

Social Security System in India: An International Comparative Analysis

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Abstract

This paper examines selected components of social security system in India and compares them with their OECD counterparts. Historically, the Indian policy makers have viewed the pension system as a welfare measure and therefore, it lacks in financial professionalism, diversification, and in the belief that pension funds can also be treated as an asset. The Indian system is biased towards the organized formal sector as workers in this sector are benefitted with the provisions under various labor laws. Even then the pension provisions in India are way far behind the OECD benchmark. In the unorganized sector, old age income remains mainly confined to voluntary savings. The New Pension System although making the pension amount an old age asset, is silent on the social security provisions to the poor. The average income earners are not able to replace their pre-retirement earnings with pensions compared to most of the OECD countries. In terms of the gross pension wealth, India is nearer to the OECD average only in the low income category for men. Out of 5 percent of health care expenditure as a percentage of GDP, government's share in India accounts even less than 1 percent which is significantly lower than the OECD benchmark.

Keywords: Social Security System, Pension Funds, India, OECD.

Introduction

A Social Security System (SSS) is one whereby the state provides various benefits to those who are unable to provide the same for themselves. Such a system is generally meant to serve the socially deprived conditions, such as poverty, old age, disability, and unemployment, etc. The most important forms of social security system are retired-worker benefits, and dependents' benefits. Therefore, SSS is a means of living independently during the old age and supporting the dependents in the family. Individuals while working are expected to set aside a part of their income as long term savings to take care of their needs in post-retirement years. Apart from the increased cost of living, the steeply rising cost of medical treatments in recent times and the need for personalized services in the old age, there are always apprehensions that the savings made during the working life will be inadequate unless some institutional

arrangements are in place.

Population age structure of an economy plays an important role in deciding the savings generation potential of that economy.¹ In a dynamic economy, the age structure of population influences the income growth. With population growth there will be more young people to save and their contribution to income growth will be significant. In other words, with larger share of younger population who are working, the net savings of the economy will be positive; the induced income growth propels total savings at a higher level.

This study tries to assess the existing social security system in India with that of the OECD countries. Comparing the demographic features between India and OECD, it is observed that the Indian demographic features are better than the overall OECD average and India has a larger pool of young population

than most of the OECD countries. Potential Support Ratio (PSR) stands very high for India meaning that the existing population is very young and in the working age group.² Hence, they have very less number of elderly to support. With Mexico and Turkey, the PSR of India stands at 12. On the other hand, the PSR of countries like Japan, Italy, and Germany is very low and support the aging argument in these countries.³ The OECD countries are greying fast and with weak savings potential their prospects of future growth momentum is reaching saturation. On the contrary, the population growth rate in India has declined consistently (from 2.25% in 1980-85 to 1.62% in 2000-05) and is estimated to be 0.25% in 2045-50. Not only that, the life expectancy at the age of 60 is also relatively low (though it has improved over the years).⁴ Therefore, the PSR is relatively high in India compared to the OECD countries. But such a demographic advantage also necessitates in having a social security provision for the future; because in future, with further improvement in life expectancy the share of old age population will increase and thus the potential support ratio may decline.

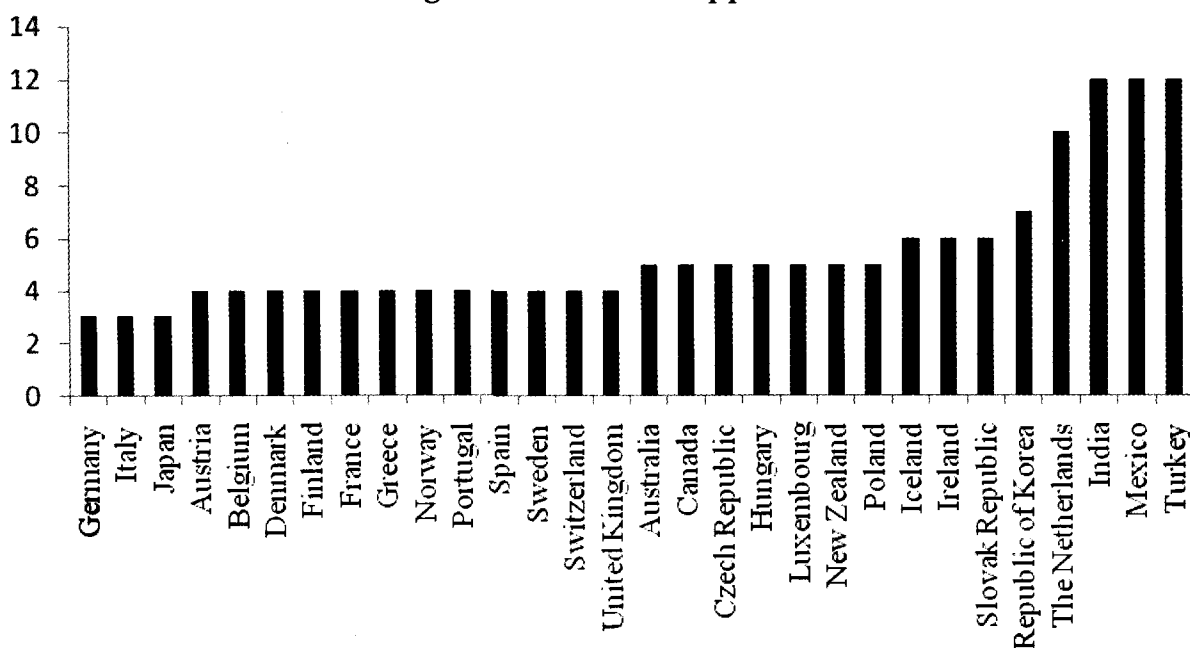
With the opening up of economy the traditional characteristics of Indian labor market have changed dramatically. With this, not only the organized sector workers have been impacted but the unorganized sector workers engaged in export units have also been affected. It is in view of such developments that this paper attempts to explore the existing social security system in India and draws attention to the issues where the Indian system falls behind the OECD benchmark.

The itinerary of the rest of the paper is as follows. The debate in extant literature in terms of its impact on household saving, economic growth etc. is traced. An overview of the existing social security system in India is provided. Finally, it is explained how the Indian social security system is a laggard compared to its developed counterpart, i.e., OECD countries.

Theoretical Issues and Literature Review

The Life Cycle Hypotheses provides an explanation about the motive of savings in

Figure 1: Potential Support Ratio



Source: AARP International 2008

working age in order to dissave later for meeting the old age requirements. See, Modigliani *et al.* (1954, 1963). But this hypothesis has been criticized on several grounds.⁵ In particular, the *precautionary motive* of savings can even force old aged people not to dissave as much as has been depicted by the LCH; because they may fear that the future contingency can offset the available level of income. On the other hand, because of the *liquidity constraints*, people cannot smooth out their consumption pattern for a long period. The existing literature on social security system has extensively used the LCH to analyze and discuss its role and impact over the household savings behavior. Aaron (1967), finds that the social security expenditure to national income ratio has a *negative* relationship with the household savings ratio. Feldstein (1974) extended the LCH framework to show that presence of social security system decreases personal savings. But Leimer *et al.* (1982) and Eisner (1983) contradict Feldstein (*ibid.*). According to them, the presence of social security in the periods of unemployment enhances the consumption and thus the national income increases which in turn reinforces the savings and investment. The literature also provides the debate about the influence of age of the social security system on household savings [Feldstein 1977 and Kopits *et al.*, 1980]. The impact of social security on household savings can be measured through three effects: *income effect*, *wealth effect* and *retirement effect*.⁶ Any change in benefits or payroll taxes alters the disposable income available with the individuals and thus has an income effect. However, the income effect is neutralized in the long-run if the raised disposable income is offset by the equivalent increment in payroll taxes. The wealth effect indicates the direct savings response of individuals to expected future benefits. It is *negative* if the households feel that in the presence of adequate social security provisions there is less savings requirement for future. On the other hand, the wealth effect

will be *positive* if the social security program educates the households that it is essential to insure themselves against the old age requirements and contingencies like sickness and unemployment (Cagan, 1965). In addition to this, the retirement effect affects the savings ratio indirectly as the benefits from retirement may induce the individuals move to go for early (say, voluntary) retirement than they would in the absence of it. Therefore, the retirement effect is *positive* when the provisions of retirement benefits induce the aged worker(s) to drop out from the labor market. However, the relative strength of the wealth and retirement effects can be leveled for criticism incorporating the possibility of existence of joint family system whereby the working individuals support the elderly, non working and incapable with the hope that they will get similar support from their children in a similar way to what they are extending to their dependents.

The public pension plans affect the growth of the economy. Denton *et al.* (1981) report short term impact of pension plan outlays on the growth prospects of Canada. They find that introduction of a national pension plan *temporarily* reduces the rate of economic growth. Weil (1994) provides evidence from developed economies that the old by providing bequests lower the savings among the young.⁷ These authors argue that the extent of savings reduction and hence the impact on the level of income in the long-run is affected by the nature of aggregate savings behavior. Most of the existing empirical studies are focused on advanced countries. Only a few have attempted so far to explore the case for some of the developing countries. For instance, see Feldstein (1977) and Kopits *et al.* (1980). But they do *not* find statistically significant results for those developing countries. Ashraf *et al.* (2003) argue that the strong withdrawal side features of saving schemes deter the individuals from going in for future savings. In general, the anomalies

in savings behavior can be attributed to the presence of weak and stagnant organized sector in the developing economies.

Social Security System in India: An Overview

With a presence of large unorganized sector, India has not been able to provide a quintessential social security cap to all. In India, the World Bank's three pillar approach of pension system is partially followed as there is no minimum guaranteed pension for the participants (hence, the first pillar is nonexistent).⁸ There are various employment linked pension schemes existing in India, but they are limited only to the organized segment of the workforce. As against the OECD average of mandatory pension schemes of covering population of the age group 15-65 and the labor force (which stands to 60.4% and 80.3%, respectively) India stands far behind: it covers only 5.7% of population in the age group of 15-65 and 9.1% of the labor force. Workforce engaged in unorganized sector has to resort to the third pillar of pension system which is of *voluntary* nature. Hence, the Indian pension system is largely privately managed at individual level (Poirson, 2007). Since Indian policy makers viewed pension system as a welfare measure, it lacked in financial professionalism, diversification, and in the belief that the pension funds could be treated as an asset; see, Vaidyanathan (2006). The Indian Social Security System is broadly classified as follows:⁹ (i) Civil Service Pensions (ii) Statutory Pension Scheme and Provident Fund Scheme for the Organized Sector (iii) Superannuation (iv) Small Saving Schemes (v) Pension Schemes and Welfare Funds for the Senior Citizens and Destitute and (vi) Micro Pension Schemes.

The first three Pension provisions are meant for the organized sector workers. The fourth component is of special importance because with this instrument, the central and state governments encourage the households

to save and thereby generate funds to finance their debts. The interest returns on these funds are generally higher than the market interest rates and some of these funds are also tax advantaged. The fifth component is meant for the targeted community in the 'unorganized sector' including the destitute. Finally, the Micro Pension Schemes designed with the UTI and SEWA bank encourage the unorganized sector women worker to save in order to meet their old age needs.

Pension Provisions to the Organized Sector in India

The government employees in India are entitled to receive the Superannuation Pension and Retiring Pension under the various rules of civil services pension schemes. Besides, there are provisions for health disability, family pension and even for the employees under (disciplinary) penalty. However, new entrants to the central government work force (except the armed forces) who have joined after January 2004 have been placed under the New Pension System (NPS) which is a Defined Contribution (DC) based pension scheme.¹⁰ NPS is regarded as India's equivalent of the individual retirement accounts in the USA (Asher, 2006). On the other hand, for the government and private enterprises, social security provision are constitutional and the laws enacted in India are: (i) The Employees' Provident Funds and Miscellaneous Provisions (EPF & MP) Act, 1952 (ii) The Employees' State Insurance (ESI) Act, 1948, and (iii) The Payment of Gratuity Act, 1972. In case of the first one, both the DC and DB schemes are run simultaneously to benefit the employees and their families. Similarly, the Employees' Deposit Linked Insurance (EDLI) Scheme, 1976 gives insurance cover to the dependents with the employers' contribution. The ESI Act comprises of DC schemes for the (organized sector) factory workers. These have been extended to benefit the workers employed in restaurants, multiplexes, etc.

Finally, the payment of the gratuity benefit is a statutory requirement for employers and it is applicable to all the permanent employees, regardless of their category or salary.

Small Saving Schemes

The small saving schemes are the saving instruments which the households save for the contingencies and future purpose. Barring Post Office Savings and Savings Bank Accounts, in general other small saving schemes generate interest yield higher than the interest rate prevailing in the market. Public Provident Fund (PPF), because of its long term maturity period, is considered as a pension scheme similar to the schemes existing for the workers of organized sector. These saving schemes are important, considering the cyclical nature of income and short term contingencies in the unorganized sector.

Pension Schemes and Welfare Funds for Senior Citizens and Destitute

These are typically targeted social assistance programs and welfare funds. The pension provisions for the elderly of the informal sector are: (i) Senior Citizen Saving Schemes (SCSS) and, (ii) National Old Age Pension Schemes (NOAPS). The SCSS aims to benefit the senior citizens by providing them a simple and high yielding channel with a small maturity period and high interest return (9%). Easy and premature withdrawal is allowed which caters to the old age contingencies. On the other hand, NOAPS is a non-contributory scheme designed particularly for the elderly citizens falling below the poverty line and the destitute.

Micro Pension Schemes

Micro Pension Schemes are particularly meant for the informal sector women workers. In this scheme, the saving is accumulated over a period of time and intermediated through financial and capital markets by professional

fund managers. At an agreed withdrawal age (usually 58 or 60), the accumulated balance can be withdrawn either as a lump-sum amount or phased withdrawals, or a combination of the two. SEWA (Self Employed Women's Association) is one such scheme managed by UTI AMC, in which the contribution is made up to the age of 55 and the pension starts after 58.

Comparison of India Social Security System with the OECD Countries

This section examines the social security system in India in comparison with the OECD countries in terms of the health care expenditure as a percentage of GDP, basic structure of pension schemes in the organized sector, replacement rates, pension wealth and pension asset as a percentage of GDP.

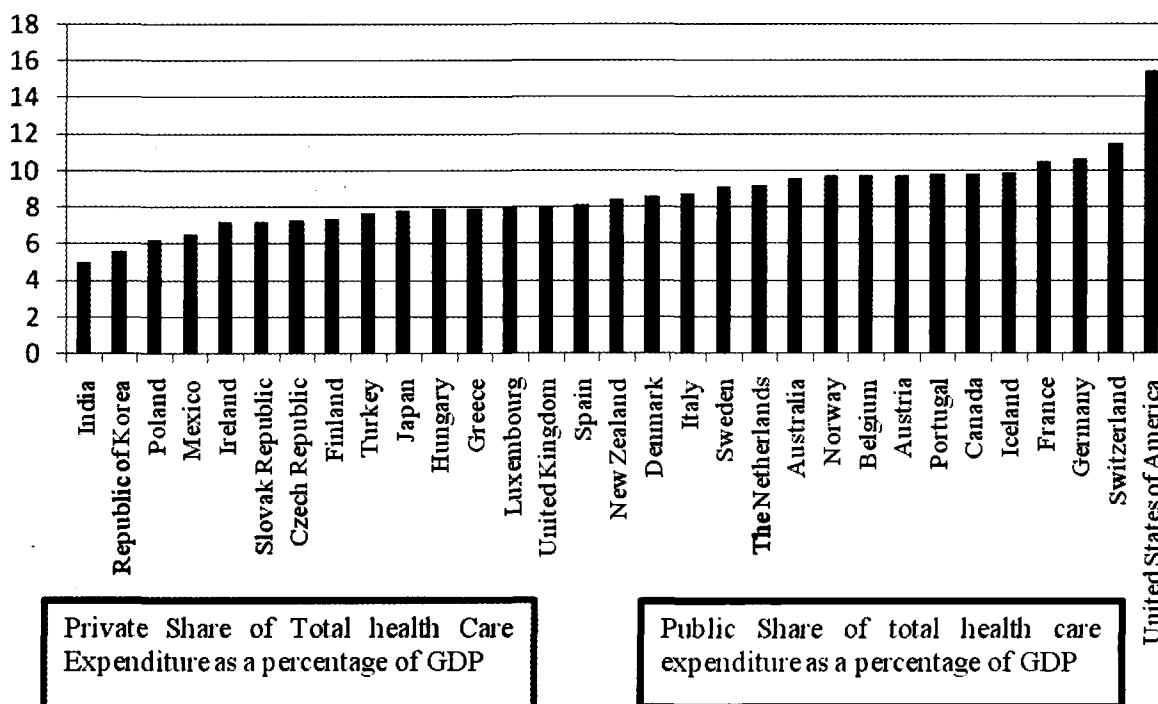
Health Care Expenditure as a Percentage of GDP

Expenditure on health care is an important component of social security system. As a percentage of GDP, we find that India performs far below than its OECD counterparts. Out of five percent of health care expenditure as a percentage of GDP, government's share accounts even less than one percent for India. On the contrary, the OECD countries have much better and fairer share of government expenditure on health care, which reflects the sound health care policy in these countries. Therefore, one may argue that in terms of providing health facilities to the retired people and elderly have-nots, the Indian government is not as responsible as the governments of OECD countries, as illustrated in Figure 2.

Structure of the Pension Schemes in OECD Countries and India

The formal sector pension schemes mainly have two tiers; redistributive and

Figure 2: Health Care Expenditure



Source: AARP International, 2008

mandatory insurance. However, there also exist voluntary provisions that contribute towards generating savings for the old age. The redistributive part ensures that the pensioners achieve some absolute and minimum standard of retired living. The insurance component of the pension schemes are some targeted retirement savings in comparison to the earnings during pre-retirement years. In the redistributed tier, there are three components — resource-tested, basic, and minimum pensions.¹¹ The second tier (mandatory insurance) consists of Defined Benefit (DB), Defined Contribution (DC),¹² Notional Accounts (NDC)¹³ and Points.¹⁴ Based on these features, comparing the pension structure existing in OECD countries and in India, we find that the *Indian formal sector does not guarantee the redistributive pension*. Therefore it lags behind the pension system available in the OECD countries, as shown in Table 1. For details, see *Pensions at a Glance (2007)*, pp. 24-25.

Comparison Based on Replacement Rates

The old-age pension replacement rate

measures how effectively a pension system provides a retirement income to replace earnings during the working years, the main source of income before retirement. Gross and Net Replacement Rates¹⁵ are the two indicators based on which the formal sector pension schemes are compared between India and OECD countries. Table 2 represents the difference in terms of Gross Replacement Rate (GRR) performances in both the domains. Considering the group of average income earners, the GRR in India stands below the OECD average in both the sexes' category. This implies that, in the formal sector the average income earners (both men and women) in India are *not* able to replace their pre-retirement earnings with pensions, compared to most of the OECD countries (notwithstanding, some notable exceptions such as UK, Mexico and Japan). If compared with the OECD average, this also holds true for the Indian low income earners (both the sexes). However, on the basis of cross-country difference, in India, the GRR of the low income category is better than many of the OECD countries. For the high income earners, in India the GRR performance is not

very encouraging. With reference to the Net Replacement Rate, although it is higher than the GRR in all the OECD countries as well as in India;¹⁶ but for all categories: low, average and high for both men and women, India stands below the OECD average, as revealed in Table 3.

Comparison Based on Pension Wealth

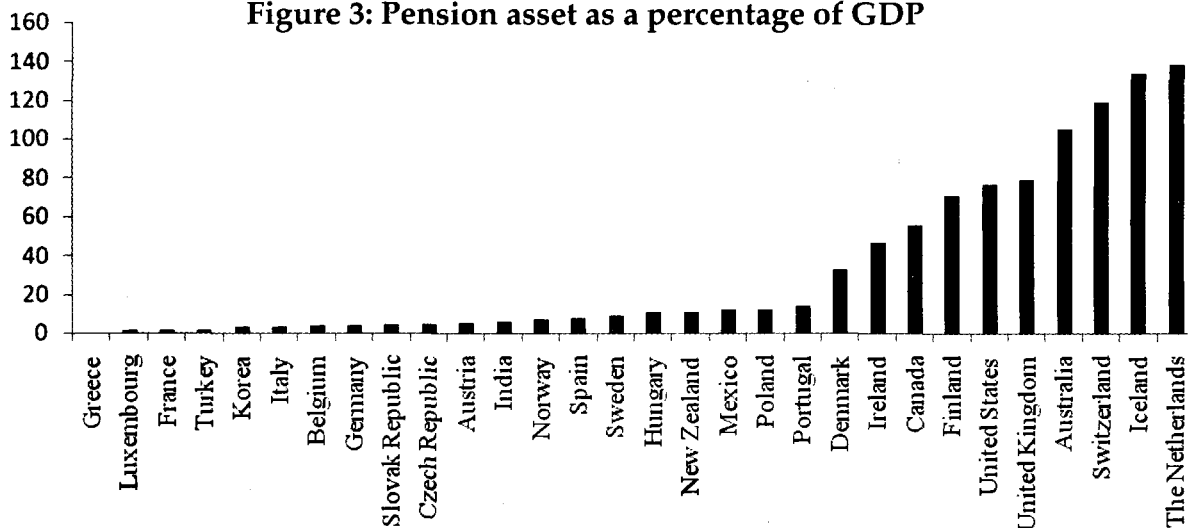
Pension wealth is considered to be a better indicator than the replacement rates, as it includes the life expectancy, retirement age, and the indexation of pension benefits that determine for how long the pension benefit must be paid and how its value evolves over time. The Gross Pension Wealth (GPW) refers to the magnitude of pension flow. In terms of GPW, while India is nearer to the OECD average in the low income category for men, it lags in other income groups for both the sexes. Having consistency with the findings on replacement rates, GPW for low income category people (both for men and women) in

India is better than many of the OECD countries on the basis of cross-country differential. India's relative performance in terms of Net Pension Wealth also exhibits a similar trend, as revealed in Table 4 and 5.

Comparison based on Financial Depth

In some of the OECD countries the financial depth (measured as pension asset as a percentage of GDP) happens to be more than 100% (e.g., Netherlands, Switzerland and Australia) compared to a meagre 5.75% in India. It highlights the fact that in the OECD countries the pension provision systems yield high returns and are well invested. Therefore, in the OECD countries, the returns on pension funds are lucrative and the aged have relatively better life in the post-retirement years. India's pension asset as a percentage of GDP though, does not look that impressive but is still better than some of the OECD countries such as Germany, Italy, Belgium, Czech Republic, and France, as revealed in Figure 3.

Figure 3: Pension asset as a percentage of GDP



Source: Poirson (2007) and OECD Stat Extract (2009)

Summary and Conclusions

In any economy, the social security system is primarily meant to provide protection to elderly poor and the destitute, from economic deprivation. In advanced countries, the social safety net is quite wide in

terms of its contribution to meet the needs of their elderly population; a large chunk of the labor force there is in the organized sector and enjoys the coverage of labor laws. It covers the workers and their dependents against the physical (and/or mental) disability, unemployment and thus covers the income

and health risks. But in the case of India, the lack of such a wide social security net does have serious implications for the well-being of aged and poor people who are unable to meet their old age needs for reasons beyond their control. The incidence of wide-spread poverty and unemployment make the situation more adverse.

India's workforce is largely engaged in the unorganized sector where the pension provisions are mainly of a voluntary nature. In fact, the largeness of this sector is a bottleneck in the social security provisions to the elderly poor in India. Though the NPS is a professional move to make the Indian social security system in tandem with the international practice, the benefits are likely to be carried away by the organized sector workers as they have consistent and regular cash flow of income. The targeted assistance and micro pension schemes although catering to the needs of old age poor and women, are not significant enough to meet the future

requirements. In addition, the government's burden of the pension provision with the administered interest rate (which is usually high compared to the market rate of interest) makes the government vulnerable to its debt sustainability. If we compare the formal sector pension schemes in India with the pension provisions practiced in the developed world, it performs far below the OECD average. The Indian formal sector pension scheme does not guarantee redistributive pension. This makes the provision privately managed. It is not surprising that the replacement ratios and pension wealth are also not at par with the pension provisions available in the OECD countries. The low health care expenditure is an indicator of how much the Indian government has been irresponsible towards its people. Finally, the bottom place of India in the pension asset as a percentage of GDP pyramid shows that India has a long way to go in order to professionalize the pension schemes.

Table 1: Pension Structure in OECD Countries and in India					
First Tier				Second Tier	
Universal Coverage, Redistributive				Mandatory, Insurance	
Public				Public	Private
Countries	Resource Tested	Basic	Minimum	Type	Type
Australia	✓				DC
Austria	✓			DB	
Belgium	✓		✓	DB	
Canada	✓		✓	DB	
Czech Republic	✓	✓	✓	DB	
Denmark	✓	✓			DC
Finland			✓	DB	
France	✓		✓	DB + Points	
Germany	✓			Points	
Greece	✓		✓	DB	
Hungary				DB	DC
Iceland	✓	✓			DB
Ireland	✓	✓			
Italy	✓			NDC	
Japan		✓		DB	
Korea		✓		DB	
Luxembourg	✓	✓	✓	DB	
Mexico		✓	✓		DC
Netherlands		✓			DB
New Zealand		✓			

Norway		✓	✓	Points	DC
Poland			✓	NDC	DC
Portugal			✓	DB	
Slovak Republic			✓	Points	DC
Spain			✓	DB	
Sweden			✓	NDC	DB+DC
Switzerland	✓		✓	DB	DB
Turkey			✓	DB	
United Kingdom	✓	✓	✓	DB	
USA	✓			DB	
India				DB+DC	

Sources: OECD Countries, Pensions at a Glance, 2007.

India, Pensions at a Glance: Asia/Pacific Edition, OECD, 2009

Individual Gross Earnings* (% average)	Men			Women		
	0.5(L)	1(A)	1.5(H)	0.5(L)	1(A)	1.5(H)
Country						
Australia	67.0	41.6	33.1	67.0	41.6	33.1
Austria	80.1	80.1	76.4	80.1	80.1	76.4
Belgium	58.1	42.0	32.5	58.1	42.0	32.5
Canada	76.5	44.5	29.7	76.5	44.5	29.7
Czech Republic	79.2	49.7	36.4	79.2	49.7	36.4
Denmark	124	80.3	67.5	124	80.3	67.5
Finland	66.5	56.2	56.2	66.5	56.2	56.2
France	61.7	53.3	48.5	61.7	53.3	48.5
Germany	43.0	43.0	42.6	43.0	43.0	42.6
Greece	95.7	95.7	95.7	95.7	95.7	95.7
Hungary	76.9	76.9	76.9	76.9	76.9	76.9
Iceland	108.3	90.2	87.5	108.3	90.2	87.5
Ireland	68.4	34.2	22.8	68.4	34.2	22.8
Italy	67.9	67.9	67.9	52.8	52.8	52.8
Japan	47.1	33.9	29.4	47.1	33.9	29.4
Korea	64.1	42.1	33.6	64.1	42.1	33.6
Luxembourg	99.4	88.1	84.3	99.4	88.1	84.3
Mexico	55.3	36.1	34.5	55.3	29.9	28.6
Netherlands	93.4	88.3	86.6	93.4	88.3	86.6
New Zealand	77.5	38.7	25.8	77.5	38.7	25.8
Norway	66.2	59.3	49.8	66.2	59.3	49.8
Poland	61.2	61.2	61.2	49	44.5	44.5
Portugal	63.0	53.9	53.1	63.0	53.9	53.1
Slovak Republic	56.4	56.4	56.4	56.4	56.4	56.4
Spain	81.2	81.2	81.2	81.2	81.2	81.2

Sweden	76.6	61.5	75.6	76.6	61.5	75.6
Switzerland	62.5	58.3	40.5	62.8	59	41
Turkey	86.9	86.9	86.9	86.9	86.9	86.9
United Kingdom	51.0	30.8	21.3	51.0	30.8	21.3
United States	50.3	38.7	34.1	50.3	38.7	34.1
India	67.1	40.4	31.3	65.6	39.0	30.0
OECD	72.2	59.03	54.26	71.3	57.79	53.02

* L stands for Low Income Group, A stands for Average Income Group and H stands for High Income Group. All values are in percentages.

Sources: Pensions at a Glance, 2009; Pensions at a Glance, 2009, Asia/Pacific Edition.

Individual Net Earnings* (% average)	Men			Women		
	0.5(L)	1(A)	1.5(H)	0.5(L)	1(A)	1.5(H)
Country						
Australia	80.2	53.1	41.8	80.2	53.1	41.8
Austria	90.5	90.3	86.3	90.5	90.3	86.3
Belgium	78.7	63.7	51.7	78.7	63.7	51.7
Canada	89.1	57.9	40.0	89.1	57.9	40.0
Czech Republic	95.3	64.1	49.4	95.3	64.1	49.4
Denmark	137.0	91.3	82.7	137.0	91.3	82.7
Finland	73.2	62.4	63.8	73.2	62.4	63.8
France	76.2	65.7	60.2	76.2	65.7	60.2
Germany	59.2	61.3	60.3	59.2	61.3	60.3
Greece	113.6	110.8	106.7	113.6	110.8	106.7
Hungary	94.3	105.5	99.2	94.3	105.5	99.2
Iceland	110.1	95.1	92.1	110.1	95.1	92.1
Ireland	68.4	40.1	30.3	68.4	40.1	30.3
Italy	74.8	74.8	77.1	76.6	58.1	59.9
Japan	51.4	38.7	33.9	51.4	38.7	33.9
Korea	68.8	46.6	38.7	68.8	46.6	38.7
Luxembourg	107.1	96.5	93.5	107.1	96.5	93.5
Mexico	56.0	38.0	39.6	56	31.5	32.8
Netherlands	105.0	103.2	98.6	105.0	103.2	98.6
New Zealand	79.3	41.1	29.0	79.3	41.1	29.0
Norway	76.7	69.3	60.6	76.7	69.3	60.6
Poland	74.4	74.9	75.0	60.6	55.2	55
Portugal	73.2	69.6	72.0	73.2	69.6	72.0
Slovak Republic	66.3	72.7	74.9	66.3	72.7	74.9
Spain	82.1	84.7	85.3	82.1	84.7	85.3
Sweden	79.3	64.1	81.2	79.3	64.1	81.2
Switzerland	68.8	64.5	44.3	69.1	65.3	44.9
Turkey	121.2	124.7	127.1	121.2	124.7	127.1

United Kingdom	63.8	40.9	29.2	63.8	40.9	29.2
United States	57.9	44.8	39.5	57.9	44.8	39.5
India	76.3	46.4	38.8	74.5	44.4	35.8
OECD	82.4	70.3	65.5	82.0	68.9	64.0

* L stands for Low Income Group, A stands for Average Income Group and H stands for High Income Group. All values are in percentage.

Sources: Pensions at a Glance, 2009; Pensions at a Glance, Asia/Pacific Edition, 2009.

Table 4: Gross Pension Wealth						
	Men			Women		
	0.5(L)	1(A)	1.5(H)	0.5(L)	1(A)	1.5(H)
Multiple of Average Gross Earnings*						
Country						
Australia	11.7	6.9	5.3	13.7	8.1	6.2
Austria	12.2	11.6	10.5	14.2	13.5	12.1
Belgium	8.9	6.4	5.0	10.3	7.5	5.8
Canada	11.7	6.8	4.5	13.6	7.9	5.3
Czech Republic	12.1	7.6	5.6	14.3	9.0	6.6
Denmark	18.5	11.6	9.6	21.3	13.3	11.0
Finland	10.4	8.8	8.8	12.3	10.5	10.5
France	10.8	9.3	8.5	12.5	10.8	9.8
Germany	7.2	7.2	7.1	8.5	8.5	8.4
Greece	14.3	14.3	14.3	16.6	16.6	16.6
Hungary	12.4	12.4	12.4	15.4	15.4	15.4
Iceland	17.0	13.7	13.2	19.1	15.4	14.8
Ireland	12.1	6.1	4.0	14.5	7.2	4.8
Italy	10.0	10.0	9.9	10.7	10.7	10.7
Japan	7.8	5.6	4.9	8.8	6.3	5.5
Korea	8.9	5.9	4.7	10.7	7.0	5.6
Luxembourg	21.7	19.2	18.4	26.5	23.5	22.5
Mexico	7.3	4.8	4.6	8.9	4.8	4.6
Netherlands	17.2	16.3	16.0	20.1	19.1	18.7
New Zealand	14.3	7.2	4.8	16.8	8.4	5.6
Norway	11.4	10.2	8.5	13.4	11.9	9.9
Poland	8.4	8.4	8.4	9.5	8.6	8.6
Portugal	9.2	8.1	8.0	10.7	9.5	9.3
Slovak Republic	8.8	8.8	8.8	10.6	10.6	10.6
Spain	12.2	12.2	12.2	14.3	14.3	14.3
Sweden	12.2	9.9	12.0	14.0	11.3	13.7
Switzerland	10.7	9.8	6.8	13.1	12.0	8.3
Turkey	11.0	11.0	11.0	12.9	12.9	12.9
United Kingdom	6.8	4.1	2.9	7.8	4.7	3.3
United States	7.2	5.5	4.9	8.3	6.4	5.7
India	10.2	6.2	4.8	10.9	6.6	5.1
OECD	11.5	9.3	8.5	13.4	10.9	9.9

* L stands for Low Income Group, A stands for Average Income Group and H stands for High Income Group. Sources: Pensions at a Glance, 2009; Pensions at a Glance, Asia/Pacific Edition, 2009.

Table 5: Net Pension Wealth						
	Men			Women		
Multiple of Average Net Earnings*	0.5(L)	1(A)	1.5(H)	0.5(L)	1(A)	1.5(H)
Country						
Australia	11.7	6.7	4.8	13.7	7.8	5.5
Austria	10.9	8.8	7.4	12.6	10.1	8.5
Belgium	8.9	5.7	4.1	10.3	6.6	4.8
Canada	11.7	6.7	4.5	13.6	7.8	5.2
Czech Republic	12.1	7.6	5.6	14.3	9	6.6
Denmark	12.7	7.8	6.1	14.6	8.9	7
Finland	9	6.6	6.2	10.6	7.9	7.3
France	10.2	8.2	7.1	11.7	9.4	8.2
Germany	6.6	5.8	5.3	7.8	6.8	6.3
Greece	14.3	12.3	11.1	16.5	14.3	12.9
Hungary	12.4	11	9.5	15.3	13.6	11.7
Iceland	13.9	10.2	9.3	15.6	11.4	10.5
Ireland	12.1	6.1	4	14.5	7.2	4.8
Italy	7.6	7.6	7.5	10.7	8.1	8.1
Japan	7.1	5.2	4.4	7.9	5.8	4.9
Korea	8.9	5.8	4.6	10.6	6.9	5.5
Luxembourg	19.2	15.2	13.3	23.5	18.5	16.3
Mexico	7.3	4.8	4.6	8.9	4.8	4.6
Netherlands	14.2	12.1	11	16.6	14.2	12.8
New Zealand	11.8	5.9	3.9	13.9	6.9	4.6
Norway	10.3	8.4	6.8	12.1	9.9	7.9
Poland	7.2	7	6.9	8.3	7.2	7.1
Portugal	9.2	8.1	7.8	10.7	9.5	9.1
Slovak Republic	8.8	8.8	8.8	10.6	10.6	10.6
Spain	10.9	10.1	9.7	12.8	11.8	11.3
Sweden	9.3	7.1	8	10.6	8.1	9.1
Switzerland	10.4	7.9	5.5	12.7	9.6	6.7
Turkey	11	11	11	12.9	12.9	12.9
United Kingdom	6.8	4	2.8	7.8	4.6	3.2
United States	7.2	5.5	4.9	8.3	6.4	5.7
India	10.2	6.2	4.8	10.9	6.6	5.1
OECD	10.5	7.9	6.9	12.3	9.2	8.0

* L stands for Low Income Group, A stands for Average Income Group and H stands for High Income Group.
Sources: Pensions at a Glance, 2009; Pensions at a Glance, Asia/Pacific Edition, 2009.

¹ See, the Life-Cycle Hypothesis (LCH) of consumption behavior in Dornbusch *et al.* (2005), Ch.13.

² The potential support ratio is the number of people in the age group of 15-64 per one older person aged 65 and above. This ratio describes the burden placed on the working population by the non-working old population.

³ Among the developed countries, PSR of the Netherlands is still high even though its life expectancy at birth and life expectancy at 60 is significantly high.

⁴ See, for details World Population Prospects: The 2008 Revision and AARP International, 2008.

⁵ See, Barro (1974), Deaton (1991), Carroll (1997) and Banks *et al.* (1998), among many others.

⁶ See, Feldstien (1977).

⁷ Weil (*ibid.*) while examining both micro and macro level data on young households that have either received or expected bequests, confirms that bequests are an important factor in determining the magnitude of the savings by young.

⁸ The World Bank Three Pillar approach advocates that the first pillar pension system should have non contributory, publicly managed and tax financed social insurance (popularly known as basic pension). The second pillar pension system should be contributory and privately managed (popularly known as mandatory pension). Finally, the third pillar pension system should be of voluntary saving nature.

⁹ A more segregated classification can be found in Asher (2006).

¹⁰ The pension schemes prior to this were Defined Benefit (DB) system indexed with inflation.

¹¹ Resource-tested programs grant a higher benefit to poorer pensioners and lower benefit to the better offs. The benefit depends upon income from other resources and acquired as well as inherited assets. Basic pension schemes are independent of income and the amount is paid either at a flat rate or it depends on the number of years of contribution. Minimum pensions provide higher benefit on the income of particular pension entitlement.

¹² In DB, the pensioner's amount depends on the number of contributions made throughout the working life. In DC, contributions flow into an individual account and the accumulation of contributions and investment returns is usually converted into a pension income stream at retirement.

¹³ Notional Accounts (or Notional Defined Contribution) are the schemes which record each worker's contributions in an individual account and apply a rate of return to the account. The accounts are 'notional' because in that both the incoming contributions and the interest accrued to them exist only on the books of the managing institution. See, OECD Pensions at a Glance, 2007 for details.

¹⁴ Workers earn their Pension Points based on their individual earnings for each year of contributions.

¹⁵ Gross Replacement Rate is the ratio of pension over final earnings before retirement. The indicator shows the pension benefit as a share of individuals' lifetime average earnings. The Net Replacement Rate is defined as the individuals' net pension entitlement divided by net pre-retirement earnings, taking account of personal income

taxes and social security contributions paid by workers and pensioners.

¹⁶ The personal tax system plays an important role in old-age support. Pensioners often do not pay social security contributions and, as personal income taxes are progressive and pension entitlements are usually lower than earnings before retirement, the average tax rate on pension income is typically less than that on earned income. Moreover, most of the times income tax systems give preferential treatment either to the pensioners by giving additional allowances or credits to older people. Therefore, net replacement rates are usually higher than gross replacement rates. See, for details Pensions at a Glance, Special Edition: Asia-Pacific, 2009, p.32.

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