 Rules	System 2: 2001-2006 Rules	System 3: 2008 Rules
Men			
	25 years of insurance 5000 contribution days or age > 55 5000 contribution days	25 years of insurance age > 60 4500 contribution days or 7000 contribution days age > 60	25 years of insurance age > 60 (gradual phasing to 65 after 2036)
Women			
	20 years of insurance 5000 contribution days or age > 50 20 years of insurance	20 years of insurance age > 58	25 years of insurance age > 58 (gradual phasing to 65 after 2036)

Accrual Rates (A_t) per year

System 1: Pre-1999 Rules	System 2: 2001-2006 Rules	System 3: 2008 Rules
N/A	3.5% for first 10 years then 2% for next 15 years then 1.5% thereafter	SSK and BK 3.5% for first 10 years then 2% for next 15 years then 1.5% thereafter ES 3% for first 25 years 1% thereafter New contributors (after 2007) 2%

Inflation and Growth Adjustments (Revalorization)

System 1: Pre-1999 Rules	System 2: 2001-2006 Rules	System 3: 2008 Rules
Discretionary	(Inflation + Real Growth)/2	Inflation + (Real Growth × 0.3) + 1

Source: Acar and Kitapci; Brook and Whitehouse.

slightly different for ES according to the 2008 legislation, and for new contributors the accrual rate takes the single value of 2% (see Table 4). Therefore, a worker who entered the labor force between 1999 and 2008 and who retires from ES after working for 30 years would have a replacement rate (R_t) of 80% (25X3% + 5X1%). His average real wage (base salary) is calculated by averaging his lifetime earnings. This amount is usually less than the latest salary received. Finally, inflation and growth adjustments are incorporated continuously to keep purchasing power constant. For an ES worker who starts working in 2010 and retires in 2040 after 30 years of work, the replacement rate would be 60%, which is a significant reduction from the 80% calculated above.

Table 5 compares net replacement rates of different income groups with the OECD averages. Two major reasons for the relatively high net replacements rates observed in Turkey are that pensioners are exempt from income tax and that they do not pay health insurance premiums

[16]Prior to the 1999 legislation, most of the calculations included looking at "indicator tables" for degree (15 possible degrees) and level (9 possible levels) of workers. Current retirement payments are calculated according to this degree/level scheme.

Table 5

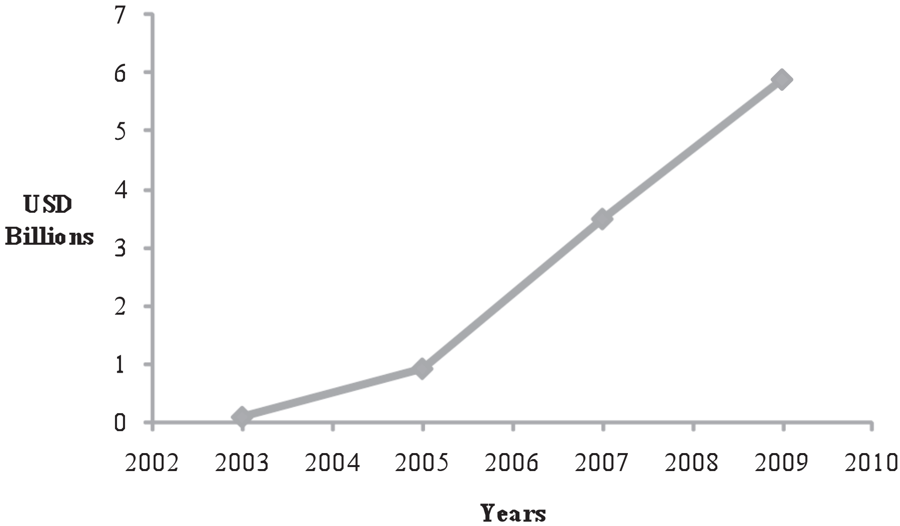
Net Replacement Rates*			
	Half Average Earner	Average Earner	Double Average Earner
System 1 (pre 99)	110%	120%	120%
System 2 (2001-2006)	140%	145%	148%
System 3 (2008)	100%	100%	100%
OECD Average	84%	70%	60%

* Net pension income as a percentage of pre-retirement earnings. Individual lifetime average earnings are used in the benefit formula assuming a 2% real earnings growth per year.

Source: Brook and Whitehouse.

Figure 3

Growth in Turkish Private Pension System Assets



Source: Individual Pension System Progress Reports 2008 and 2009, Pension Monitoring Center.

during their retirement. (Brook and Whitehouse) In addition, minimum pensions for the three groups are slightly above the poverty line. The minimum amount for SSK workers is 576 TRY, for farmers (BK) 300 TRY, for others (BK) 445.7 TRY, and for ES workers the amount is 741.3 TRY. (Karadeniz) The analytics and parameters summarized above show lower replacement rates and years spent in retirement compared to the earlier systems. They also promote working more than 25 years, in contrast with the old system which provided very little incentive to work more than 25 years.

The Private Pension System

Turkey's private pension law was enacted in April 2001 and modified in 2007–2008. The major goal was to reduce the burden on social security and provide a more sustainable fiscal balance. In addition, the introduction of the private pension system would create additional long-term resources and deeper financial markets for the Turkish economy. Figure 3 demonstrates the rapid growth in the private pension system's assets over time. Over the same time period (2003–2009) the number of people enrolled in the system increased from 324 thousand to approximately 2 million. ("Features: Turkey . . .")

Currently the private pension system is regulated and supervised by the Undersecretariat of Treasury (UT) and the Capital Markets Board (CMB). In addition, the Pension Monitoring Center (PMC) provides daily information on the activities of the private pension funds. The ultimate goal is to have a transparent system, prudent investing of pension assets, and a healthy actuarial balance. The PMC estimates that the assets of the system will grow from 1% to 10% of GDP from 2010 to 2023 (Individual Pension System . . . 2009), and Elveren argues that there will be 8.2 million people enrolled in the system by 2026.

The incentives for enrolling in the private pension system are very generous. The contributions are tax deductible (individual income tax and corporate tax are deductible up to 10% of the employee's income). Also, investment returns are tax exempt, i.e. there is no capital gains tax. The contributors can change companies once each year, and can change their allocations among stocks and bonds four times a year. Members gain the right to pension benefits when they contribute for at least 10 years and when they reach the age of 56. Withdrawal in less than 10 years carries a penalty of 16.5% of the total amount accumulated, and withdrawal after 10 years of contribution before the age of 56 carries an 11% penalty. The tax rate after the age of 56 and with more than 10 years of contribution is 3.75%.

With respect to competition and market structure, there are 12 companies and 120 pension mutual funds as of December 2009. ("IOPS Country Profiles . . .") Considering the big four, Avivasa, Anadolu Hayat, YapiKredi, and Garanti (Individual Pension System . . . 2008) and their relatively close market shares (22.6%, 20.7%, 14.9%, and 14% respectively), we can say that there is a high level of competition in the market. However, due to the relatively small number of people enrolled and the infancy of the market, the firms are far from attaining economies of scale. Management (average annual fee: 2.26% of total assets) and administrative fees (average annual fee: 4.1% of total assets) are relatively high but still below the maximum limits (3.65% and 8% respectively) due to the high degree of competition in the market.[17] ("IOPS Country Profiles . . .")

Concerning the asset allocations and investment returns, during the 2007–2009 global mortgage crisis the pension funds were heavily concentrated in Turkish government bonds (70%) as of December 2008. (Individual Pension System . . . 2008) Therefore, they avoided any serious damage and became one of the best performers in the world. ("OECD Pension Markets . . .") However, these funds are expected to diversify into the international equity and bond markets soon. For instance, Oyak, which is the fund of the Turkish Army, declared that it will look for overseas investment targets in the very near future such as U.S. and European infrastructure, energy, and commodity related assets.[18] ("Fund Profile . . .")

Conclusion

The ultimate goal of a successful pension reform is to create a strong link between the contributions and subsequent pensions, while keeping the system financially sustainable, minimizing labor market distortions, and providing a floor for social security. A poor system can provide undesirable incentives such as early retirement, and it can create a vicious spiral in which higher benefits for the elderly lead to higher payroll taxes, higher taxes lead to higher labor costs, higher labor costs lead to more unemployment, and more unemployment leads to higher taxes. Therefore, a carefully designed pension reform can enhance economic efficiency and growth, whereas a poor design can adversely affect the labor market, create large dead-weight losses, and become an obstacle for economic prosperity. (Feldstein and Siebert)

In this article, I have summarized the massive pension reforms and regulations that the Republic of Turkey has undertaken since 1999.

[17]There is also a one-time entrance fee which can be up to half of the gross monthly minimum wage ($425) payable in installments. This fee can be waived for group plans. (Elveren)

[18]The 2008 pension legislation also removed the limits concerning the investment allocations and made it possible to diversify internationally or away from government bonds.

With advice from the IMF and sanctions imposed by the EU membership process, the series of reforms between 1999 and 2008 have brought some transparency and actuarial balance to the pension system. Sound fiscal policy, better regulation, and long-term planning have enhanced the economy and have brought macroeconomic indicators closer to the Maastricht criteria.[19]

However, Turkish pension reform is far from complete, and there are still some issues and problems in the labor market. The official statistics say that as many as half of all jobs[20] in Turkey are "unregistered" (i.e. illegal) and that the size of the underground economy is equal to roughly half of GDP. ("Turkey Tackles . . .") Another concern about the future of the pension system is that the country will lose its demographic advantage in the next 20 years (Alper et al.) and that aging will be a serious issue for the nation in the 2030s. Moreover, the transition to the private pension system will bring additional responsibilities, such as monitoring the risk profile of private funds and their investment strategies. Finally, the private pension funds have more than 70% of their investments in government bonds. Therefore the risk, which is supposed to be diversified away, is channeled back to the government.

Even though the Turkish pension reform is not complete and the new measures will not materialize immediately, Turkey clearly has a window of demographic opportunity for the next 20 years. This window gives Turkey plenty of time until the new rules and regulations come into effect. Also, the Turkish economy is projected to grow rapidly in the near future. The major financial reforms formulated in the 1999–2001 period have made it possible for Turkey to emerge as a more powerful economy from the current global crisis. The banking sector balance sheet is very strong, the floating exchange rate regime has substantially reduced the currency risks, general government debt is at relatively low levels, and trade relations with its neighbors are improving. Consequently, social security deficits as a percentage of GDP are expected to fall in future years. Finally, the private pension system has recorded rapid growth and satisfactory performance since 2001. The private system will also help to reduce the risks in the public system.

[19]General government debt has decreased from 77.6% (of GDP) in 2001 to 39.5% in 2008 (Maastricht criterion = 60% of GDP), and the budget deficit decreased from 24.5% (of GDP) in 2001 to 2.2% in 2008 (Maastricht criterion = 3% of GDP). Turkey still cannot meet the inflation and interest rate targets (www.invest.gov.tr).

[20]Sayan reports the number of unregistered workers as 11 million, and also points out the issue of low compliance in the form of underreported salaries.

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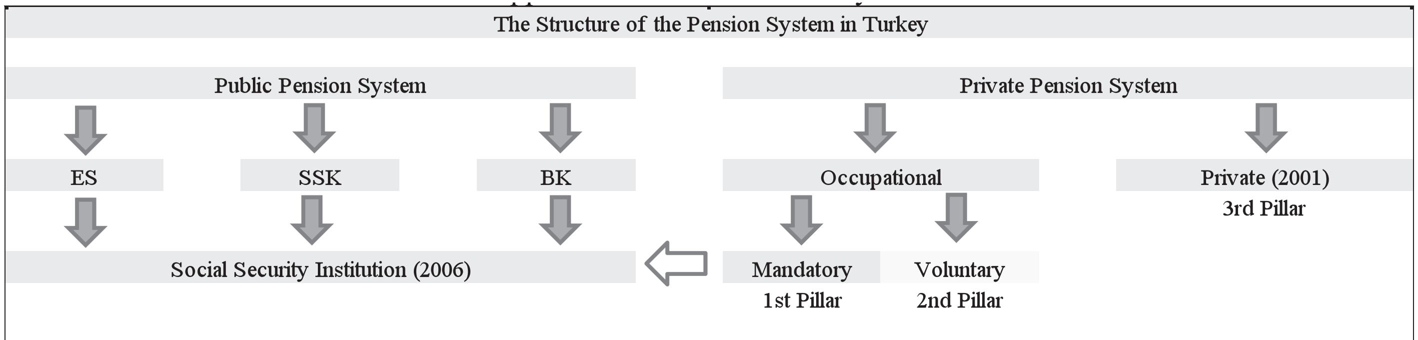
Appendix - Turkish Pension System



ES: White collar workers employed by local and central governments. Number of people enrolled = 9.3 million as of 2008 (8.6 million in 1990, 10.7 million in 2002).

SSK: Blue collar workers in the public sector, and blue collar workers in private sector. Number of people enrolled = 32.7 million as of 2008 (20 million in 1990, 35.3 million in 2002).

BK: Farmers, artisans, and the self-employed. Number of people enrolled = 14.4 million as of 2008 (13.4 million in 1990, 15.5 million in 2002).

1st Pillar Substitute Funds can be defined benefit (DB) or defined contribution (DC), and cover:

1 - the financial sector, the stock market, and the chambers of commerce

Number of people enrolled = 0.35 million, number of funds = 18

2 - OYAK (Army)

3 - TTK (State Owned Coal Mining)

OYAK and TTK accounts for approximately 0.215 million people.

2nd Pillar Substitute Funds can be DB or DC, and cover private sector firms (approximately 250 funds).

Social Security Institution (**SSI**) was formed in 2006. The 2008 Reform added that the first pillar substitute funds will be turned to SSI.

Number of active workers (contributors) = 15.3 million

Number of pensioners = 8.7 million

Number of dependents = 33.2 million as of 2008

Social security - total coverage = 57.2 million

Percentage of insured population = 81%

Percentage of uninsured population = 19%.

3rd Pillar Substitute Funds constitute the private system. They can be personal or group plans.

They are voluntary, fully funded, and DC plans.

Number of people enrolled = 1.75 million as of 2008 (0.324 million in 2002).

Approximately $5.9 billion in assets as of 2009 ($93 million in 2003, $3.5 Billion in 2007).

Source: Sayan; Brook and Whitehouse; Karadeniz;, and "Social Security Institution Magazine," Volume 2.