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Improving the pension
system and the welfare
of retirees in Israel

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IMPROVING THE PENSION SYSTEM AND THE WELFARE OF RETIREES IN ISRAEL

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By Jacques Adda and Claude Giorno

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ABSTRACT/RÉSUMÉ

Improving the pension system and the welfare of retirees in Israel

Israel is a young country with still dynamic population growth, but it is already beginning to face the consequences of population ageing. The pension system relies largely on mandatory private retirement saving, which will moderate the long-term fiscal impact. Yet, there are questions about the fairness of the pension system, given the regressive nature of some of its tax provisions, its ability to effectively protect the most vulnerable elderly, whose poverty rate is high, as is the case for the rest of the population, and its efficiency in securing and valuing these retirement savings to guarantee pension adequacy. This review examines ways forward for policy to address these issues by reinforcing the protective role of basic pensions, by encouraging people to work longer and by improving the fairness and effectiveness of the system's second pillar.

JEL classification: H55, H75, J14, J26, J32

Keywords: pension system, ageing, retirement age, elderly poverty, defined benefit; defined contribution, Israel

This Working Paper relates to the 2016 OECD Economic Review of Israel (www.oecd.org/eco/surveys/economic-survey-israel.htm).

Améliorer le système de retraite et le bien-être des retraités en Israël

Fort d'une croissance démographique encore dynamique, Israël est un pays jeune, qui commence toutefois à faire face aux conséquences du vieillissement de sa population. Le système de retraite reposant largement sur l'épargne-retraite privée obligatoire, il pèsera moins lourd à long terme sur les finances publiques. Cela étant, des questions se posent quant à son équité compte tenu du caractère régressif de certaines de ses dispositions fiscales, à sa capacité à protéger efficacement les personnes âgées les plus vulnérables, parmi lesquelles le taux de pauvreté est élevé comme dans le reste de la population, et à son efficacité à protéger et à valoriser l'épargne-retraite ainsi constituée pour garantir des pensions suffisantes. Le présent chapitre examine la marche à suivre pour que les autorités puissent répondre à ces questions en renforçant le rôle protecteur des pensions de base, en encourageant les gens à travailler plus longtemps et en améliorant l'équité et l'efficacité du second pilier du système de retraite.

Classification JEL : H55, H75, J14, J26, J32

Mots clefs: système de retraite, vieillissement, âge de la retraite, pauvreté des personnes âgées, régime de retraite à prestations définies ; régime de retraite à cotisations définies Israël

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Improving the pension system and the welfare of retirees in Israel

By Jacques Adda and Claude Giorno¹

1. Israel will not escape the effects of an ageing population: it will be less pronounced than in the OECD on average, but the elderly dependency rate has been increasing since 2010 and is set to accelerate in the coming years. The country is financially well prepared to withstand this development, thanks to the reforms implemented since the mid-1990s. These reforms eliminated the large actuarial deficits that emerged in the 1980s and 1990s in schemes set up under agreements between employers and their workers, restored the pension system's long-term financial viability and prepared it for future demographic changes. The State's involvement in pension financing has been reduced with the development of a mandatory private defined contribution insurance system. Total public spending on pensions is thus relatively low and has been contained over the last decade.

2. However, the elderly poverty rate remains among the highest in the OECD and has not declined much over the past few years. Guaranteeing pension adequacy requires addressing longevity risks and preparing appropriately for potential financial market turmoil, given the important role played by private pension schemes. This could be done by promoting a further rise in senior employment rates, even though they have risen, by reinforcing the efficiency of the management of private retirement savings, and by discouraging rent-seeking behaviour by financial institutions to the disadvantage of households.

3. This paper analyses the system and suggests improvements. It first examines the demographic situation and the main features of the system. It then evaluates its long-term viability, considers its performance in terms of avoiding poverty among the elderly, and more generally assesses its fairness and effectiveness in ensuring that everybody receives a sufficient pension.

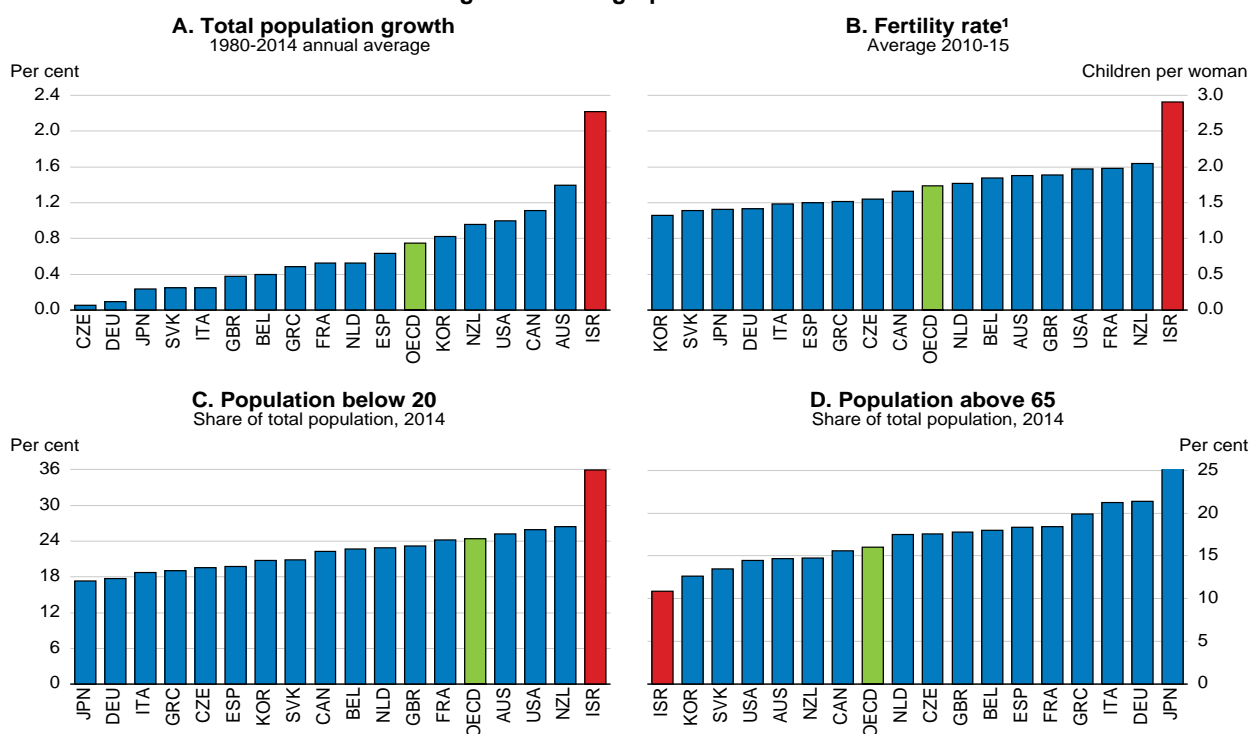
To meet the challenge of an ageing population, Israel has embarked on significant pension reforms

The country is entering a phase of still moderate population ageing

4. As a young country, Israel has long enjoyed high population growth. Buoyed by both a high birth rate and significant immigration, its population has grown more rapidly than that of other OECD countries (Figure 1, Panels A and B). Over 35% of the population was aged under 20 in 2013, which is high by

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Figure 1. Demographic indicators



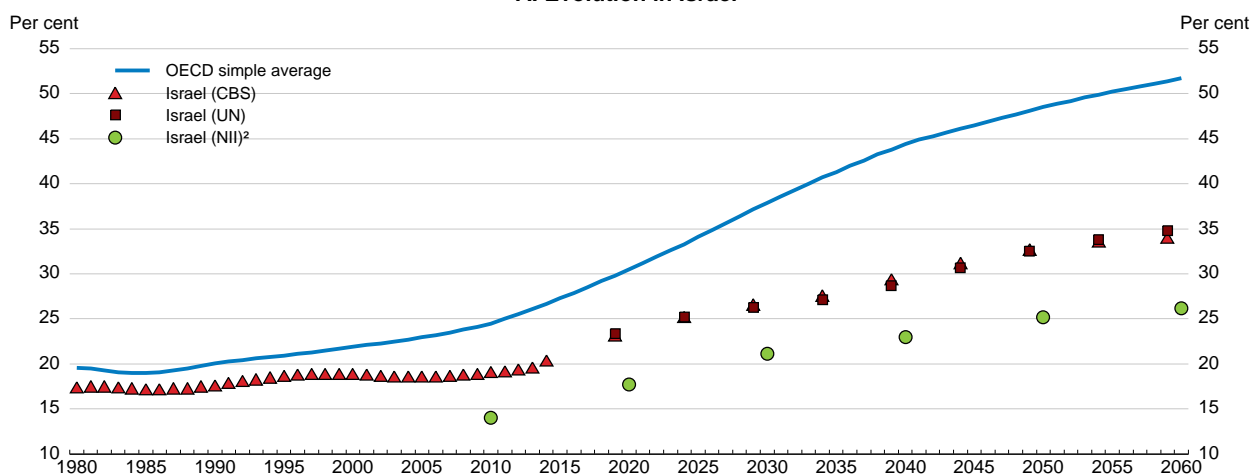
1. Total fertility (children per woman), medium baseline.

Source: OECD, Population Statistics database; United Nations (2015), *World Population Prospects: The 2015 Revision*.

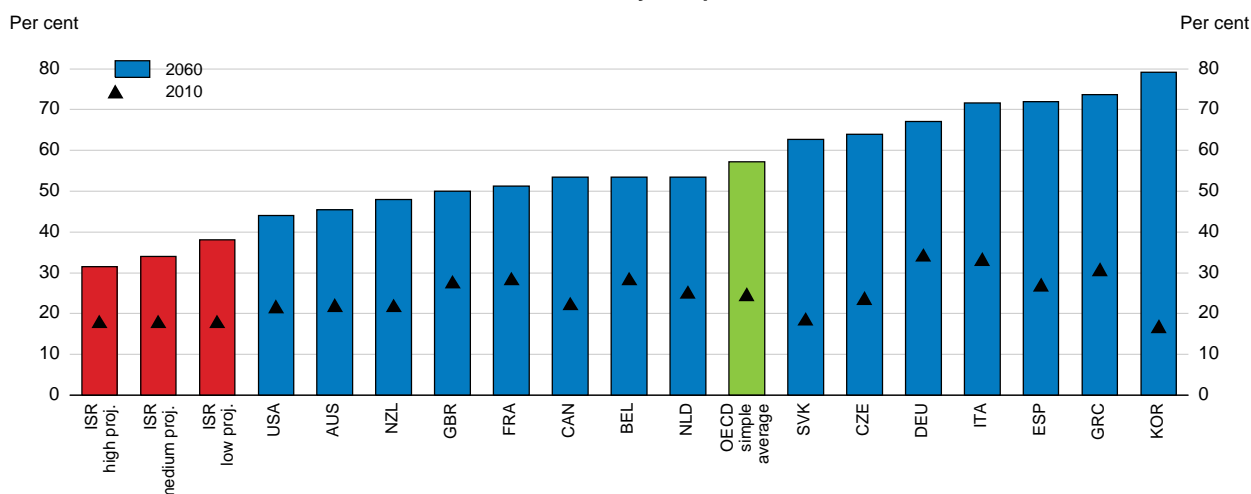
international standards, and the over-65s accounted for only 10%, which is very low (Panels C and D). But the situation is changing, albeit a little later than in other countries. Israel is now on the cusp of a demographic shift, signalling the gradual ageing of its population: since 2010, the elderly dependency rate, which compares the number of the elderly (those aged over 65) to the working-age population (20-64), has been rising, and that process is set to accelerate.

5. In recent demographic research, the Central Bureau of Statistics (CBS), the United Nations and the National Insurance Institute (NII) all agreed that the number of Israeli pensioners would rise sharply in the coming decades (Paltiel et al., 2012; NII, 2014a). The elderly dependency rate is expected to almost double between 2010 and 2060, from 19 to 36% (Figure 2, Panel A). As in other countries, these changes are in part driven by an expected increase in life expectancy of 8-11 years during this period. Birth rates are expected to decline in the Haredi and Arab communities and to level out among non-Haredi Jews, although they will remain high. From a level of over 8 million in 2014, the Israeli population could practically double by 2060, even without any significant immigration.

Figure 2. Old-age dependency¹
A. Evolution in Israel



B. Cross-country comparison



1. Elderly persons (65 and over) as a share of the working-age population (20-64).
 2. The National Insurance Institute defines the old-age dependency ratio using 67, rather than 65, as the cut-off age.
 Source: National Insurance Institute (2014), *Annual Survey 2013* (in Hebrew); A. Paltiel *et al.* (2012), "Long-Range Population Projections for Israel: 2009 2059", CBS Demography and Census Department; United Nations (2015), *World Population Prospects: The 2015 Revision*.

6. Demographic forecasts are by nature imprecise, but they suggest that the population will age significantly less rapidly than in other OECD countries (Figure 2, Panel B). The elderly dependency rate, which could reach around 35% in 2060, is likely to be still the lowest in the OECD, and its rise relative to 2010 should be less steep than the Member country average. The relatively moderate rate of ageing seems also to be robust to alternative assumptions, such as a sharper fall in fertility, according to other scenarios. Conversely, a temporary brake on population ageing could result from fresh inflows of immigrants in future decades, as has occurred in the past.

7. An unusual feature of population ageing in Israel is persistently high birth rates in the country's Haredi and Arab communities, in which poverty rates are far higher than in the rest of the population. The weight of these communities in the over-65 age group should rise from 10% to 30% by 2060, and from 30% to 50% among people of working age (aged 20 to 64) (Figure 3). This matters because of the implications for – and potential tensions in – the pension system. Because of their low employment rate,

these communities contribute relatively little to the financing of first-pillar pensions compared to what they receive, and first-pillar old-age benefits account for a high share of retirees' income in these communities.

Figure 3. Demographic development: composition by community¹



1. Share of each community in the specified age group relative to all communities' population in that age group.

Source: Central Bureau of Statistics, Demographic projections.

A defined-contribution pension system has been implemented

8. Since 1995, the authorities have rolled out a series of major reforms to improve the pension system, which is based on two pillars. Basic pensions are managed by the NII and supplemented by second-pillar funded, occupational, private pension schemes. People also save for retirement outside these schemes. The reforms were introduced in stages until 2008 and were designed to meet three challenges. First, the intention was to correct the design flaws of the previous private pension system – defined-benefit schemes based on voluntary pension savings that were excessively generous to their beneficiaries, offering both high State-guaranteed returns and generous tax deductions (Brender, 2009). Second, like many other countries, Israel had to take action to prepare itself for the expected ageing of its population to limit the resulting budgetary impact and ensure the financial viability of its pension system. The third major objective was to guarantee the adequacy of pensions, i.e. ensure sufficient income for the elderly and minimise their poverty rates.

9. To meet these challenges, the authorities deployed a strategy that consisted of withdrawing the public sector from the management of occupational pensions and transferring the risk of retirement income to individuals, stipulating a high mandatory level of private savings and extending the duration of working life. These measures completely overhauled of the second pension pillar, raised the retirement age and also had a (limited) effect on the first pillar.

Already relatively low, first-pillar pension spending has been further reduced

10. The first pillar, which is designed to guarantee a minimum income for pensioners, is funded from the public purse (Box 1). Ten years of contributions entitles claimants to benefits during their retirement, i.e. a set of basic old-age allowances and, in the event of the death of a spouse, a survivor's allowance. The amounts are the same for all beneficiaries. A means-tested income supplement is also available.

Box 1. First-pillar allowances and funding

There are several benefits under the first pension pillar:

- A basic old-age allowance, which in January 2014 came to almost 17% of the average salary for a single person and 25% for a couple.
- A seniority benefit that increases the basic allowance by 2% for every year of contributions after the first 10 years. It is capped at 50% of the basic allowance for claimants who have contributed for 35 years or more and came to 35% of this allowance on average in 2012 (Bol, 2014).
- A top-up of 5% on average for those aged 80 and over.
- A means-tested income supplement.
- The NII also pays an old-age benefit to most people who immigrated to Israel after reaching retirement age.

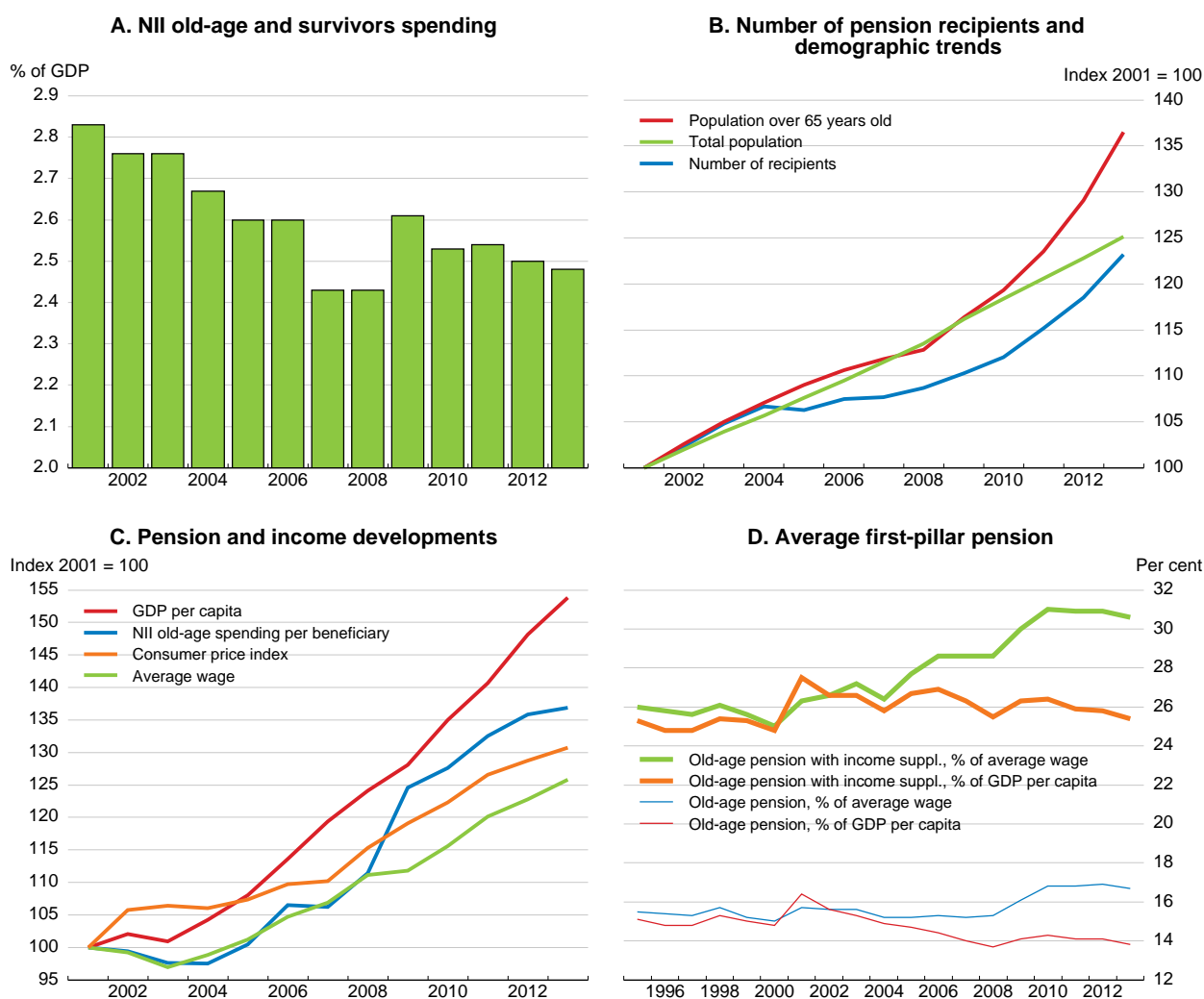
The first pillar distinguishes two retirement ages: one absolute and the other conditional. At the absolute eligibility age for retirement, which is 70 for men and 68 for women (to be raised to 70 by 2020), the basic and seniority benefits are paid without means testing. Means testing is applied to claimants who have reached the age of conditional eligibility for retirement (67 for men and 62 for women – to be raised to 64 by 2017, if approved by the Knesset), and who want to keep working. Currently, 90% of people over the age of conditional eligibility receive the basic benefit because occupational pensions are not included in the means testing (Bol, 2014).

The NII is responsible for funding first-pillar pensions and the other social benefits out of three main sources of income:

- Contributions paid by most Israeli residents over 18, which represent over half the resources of the NII. These contributions are levied on monthly income up to a limit currently set at NIS 43 240, i.e. 4.7 times the average salary. They are relatively low for income below 60% of the average salary but rise significantly above this level.
- A State contribution, which represents 40% of the NII's resources and partly funds specific benefits, including old-age allowances to people who immigrated to Israel after reaching retirement age and the means-tested income supplement.
- Interest received by the NII on its financial reserves, which represent around 10% of its resources. At the end of 2013, these reserves came to NIS 177 billion, or 17% of GDP. They are invested in non-tradable government bonds with a guaranteed real interest rate of 5.57%, which involves an additional government subsidy of around NIS 3.5 billion in 2014 (NII, 2014a), although its estimated amount varies over time, depending on market interest rate developments.

11. Despite its relatively modest level, first-pillar pension spending has edged down by 0.4 percentage point of GDP since the beginning of the 2000s, stabilising at around 2.5% of GDP between 2007 and 2013 (Figure 4, Panel A), reflecting the authorities' objective of reducing the share of public benefits in elderly people's income and encouraging people to take responsibility for their pension provision by saving and staying active in the labour market for longer. Since the retirement age was raised from 65 to 67 for men between 2004 and 2009 and from 60 to 62 for women, the number of people claiming first-pillar pensions has grown at a slower rate than the population of over-65s, whose growth rate has risen since 2008 (Panel B). This trend should continue with the plan to increase the female retirement age to 64 by 2017, if approved by the Knesset.

Figure 4. First-pillar pensions



Source: Central Bureau of Statistics; National Insurance Institute; OECD, Economic Outlook, Population Statistics and Social Expenditure databases.

12. Average pensions paid by the NII have also dipped as a proportion of GDP per capita since 2001 (Figure 4, Panel C), although they have remained broadly stable since the mid-90s, when income supplement is taken into account (Panel D). This relative decline of average first-pillar pensions since the beginning of the last decade partly reflects the robust increase in per capita GDP, whose growth has benefited from the strong increase in the employment rate. But, the average first-pillar pension also recorded a modest rise since 2001 in line with the weak growth in average pay, to which it was indexed until 2005, and which has fallen in real terms (Panel C). This indexation was replaced in 2005 with benefits indexed to consumer prices. As real pay increases have been small, this change has had only a limited effect. However, it carries the risk that the first pillar's role of protecting the elderly from relative poverty will be eroded when real pay rises again in the future.

11. Indeed, the level of first-pillar pension provision, measured by the future replacement rate, is low in part because of the indexation of pensions to inflation. The replacement rate, which is 12% for an average salary and 24% for income at half this level, is about half its average level in OECD countries with a top-up system of mandatory private pensions (Table 1). This estimate understates somewhat the current

level of the replacement rate for low income earners, because it does not include the income supplement. However, few pensioners currently receive this supplement – only 22% did so in 2013. The criteria for awarding the income supplement are restrictive, with a very low maximum level of income (occupational pensions and other work-related income) and monetary savings for claimants.¹ Ownership of an expensive vehicle or property that is not the claimant's primary residence (such as agricultural land) disqualifies the applicant.

Table 1. Gross and net pension replacement rates¹
Percentage of individual earnings estimated for 0.5, 1 and 1.5 times average wage, 2014

| | Gross public | | | Gross mandatory private | | | Total gross mandatory | | | Total gross with voluntary | | | Total net with voluntary | | |
|---|--------------|------|------|-------------------------|------|------|-----------------------|------|------|----------------------------|------|------|--------------------------|------|------|
| | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 | 0.5 | 1 | 1.5 |
| Israel ² | 23.5 | 11.8 | 7.8 | 59.2 | 49.3 | 32.8 | 82.7 | 61.0 | 40.7 | 82.7 | 61.0 | 40.7 | 85.7 | 68.8 | 50.3 |
| OECD country average with: | | | | | | | | | | | | | | | |
| A public pension system only | 63.9 | 59.1 | 56.7 | | | | 63.9 | 59.1 | 56.7 | 63.9 | 59.1 | 56.7 | 76.2 | 72.4 | 70.6 |
| A public and mandatory private pension system | 36.0 | 20.0 | 13.2 | 33.6 | 34.2 | 34.8 | 69.6 | 54.2 | 48.0 | 69.6 | 54.2 | 48.0 | 75.9 | 60.2 | 57.4 |
| A public and voluntary private pension system | 58.9 | 38.2 | 29.1 | | | | 58.9 | 38.2 | 29.1 | 80.1 | 58.7 | 48.4 | 89.8 | 70.5 | 61.8 |

1. The gross (net) replacement rate is defined as the individual gross (net) pension entitlement divided by gross (net) pre-retirement earnings. The net replacement rate takes account of personal income taxes and social security contributions paid by workers and pensioners. For all countries, underlying assumptions retained are based on an inflation assumed to be 2% per year. Real wages are assumed to grow by 1.25% per year. The real rate of return on funded, defined-contribution pensions is assumed to be 3% per year. The calculations show the pension benefits of a worker who entered the system in 2014 at age 20 and retires after a full career. For more details, see OECD (2015), *Pensions at a Glance 2015: OECD and G20 Indicators*.

2. In the case of Israel, it is assumed that the first-pillar pension is indexed to prices. As in the cases of other countries with a public and mandatory private pension system, the calculation of the replacement rates does not take into account any voluntary contributions beyond those that are mandatory. For more details, see OECD (2015), *Pensions at a Glance 2015: OECD and G20 Indicators*.

Source: OECD (2015), *Pensions at a Glance 2015: OECD and G20 Indicators*.

12. The protection of the elderly from poverty should, however, be reinforced by the growing role that second-pillar pensions are expected to play in pensioners' income in the future (see below) and by the discretionary increases in first-pillar benefits. Basic old-age allowances were indeed revalued between 2007 and 2010, and the income supplement was raised by an even greater amount, but no revaluation has been made since then (Figure 4, Panel D). The impact of these moves was offset, however, by the dwindling share of pensioners who qualify for the income supplement, which has fallen by 8 percentage points since 2000, partly because of the passing away of old immigrants from the former Soviet Union who arrived in the 1990s.

The second pillar plays a central role in the Israeli pension system

13. Since the mid-1990s, most pension reforms have targeted the structure of the second pillar. As early as 1995, voluntary private saving schemes were closed to new account holders, and these old defined-benefit funds were replaced with a defined-contribution saving system, which became mandatory

in 2008 (Brender, 2009). Defined-benefit pension funds for government employees were also closed in stages between 2002 and 2004, and civil servants recruited since then have been covered by the same system as private-sector workers.

14. Restoring the financial viability of old private pension funds and eliminating their actuarial deficits required an injection of public money and a significant reduction in members' pension rights. The government agreed to pay NIS 83 billion (15% of GDP) over 35 years on the understanding that these old funds would not then make any further claim on the government (OECD, 2011). Responsibility for the financial viability of these funds, most of which are now under the control of a public body, has therefore been transferred to their members, who continue to accumulate pension rights under defined-benefit schemes, although these benefits would in principle be adjusted were the funds' financial position to deteriorate. A stabilisation fund of NIS 15 billion has nevertheless been set up as a safety net in the event of a persistent decline in returns on investments in private securities. Total government support for the actuarial balance of the old funds came, for example, to 0.7% of GDP at the onset of the financial crisis in 2009 (Dahan and Hazan, 2014). To date none has had to cut members' benefits because of financial losses.

15. Adjustments made to the defined-benefit pensions of public-sector employees hired before 2002-04 (known as "budgetary pensions") have been far more limited than those adopted for the old private pension funds (Box 2). The more favourable treatment of the old public-sector schemes has been much discussed in Israel in recent years, not only because of fairness, but also because of the budgetary questions raised (see below).

Box 2. Adjustments to old public and private pension funds

Several measures were necessary to reduce the generosity of old private-sector pension funds and restore their financial viability (Achdut and Spivak, 2010; Brender, 2009; OECD, 2011):

- Increasing contributions from 17.5% to 20.5% of members' salaries in 2003.
- Charging previously non-invoiced management costs to the funds' members.
- Standardising and reducing the pension rights of fund members. Until 2003 the State had guaranteed a real rate of return of 5.57% on up to 93% of pension savings. The annual accumulation of pension rights now comes to 2% of members' income, capped at 70%. Members' income is generally defined as the average income in the three final years before retirement, or the nation-wide average salary.

The "budgetary pension" scheme (i.e. old defined-benefit pension system of public-sector employees) was closed to new public servants in 2002 and to new permanent members of the armed forces in 2004, although their status was only slightly altered, and benefits are still mostly funded by the State:

- Since 2005, members of "budgetary pension" schemes have been required to pay a contribution of 2% of their salary, whereas they were previously exempt.
- The annual accumulation of pension rights is likewise generally 2% of the reference salary up to a cap equal to 70% of that salary. The reference salary is the member's final salary, which tends to encourage a spate of promotions as people approach retirement.
- When the retirement age is less than the official age, as is the case for permanent members of the armed forces, who retire at 45 on average, and police officers and prison guards (55), a different calculation is used, which is usually more generous.

16. The new pension funds (which replaced the old private and public schemes) were designed to be financially viable and provide adequate retirement income. In 2008 it became mandatory to pay into a new defined-contribution fund under the supervision of the Capital Markets, Insurance and Savings Division (CMISD) of the Ministry of Finance. On retirement members must also withdraw a minimum share of their savings as an annuity. Mandatory contributions are levied on the portion of the employee's remuneration up to the average salary, but people may opt to raise this threshold under collective or company agreements. New members are also free to choose from three vehicles that are essentially differentiated by type of risk covered (Table 2). New pension funds, for example, which protect against the risk of longevity

and disability and include an allowance in the event of death, have wider risk coverage than provident funds and life insurance.

Table 2. Main characteristics of the different types of second pillar pension plans

| | Contribution | Investment | Withdrawal |
|-------------------------|--|--|---|
| Old Pension Fund | <ul style="list-style-type: none"> • Tax incentives • Mutual life and disability insurance | <ul style="list-style-type: none"> • Tax relief • Partly defined benefit plans • Accrued pension rights limited at 2% per year • Investment subsidies • Actuarial balance | <ul style="list-style-type: none"> • Annuity |
| New Pension Funds | <ul style="list-style-type: none"> • Tax incentives • Mutual life and disability insurance | <ul style="list-style-type: none"> • Tax relief • Defined contribution • Mutual risk bearing • Investment subsidies | <ul style="list-style-type: none"> • Annuity – Basic sum • Lump sum/Annuity – exceeding amount • Mutual insuring of longevity risk |
| Provident Funds | <ul style="list-style-type: none"> • Tax incentives | <ul style="list-style-type: none"> • Tax relief • Defined contribution | <ul style="list-style-type: none"> • Annuity – Basic sum • Lump sum/Annuity – Exceeding amount |
| Life Insurance Policies | <ul style="list-style-type: none"> • Tax incentives • Life and disability insurance | <ul style="list-style-type: none"> • Tax relief • Defined contribution | <ul style="list-style-type: none"> • Annuity – Basic sum • Lump sum/Annuity – Exceeding amount • Insuring of longevity risk |

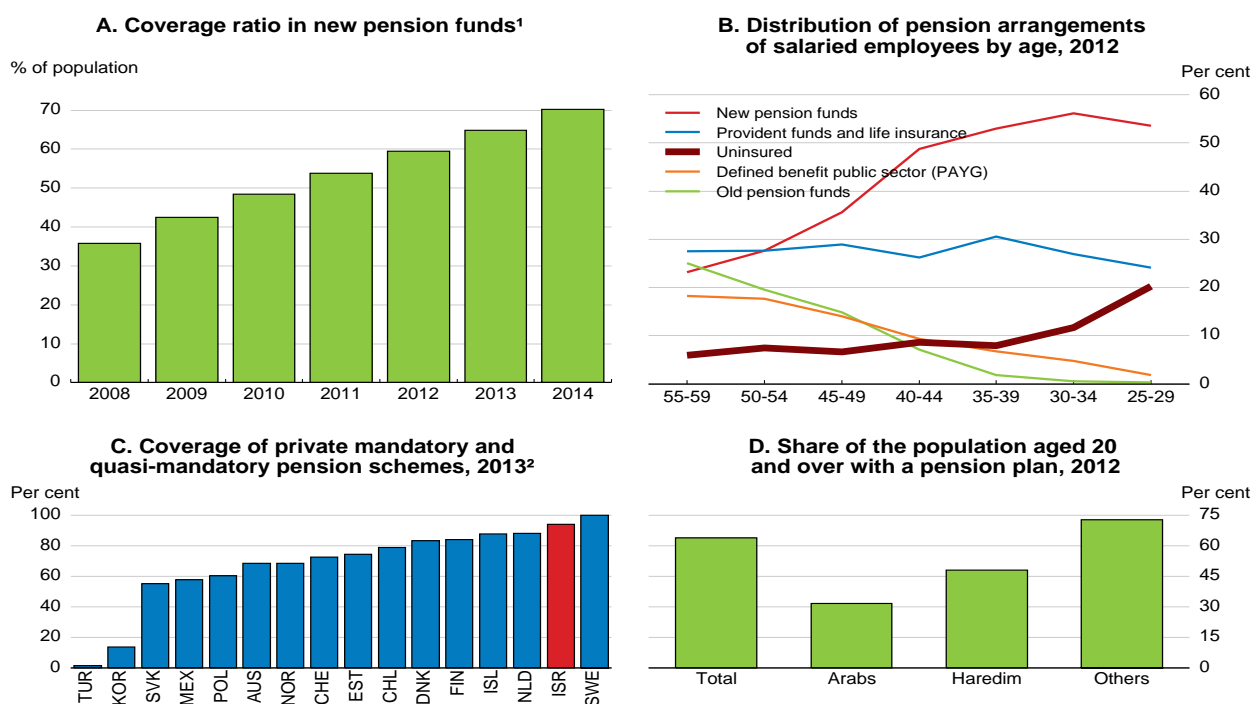
Source: Capital Markets, Insurance and Savings Division (CMISD), Ministry of Finance.

17. These reforms have increased coverage by occupational pensions. The coverage rate of the new funds grew from 36% to 70% of the economically active population between 2008 and 2014 (Figure 5, Panel A). The new defined-contribution system remains immature, however, and around 40% of workers aged over 50 still belong to old public or private pension schemes (Panel B). The average coverage rate by private pension systems in Israel is high by international standards (Panel C), but this masks wide disparities among the population. Almost 20% of the economically active aged under 20 have no pension savings account (Panel B), because they are opened only after six months' continuous employment with the same employer. Coverage is also different across communities: in 2012 the coverage rate was only 32% for Israeli Arabs and 48% for Haredim, compared to 73% in the rest of the population (Panel D), largely because both Arab Israelis and Haredim have lower employment rates. The difference in coverage between communities is smaller when considering only the employed: in 2012 the coverage rate was 60.5% for employed Israeli Arabs, 76.8% for employed Haredim and 85.7% in the rest of the employed population. Moreover, coverage also rises with education and income. Very few workers on the lowest incomes had a pension savings scheme before they became mandatory (Brender, 2009 and 2011).

18. To ensure the elderly have adequate income the authorities have also gradually increased the minimum rate of mandatory pension saving in the second pillar to 17.5% of salary since 2014. This is high compared to other countries, even though part of the contribution – 6 percentage points – can be used as unemployment insurance. This pillar's replacement rates have therefore reached 50% to 60% for average and low incomes, respectively, placing Israel 15 to 25 percentage points above the average for OECD countries with a system of top-up private pensions (Table 1). The replacement rate remains relatively high, between 33% and 40%, even if all contributions to unemployment insurance are used as redundancy pay-outs.

19. Increased participation rates in occupational pensions and the high level of contributions should drive a future rise in this source of pension revenue. Second-pillar financial assets grew to some 110% of GDP in 2014 (Figure 6, Panel A). International benchmarks suggest that this level is high (Panel B), making the Israeli pension system more dependent on its second pillar than those in other OECD countries.

Figure 5. Second pillar of the pension system



1. Total members of new pension funds as a percentage of the population aged 15 and above.
2. Including all persons who do not contribute but have acquired pension rights as a percentage of the working-age population (15-64 years). 2013 data or latest available year.

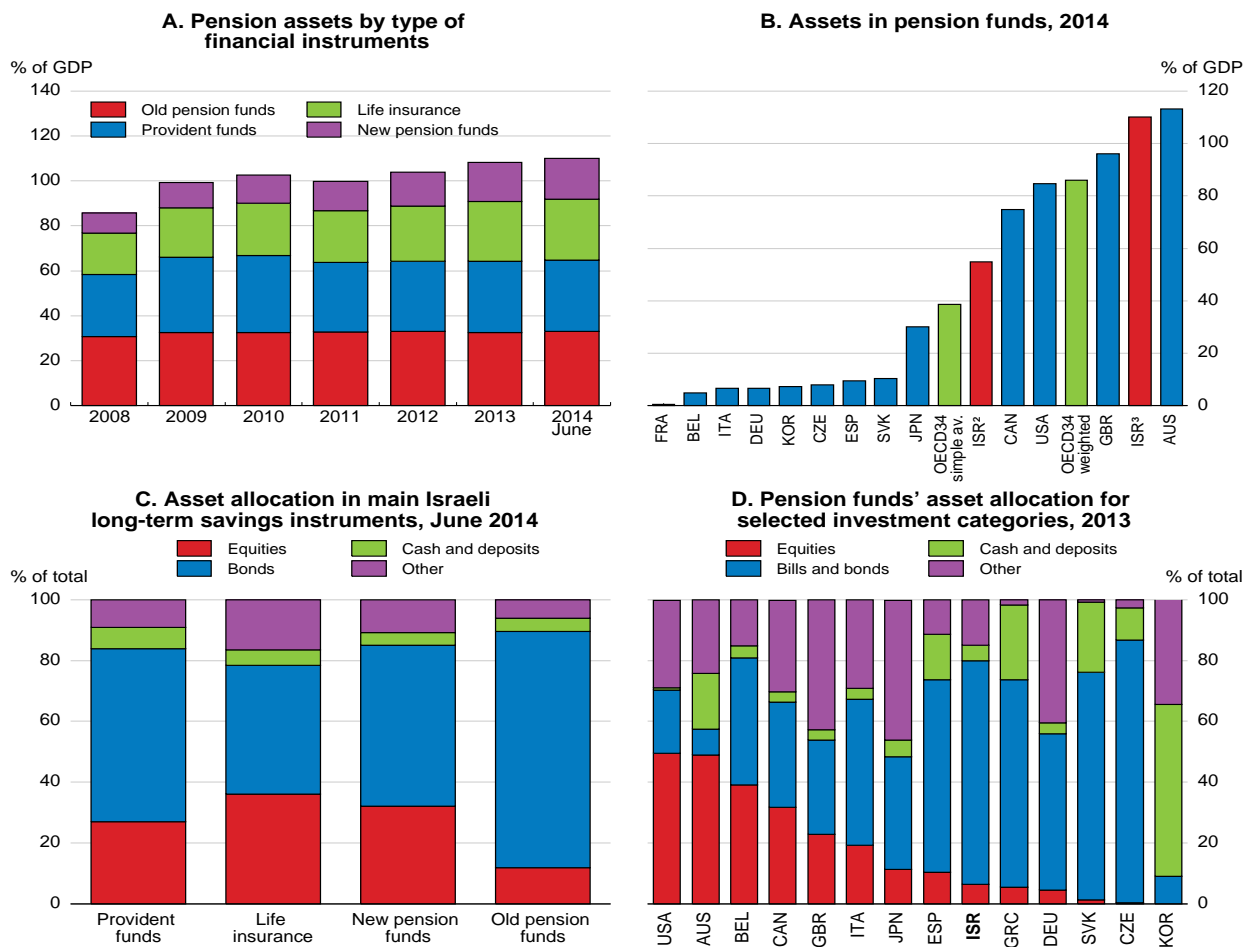
Source: Ministry of Finance - Capital Markets, Insurance and Savings Division; Bank of Israel estimates based on CBS (2012), *Social Survey*; OECD (2015), *Global Pension Statistics* and OECD estimates.

20. In addition to these pension reforms, the government has also partially withdrawn from the management of second-pillar assets, reducing the guarantee of high yields previously offered (Box 2.2) and abandoning it completely for provident funds and life insurance, although not for old and new pension funds, which must invest 30% of their assets in non-tradable public bonds with a guaranteed real interest rate of 4.86% (also called designated bonds). This regulation was initially intended to reduce the volatility of returns on pension savings and in effect re-introduces a sort of defined-benefit component into the system. To reinforce pensioner protection against possible financial shocks, in January 2016 the authorities decided to modify the distribution of these designated bonds to take into account the saver's age. As from the second quarter of 2016, those below 50 will lose the protection of these investments in designated bonds, those between 50 and retirement age will have 30% of their cumulated pension assets invested in these bonds, while existing pensioners will have 60% of their assets invested in them. At current market interest rates, it implies a subsidy, whose size depends on the evolution of market rates. It also increases the weight of bonds in the assets of old and new funds, even though the management of these assets has been extensively liberalised, and investment caps (for equities, for example, or foreign investments) have been abolished (Figure 6, Panels C and D).

21. Despite its depth, the reform process has brought little change to the taxation of second-pillar pension savings, which enjoy four advantages (Brender, 2011): (i) an exemption from NII contributions and tax for employees on employer pension contributions on salaries up to four times the average wage;

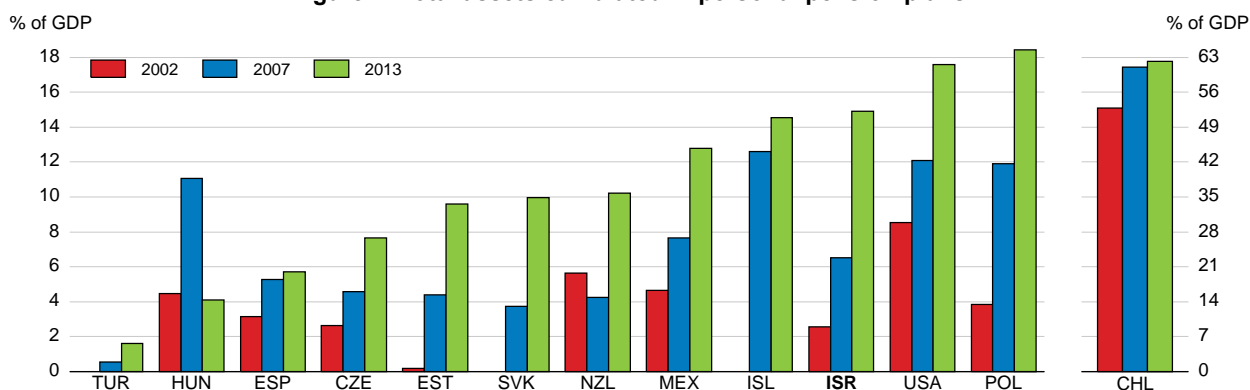
(ii) a non-refundable 35% income tax credit for employees on 7% of their insured income up to the average wage; for the self-employed the income tax credit is on 5% of their insured income up to twice the average wage; (iii) a tax exemption for income from fund investments; and (iv) an income tax exemption for 35% of the pension annuity received on retirement, up to a maximum of 30% of the economy-wide average salary; this tax exemption is expected to rise to 67% of the pension annuity by 2025. By contrast, private pensions based on personal savings offer no tax advantages. Personal pension savings have grown rapidly, however, with assets amounting to 12.7% of GDP in 2012, compared to 2.6% 10 years earlier (Figure 7).

Figure 6. Assets in the second pension pillar¹



1. In Panels C and D the data are not fully consistent since they come from different sources.
2. Pension funds only.
3. Including pension funds, life insurance and provident funds. Life insurance also plays an important role for long-term savings instruments in some other countries, such as Denmark.

Source: Ministry of Finance - Capital Markets, Insurance and Savings Division; OECD (2015), *Global Pension Statistics*.

Figure 7. Total assets cumulated in personal pension plans

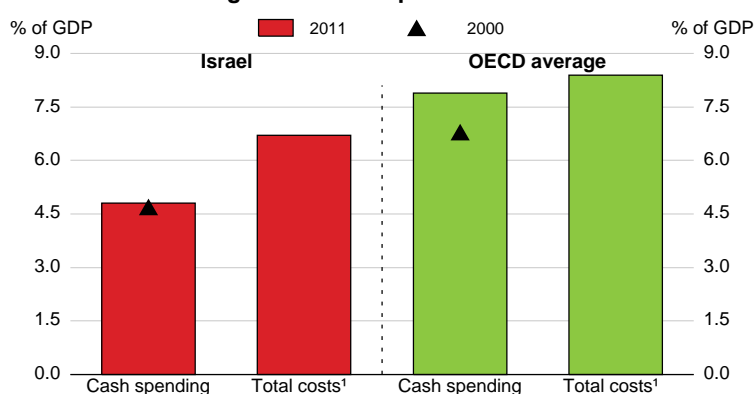
Source: OECD (2015), *Global Pension Statistics*.

State involvement in pension financing is relatively limited

Public spending on pensions is comparatively low

22. The Israeli government's involvement in the financing of old-age benefits takes many forms, including cash spending in the shape of first-pillar pensions paid by the NII and pensions paid to public service retirees hired before 2002 or 2004. It also provides funds to the second pillar with subsidies to old, now closed, pension schemes, tax breaks on contributions to pension saving and annuities upon pay-out, and the interest guarantee on some second-pillar pension assets.

23. By international standards, total government pension spending is nevertheless low, partly because the Israeli population is younger than in most other OECD countries. Public cash pensions were 4.8% of GDP in 2011, compared to the OECD average of 7.9% of GDP (Figure 8). They have remained stable in Israel since 2000, whereas they have grown by an average of 1 percentage point in the average OECD country. If the subsidies and tax deductions granted to pension saving schemes are included, Israel's public spending on pensions came to almost 7% of GDP in 2011 (with only a small rise since then) (Table 3), 1.5 percentage points below the equivalent OECD average.

Figure 8. Public pension costs

1. Including tax deductions on contributions for the second pillar pension funds.

Source: OECD, Social Expenditure database and OECD estimates based on data provided by the Ministry of Finance.

Table 3. Total pension-related public spending
2014

| | NIS billion | % of GDP |
|---|-------------|------------|
| Total | 77.0 | 7.1 |
| First-pillar NII pensions, old-age and survivors ¹ | 27.0 | 2.5 |
| Civil servant pensions, old-age and survivors | 25.2 | 2.3 |
| Central government | 22.8 | 2.1 |
| Local government ¹ | 2.4 | 0.2 |
| Second-pillar pensions | 24.8 | 2.3 |
| Assistance to old funded defined-benefit funds | 3.8 | 0.3 |
| Designated debt subsidy to all pension funds | 3.5 | 0.3 |
| New defined-contribution pension funds | 17.5 | 1.7 |
| of which: | | |
| Tax benefit at deposit | 11.5 | 1.1 |
| Capital income tax break | 6.0 | 0.6 |

1. OECD estimate based on 2013 data.

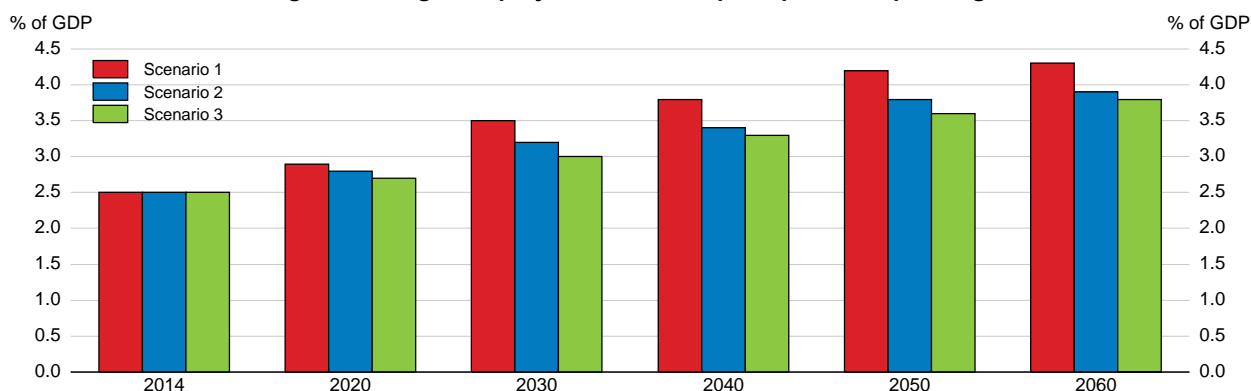
Source: NII data provided by the Ministry of Finance, OECD Social Expenditure database and OECD estimates.

Public spending increases on pensions in the coming decades will be moderate and manageable

24. An analysis of public pension spending suggests that, absent future legal changes, spending is set to rise by about ½ percentage point of GDP by 2030, but this increase will be almost fully reversed by 2060 as lower public spending on civil servants' pensions is projected to offset the rising cost of first-pillar pensions.

The rise in the cost of basic old-age benefits in the first pillar is expected to be modest

25. First-pillar pension spending is expected to increase by 1.0% by 2030 and 1.8% of GDP by 2060 because of the rise in the dependency rate (Figure 9). These estimated increases due to population ageing are based on assumptions of an unchanged employment rate, a fixed share of pensioners in the population over retirement age and stable total benefits relative to productivity and salary trends. However, it is likely that the low employment rates of the Haredi and Arab communities will continue to grow, which will dampen the rise in first-pillar spending as a share of GDP. If the employment rate rises by 11 percentage points between 2010 and 2030 and then levels out (Figure 10), as assumed by the NII in its analysis of its long-term financial sustainability (NII, 2014a), the increase in the first-pillar pension spending would be reduced by 0.3-0.4 percentage point of GDP by 2030 and 2060. Such a dampening effect might well be somewhat smaller, however, if the pace of increase in the employment rates of Haredim and Israeli-Arabs is slower. On the other hand, if the female retirement age increases to 64, the number of pensions as a proportion of the population aged 20-67 might decline, which would reduce the rise in these old-age allowances by an additional 0.1-0.2 percentage point of GDP by 2030 and 2060.

Figure 9. Long-term projections of first-pillar pension spending¹

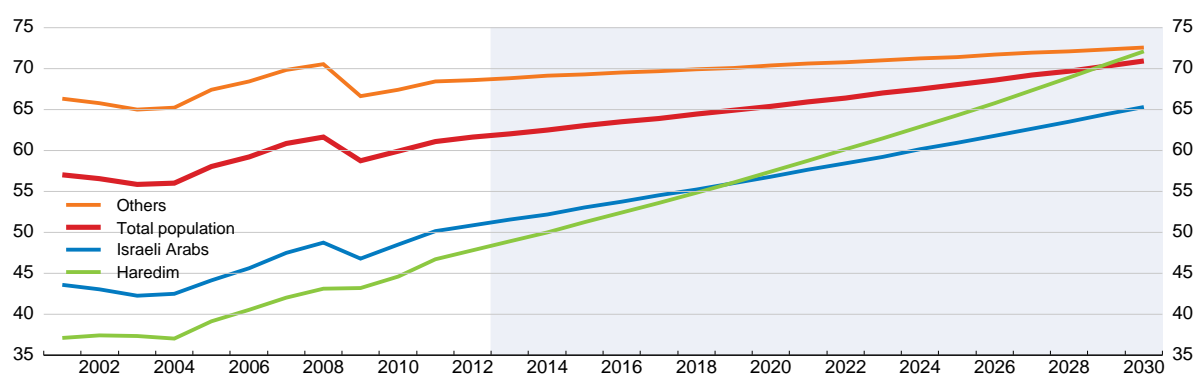
1. The ratio of pension spending to GDP can be decomposed as follows:

$$\text{Pension/GDP} = (\text{Number of Pensions/Elderly population}) * (\text{Elderly population/Working-age population}) * (\text{Working-age population/Employment}) * ((\text{Pension/Number of Pensions}) / (\text{GDP/Employment}))$$

 Scenario 1 assumes that Pension/GDP is only affected by the rise in the old-age dependency ratio (Elderly population/Working-age population).
 Scenario 2 assumes that in addition to scenario 1, the employment rate increases by about 8 percentage points between 2014 and 2030.
 Scenario 3 assumes that in addition to scenario 2, by 2020 the number of pensions declines by 4% in proportion of the number of elderly.

Source: OECD estimates based on NII and CBS long-term projections.

26. It is harder to predict the future trend in the average basic pension relative to the average salary. The ratio might fall because of the new system of indexing to prices. Alternatively, social pressure to increase first-pillar benefits could force increases. The success of a pensioners' rights party in the 2006 general election, though short-lived, testifies to the existence of voter potential to force decisions to revalue the old-age allowance. The possibility of these forces exerting themselves again cannot be ruled out, given the expected growth in the proportion of pensioners on low incomes in the Haredi and Arab communities and the high poverty rate among the elderly (see below).

Figure 10. Employment rate projections
In per cent of the 20-67 year-old population

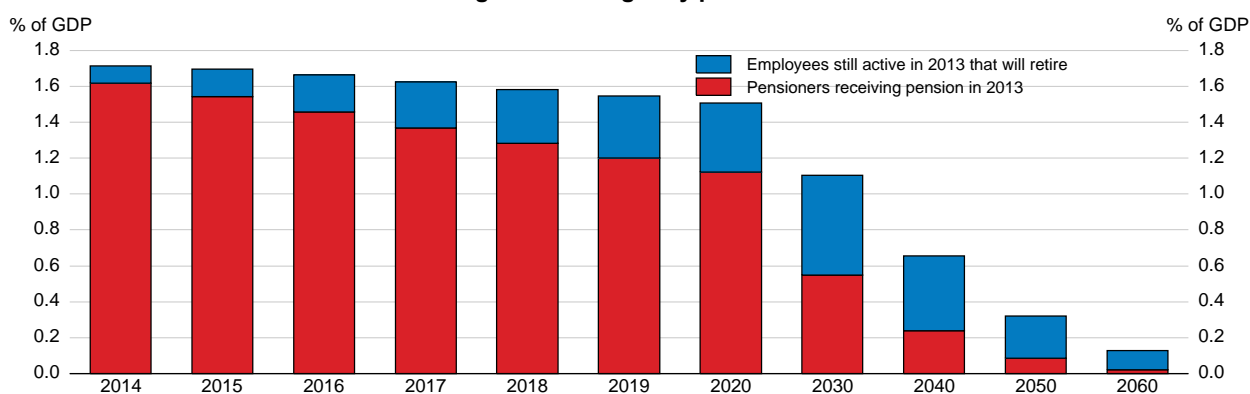
Source: National Insurance Institute (2014), *Annual Survey 2013* (in Hebrew).

27. In sum, first-pillar pensions should rise by a total of around $\frac{1}{2}$ to $\frac{3}{4}$ per cent of GDP by 2030 and by $1\frac{1}{4}$ to $1\frac{1}{2}$ per cent of GDP by 2060, assuming that Haredi and Arab-Israeli employment rates continue to increase, women work longer, and the basic pension remains stable relative to the average salary.

Pension spending for public-sector employees is likely to fall, but there remain risks

28. The rise in the cost of first-pillar pensions will, however, be almost fully offset by the expected decline in pension spending for public-sector employees between 2030 and 2060. On the one hand, pension spending for civil servant hired before 2002 or 2004 (the so called “budgetary pensions”) is set to fall gradually from an estimated 1.7% of GDP in 2014 to 1.1% of GDP in 2030, before practically vanishing by 2060 because of the scheme's closure to new members (Figure 11). On the other hand, government spending on defined-contribution pension schemes for new employees, which probably accounts for about 1.2% of GDP in 2014, is projected to reach 1.8-1.9% of GDP in 2030 and stay around this level until 2060 (Geva, 2013). Overall, total government spending for civil servants’ pensions is thus likely to remain broadly stable between 2014 and 2030, before declining by about 1% of GDP by 2060. Several other OECD countries, such as Australia and New-Zealand, have switched over to a DC schemes several years ago and have no long-term pension liability or have created a fund to guarantee the payment of civil service pensions, which do not entail defined contributions.

Figure 11. Budgetary pensions



Source: OECD estimates based on Ministry of Finance, Accountant General, *Financial Statements as of 31st December 2013*.

29. Despite this relatively positive outlook, doubts remain over the actual extent of the State's total pension commitments to its workers (Box 3). The figures available on “budgetary pension” commitments are not exhaustive (MoF, 2014), and governance of public servants’ pensions presents shortcomings that could have undesirable consequences for controlling their cost. Furthermore, the transparency of the State's contingent liabilities for pension schemes in public enterprises and other bodies seems poor. It would be helpful to transfer the management of pensions for the armed forces, police and prison guards from the Ministries of Defence and Internal Security to the Ministry of Finance, which manages pensions for all the other Ministries. And greater transparency is needed in the State's contingent pension liabilities in various public entities.

Box 3. Improving the governance of “budgetary pensions” and the transparency of the government's contingent pension liabilities

The government's “budgetary pension” commitments, estimated on an actuarial basis at NIS 565 billion (54% of GDP) at the end of 2013 (MoF, 2014), include neither local authority pensions nor early retirement or “transition” pensions. Early retirement pensions are granted to permanent members of the armed forces, civil defence employees and others employed in defence between their early retirement age of 45 and the official retirement age of 67. They are still granted to people recruited after 2004 who belong to a funded pension scheme.

The cost of transition pensions is not known exactly (MoF, 2014), and recent studies suggest that outlays may have surged in recent years (see below). These difficulties seem to be partly related to a governance problem: the Ministry of Finance manages “budgetary pensions” for all ministries except Defence and Internal Security, which also covers the police and prison guards, among others.

The government's contingent liabilities are also poorly evaluated for university pensions and pensions for public enterprises and other public bodies (State Comptroller, 2009). Pensions for these entities' employees are based on specific agreements between management and unions, but these agreements are not transparent enough, as is the case for IEC, the public electricity company, which is heavily indebted. This situation encourages arrangements that contravene the principles of good management and fairness and prevent the actual level of the government's contingency liabilities being established. While responsibility for funding these pensions largely falls to the employers, debts contracted to finance employees' pensions are, because of their public nature, ultimately, financial commitments of the taxpayer, should the entity concerned run into budgetary difficulties.

The issues raised by the extremely generous pension systems of some public bodies can be illustrated by the case of the Hebrew University of Jerusalem (Tsipori, 2014). The excessive cost of its unfunded pension scheme, which includes the accumulation of pension rights at a rate of 3.5% per year of service, compared with 2% in public service, required intervention by the Ministry of Finance in 2014 to prevent the institution's bankruptcy. It was necessary to offer budgetary support and cut pensions, in direct contravention of the pension agreements negotiated by the University. The action taken by the Ministry of Finance could pave the way to a more general renegotiation of unfunded, and sometimes very generous, university pensions.

The cost of second-pillar subsidies and tax deductions are set to remain stable

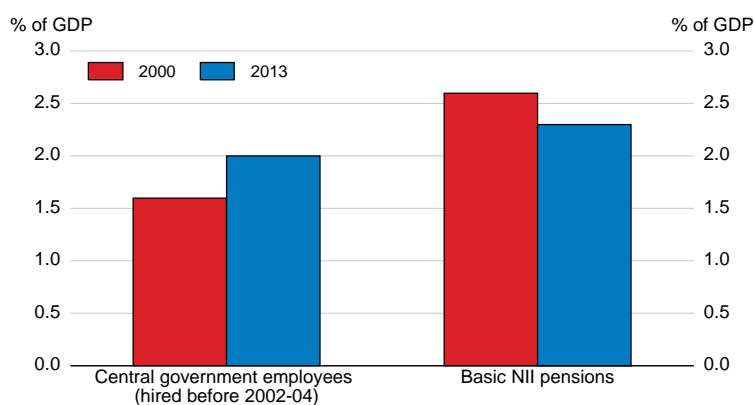
30. Upward pressure on second-pillar public subsidies and tax deductions should be relatively mild. For one thing, support for the old pension funds, which is estimated at an annual 0.3% of GDP, should end before 2040. And, assuming no change in the law, the cost of tax deductions for contributions to pension savings could also fall relative to GDP. Some of these deductions affecting income tax are not refundable, and an increasing proportion of workers on low incomes in the expanding Arab and Haredi communities are likely not to be subject to income tax. The share of (non-refundable) exemptions from income tax granted to pension annuities could also slip a little in the future, as an increasing number of pensioners on low incomes take retirement. On the other hand, the cost of tax exemptions for pension fund earnings, despite considerable annual variance, should not in theory follow an upward trend if the long-term average yield of these funds is close to the economy's long-term growth rate, once these funds have reached a steady state in terms of accumulation.

31. The cost of subsidies to pension funds linked to the government-guaranteed return on 30% of total assets is relatively heavy for the public finances, although it may vary over time depending on market interest rate developments. Its cost, resulting in higher interest payments, was estimated at around ¼ per cent of GDP in 2014. This subsidy could also rise in the coming years, but not significantly. Any increase would depend partly on the gap between these guaranteed rates of return and market rates and partly on the growth in value of the funds' assets. An increase of 10% of GDP of these assets, for example, would increase subsidies by 0.03% of GDP for every percentage point of the gap between the government-guaranteed return and the market rate. Thus, between 2008 and 2013, when pension fund assets grew by 10% of GDP, the average gap of almost 3.5 percentage points between the government-guaranteed return and the real interest rate for its ten-year bonds pushed the cost of these subsidies up by only 0.1% of GDP.

There is room for budgetary savings to pay for the pre-2030 increase in total public spending on pensions

32. One option to pay for the pre-2030 increase in total public spending on pensions is to raise the contribution rate of public employees hired before 2002-04, who benefit from a generous scheme and a much lower (2% after tax) contribution rate than for those in the current scheme (7% for public employees and 5.5% for private employees, both tax deductible). Raising this contribution rate would also enhance equity between older and younger public employees. As stated above, generous “budgetary pensions” have scarcely been dented by welfare cuts introduced since the beginning of the 2000s in other schemes. These pensions were not affected by the cost slashing faced by defined-benefit private pensions nor even by the more tempered adjustments to first-pillar pensions. Spending on “budgetary pensions”, which represent a commitment of 54% of GDP on a present-value basis, therefore climbed 5.4% per annum in real terms between 2000 and 2013, compared with 2.5% for first-pillar pensions. The cost of pensions paid to central government employees grew by 0.4 percentage points of GDP between 2000 and 2013, while NII pensions declined by 0.2 points of GDP (Figure 12).

Figure 12. Direct public spending on old-age and survivors' pensions



Source: OECD, Social Expenditure database.

33. This fairness issue also looms large over the pensions of public entities, even if their budgets are independent. The pension system of new employees in both private and public sectors does not apply to the employees of these entities. Moreover, there seems to be, in some respects, another equity question among public employees, with the thorny question of defence-sector pensions, which is one of the points recently addressed by the Locker Committee in its report on the Ministry of Defence’s budget. The present value of “budgetary pension” commitments in the defence sector came to 43% of total “budgetary pension” commitments and annual spending of 0.65% of GDP in 2013. By way of comparison, “budgetary pensions” in the education system represented 27% of total “budgetary pension” commitments (Figure 13) and annual spending of 0.35% of GDP, even if it covers about twice as many workers. The defence-sector pensions are not managed by the Ministry of Finance, and this exemption to the rules fosters a kind of financial permissiveness. Between 2006 and 2012 transition pensions of permanent members of the armed forces grew by 9% per year (compared to 4% for those managed by the Ministry of Finance) and then jumped by 57% in 2013-14 (Knesset, 2014).

Figure 13. Composition of budgetary pensions
As a percentage of the liabilities on budgetary pensions, at end-2013



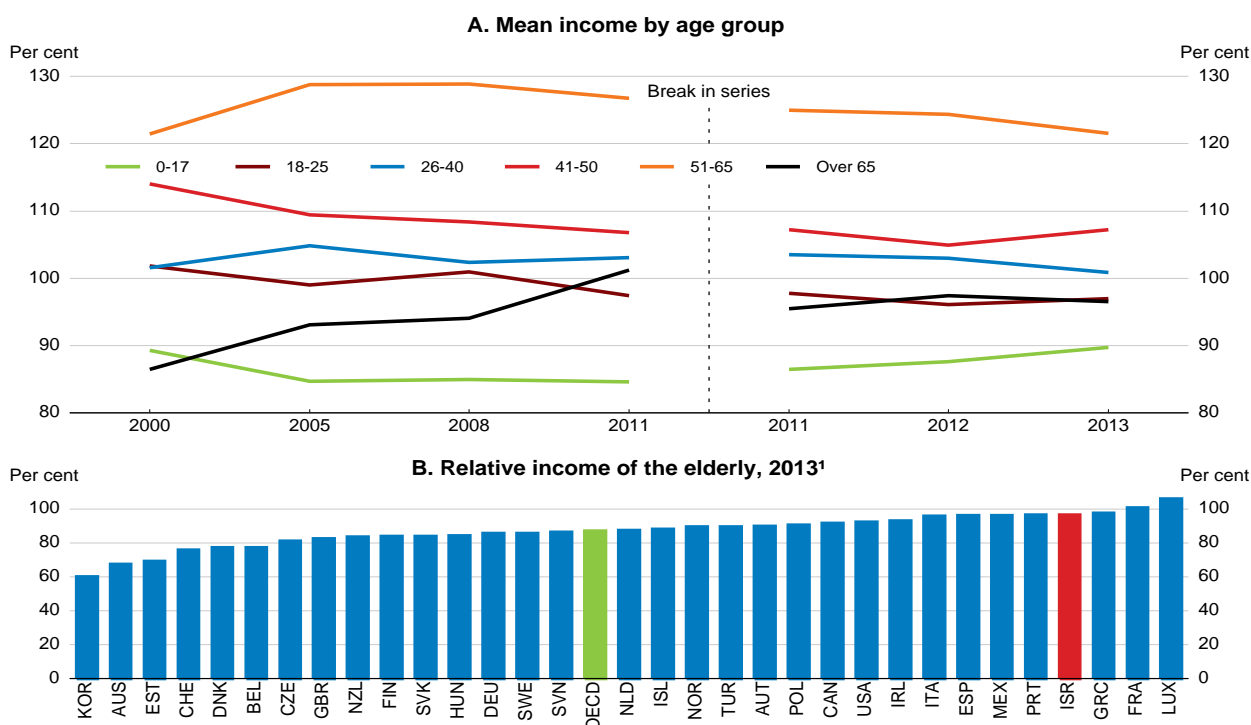
Source: Ministry of Finance, Accountant General, *Liability for Budgetary Pension - Financial Statements 2013*.

The decline in poverty among the elderly has so far been limited

Average income of the elderly has increased as their employment rates have risen

34. The relative financial position of people aged over 65 has improved considerably since the early 2000s (Figure 14, Panel A). Their average disposable income grew by an annual average of 2.3% in real terms between 2000 and 2013, compared with 1.4% for the rest of the population. As a proportion of average income for the whole population, that of the over 65s rose from 86.5% in 2000 to 96.5% in 2013, which puts Israel among the top OECD countries in terms of the relative position of the elderly (Panel B).

Figure 14. Mean income of those over 65
As a percentage of the mean income of total population

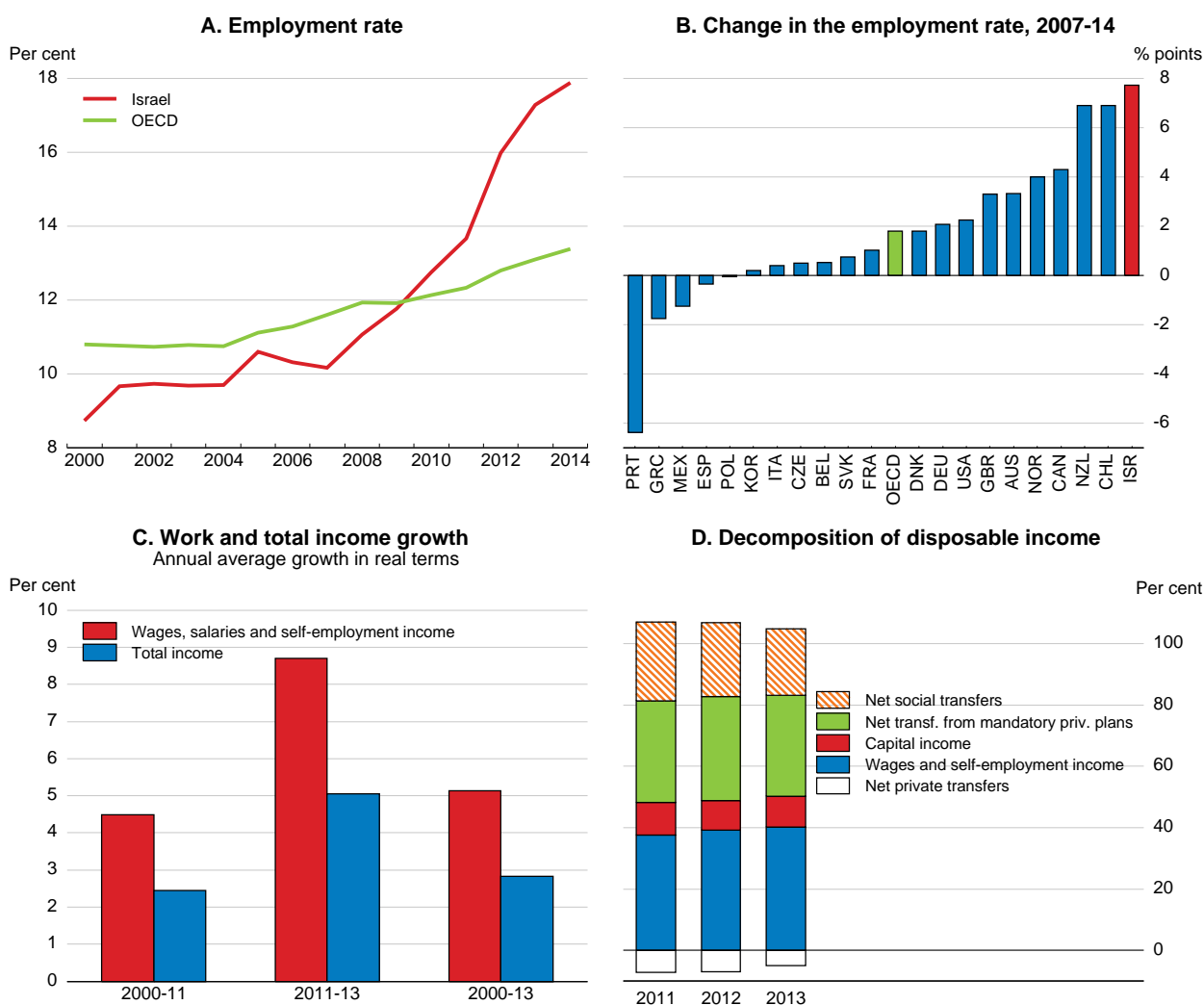


1. Or latest available data.

Source: Calculations from the OECD Income Distribution database, via www.oecd.org/social/income-distribution-database.htm.

This increase is mainly due to significant growth in work-related income, which reflected a rapid increase in the employment rate of senior workers from the mid-2000s, especially among the 65-74 age group. This increase was fuelled by the rise in the retirement age and has been far stronger than in other OECD countries since 2007 (Figure 15, Panels A and B). Over 65s' work-related income, which grew by an annual 6% in real terms between 2001 and 2013, represented 46% of their gross income in 2013 (Panels C and D).

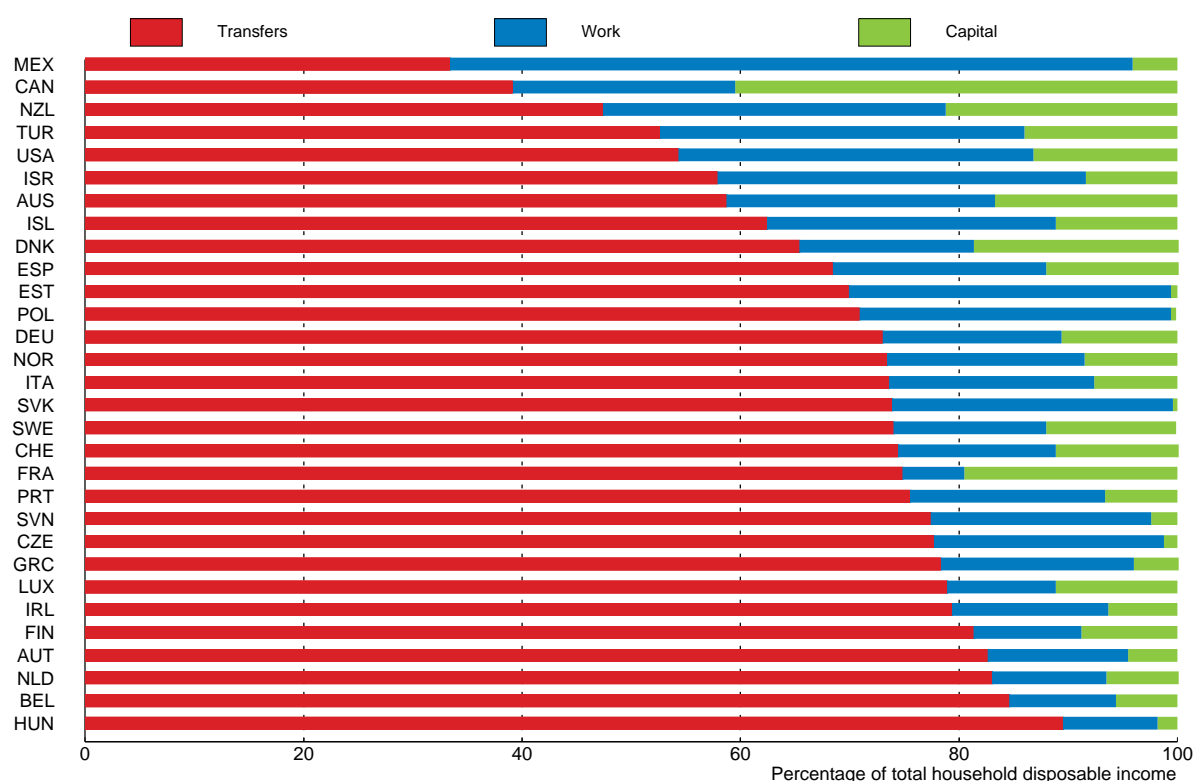
Figure 15. Employment and disposable income developments among those over 65



Source: OECD, Labour Force Statistics; calculations from the OECD Income Distribution database, via www.oecd.org/social/income-distribution-database.htm.

35. Conversely, net public cash transfers to the elderly, who largely depend on first-pillar pensions, rose far more slowly. In 2013, they accounted for less than 22% of the average disposable income of people aged 65 and over, down from 30% in 2000. At the end of the 2000s, public cash transfers as a share of elderly people's income put Israel at the lower end of the OECD, whereas its share of occupational pensions and capital income ranked among the highest (Figure 16).

Figure 16. Income sources¹ of the elderly population
2012²



1. Income from work includes both earnings (employment income) and income from self-employment. Capital income includes private pensions as well as income from the returns on non-pension savings. In the case of Israel, the measure of capital income is difficult to measure accurately and to distinguish from work-related income.
2. Or latest year available.

Source: OECD, Income Distribution database.

36. Despite the vigorous growth of second-pillar occupational pension savings, this has so far had only a limited impact on the disposable income of the elderly. The effect of the mandatory private pension system introduced in 2008 will kick in gradually and should intensify over time. A third of the over 65s had an occupational pension scheme in 2000, and this was still only 47% in 2012. As mentioned above, behind these average coverage rates lie wide disparities: 85% of those earning less than the median salary had no second-pillar pension before 2008 (Brender, 2011).

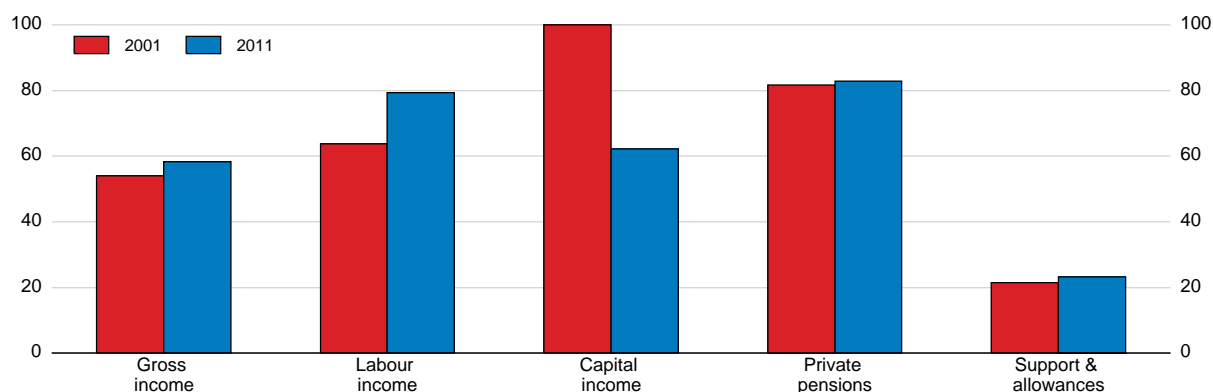
For some elderly people, poverty did not fall

37. The trend increase in the average income of the elderly did nothing to level the significant disparities between the living standards of the Jewish and Arab communities (Figure 17). The income gap between the two groups overall actually widened from 54% to 58% between 2001 and 2011, driven mainly by very different trends in work-related income and employment rates among the elderly: the latter grew moderately for Arab men (up 6 percentage points between 2001 and 2011), almost not at all for women (up 1 point) and rapidly among Jews (up 12 percentage points for men and 6 for women) (Kimhi and Shraberman, 2013).

38. The relative poverty rate among the elderly is more pronounced than for other age groups in the population, except the 0-17s (Figure 18, Panel A). However, the impact on living standards of this high

poverty rate, measured by disposable income, is difficult to assess because it does not take account of wealth, including housing wealth, which is typically greater for the elderly than younger groups. Relatively low disposable income among the elderly can indeed be compensated by greater consumption out of wealth. Yet, this effect of wealth on the standards of living is probably less pronounced in international comparisons, which show that the poverty rate of 20% among those aged 66-75 and 30% for those 76 and over in Israel remains among the highest in the OECD for these age groups (Figure 2.18, Panel B).

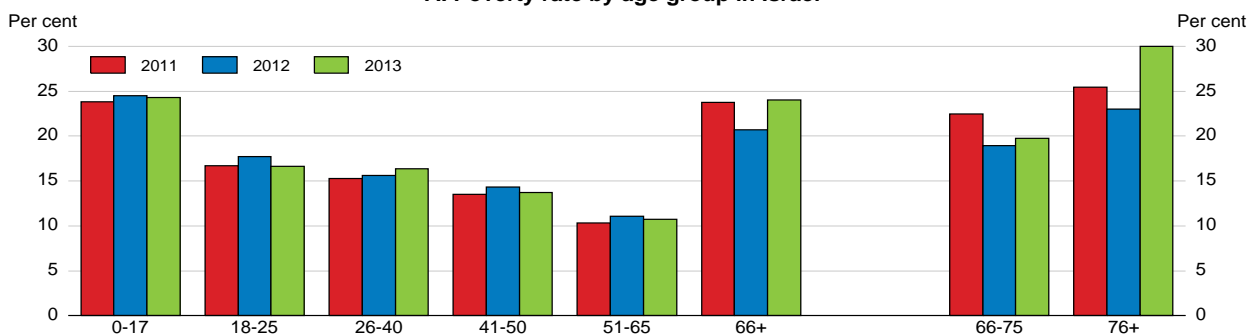
Figure 17. Average income gap between elderly Arabs and non-Arabs
In per cent of non-Arab population average income



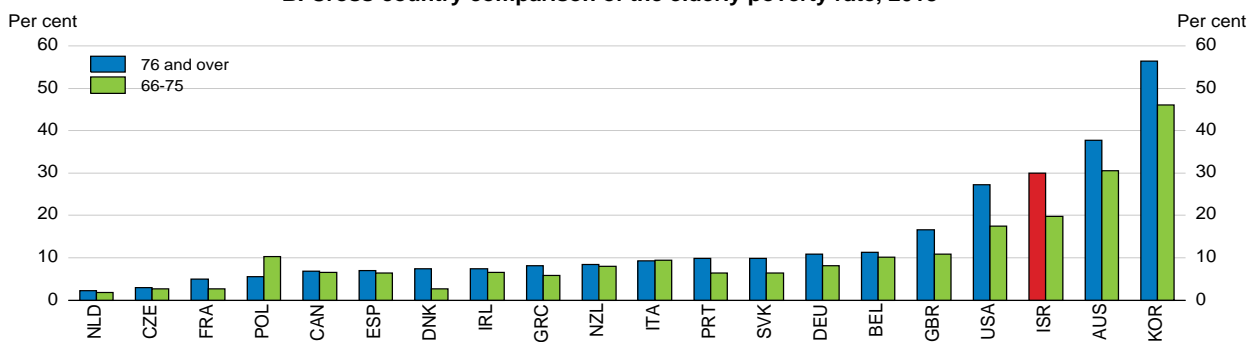
Source: A. Kimhi and K. Shraberman (2013), "Employment and Income Trends Among Older Israelis", in D. Ben-David (ed.), *State of the Nation Report: Society, Economy and Policy in Israel 2013*, Taub Center for Social Policy Studies in Israel.

Figure 18. Relative poverty rates
After taxes and transfers

A. Poverty rate by age group in Israel



B. Cross-country comparison of the elderly poverty rate, 2013¹

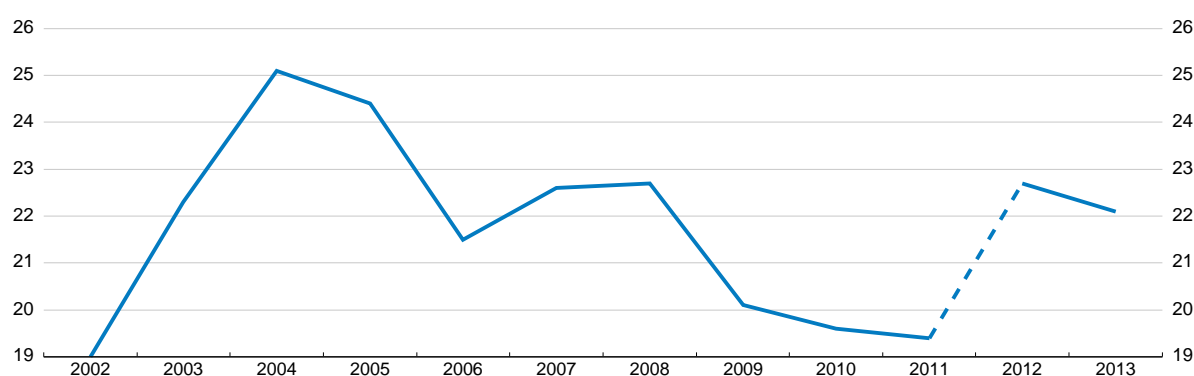


1. Or latest year available.

Source: Calculations from the OECD Income Distribution database, via www.oecd.org/social/income-distribution-database.htm.

39. Notwithstanding improving average income of the elderly, their poverty rate has not fallen since the early 2000s. After a steep rise in the first half of the decade, fuelled by budgetary restrictions that curbed welfare spending, it only slipped back gradually up to 2011, mainly as the employment rate increased, to again reach the 2002 level (Figure 19). Despite statistical issues that complicate calculations for recent years, it seems that elderly poverty is no longer falling. Recent technical changes in the NII's surveys may explain part of the sharp rise in the poverty rate in 2012-13 (3 percentage points from 2011), but the Institute also stresses that in 2012 and 2013, old-age allowances did not increase in real terms, as they had in previous years (NII, 2014b). Overall, it is likely that poverty remained flat between 2011 and 2012-13, as suggested by OECD data, which also reveal a worsening of the position of the over 75s (Figure 18, Panel A), a category that represented 42% of the elderly in 2013. This age group is all the more affected by declining public benefits, as they are not offset by increased employment rates, as for the 66-75s.

Figure 19. Poverty rate of the elderly population¹



1. NII definition: from 60 years old for women and from 65 years old for men. The dashed line segments indicate the break in the series due to methodology changes.

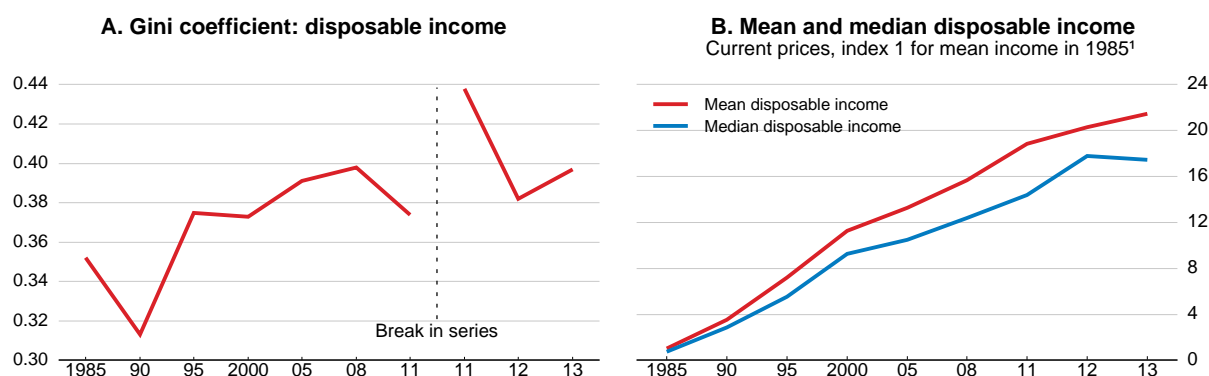
Source: National Insurance Institute.

40. The paradox of persistent poverty despite rising relative income among the elderly can be explained by two factors. The first concerns income distribution, which is particularly unequal in this age group, and has become far more so since the early 1990s – notwithstanding an improvement since 2008 (Figure 20, Panel A) – as evidenced by the growing divide between average income and median income among the over 65s, especially since the early 2000s (Panel B). Average disposable income among the elderly has been driven up by the income of the highest deciles in the age group. It is therefore probable that it was the most highly qualified among the elderly who profited most from the rise in the activity rate and the rise in work-related income. These people are generally near the upper end of the income scale, and for the most part also had private pension schemes prior to 2008. For this category of the elderly, around half their income derives from these pension schemes (Bowers, 2014). They will also have benefited from the rapid expansion in personal pension savings, whose value grew by over 8 percentage points of GDP from 2007 to 2013 (Figure 7).

41. The second reason for a stubbornly high elderly poverty rate concerns the level of first-pillar pensions. Around half of elderly people do not receive income from second-pillar pensions and probably receive little or no capital income, even though many of them have housing wealth; for them achieving an acceptable quality of life is tightly linked to welfare payments, especially NII old-age benefits (Behr et al., 2013). And basic old-age allowances represent between 50% and 60% of income corresponding to the poverty threshold as defined by the NII for a person living alone and a childless couple. If the income supplement – received by just 22% of pensioners – is added to this figure, the old-age allowance for those aged between 70 and 80 just scraped over the poverty threshold in 2010 and 2011, and

its non-adjustment in real terms in 2012 and 2013 dragged it again below this level (Figure 21). The gap between median income for the population and the poverty threshold is narrower for the elderly than for the working-age population as a whole. The decline in the elderly poverty rate was therefore restricted by initially low old-age benefits that failed to be updated in line with average trends in other forms of income. The recent decision to increase the income supplement in the 2016 budget aims, however, at addressing this issue (see below).

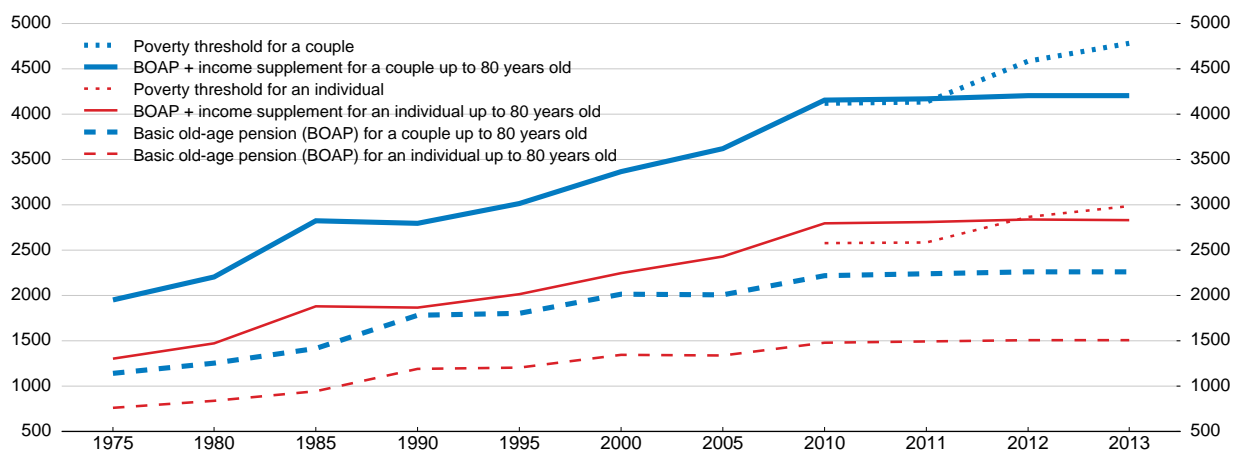
Figure 20. Inequality among the elderly



1. There is a break in series in 2011 due to a new income definition. The old definition series were extended using the growth rates of the new ones.

Source: Calculations from the OECD Income Distribution database, via www.oecd.org/social/income-distribution-database.htm.

Figure 21. Basic monthly old-age pension and income supplement compared to the poverty threshold
NIS at constant 2013 prices

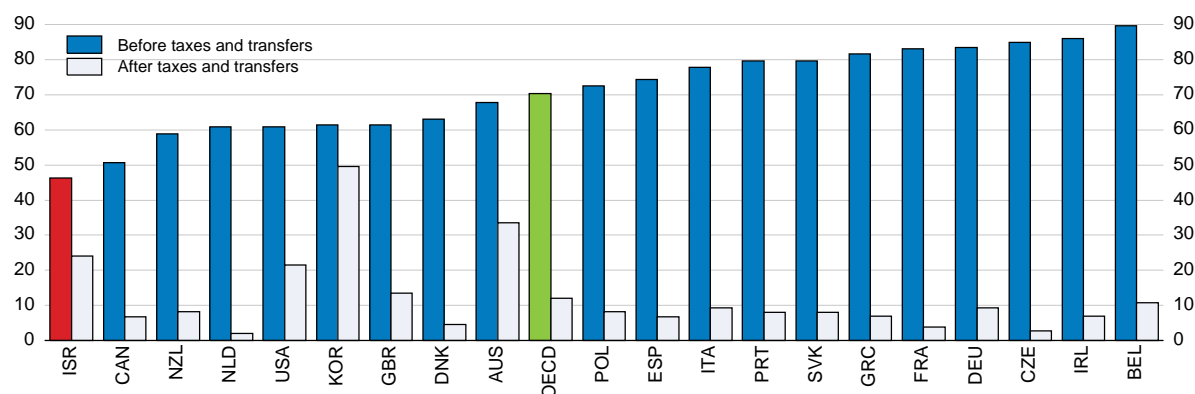


Source: National Insurance Institute (2014), *Poverty and Social Gaps - Annual Report 2013*.

42. The high poverty rate of the elderly is partly related to the high share of old-age and low-income immigrants, especially from the former Soviet Union. In the future, the decline in the share of this population group is expected to induce some fall in the poverty rate of the elderly. However, poverty among the elderly is also closely related to the lack of redistribution by Israel's tax, social and pension systems, despite redistribution being significantly more concentrated on the elderly than on the rest of the population (Ben-David and Bleikh, 2013; Bowers, 2014; NII, 2014b). This is illustrated by the spectacular reversal of Israel's international ranking in terms of senior poverty rates after taking account of taxes and

benefits (Figure 22). On the basis of market income, the incidence of poverty among the elderly in Israel is one of the lowest in the OECD, while it ranks among the highest by disposable income. For both the 66-75s and the over 75s, the reduction in the poverty rate engendered by redistribution mechanisms is far below what is seen in any other OECD country except Korea.

Figure 22. Poverty rates of the elderly before and after taxes and transfers
Per cent, 2013



Source: Calculations from the OECD Income Distribution database, via www.oecd.org/social/income-distribution-database.htm.

Reforms to reduce the elderly poverty rate

43. Reducing the elderly poverty rate will require a rebalancing of the pension system and additional budgetary resources for the first pillar. Extending the second pillar to an increasing share of the population led the State to withdraw too hastily from the basic pension system, which stopped poverty falling among the elderly. This strategy of limiting the State's redistributive role in order to change behaviour in some communities is consistent with a particular social rationale. But the impact of extending occupational pensions to all workers on elderly people's revenue is affected by how long people have contributed, and it will therefore be many years before the policy takes full effect. Pending maturity of the second pillar, an alternative would be to increase the income supplement.

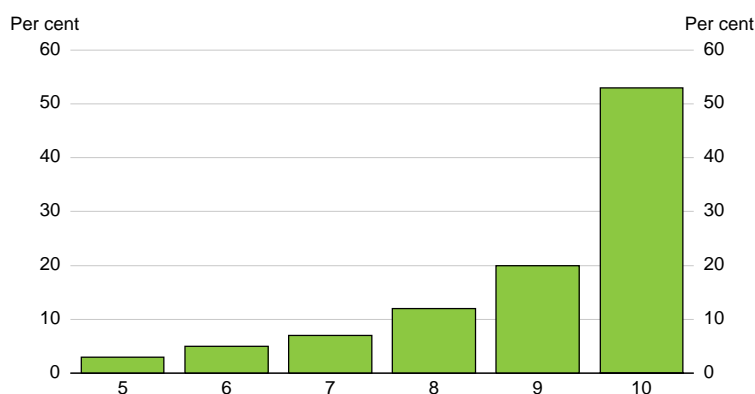
44. Relaxing the strict conditions attached to receiving this supplement, such as owning an expensive vehicle, and adjusting the supplement itself could help to raise basic pensions above the poverty line. For instance, catching-up for the past erosion of generosity (see above) by raising the average basic pension as a proportion of GDP per capita to its 2000-2002 average level would cost about NIS 2 billion (0.2% of GDP). The 2015-16 budget makes a step in this direction with an uprating of the income supplement by 5-13% costing NIS 600 million annually, but further measures would be needed to reverse the erosion. The cost of these measures might be partly absorbed by net savings on "budgetary pensions" but also by further policy changes encouraging people to retire later (see below). The fiscal impact of a more generous income supplement would be temporary. Over time, fewer and fewer retirees are likely to benefit from a more generous income supplement, because it is means-tested and a growing number of retirees will receive a second-pillar pension. However, since the income supplement is available even to those who have never worked, further large increases could also weaken work incentives.

45. Although the second pillar offers major advantages and lays the groundwork for a pension system that is financially sound, questions may arise about the high level of pension savings required in Israel. The contribution rate for the second-pillar pensions is substantially higher than in other OECD countries that also have mandatory pension savings schemes. Such a high rate, required of all employees regardless of income, family circumstances or tax position will tend to unbalance low-income households' revenue flows over their lifetimes. Thus, while the system offers a high replacement rate in retirement (Table 1), it

undermines people's living standards when their children are young (and require high education spending) or when they want to buy a house. Young families, who often have low incomes, only rarely chose to join voluntary schemes prior to 2008 (Brender, 2011). Since 2008, the average salary of contributors to private pension schemes has been half that of those who had voluntarily joined one previously (Spivak and Tsemah, 2014).

46. The tax deduction on the contributions to the second pillar, which amounted to 1.1% of GDP in 2014 (Table 3), was left unchanged when this scheme became mandatory in 2008, although this reform made it unnecessary to maintain any such incentive at least for contributions up to the average wage. This tax advantage is also very regressive. More than half of its total value goes to the top decile of the income distribution (Figure 23). Around 45% of employees do not pay income tax and are therefore unable to benefit from the tax deductions linked to these contributions (Brender, 2011). The current system thus imposes an unnecessary burden on the most vulnerable people in the workforce, an undesirable impact further heightened by the reduction of rights to the means-tested first-pillar income supplement that the mandatory private pension savings system implies for low-income households (Brender, 2009).

Figure 23. Tax Benefits on employers' contributions to employee pensions, by deciles
2014 data



Source: Ministry of Finance.

47. To reduce regressivity and make savings, the authorities plan to reduce the revenue ceiling determining the eligibility for the exemption of employer pension contributions from tax for employees from 4 to 2.5 times the average wage. While welcome, such a move will not prevent the high mandatory contributions required of all employees regardless of their income, family circumstances or tax position from unbalancing low-income households' lifetime revenue flows. There is thus a case for offsetting more of the impact on net current income of relatively high mandatory contributions to pension savings for low-income workers. The tax advantage on mandatory contributions could be made refundable, although this would come at a fiscal cost. Alternatively, it could be abolished for the mandatory contribution up to the average wage and replaced by a lower contribution rate below this threshold. This would make the contribution system simpler and would reduce the burden imposed by pension saving on those on low salaries. It would also be justified by the life expectancy of people on the lowest incomes, which is often shorter, especially among the Arab population. In any case, measures aiming at addressing the regressive nature of tax deductibility on contributions to the second pillar will need to be considered in the light of its implications for the progressivity of the tax-transfer system as a whole.

48. Some additional measures should also be considered to help workers experiencing poor job security during part of their working lives to access the second pillar. This would include abolishing the contribution continuity condition (of six months minimum) that pointlessly penalises young people between 25 and 29, 20% of whom do not have private pension schemes. Workers who have not contributed for long enough could be offered a chance to make up for missing periods using appropriate tax incentives.

This would not only help people with low job security but also immigrants who do not have an occupational pension when they arrive. More than one Israeli in six over 20 has immigrated since 1990.

Improving pension adequacy

Encouraging measures that stimulate financial returns and limit risk

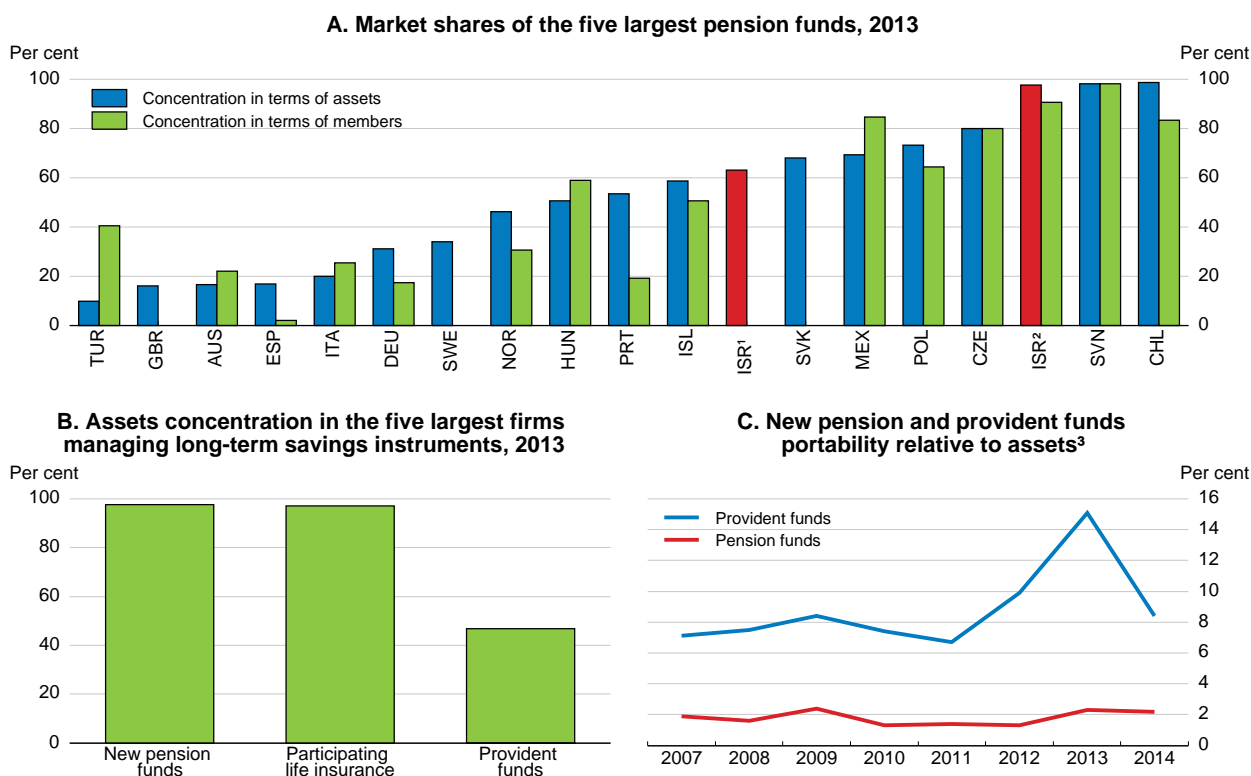
Improving the governance of pension funds and savers' financial education

49. The supervision and governance of pension funds in Israel are based on a set of robust regulations (OECD, 2011). The body responsible for applying these rules is the Capital Markets, Insurance and Savings Division (CMISD) of the Ministry of Finance, whose powers of investigation and the financial administrative penalties it may impose in the event of regulatory infractions have been extended (OECD, 2013). All pension savings instruments are held and managed by entities that are completely independent of employers. They are run by dedicated managers, selected on the basis of strict skills criteria. Pension funds must also prepare an annual actuarial balance sheet and, if necessary, adjust their members' accounts to guarantee their financial solvency. To ensure the pension system remains stable, the CMISD carries out regular stress tests on the existing vehicles for pension savings (Ionescu and Yermo, 2014), and every quarter the pension scheme managers issue their members with a report on the status of their pension savings status, which is also available online at all times. Generally speaking, the CMISD is keen to improve savers' financial understanding via the Internet. In 2014, it posted online instruments offering decision-making support for people choosing their savings profile according to their age and risk appetite.

Boosting competition in the pension sector

50. Optimising the effectiveness of the pension system will also mean stimulating competition in this sector. Competition can stimulate the quality of investment decisions, both in terms of the assets' average gross yields and/or variability, and put downward pressure on asset management costs, a crucial determinant of net returns.

51. The level of competition among pension fund managers is difficult to measure, however, mainly because of a lack of satisfactory internationally comparable data. Based on the information available, the performance of Israeli second-pillar pensions seems to be relatively good, despite the fact that this sector – like banking – suffers from a high level of concentration relative to other countries (Giorno, 2016) (Figure 24, Panel A). In the case of new pension funds and life insurance schemes, the markets are controlled by the five largest firms, although this is not the case for provident funds (Panel B). The share of savers who switch managers of their pension savings accounts is also lower for pensions than provident funds (Panel C).

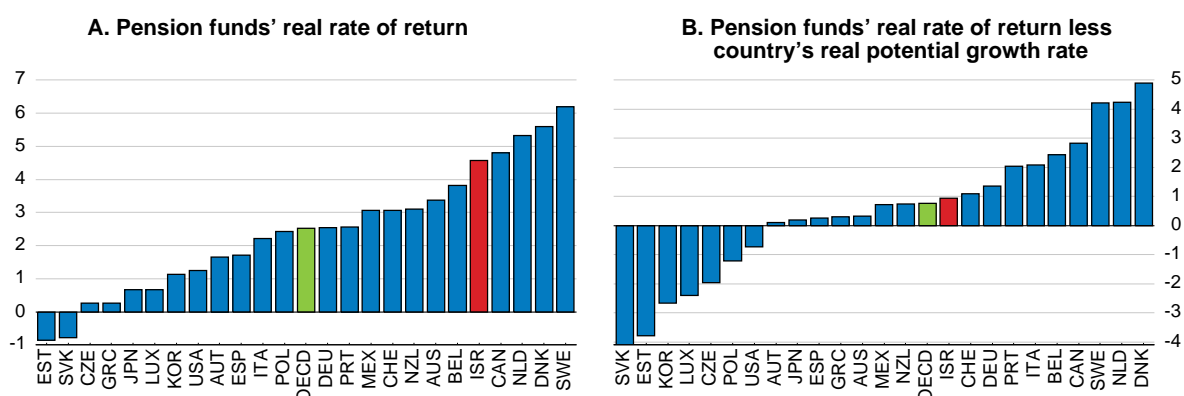
Figure 24. Indicators of market structure of pension fund markets¹

1. Data refer to the five largest companies managing long-term savings instruments.
2. Data refer to the five largest new pension funds. Data about members refer to active members only, i.e. members currently accumulating benefits or who have accrued benefits in the past and have not yet retired.
3. Share of total assets that have changed funds during the corresponding years.

Source: OECD (2015), *Global Pension Statistics* and CMISD.

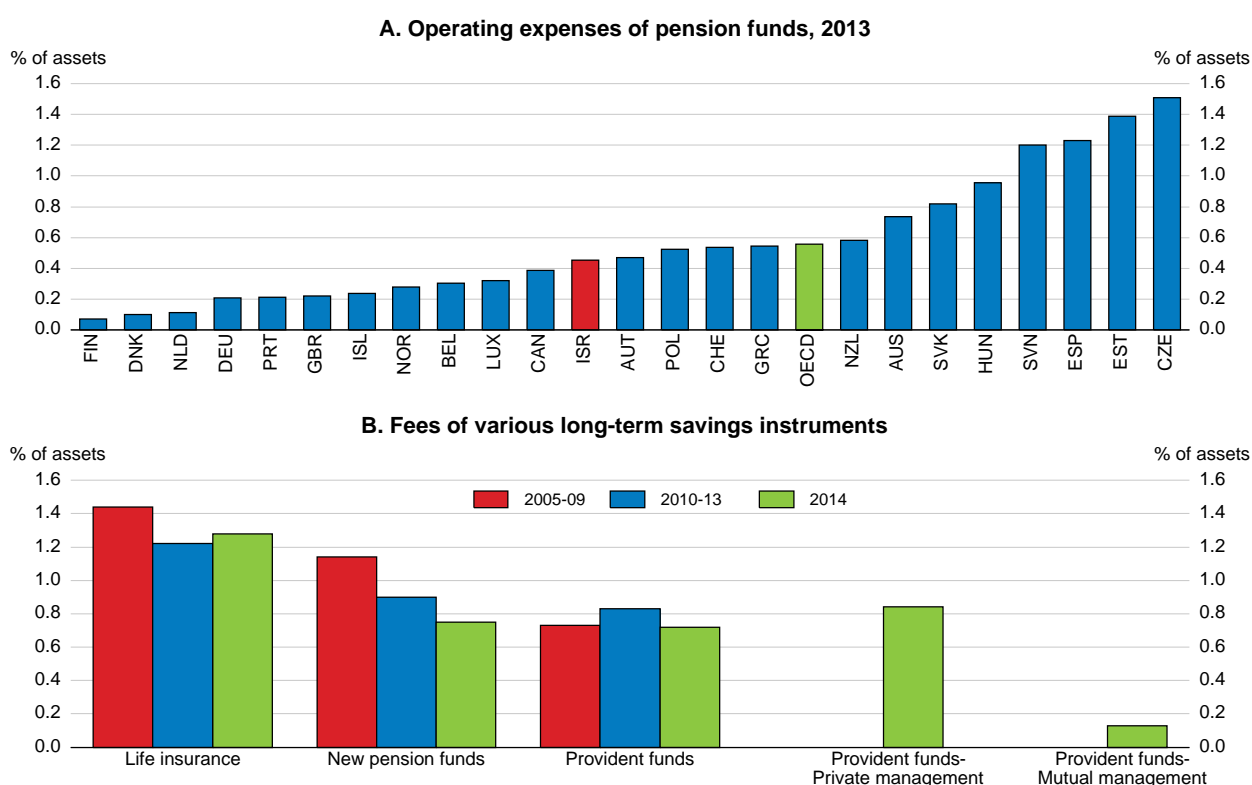
52. Nevertheless, real rates of return of the new Israeli pension funds compare favourably with those in other OECD countries, reaching an average of 4.5% over the last nine years, compared with the OECD average of 2.5% (Figure 25, Panel A). Comparing these rates, adjusted for potential growth differences between countries, which normally affect these yield spreads, shows that the performance of Israel's funds is somewhat less impressive (Panel B). The available data also show that pension schemes' management costs are lower in Israel than on average in the OECD (Figure 26, Panel A), although there are problems with international benchmarking in this area. The basis and procedures for billing costs vary from country to country, and the available data often cover only part of the costs that are actually billed to savers, although this seems to be less of a problem in Israel than elsewhere (Ionescu and Robles, 2014). The CMISD is working hard to reduce management costs, and they have indeed been declining for a few years (Panel B). A recent bill came before the Knesset to cap the remuneration of pension fund managers. There exist wide differences between the costs billed for different pension savings instruments, however: those deducted by provident funds, in which competition seems to be stiffer, tend to be lower than for other instruments, although the gaps have narrowed in recent years. Most notable are those funds controlled by private companies, whose charges are far higher than those managed on a mutual (non-profit) basis for members of a single profession (Panel B, right).

Figure 25. Pension funds' real rate of return
Annual average rate 2005-14, per cent



Source: OECD (2015), *Global Pension Statistics* and Economic Outlook database.

Figure 26. Pension funds' fees and management costs



Source: OECD (2015), *Global Pension Statistics*; CMISD.

53. There is, therefore, still room to further reduce pension schemes' management costs, and the mutually managed funds could help to do so. In order to reduce these costs, Chile, for example, has introduced an innovative competition stimulus mechanism. All new contracts signed with pension schemes are automatically awarded to the fund with the lowest management costs. This has reduced costs in Chile, and in Mexico, which adopted a similar mechanism, and has encouraged new pension funds to enter the market (Ionescu and Robles, 2014). These efforts to cut management costs are significant, because a

reduction that generates an average rise of 1 percentage point in a pension scheme's annual rate of return increases pensioners' assets by 20% after 40 years of contributions (Whitehouse, 2001; Sharpe, 2013).

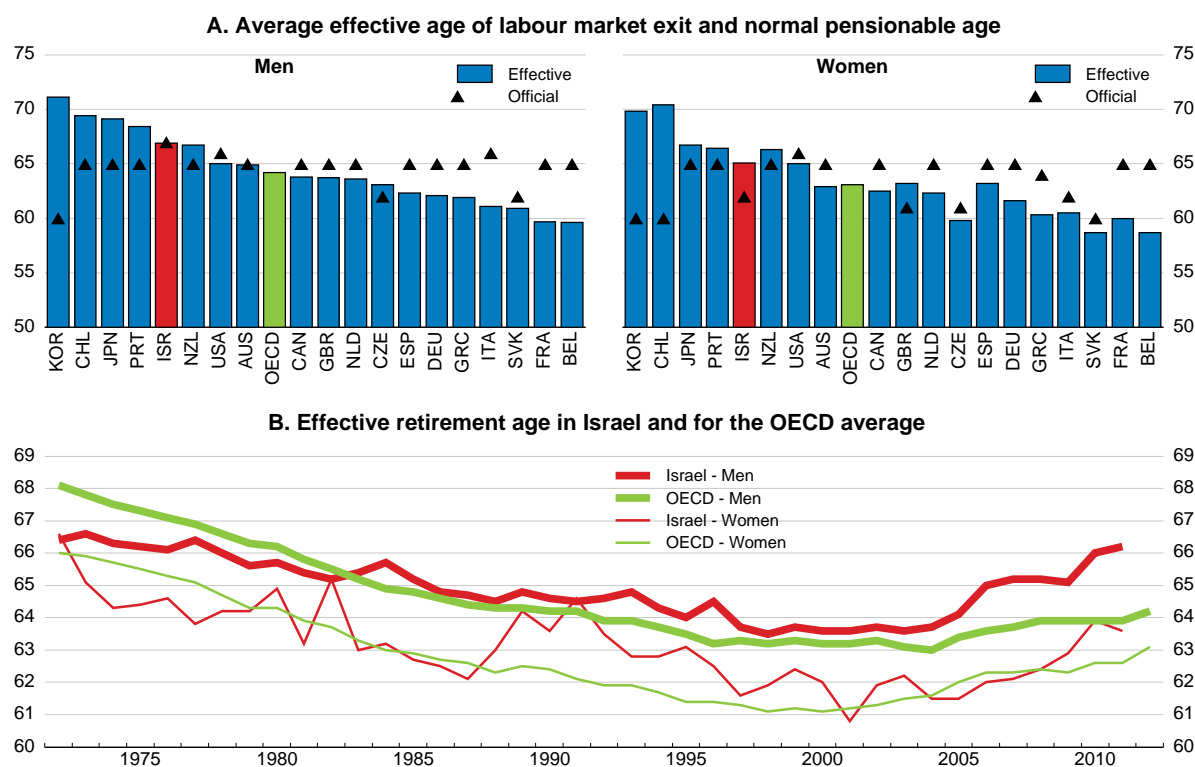
54. Another highly promising route to stronger competition and lower management costs that should also increase the average return is to promote the development of passively managed pension funds. These are based on a strategy of replicating average market performance. This reduces management fees considerably, because it does not require traders and highly paid personnel. In the case of the United States, for passive funds managed mutually annual management costs fell to 0.06% of asset value, while total costs for active management are estimated on average at over 2% per annum (Bogle, 2014; Edelen et al., 2013). The relatively efficient operation of the markets, moreover, makes it hard for an active fund manager to beat the market average over a long period of time (Crane and Crotty, 2015).

55. Israel does have passively managed pension funds, but they have a small market share: first, because of the dominant role played by private insurance companies, which are not interested in this model, and, second, because of savers' poor knowledge of and trust in these products. This is probably the case for retirement savings in Israel because of the complexity of both the pension system and the underlying financial products, which makes competition less effective. Research on behavioural economics also suggests that regulation needs to take into account consumers' significant inertia when they face hard choices in domains where informed decisions are difficult (Lunn, 2014). Recourse to passive management is developing rapidly in other countries, however, and recent empirical analysis of international data suggests that the rise of passively managed funds strengthens competition and brings down the management costs billed to savers for both pension schemes and other savings plans (Cremer et al., 2015). In the light of this evidence, the Israeli authorities should actively promote passive pension funds. They could do so by improving the quality of public information on their advantages or by requiring new pension schemes to offer passive management funds as the default option. In any case Israel should follow Sweden's example and start by ensuring that funds whose management of people's pension savings is in fact passive, through investments in market indexes, do not bill for active management costs (Marriage, 2015). The CMISD at the Ministry of Finance is currently working on implementing a model in which a default pension fund will be defined based on low management fees, possibly thanks to the recourse of passive investment strategies. However, the CMISD does not want to directly intervene in structuring the low management fees.

56. The authorities should also adjust the second-pillar pension system so that it takes account of the saver's age. Some steps have been taken in this direction: from January 2016, all pension savings managers will have to offer three new investment profiles with risk decreasing as contributors age (under 50, 50-60, over 60). Saver contributions will, by default, be channelled into these new kinds of schemes. This welcome measure could be taken further, however, with the allocation of savers' portfolios by age affecting their existing assets and not just future savings.

There is room to increase the senior employment rate

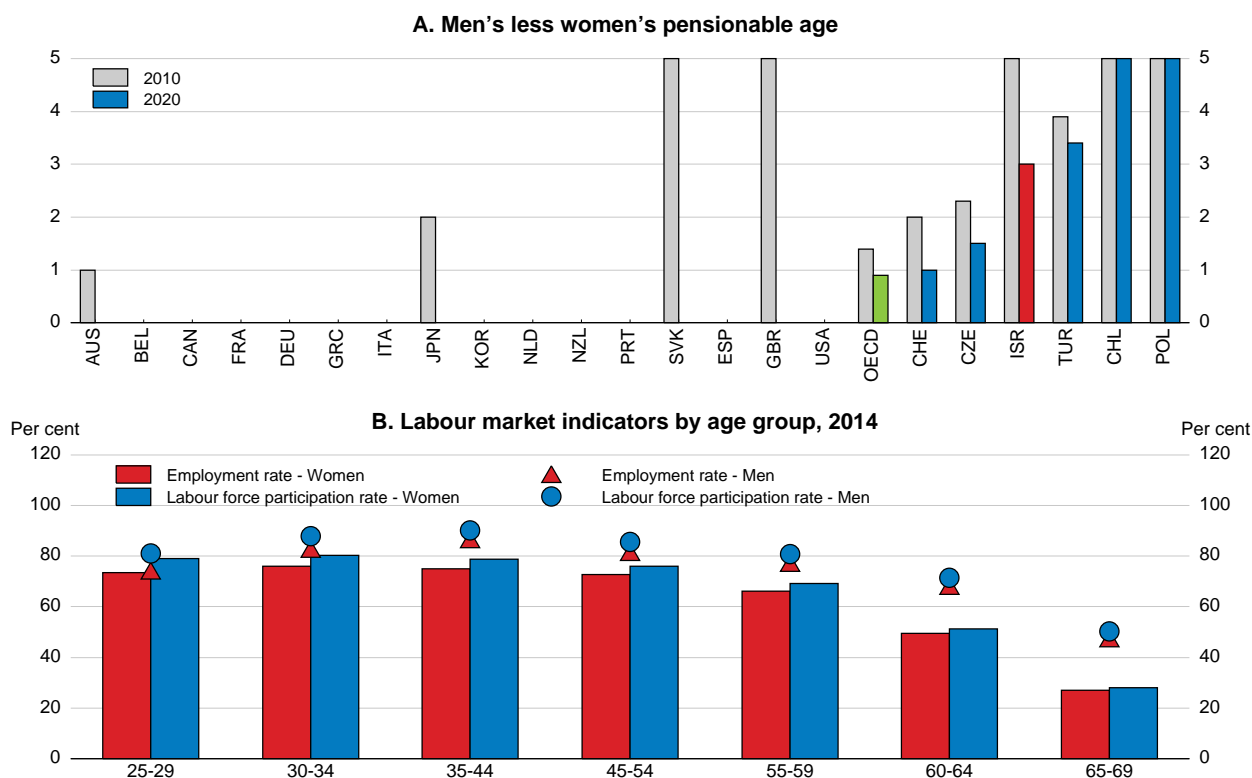
57. Stimulating senior employment is also important to ensure that pensions are adequate and to protect against the risk of longevity, although the country already performs well in this field. The effective retirement age in Israel is close to or higher than the official age, and there is no substantial recourse to early retirement (Figure 27). The increase in the pension age in 2004, combined with the higher level of education of recent cohorts of mature workers, has helped to extend working life in the last decade, and this trend has been more pronounced than in the OECD average. Further progress will be made, however, if future reforms extend working lives for women and eliminate disincentives that prevent workers continuing to work after the age of eligibility for first-pillar pensions.

Figure 27. Retirement age¹

1. The effective retirement age shown in Panel A is for the five year period 2007-12; pensionable age is shown for 2012. The effective retirement age is a synthetic calculation of the average retirement age. See Bank of Israel (2014), *Annual Report*, Chapter 1 and M. Keese (2003), "A Method for Calculating the Average Effective Age of Retirement", mimeo, <http://www.oecd.org/els/emp/39371923.pdf>.

Source: OECD (2013), *Pensions at a Glance 2013*, Figure 3.8; Bank of Israel estimates based on data from the OECD and the Central Bureau of Statistics.

58. Israel is one of the rare OECD countries in which women still have a lower pension eligibility age than men, and this has opened a wide, persistent gap between male and female employment rates after the age of 60 (Figure 2.28). The pension eligibility age for women, which is set to increase from 62 to 64 by 2017 if approved by the Knesset, should be raised further to gradually align it with its male counterpart. This would reduce the risk of poverty for women, whose gap over corresponding male rates is much higher after the age of 65 than for younger age groups (Figure 29, Panel A). By way of example, a woman with a gross monthly salary of NIS 7 500 (0.8 times the average salary) who stops work at 67 instead of 62 after a career of 40 years instead of 35 would increase her replacement rate by 12 or 20 percentage points depending on whether the average actual return on second-pillar savings is 2% or 4% per annum (Panel B) (Flug, 2014). The likelihood that the effects on living standards would be positive is fairly high because of the low unemployment rates for workers close to retirement age – rates that are similar to those for workers aged around 40 (BoI, 2013).

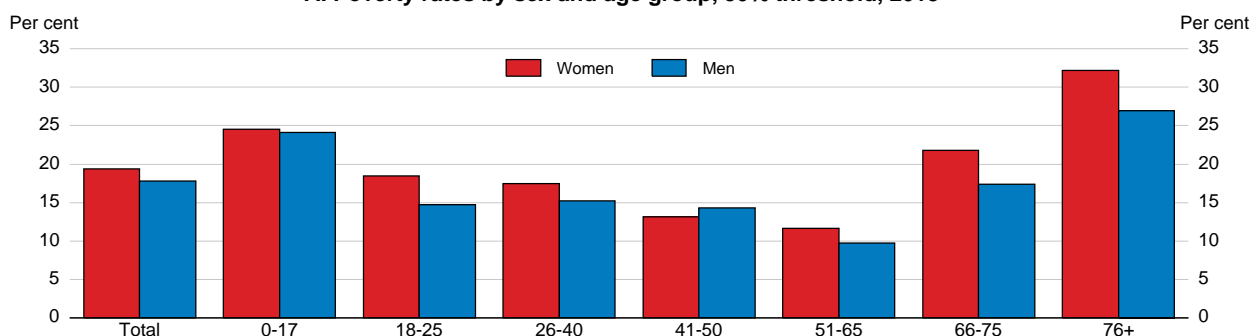
Figure 28. Male and female pensionable age and employment rates

Source: OECD (2012), *Pensions Outlook 2012*; OECD, Labour Force Statistics database.

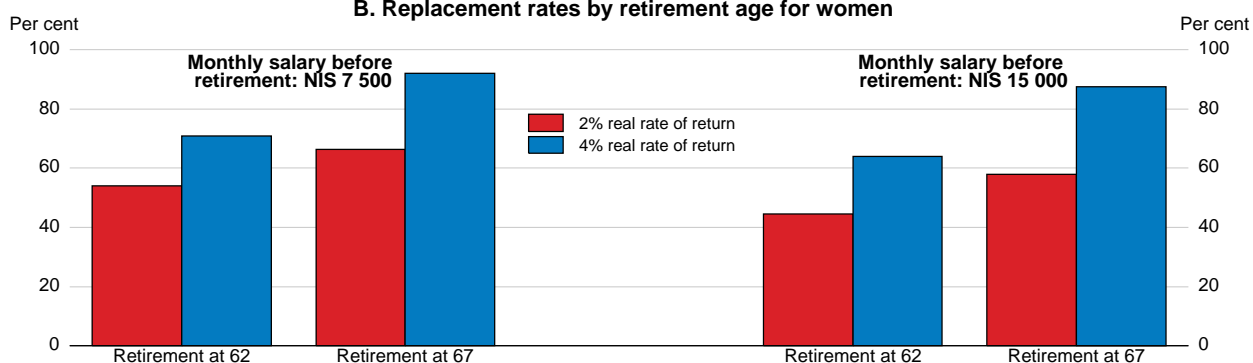
59. The authorities should also consider indexing the expected time in retirement to life expectancy at 65. Although systems of defined contribution pensions in principle embody incentives for individuals to postpone their retirement decision until they have accumulated sufficient pension capital, this is not the case for the first-pillar system. Indexing the basic pension eligibility age to life expectancy at 65 would protect the financial viability of this publicly financed defined benefit system against the risk of longevity.

60. It would also be advisable to eliminate tax incentives that discourage many workers from continuing to work after the conditional retirement age. Almost 90% take their first-pillar old-age allowance as soon as they reach this age, even though it rises by 5% for each additional year in work (BoI, 2014). According to research by the authorities, the effective marginal tax rate in the case of a worker continuing to work after the age of eligibility jumps to 97% for a gross monthly salary between about NIS 5 000 and NIS 6 000 (i.e. 0.5 to 0.7 times the average salary) and 74% above this amount (Figure 30). These high tax rates are the result of the reduction of the basic allowance, 60% of which is means tested, the loss of rights to the earned income tax credit (or negative income tax), and the impact of personal income tax and social contributions (Brill, 2014). The marginal tax rate is even higher, reaching over 100%, for the even lower salaries earned by those who qualify for the income supplement. A substantial reduction of this tax disincentive would be welcome. Its budgetary cost would probably be largely self-financed by the positive effect on employment and the resulting increases in tax revenue.

Figure 29. Poverty and pension replacement rates
A. Poverty rates by sex and age group, 50% threshold, 2013

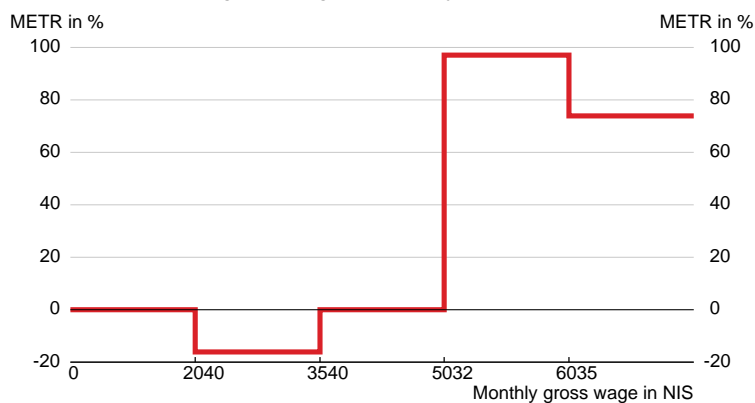


B. Replacement rates by retirement age for women



Source: OECD, Income Distribution database, www.oecd.org/social/income-distribution-database.htm; Bank of Israel's calculations.

Figure 30. Marginal effective tax rate (METR) between conditional and absolute retirement age
 On gross wage earned by pensioners



1. Case of a worker reaching the conditional eligibility retirement age benefitting only from basic old-age pension allowance.
 Source: N. Brill (2014), *Commission Report on Integration of the Elderly to the Labour Market* (in Hebrew).

Recommendations for improving the pension system

Improving the protective role of first-pillar basic pensions

- To reduce elderly poverty, as the second pillar matures, seek a way to increase first-pillar pensions without creating work disincentives.

Reforming “budgetary pensions” and clarifying the government's contingent liabilities for pensions

- Increase employee pension contributions for public employees recruited before 2002-04.
- Increase transparency of the pension system for defence, police and prison personnel, and transfer its management from the Ministries of Defence and Internal Security to the Ministry of Finance. Increase the transparency of the State's contingent liabilities for those public entities having independent budgets.

Improving the fairness and effectiveness of the second pillar

- Moderate the impact on net current income of relatively high mandatory contributions to pension savings for low-wage workers.
- Allow workers who have not contributed for long enough (immigrants or people with low job security) to catch up missing years using tax incentives.
- Require pension providers to offer low-cost pension funds as their default option, for example, by proposing passively managed (indexed) assets or streamlining distribution channels. Encourage the growth of mutually managed pension funds.

Encouraging people to work longer

- Gradually raise women's eligibility age for the first-pillar pension to equal men's. Index the retirement age to life expectancy at 65, so as to hold constant the share of adult lifetime spent in retirement.
- Significantly reduce the implicit tax rate on continuing to work beyond the pension eligibility age by lowering the reduction of first-pillar basic pension entitlements in the presence of work-related income.

NOTES

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1. To qualify for the income supplement, a single person (couple) needed to receive pension payments of less than NIS 1204 (NIS 1 898) per month at 1 January 2015, or professional income (or a combination of professional income and pension payments) less than NIS 1 852 (NIS 2 222). Cash savings must be less than NIS 34 592 (NIS 51 888).

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