Chapter 2

The role of first-tier pensions

This chapter examines the role of first-tier benefits within OECD and G20 countries. It concentrates on the three main components of first-tier pensions: basic, minimum and means-tested old-age social assistance payments. The structure of the first-tier pension systems including eligibility rules are first detailed. Then the level of the benefits as a proportion of average earnings is compared across OECD countries and studied in relation to old-age poverty rates. The chapter also highlights the other forms of assistance that are available for retirees including rent or health. This chapter analyses the implications of indexation policies for first-tier benefits levels and for public spending, given population ageing, depending on how age thresholds on first-tier pensions are adjusted.

2.1. Introduction

Provisions to protect the most vulnerable pensioners are a common feature in OECD countries. These benefits play a more important role in times of high unemployment, or if general pension benefits are being reduced. Aligned with an increasingly ageing society their role could become more pronounced in the years to come as public finances come under increasing pressure. The level of protection they provide varies considerably across countries, however, reflecting the very different designs of pension systems overall (see Table 5.2 later in this volume and the "Country profiles" in Chapter 11).

The first pension system, for private-sector workers, was introduced in 1889 in Germany. It was designed to provide an income to all workers reaching the age of 70, subject to having made contributions for at least 30 years. At the start of the 20th century the United Kingdom established a retirement income system that made a regular weekly payment to everyone over the age of 70, irrespective of their career and earnings history, if their income was below a particular level. That was the first example of a pension benefit designed to help alleviate poverty among the elderly.

First-tier old-age pensions are defined as the first layer of protection of the elderly within the pension system. In most countries it combines financial support to those who were unable to provide for their retirement and are vulnerable to poverty with a mechanism that rewards workers who have paid in minimum levels of contribution. First-tier pensions can thus have up to three components:

- *Basic pensions*. This component can take two different forms:
  - A benefit paid to everyone irrespective of any contributions made, although beneficiaries might have to meet some residence criteria. In some countries residence-based benefits are potentially offset against other pension income.
  - A benefit paid solely on the basis of the number of years of contributions, i.e. independently of earnings.
- *Minimum pensions*. They can refer to either the minimum of a specific contributory scheme or of all schemes combined. The benefit level can take into account other pension income.
- *Social assistance*. These are means-tested benefits available for those who have been unable to achieve sufficient income through their pension entitlements and therefore require a top-up to reach a minimum income level which is often set in line with general social assistance levels.

This chapter examines the provisions which ensure protection of the least well-off pensioners in each OECD country, whether they are basic or minimum pensions, dependent on residency or contribution history, or whether they are safety-net provisions designed to ensure a certain level of income. The next section compares the criteria for non-earnings-related pensions, concentrating particularly on the number of years of residency or contribution required. Basic or minimum pension amounts, relative to the average earnings of the total population, are the subject of Section 2.3. The analysis then considers people unable to meet contribution requirements. Section 2.4 assesses social-assistance payments and looks at other benefits or means of support that are available. Section 2.5 explains how statutory benefit rates for people on first-tier pensions are designed to evolve over time and demonstrates the effect that indexation policies might have. Section 2.6 concludes and summarises the main policy issues.

Key findings

- First-tier pensions exist in all countries but their structure and value vary considerably between countries. Residence-based basic pensions range from 6% of average earnings in Iceland to 40% in New Zealand, whereas safety-net payments vary from 2% in China and 6% in Turkey to 50% in Brazil, though both China and Turkey also have high minimum pensions above 40% of average earnings.
- One-half of OECD countries provide a basic pension to all citizens either based solely on residence or on the number of years of contribution made, while one-third of countries have a minimum pension within their earnings-related schemes.
- The number of years of contribution for eligibility to minimum pensions ranges from one year in Switzerland for a partial pension (44 years are required for the full pension for men, 43 years for women) to 35 years in the Czech Republic for any payment to be made. On average full minimum benefits require 26 years of contribution, with a partial benefit available in the majority after 20 years.
- The majority of first-tier pensions are indexed to prices and so their value decline, relative to wages over time, as productivity gains translate into real-wage growth over the medium term. If take-up rates remain steady and these indexation rules are applied rigidly then the prevalence of pensioner poverty is likely to increase in the long-term.
- There is significant scope for a number of countries that combine relatively high elderly poverty rates and low safety-net benefits, to increase the value of their safety-net payments, even after taking into account the level of GDP per capita. This is particularly the case in Chile, Korea, Mexico and Turkey but also Switzerland and the United States.
- Nearly half of OECD countries provide additional services or payments to elderly people covering housing or heating costs as well as health and care commitments. Numerous services are also provided as benefits-in-kind in the form of free television licences or free or reduced transport costs. As the payments of these services are generally universal many recipients who could easily afford the cost of such services are also benefitting. Introducing means-testing for at least some of these payments could reduce future expenditure.
- Current indexation policies will lead to rises in expenditure in many countries if take-up rates remain constant. While stabilising first-tier pension spending relative to GDP is not a goal in itself, and does not, alone, bear a normative significance, it can serve as a useful baseline given that financing resources tend to follow GDP. In particular, the starting point in each country, in terms of spending levels or income inequalities affecting the bottom part of the distribution, matters.
- If age thresholds were increased by five years by 2060, many countries would be close to stabilising first-tier spending as a percentage of GDP under their current indexation policies. On average across OECD countries, given projected population ageing, first-tier benefits should be indexed to wages minus 0.8% (i.e. prices plus 0.5% based on OECD assumptions) to stabilise spending (as a share of GDP) if age thresholds were gradually increased by five years by 2060.
- Alternative mechanisms, such as auto-enrolment or incentives like tax breaks and matching contributions, will help reduce the reliance on means-tested first-tier benefits as greater emphasis will be given to the individual to save for their retirement.

2.2. Eligibility criteria for basic and minimum old-age pensions

Table 2.1 summarises the structure of basic and minimum pensions in OECD countries, for which the eligibility criteria differ both across countries and across the various pension benefits within countries. This part first discusses basic pensions and then minimum pensions.

Table 2.1. **Structure of basic and minimum pensions**

	Basic	Minimum		Basic	Minimum
OECD members			**OECD members** *(cont.)*		
Australia[1]	R		New Zealand	R	
Austria			Norway[1]	R	
Belgium		x	Poland		x
Canada	R		Portugal		x
Chile	R		Slovak Republic		
Czech Republic	C	x	Slovenia		x
Denmark	R		Spain		x
Estonia	C		Sweden[1]	R	
Finland[1]	R		Switzerland		x
France		x	Turkey		x
Germany			United Kingdom	C	
Greece	R		United States		
Hungary		x			
Iceland	R		**Other major economies**		
Ireland	C		Argentina	C	x
Israel	R/C		Brazil		x
Italy		x	China		x
Japan	C		India		x
Korea			Indonesia		
Luxembourg	C	x	Russian Federation	C	
Mexico		x	Saudi Arabia		x
Netherlands	R		South Africa	R	

Note: R = Residence based; C = Contribution based.

1. The Age Pension in Australia, the national pension in Finland, the guarantee pension in Norway and the guarantee pension in Sweden are residence-based and so have been classified as basic.

Source: "Country profiles" in Chapter 11 of this publication.

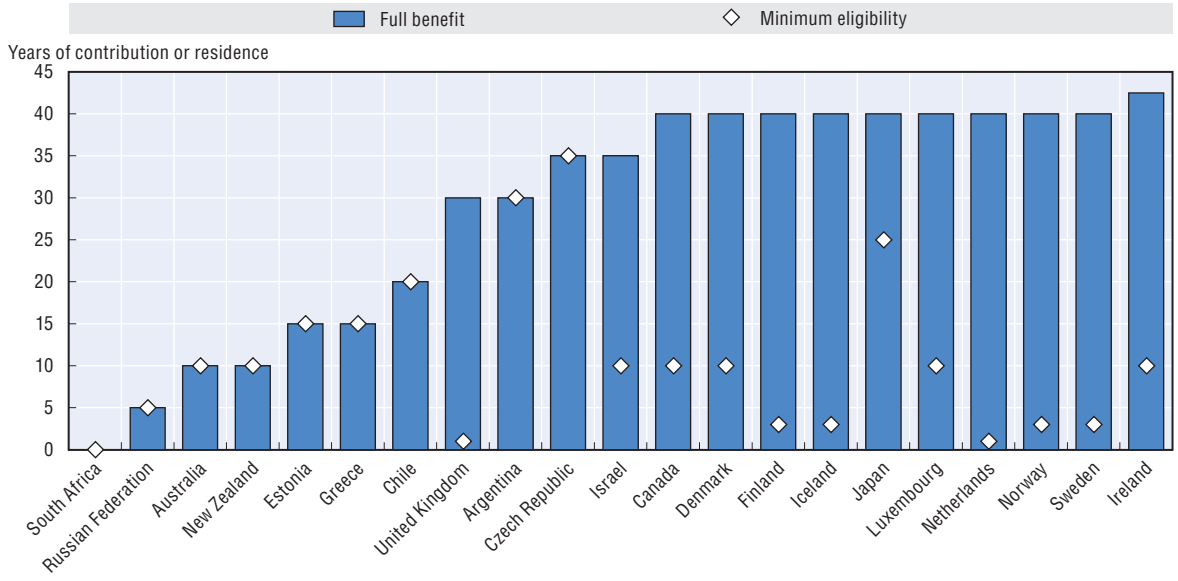
StatLink http://dx.doi.org/10.1787/888933300966

Basic pension

For basic schemes, the eligibility criteria could be either residence-based or contribution-based. Residence-based pensions are common in the Nordic countries, where all five countries require 40 years of residence for full benefit (Figure 2.1), and shorter periods for lower levels of entitlement. In both Canada and the Netherlands, drawing a full basic pension also requires 40 years of residence, whereas just 20 are needed in Chile. Australia and New Zealand are the OECD countries with the lowest residential eligibility criteria, as full benefit is paid after residing in the country for only ten years, with Australia requiring five years of continuous residence and New Zealand the same after the age of 50. Greece was supposed to have introduced a basic pension in January 2015 for people who have been resident in the country for 15 years, but implementation was delayed. Outside the OECD the basic component in South Africa is payable for just being a resident.

How many years of contributions are required for eligibility to contribution-based basic pensions varies substantially across countries. In Luxembourg, full benefit comes after 40 years, whilst 30 years are needed in both the Czech Republic, increasing to 35 from 2019, and the United Kingdom. There, the current basic pension eligibility criterion will be in place until 2016, when it will give way to the new state pension (nSP) with a 35-year contribution requirement for a full benefit. Most countries also require a minimum number of years of contributions in order to receive any benefit payment. They range from one year in the United Kingdom under the current scheme, increasing to ten with the introduction of nSP, to ten years in Luxembourg. Those with contributions below the minimum will not receive anything. In the Czech Republic the benefit is paid after 30 years of contributions, rising to 35 in 2019, with no increase in value for additional years. In Ireland the total number of weeks of contribution made (minimum 520) is averaged annually over the entire working

Figure 2.1. **Years of contribution or residence required for basic pensions**



Note: For the United Kingdom the new state pension will require 35 years for the full benefit and 10 years for the minimum. For Ireland the 42.5 years reflects entry at age 20 and retirement at age 66 with an average of 48 weeks of contributions.
Definition: Basic pensions refer to the benefit paid based on either the length of residency or the duration of contributions, irrespective of earnings.
Source: "Country profiles" in Chapter 11 of this publication.

StatLink http://dx.doi.org/10.1787/888933300298

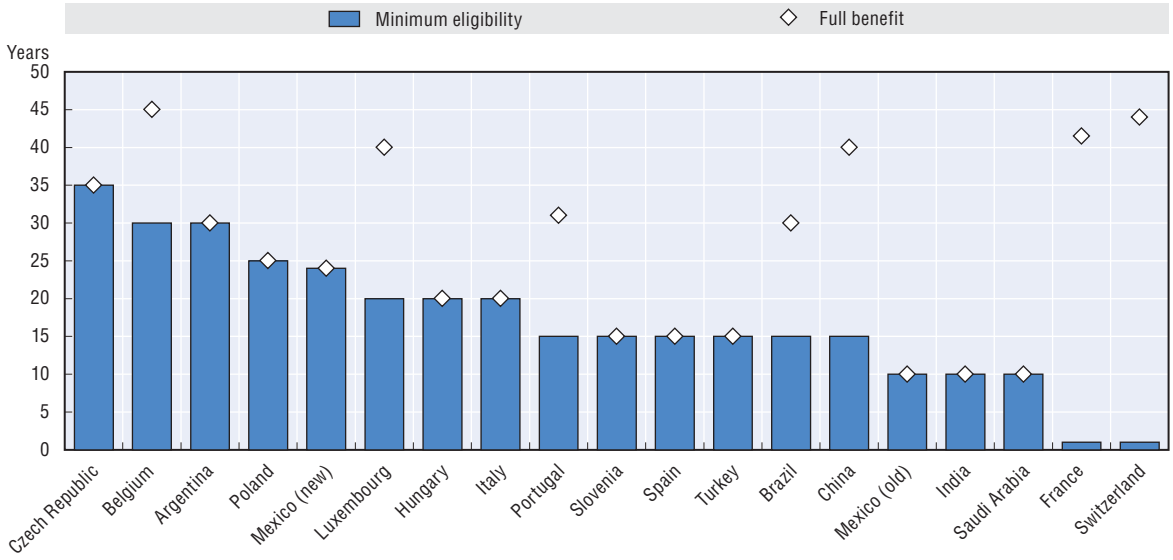
life i.e. from the time of the first contribution to retirement age. If the average is over 48 weeks per year the individual receives the full benefit; shorter contribution periods result in a pro-rated payment with a minimum of 24 weeks average. It is therefore possible to achieve eligibility for the full pension if workers started to contribute during the last 520 weeks prior to retirement. Outside the OECD, the contribution-based basic flat-rate benefit in the Russian Federation is payable after only five years of contributions.

Minimum pension

Whereas the basic contribution-based pension mostly takes the form of a flat rate benefit, the minimum pension element acts effectively as a top-up in many countries, since other income is considered when assessing eligibility. As with the basic schemes the number of years of contribution required for the full minimum-pension benefit varies greatly, ranging from 15 years in Slovenia, Spain and Turkey to 45 in Belgium (Figure 2.2). In France, to be eligible for the contributory minimum benefit, being aged at least 61 years and 2 months (62 from 2017) and having 41.5 years of contributions, or being aged 65 and over (increasing to 67 by 2022), are required. However, there is a slightly higher minimum pension in France if more than 30 years of contributions have been made. Under Mexico's new system, private-sector workers who had not contributed before 1997 must contribute for 1 250 weeks (about 24 years) to be eligible for the minimum pension, whereas the old system, which still governs retirement for many, requires only 500 weeks of contribution for the minimum.

In general, there has been very little change in eligibility rules for minimum pensions over recent years. However in the Czech Republic the number of years of contribution is increasing in line with the increase in the retirement age. France, too, has recently raised its years of contribution requirement from 40 to 41.5 and will increase it to 43 by 2035 in line with longer life expectancy. People are, however, able to retire at the age of 65, increasing to 67, irrespective of how long they have contributed. However, if contributions have been made for at least 30 years the level of the minimum

Figure 2.2. **Years required for minimum pension**



Definition: Minimum pensions refer to either the minimum of a specific scheme or of all schemes combined. The benefit level can take into account other pension income.
Source: "Country profiles" in Chapter 11 of this publication.

StatLink http://dx.doi.org/10.1787/888933300306

is increased by around 10%. In Poland the number of years that men must contribute if they are to receive the minimum pension has remained constant at 25. For women, by contrast, it has gradually climbed from 21 years since 2014 and will reach 25 years by 2022, in line with the decision that retirement ages for men and women should converge over time.

The number of years of residence or contribution is not the sole determinant of entitlement to full benefit. There is also an age requirement and, once again, there is some variation between countries. In the long-term the retirement ages will be at least 67 for both men and women across most of the OECD area. Currently, though, many countries are in a period of transition, either equalising men's and women's retirement ages and/or increasing it over the coming decades. Table 2.2 shows the ages at which people may retire with basic and minimum pension entitlements.

2.3. Benefit levels

Beyond the heterogeneity in the eligibility criteria, there is a considerable variation in the monetary value of the payments across countries. Furthermore, some benefits are also means-tested (Section 2.4), so are reduced more or less quickly as income or assets rise. The analysis focuses first on basic pensions and then on minimum pensions.

The value of basic benefits is an important factor in ensuring an adequate retirement income. The country with the largest basic pension is New Zealand, which guarantees an income over 40% of average earnings – despite, as already noted, only having ten years of residence required (Figure 2.3). Australia, too, ensures a reasonably high income. Its scheme, Age Pension, offers a benefit of just over 25% of average earnings with, on top of that, a comprehensive system of concessions and assistance for health, rent assistance, medication, and other living expenses; the benefit is means-tested (against both income and assets), but as the test is not very strict about 80% of Australian pensioners receive at least some amount of Age Pension. In the Netherlands, full basic benefit is over 25% of average earnings, and is prorated to the number of years of residence.

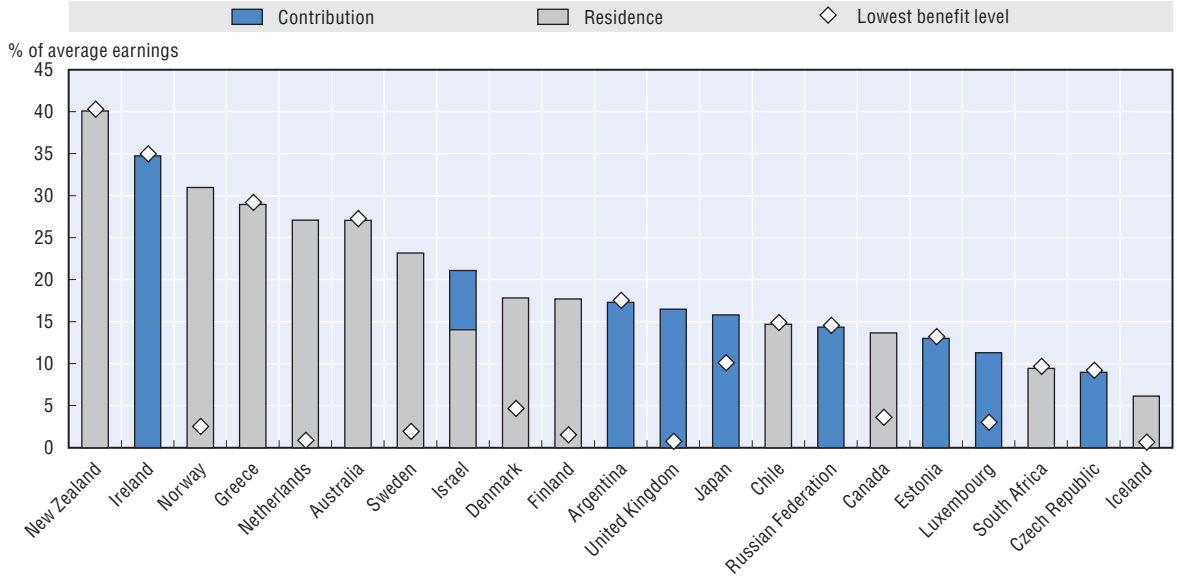
Table 2.2. **Retirement ages for basic and minimum pensions, 2014**

	Men	Women		Men	Women
OECD members			**OECD members** *(cont.)*		
Australia	65.0	65.0	Norway	67.0	67.0
Austria	65.0	60.0	Poland	65.0	60.0
Belgium	65.0	65.0	Portugal	66.0	66.0
Canada	65.0	65.0	Slovak Republic	62.0	62.0
Chile	65.0	60.0	Slovenia	65.0	65.0
Czech Republic	62.7	61.3	Spain	65.2	65.2
Denmark	65.0	65.0	Sweden	65.0	65.0
Estonia	63.0	61.0	Switzerland	65.0	64.0
Finland	65.0	65.0	Turkey	60.0	58.0
France	61.2	61.2	United Kingdom	65.0	62.0
Germany	65.3	65.3	United States	65.0	65.0
Greece	65.0	65.0	**OECD average**	**64.7**	**63.5**
Hungary	62.5	62.5			
Iceland	67.0	67.0	**Other major economies**		
Ireland	66.0	66.0	Argentina	65.0	60.0
Israel	67.0	62.0	Brazil	65.0	60.0
Italy	66.3	62.3	China	60.0	60.0
Japan	65.0	65.0	India	58.0	58.0
Korea	65.0	65.0	Indonesia	55.0	55.0
Luxembourg	65.0	65.0	Russian Federation	60.0	55.0
Mexico	65.0	65.0	Saudi Arabia	60.0	55.0
Netherlands	65.2	65.2	South Africa	60.0	60.0
New Zealand	65.0	65.0			

Source: "Country profiles" in Chapter 11 of this publication.

StatLink http://dx.doi.org/10.1787/888933300977

Figure 2.3. **Basic pensions as a percentage of average earnings**



Note: Lowest benefit level is the benefit available once the lowest level of period eligibility has been achieved (see Figure 2.1).
Source: "Country profiles" in Chapter 11 of this publication.

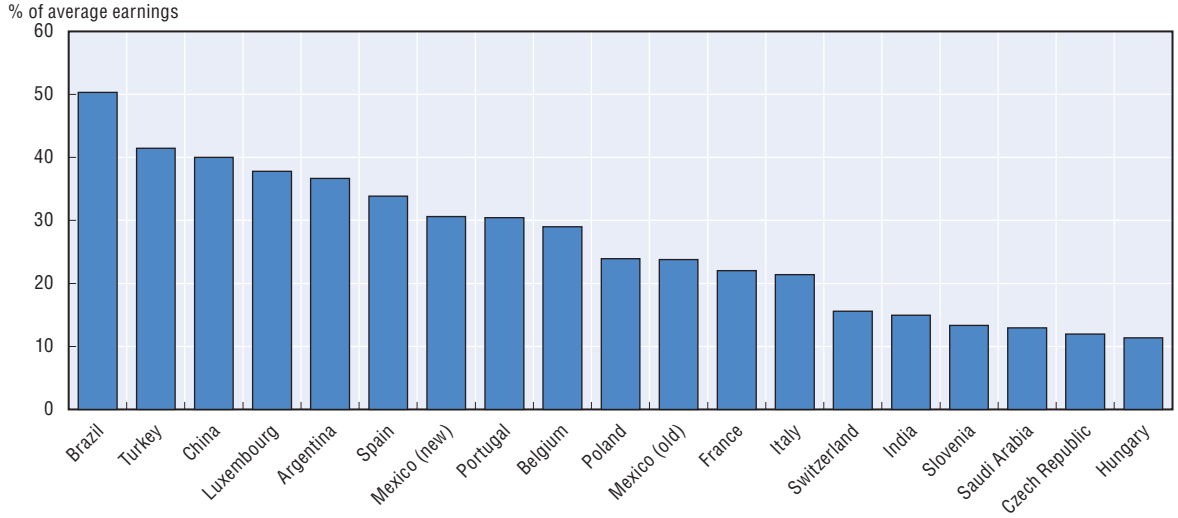
StatLink http://dx.doi.org/10.1787/888933300318

The Nordic countries set some benefits against income from other sources. Finland, Norway, and Sweden, for example, regard benefits as top-up support rather than flat-rate income, and not everyone receives the full amount. The basic benefit provides an income equivalent to 31% of the average wage in Norway, and around 18% in both Denmark and Finland. In Sweden, the benefit rate is higher at 23% of average earnings but, as in Finland and Norway, it is offset against income from the earnings-related pension (the impact of how the benefit is withdrawn will be covered in the next section). Canada and Chile also provide basic pensions albeit at lower levels than in Australia, New Zealand and Northern Europe – at close to 15% of average earnings, topping them up with an income-tested component. Finally, at the lower end of the spectrum, Iceland has a basic benefit equivalent to only 6% of average earnings although as shown later – there are additional safety-net payments.

For the countries in Figure 2.3 that have contribution-based basic pensions the value of the benefit is generally set at a lower proportion of average earnings than the residence-based schemes in the other countries. Ireland, though, is an exception with a basic benefit equivalent to 35% of average earnings in 2014. Full benefit rates are just above 15% of average earnings in Japan and the United Kingdom, and below that in Estonia, Luxembourg, South Africa and the Czech Republic. As pointed out earlier, the United Kingdom's numbers reflect the level of the current basic pension rather than that of the new state pension, which will be introduced in 2016, where the benefit will stand at 22% of average earnings with 35 years of contributions.

Among countries with minimum pension arrangements in place, the full benefit is equivalent to 25% of average earnings on average compared to 20% in the basic pension scheme. The level of minimum pensions varies from 12% of average earnings in both the Czech Republic and Hungary to 42% in Turkey and 50% in Brazil (Figure 2.4).

Figure 2.4. **Full minimum pensions as percentage of average earnings**



Source: "Country profiles" in Chapter 11 of this publication.

StatLink http://dx.doi.org/10.1787/888933300323

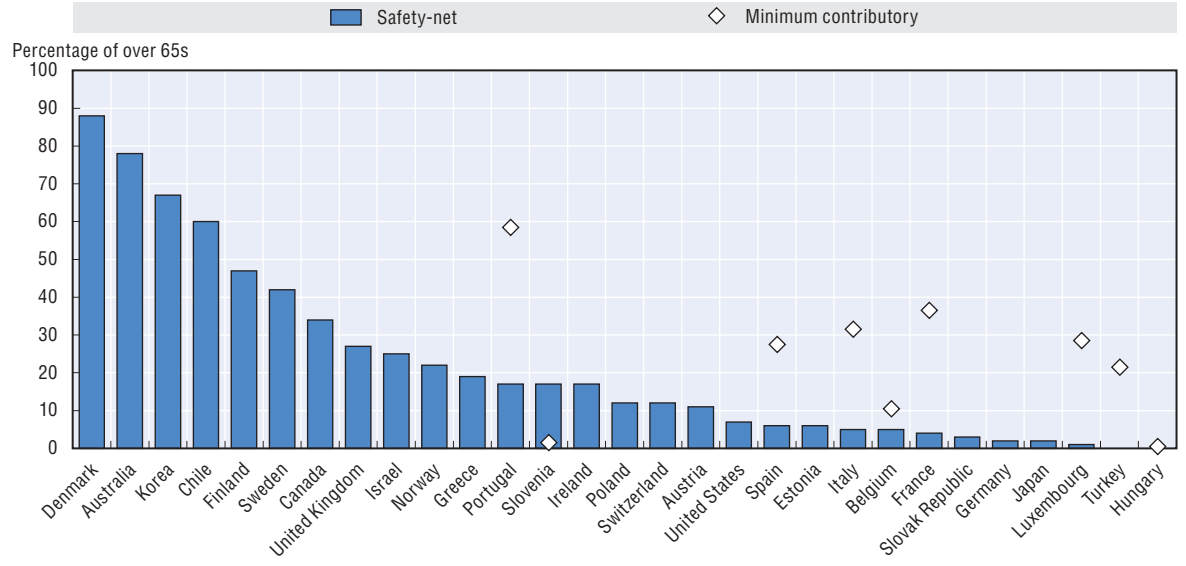
The relationship between levels of full benefit and the number of contribution years required for eligibility is of critical interest. In Luxembourg, for example, the minimum pension is equivalent to 38% of average earnings for only 20 years contribution, while in Belgium the figures are 29% and 45 years. The full benefit rates shown in Figure 2.4 assume that beneficiaries have contributed for long enough to be entitled to full benefit. Yet a number of countries operate staggered payment schemes. Portugal, for example, pays minimum pension in full for at least 31 years of contributions, reducing it by 20% for between 21 and 30 years of contributions, by 27% for 15 to 20 years, and by

33% for less than 15 years. Many countries reduce benefit levels proportionally to shortfalls in full contribution criteria, while Belgium has a minimum annual credit scheme to assist low earners or people who worked part-time through much of their career.

Although most countries have left eligibility criteria untouched, a number have made amendments to policies over the last few years that have affected benefits. Such moves have chiefly involved freezing nominal amounts, as Hungary, Ireland and Portugal have all done – with no increase in benefits since the late 2000s. The impact and consequences of freezes and indexation policies in general are addressed in Section 2.5.

The share of the population receiving minimum pension varies (Figure 2.5) from less than 1% of the 65s-and-over in Hungary to roughly 60% in Portugal. The low coverage in Hungary comes from the fact that the minimum pension is worth only 11% of average earnings, whilst a worker at 50% of average earnings would receive a pension above this level after only ten years of contributions to the earnings-related scheme. Nearly 37% of those aged 65 or over are receiving minimum pension payments in France, with Luxembourg closely behind at 29%. The range of take-up rates of targeted safety-net benefits is wider. On the one hand, nearly 90% receive a payment in Denmark and just fewer than 80% in Australia. In both cases the benefit is offset against other income, and so many only receive a partial amount. By contrast more than two-thirds of the countries shown have take-up rates below 20%, as pensioners often have income from personal pensions or other sources which takes them above the threshold.

Figure 2.5. **Take-up of minimum and safety-net pensions, 2012**



Source: Information provided by OECD country delegates.

StatLink http://dx.doi.org/10.1787/888933300338

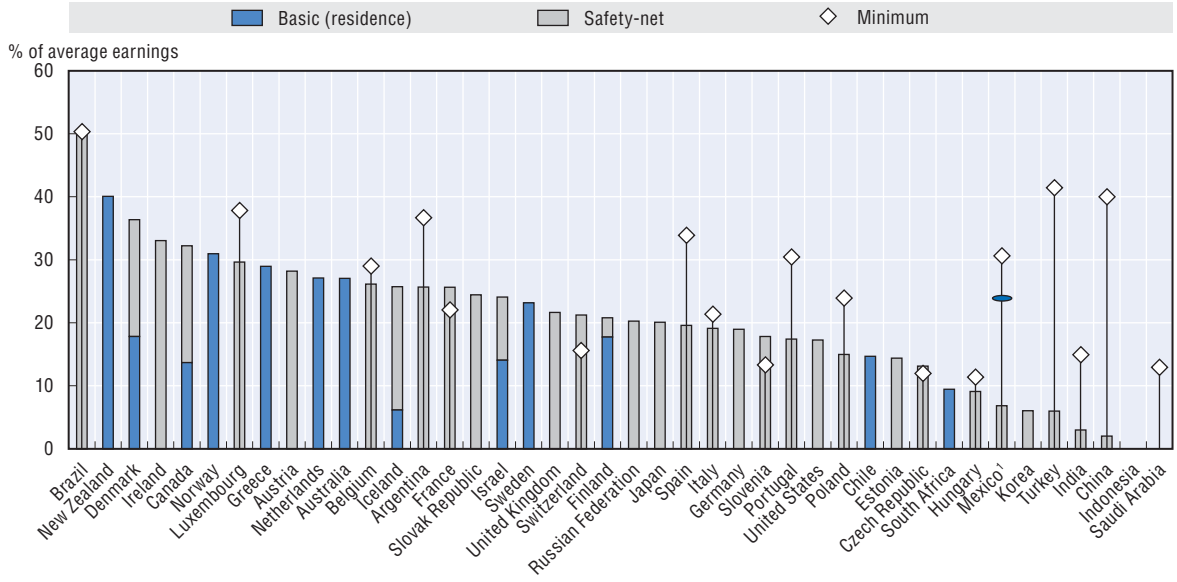
2.4. What happens in the event of ineligibility for contribution-based basic and minimum pensions?

When elderly people have not contributed for long enough to be entitled to a contribution-based pension, they rely on safety-net benefits, chiefly in the form of social assistance. It constitutes the last line of support for society's most vulnerable members. Social assistance benefit differs considerably in design across the OECD. Some schemes incorporate income or asset ceilings, while others are gradually withdrawn based on income. There are also wide disparities in the level of support actually provided. Many countries provide additional support for housing or heating or care, as well as supplements for clothes or services, such as travel, as is shown later in the section.

This chapter defines safety-net benefits as the total amount of benefits that individuals receive, assuming they have made no contributions towards their pension during their working lives, excluding lump-sum repayments of contributions. The chapter also assumes that individuals have been resident since birth of the country in which they retire. They are therefore entitled to the full residence-based payments. From that standpoint, residence-based pensions are one form of safety-net scheme, even the basic pension.

Figure 2.6 combines the information presented in Figures 2.3 and 2.4 with the values of the safety-net benefits to complete the picture for first-tier benefits. The highest safety-net benefits are found in Brazil, at 50% of average earnings, and in New Zealand at just over 40%. The lowest safety-net benefits are found in China and India accounting for less than 3% of average earnings, but there are no safety net in Indonesia and Saudi Arabia although the latter has a minimum pension.

Figure 2.6. **Value of first-tier benefits as a percentage of average earnings**



1. The additional marking for Mexico reflects the benefit from the old private-sector system, which is still relevant for many workers, and is equivalent to 23.8% of average earnings.

The minimum for all countries is based on a full career worker.

Source: "Country profiles" from Chapter 11 of this publication.

StatLink http://dx.doi.org/10.1787/888933300347

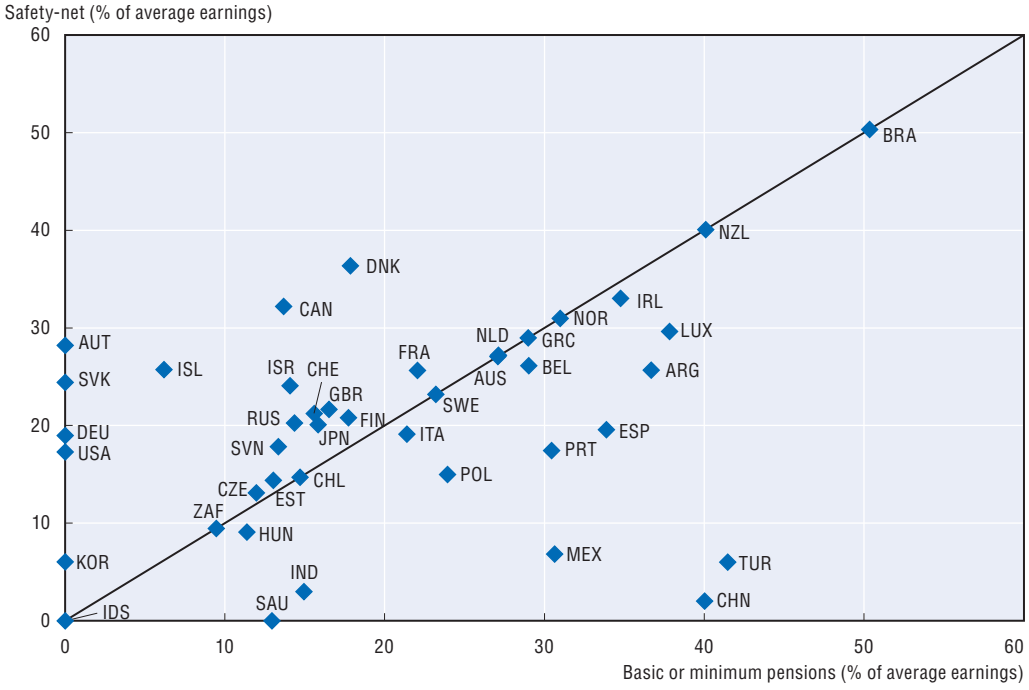
In assessing differences in the levels of safety-net benefits, the design of first-tier pensions should be taken into account. New Zealand's basic pension is based solely on residence and financed directly through taxation, rather than requiring individuals to make individual contributions and is the only mandatory scheme. There is a similar system in Australia, where Age Pension is also based on residency and also purely taxpayer-funded. The main difference between the two countries is that, in Australia, when individuals have contributed to the mandatory employer-financed private pension plan (Superannuation Guarantee) the Age Pension's safety-net provision may be phased out depending on income from other sources. However, as it is assumed here that individuals have made no contributions, they will receive the full Age Pension amount. Similarly the full level of benefit is assumed for the residence-based benefits that exist in Canada, Chile, Denmark, Iceland, the Netherlands, Norway and Sweden.

Other OECD countries have taken different approaches. Korea, for example, targets the benefit at the poorest 70% of the elderly population, providing them with an income equivalent to 6% of average earnings. Similarly, safety-net provisions in Mexico and Turkey afford an income of below 7% of

average earnings for the elderly who have never contributed. The new schemes in China and India are even lower, at 2% and 3% respectively. Elsewhere safety-net benefits are generally designed to top up contributory pensions with amounts that are considerably higher than in China, India, Korea, Mexico and Turkey. However, when no contribution is the default assumption they act purely as social assistance payments. Austria and Luxembourg, for instance, have income-tested top-up provisions that ensure a minimum old-age income of about 30% of average earnings, while in Estonia and Portugal the top-up supplies an income of around only 15% of average earnings.

Valuable insight is to be drawn from comparisons between social assistance benefit levels and minimum guarantees for workers who have met the requirements for minimum contribution years. Indeed, there is a considerable gap between social assistance and minimum pensions (Figure 2.7). In Turkey, for example, the minimum pension benefit is nearly seven times higher than the means-tested safety-net provision. In Mexico, it is five times greater. The scale of disparity is a stark reminder of the importance of meeting pension eligibility criteria through contributions in both countries. Minimum pensions in both Portugal and Spain are around two-thirds more than the safety-net benefit – assuming, that is, full contribution histories.

Figure 2.7. **Comparisons between safety-net benefits and basic/minimum pensions**



Source: "Country profiles" in Chapter 11 of this publication.

StatLink http://dx.doi.org/10.1787/888933300350

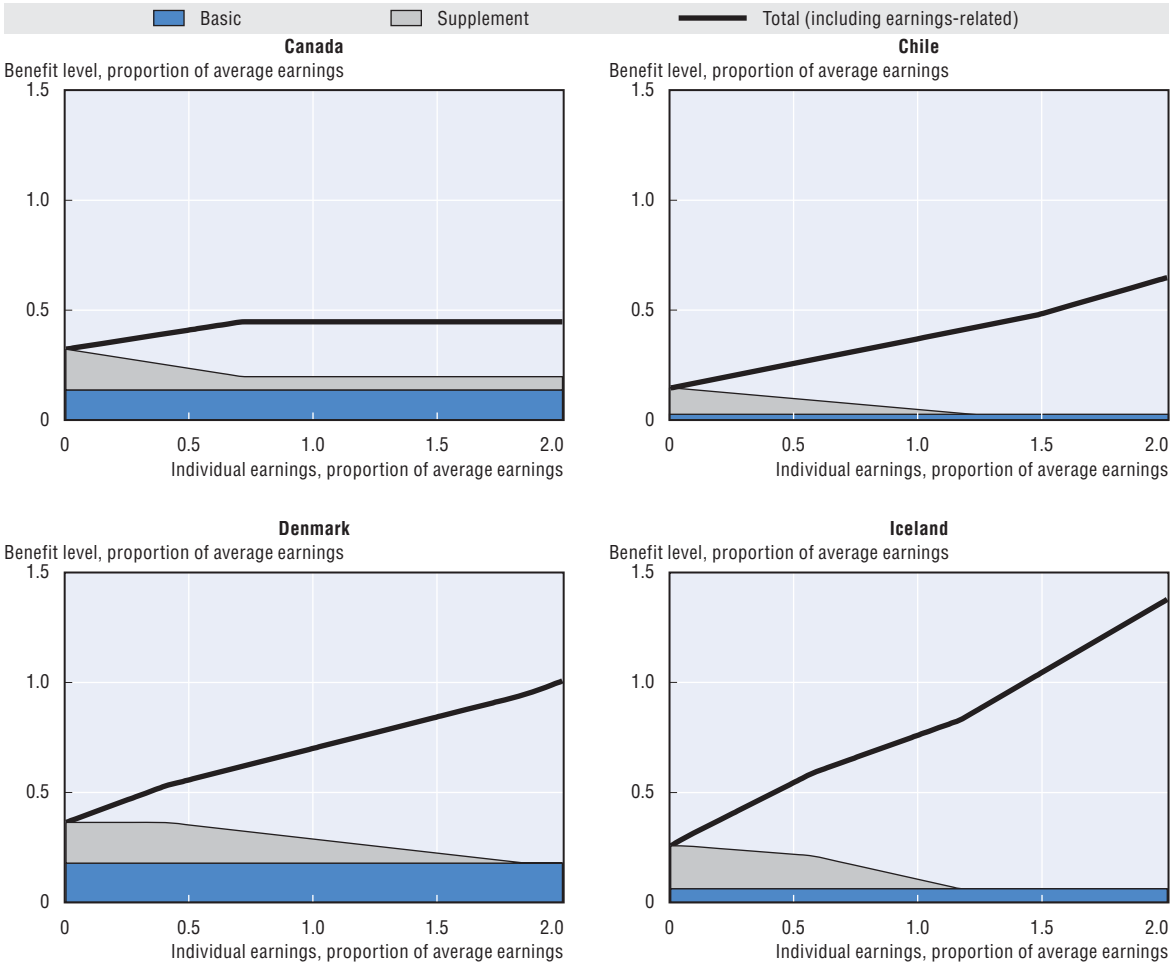
All the countries on the left of Figure 2.7 (Austria, Germany, Korea, the Slovak Republic and the United States) have safety-net provisions, but no basic or minimum pension. Instead, pensioners receive a pension based solely on their personal contributions.

Beyond these, the three countries furthest above the line, Canada, Denmark and Iceland, have additional supplementary pensions above the basic pension, thus increasing the overall safety net. As these supplementary benefits are offset against income from other sources, pensioners who have contributed do not necessarily receive the full safety net. Canada offsets its guaranteed income supplement (GIS) at a rate of 50% against income other than the basic pension. In Denmark the deduction rate is 30.9% for income, including the basic pension, of above 35% of average earnings,

while in Iceland the rate is either 13.35% or 38.35%, depending on thresholds for income from earnings, occupational pension, or capital. There is therefore an element of "clawback" within the system in Canada, Denmark, Iceland and Chile, where personal pensions gradually lower the entitlement to the supplementary means-tested benefit and, sometimes, even the basic pension.

The interaction between the various components of the pension system varies along the earnings distribution as illustrated in Figure 2.8 for these four countries. Some components though do not change, for example, the basic pension in Denmark is universal and so remain constant. In both Canada and Iceland the basic pension is also set against other income. In Canada, however, as no additional income from voluntary pensions is assumed here the basic pension is at the full level across the earnings distribution.

Figure 2.8. **Clawback in the supplementary schemes**



Note: Calculations for full-career worker starting at age 20 in 2014 assuming full contribution to all mandatory earnings-related schemes.
Source: OECD pension models.

StatLink http://dx.doi.org/10.1787/888933300366

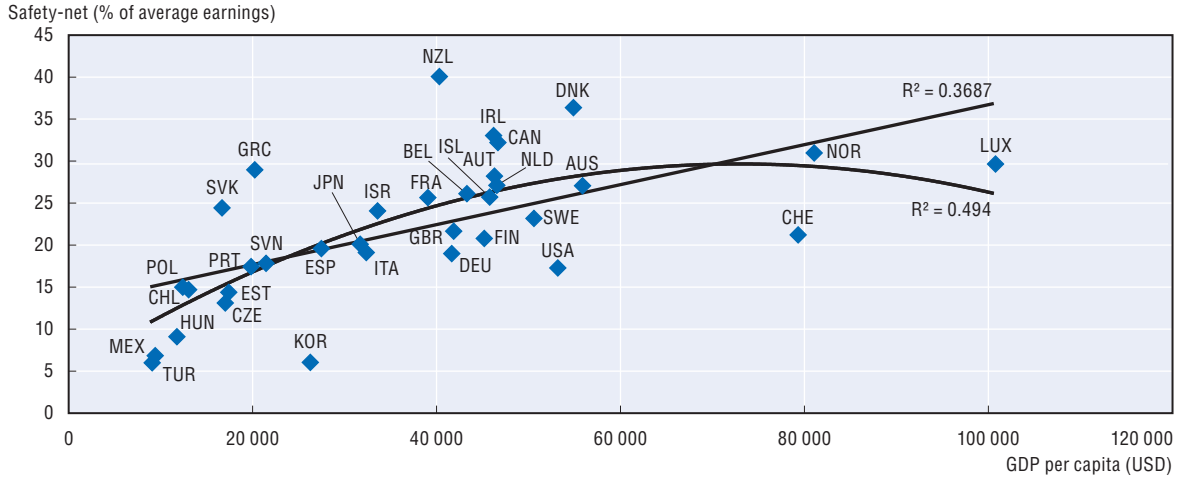
Beyond the basic pensions however the level of other components diminishes as past earnings increase. The level of the supplement declines in all countries, apart from Denmark, with any earnings-related pension. For Denmark the decline begins at around 40% of average earnings. For average earners the supplementary benefit is minimal in Chile and Iceland at about 4% of average earnings, but still accounts for over 10% of average earnings in Denmark as the level of withdrawal is

lower. For higher earners, at 150% of the average, the entire pension in Chile comes from the earnings-related component as the supplementary pension ceases just below this earnings level. The same is true in Iceland where the supplementary benefit ends around 1.2 times average earnings, but the universal pension is also there. Both Canada and Denmark still have some supplementary pension at this earnings level and in fact for Denmark it is still relevant up to a about 180% of average earnings. In Canada the levels of benefit paid remain constant from around 70% of average earnings as with no income from voluntary pensions the withdrawal rules do not change.

In a few OECD countries, however, safety nets afford a marginally higher income than basic and minimum pensions, as for example in the Czech Republic and Estonia. In Ireland, income from the non-contributory pension is only 5% lower than the full contribution-based basic pension, even though the state pension (the basic scheme) is the only mandatory component. The sole prospect of enjoying an income upon retirement may not, therefore, be enough of an incentive to contribute in Ireland. However both the Czech Republic and Estonia have additional mandatory earnings-related schemes which provide an additional source of pension income. In many other countries (Canada, Denmark, Iceland, Israel and Slovenia) the level of safety-net benefits is considerably higher than that of the basic or minimum pensions (Figure 2.6). However, as with the Czech Republic and Estonia, mandatory earnings-related schemes reduce reliance on safety-net benefits. In both Mexico and Turkey the levels of the minimum pensions are amongst the highest in the OECD, with Turkey offering 41% of average earnings. However, the safety-net benefits are, along with Hungary and Korea, the lowest in the OECD at around 6% of average earnings for Korea, Mexico and Turkey and 9% for Hungary, with an OECD average of 24% of average earnings for all countries with a minimum or basic pension.

Figure 2.9 shows that there is a correlation across countries between the value of safety-net benefits relative to average earnings and the level of economic development, with relatively few outliers. Yet, the four countries mentioned earlier, namely Hungary, Korea, Mexico and Turkey, fall well below the safety-net level "explained" by GDP per capita. Considering that Korea, Mexico and Turkey also have amongst the highest old-age poverty levels in the OECD, there is a particular need for higher levels of benefit in these countries. Similarly, old-age poverty rates are also an issue in both Switzerland and the United States, where the level of safety nets is much lower than in other countries with comparable aggregate income level.

Figure 2.9. **Safety-net benefits compared to GDP per capita**



Source: "Country profiles" in Chapter 11 of this publication.

StatLink http://dx.doi.org/10.1787/888933300379

As well as the support afforded by safety-net benefits, pensioners are also eligible to additional state support, chiefly to cover housing expenses but also other needs. In Australia, for example, they may be entitled to a comprehensive system of allowances and assistance for health, rent, medical, and other living expenses (Table 2.3). In Austria, too, additional payments cover housing and heating costs, at least partially, with some pensioners entitled to a flat-rate allowance and others to adjustable housing benefit. Similarly, New Zealand offers a supplementary housing allowance that subsidises up to 70% of weekly housing expenses. Sweden's housing benefit, too, covers as much as 93% of a single pensioner's housing costs up to a ceiling that is equivalent to 15% of average earnings. Indeed, most OECD countries offer supplementary housing or heating benefit provisions.

Table 2.3. **Supplementary benefits for pensioners in OECD countries**

	Housing/heating	Health/care	Social assistance		Housing/heating	Health/care	Social assistance
Australia	x	x	x	Japan	x		
Austria	x			Korea			x
Belgium				Luxembourg			
Canada				Mexico			
Chile				Netherlands			
Czech Republic	x			New Zealand	x		
Denmark	x	x	x	Norway			
Estonia	x		x	Poland			
Finland	x	x	x	Portugal			
France	x	x	x	Slovak Republic	x		x
Germany				Slovenia			
Greece				Spain	x		
Hungary	x	x	x	Sweden	x		
Iceland	x		x	Switzerland			
Ireland	x	x	x	Turkey			
Israel	x			United Kingdom	x	x	x
Italy				United States			

Source: Information provided by OECD country delegates.

StatLink http://dx.doi.org/10.1787/888933300982

In Denmark, old-age pensioners are entitled to a considerable number of supplementary benefits – particularly favourable housing benefits, heating benefits, health allowances, and reduced tax rates on owner-occupied accommodation – most of which are offset against income or assets, however. Pensioners are entitled to a number of free services, such as home-help and hospital treatment. The Housing allowance could be as high as 20% of average earnings in 2014, though it may not exceed 15% of housing costs. Furthermore, particularly disadvantaged pensioners, like those not entitled to a full basic pension because they have less than 40-years' residence, can be granted a personal allowance if so warranted by individual assessments of their needs.

In Finland the most important benefits are care allowance and housing benefit. The care allowance is paid to pensioners at three different rates up to a ceiling of around 10% of average earnings, depending on their needs and costs arising from home care and illness or injury. Housing allowance varies, the amount being offset against personal income and housing costs. The maximum amount is around 20% of average earnings.

All these instances of supplementary benefits show that social assistance may well be just a start when it comes to income support for pensioners. There are often additional benefits available, be they cash, free services, or reduced-rate entitlements. The overall monetary cost of supplementary allowances is impossible to calculate on a comparable basis. Yet it is clear that they can play a

significant role in assisting society's most vulnerable members when they retire. However, with many payments or services being universal, they are not targeted at the vulnerable and will also benefit those who do not require any assistance e.g. free television licenses for pensioners.

2.5. How will benefits evolve?

Impact of indexation policy

Countries' indexation policies determine how benefits will evolve over time if the rules do not change. Indexation is the mechanism whereby pensions are adjusted – be it annually, quarterly, or monthly – according to wages or prices, for example. If benefits are wage-indexed they tend to remain constant in relative terms for future generations, as pensioners' income grows in line with that of active workers. If price-indexed, retirement benefits are flat in real terms, thus stabilising the standard of living of retirees. This would mean, however, that the benefits decline in relative terms as wages are expected to grow faster than prices over time due to gains in productivity.

This issue is especially relevant for first-tier pensions because the indexation policy does not only determine the evolution of the purchasing power of beneficiaries through the retirement period, but also the initial level of income at the time of retirement. If first-tier pensions are price-indexed for a long time, i.e. across cohorts, the purchasing power of the elderly beneficiaries would not grow from an older to a younger cohort at the same age.

As Chapter 5 discusses in detail, OECD pension models assume that prices increase by 2% per year on average, while real wages rise by 1.25%. As a consequence, for every year that the pension is price-indexed it is projected to fall by 1.25% relative to wages. In a country that practices price indexation over time, pensions will fall substantially relative to workers' incomes over a full career. Fully price-indexed benefits would fall at retirement relative to wages to about 56% of their current relative value for someone who starts a full career at the age of 20. After retirement, benefits would continue to decline in relative value and would only be 45% of their current relative value when the individual reached age 85. The implications for the risk of old-age poverty, which is commonly measured in relation to median incomes, are clear.

If the price indexation of first-tier pensions is maintained over the long term the value of benefits relative to earnings will converge to zero, which is an unrealistic scenario, at least unless alternative means of support are provided. Therefore, price indexation, for example, is implicitly based on occasional discretionary adjustments, but by definition given the uncertainty related to the extent and the timing of these adjustments it is impossible to account for them in a forward looking analysis.

Indexation of basic and minimum pensions

Indexing basic pensions, whether residence- or contribution-based, to prices alone is not that common across the OECD. It is, however the practice in Canada, Chile, Finland, Greece and Sweden for the residence-based pensions (Table 2.4). Other countries have adopted alternative approaches. One example is the United Kingdom, where basic state pension increases are indexed on whatever is the highest: annual changes in earnings, in prices, or a rate of 2.5%. Norway's basic pension is wage-indexed minus 0.75%. So, for someone entering the labour market today at the age of 20, the basic pension – as a proportion of the average wage – is projected to fall to about 80% of its current relative value upon their retirement at the age of 67. Pensions in Japan are indexed to wages until age 67 and then to prices thereafter, whilst Luxembourg periodically also adjusts pensions in line with wages in addition to its standard practice of indexing benefit on the cost of living.

Table 2.4. **Indexation of pension benefits by component of the system**

	Basic	Minimum	Safety-net
Australia	Whatever is higher: prices or cost of living		Whatever is higher: prices or cost of living
Austria			Discretionary
Belgium		Prices	Prices
Canada	Prices		Prices
Chile	Prices		Prices
Czech Republic	33.3% wages/66.7% prices	33.3% wages/66.7% prices	33.3% wages/66.7% prices
Denmark	Wages		Wages
Estonia	80% wages/20% prices		80% wages/20% prices
Finland	Prices		Prices
France		Prices	Prices
Germany			Wages
Greece	Prices		Prices
Hungary		Prices and net average monthly earnings	Prices and net average monthly earnings
Iceland	Whatever is higher: wages or cost of living		Prices
Ireland	Wages		Wages
Israel	Prices		Prices
Italy		Prices	Prices
Japan	Wages until age 67, then prices		Cost of living and wages
Korea			Prices
Luxembourg	Cost of living and annually consider wages	Cost of living and annually consider wages	Cost of living and annually consider wages
Mexico		Prices	Prices
Netherlands	Legal minimum wage		Legal minimum wage
New Zealand	Prices and periodically net average wage		Prices and periodically net average wage
Norway	Wages minus 0.75%		Wages minus 0.75%
Poland		Prices	Prices
Portugal		GDP and consumer price index without housing	Prices
Slovak Republic			Prices
Slovenia		60% wages/40% prices	
Spain		Between 0.25% and (consumer price index + 0.5%)	At least equal to contributory pension increase
Sweden	Prices		Prices
Switzerland			50% wages/50% prices
Turkey		Prices	Prices
United Kingdom	Whatever is highest: prices, wages or 2.5%		Whatever is higher: prices, wages or 2.5%
United States			Prices

Source: "Country profiles" in Chapter 11 of this publication and additional information provided by OECD delegates.

StatLink http://dx.doi.org/10.1787/888933300993

Countries that have minimum pensions, in addition to the basic scheme, generally have similar indexation rules. One example is the Czech Republic, where the minimum pension is indexed to 33.3% wages/66.7% prices. Luxembourg indexes it to the cost of living, but must adjust pensions every year in relation to increases in real earnings if annual income from contributions exceeds pension expenditure. Overall, however, half of the countries with minimum pensions index solely to prices.

Indexation of other old-age safety nets

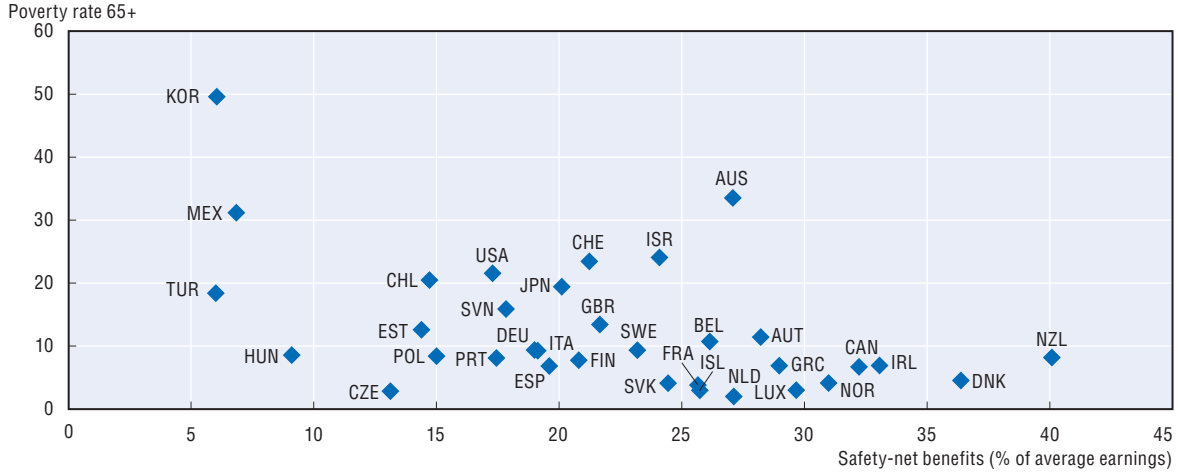
The majority of countries index their social-assistance benefit to prices (Table 2.4). The exceptions include the Czech Republic where the wage and price indexation shares are 33.3% and 66.7%, Estonia with 80% and 20%, and Switzerland with 50% and 50%. Norway also indexes to wages, offset by 0.75 percentage points per annum, while Denmark is an isolated case as its safety net is fully indexed to wages. Also in the United Kingdom, the three prong indexation approach implies indexation to wages under OECD long-term assumptions.

Poverty risks

Poverty rates by age group are shown in Figure 8.4 in Chapter 8. On average across OECD countries, the poverty level is 11.2% among 66 to 75 year-olds and, 14.7% among the over-75s, in contrast to 11.4% for the total population. The cross-country relationship between low safety-net benefits and old-age poverty levels is not straightforward (Figure 2.10). One obvious reason is that the level of the safety-net benefit can be significantly different from the relative poverty line, defined here as half the median equivalent household income. In addition, some particular features of the pension system can give a somewhat misleading impression of poverty:

- Australia, for example, has a very high poverty level despite the safety-net benefit (relative to earnings) being above the average for OECD countries – albeit below the poverty threshold; in Australia, the poverty figures are inflated, as pensions are mostly taken as a lump-sum, not regarded as a regular annual income, and therefore not considered in the income statistics on which poverty calculations are based.
- In the Czech Republic, the level of pensioner poverty is among the lowest in the OECD while first-tier benefits are relatively low. However, the poverty figure for population as a whole is also amongst the lowest in the OECD and pensions are particularly high for low earners if they have had a reasonably long career as was the case for most before the economic transition period.
- The United States, which has virtually an identical safety-net benefit rate (as a percentage of average earnings) as Portugal, shows a poverty rate that is much higher than that of Portugal. This partly reflects the wider distribution of earnings resulting in more working-age poverty which in turn is reflected in retirement incomes. Pensioners with at least 15 years of contributions in Portugal are also further protected by the minimum pension, which level is above that of the safety net whilst there is no minimum pension in the United States.
- The clear stand-out country is Korea which has both the lowest safety-net benefit and by far the highest elderly poverty level. Mexico presents a similar albeit less extreme case.

Figure 2.10. **Safety-net benefits and poverty levels among the over-65s**



Source: "Country profiles" in Chapter 11 of this publication; OECD (2015), *In it Together: Why Less Inequality Benefits All*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264235120-en*.

StatLink http://dx.doi.org/10.1787/888933300388

If contribution histories remain stable then price indexation is likely to gradually increase poverty for future retirees. However, today's workers are likely to have different career paths than current pensioners had, particularly as growing numbers of women enter the labour market and given the current labour market difficulties faced by the youth in many countries. What is more, the pensions currently being paid do not reflect the rules of the systems to which workers are currently contributing as there have been numerous reforms in most OECD countries. Although predicting long-term poverty levels is a very difficult exercise, long-term price indexation of first-tier pensions will lower the relative value of retirement benefits, unless accompanied by periodic reassessments of the benefit level.

If indexation rules are strictly enforced, the risks of increasing old-age poverty rates from an already high level are the most serious in four OECD countries. Over the next 50 years, the population aged 65 and over is forecast to more than double across the OECD, with the largest increases coming in Mexico (440%), followed by Turkey (360%), Chile (280%) and Korea (240%). All four countries are among those with the highest elderly poverty rates and index their first-tier pensions to prices. While the decline in the relative value of benefits over time would mitigate the impact of population ageing on public spending to an extent, the social cost would be very high.

Although in most countries clear rules govern legislation on pension indexation, they were not always fully followed and the legislation was not always implemented, especially as wages declined in the wake of the financial crisis. Ireland, for example, froze the value of pensions between 2009 and 2010 despite falling wages and has kept them frozen since, despite periods of subsequent earnings growth. However, going further back in history to the late 1990s and early 2000s shows that most countries which index pensions on prices have complied with the statutory indexation rates. Of the 13 countries* that have practiced price indexation for a number of years (Table 2.4) ten have abided by the legislation over the long term, only Belgium, Poland and Spain did not. Pension increases in both Canada and the United States have matched the changes in price inflation index exactly, resulting in a decline of the basic pension in Canada and safety-net benefits in the United States by about 7% in relative terms between 2002 and 2014.

With careers set to last longer, in part due to statutory increases in retirement ages, pension entitlements might increase, which would, other things being equal, reduce the reliance on safety-net payments and basic pensions. However, for the most vulnerable, primarily those who have been unable to contribute sufficiently during their working careers, the safety-net benefits on retirement in 45 years' time are unlikely to provide sufficient income if current price indexing rules are rigidly applied.

Indexation policy options and public finance pressure

There is no single optimal indexation rule from a normative standpoint. The spectrum of indexing rules which countries apply over the long term generally extends from price indexing, i.e. freezes in real terms, to wage indexing, i.e. stability relative to average wages. On the one hand, price indexation preserves the standard of living of retirees in absolute terms and when applied to first-tier pensions in addition prevents an increase in the standard of living of beneficiaries across cohorts at the same age. This gradually leads to a fall in the income of beneficiaries relative to that of wage-earners, potentially inducing large shifts in inequality. On the other hand, wage indexation maintains relative position on average. However, indexing payments to wages might be an expensive, and ultimately unaffordable, option in the long term as populations age, especially for countries already experiencing public finance pressure. Indeed, the change in the old-age dependency ratio is

* Belgium, Canada, Chile, Finland, France, Israel, Italy, Mexico, Poland, the Slovak Republic, Spain, Sweden and the United States. The benefits in Greece and Korea are relatively new and Turkey has recently changed to price indexation.

one main driver of the trend in the cost of the provision over time, assuming that the proportion of claimants of a particular benefit remains constant amongst the elderly population (Box 2.1). The impact on the financial cost is compounded for first-tier pensions through the effect of indexation on the initial level of pensions.

Box 2.1. **Indexation rules to stabilise public spending on first-tier pensions**

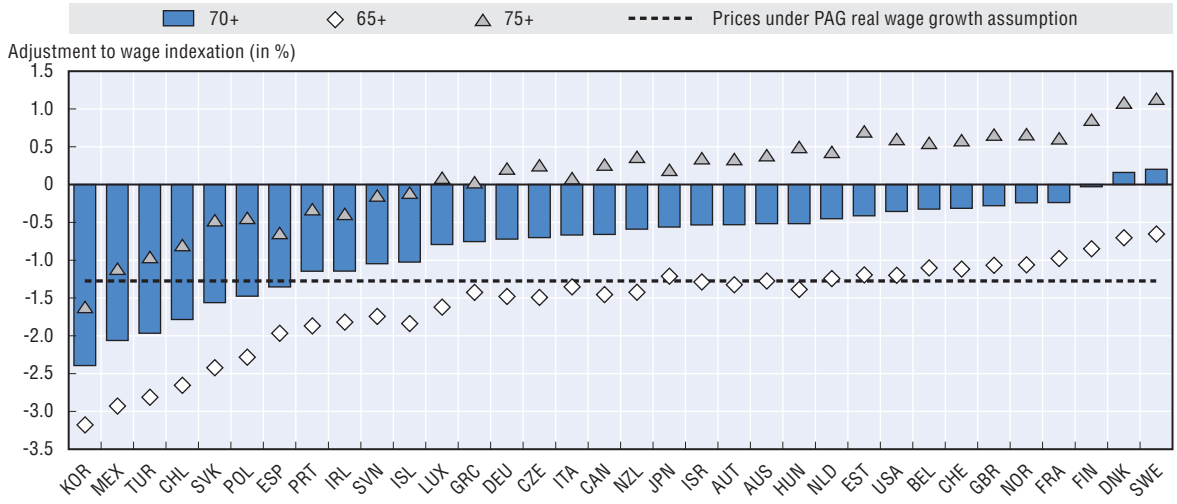
First-tier pension spending as a percentage of GDP is given by $S = bR/pY$, where b is the benefit level, R the number of recipients, Y is real output and p the GDP price index. It is assumed that recipients are a constant share θ of the old-age population N, and that the labour share of GDP, wL/pY, where w is the average wage and L total employment, remains stable and equal to α (this implicitly assumes that the aggregate production function is Cobb-Douglas). In that case, the spending share is given by $S = \frac{bR}{pY} = \theta\frac{bN}{pY} = \theta\alpha\frac{b}{w}\frac{N}{L}$ and, to maintain the share of total benefits in GDP constant, individual benefit needs to follow the following rule: $\frac{\Delta b}{b} = \frac{\Delta w}{w} - \frac{\Delta N/L}{N/L}$, i.e. first-tier pension should be indexed to wages minus the relative change in the old-age dependency ratio. This differs from the indexation of defined-contribution or defined-benefit pensions which applies only through the individuals' retirement period.

For the purpose of calculation, the evolution of the old-age dependency ratio is calculated using data for those aged 65 and over in 2015 and for either those aged 65, 70 or 75 and over in 2060 to account for potential increases in effective retirement ages over the time period.

A potentially more balanced approach between indexation to prices and to wages should therefore factor in demographic trends into the design of the indexation rule in a way that at least preserves the standard of living (price indexation) while being financially sustainable (less than wage indexation in the context of population ageing, see below). One scenario would be to maintain the current levels of first-tier spending relative to GDP in spite of the ageing population. Since in the steady state the financing, whether tax- or contribution-based, tends to follow GDP, the indexation rule that stabilises the financing of first-tier payments as a percentage of GDP given projected demographic changes has been derived. This scenario does not bear any normative significance as other objectives matter which could conflict with financial stability, such as the fight against inequality and old-age poverty. Furthermore, this exercise does not take the starting point into account which in some countries involves high old-age poverty rates, or overly generous spending.

As explained in Box 2.1, the rule stabilising first-tier spending would lead to benefits being indexed on earnings minus the annual percentage change in the old-age dependency ratio. In the same spirit, Norway applies a similar rule as first-tier pensions are indexed to wages minus 0.75%. Figure 2.11 provides the then required adjustment to wage indexation given by the projected demographic changes under three scenarios: computing the old-age dependency ratio, i.e. the share of the elderly relative to the working-age population, by maintaining the age threshold constant at 65 or by increasing it to 70 in 2060 or to 75. To put this in context, the life expectancy at birth has increased by about 12 years between the 1950 and the 1995 cohorts (i.e. those that will turn 65 in 2015 and 2060, respectively). If old-age employment rates increase, for example via a higher effective retirement age, the factor deducted from wage indexation (i.e. the change in the old-age dependency ratio) is lower in absolute terms, and the first-tier indexation rule can be closer to wage indexation without threatening financial sustainability. For example, in the case of Poland, maintaining 65 years as the age threshold to compute the elderly population throughout the 2015-60 period leads to an annual increase of 2.3% in the old-age dependency ratio. However, if the age threshold is gradually increased to 70 years in 2060, then the old-age dependency ratio would rise by 1.5% each year on average.

Figure 2.11. **Indexation of first-tier pensions to achieve constant expenditure (as a share of GDP) over 2015-60 given population ageing**



Note: The headings 65+, 70+ and 75+ refer to the age threshold (65, 70, 75) used to compute the prospective old-age dependency ratios in 2060, with the working age population calculated from age 20 in all cases (see Box 2.1).
Source: OECD calculations based on the United Nations, *World Population Prospects – 2012 Revision Data*.
StatLink http://dx.doi.org/10.1787/888933300398

In order to stabilise spending on first-tier pensions (as a percentage of GDP) between 2015 and 2060 (Figure 2.11), benefits would need to be indexed to:

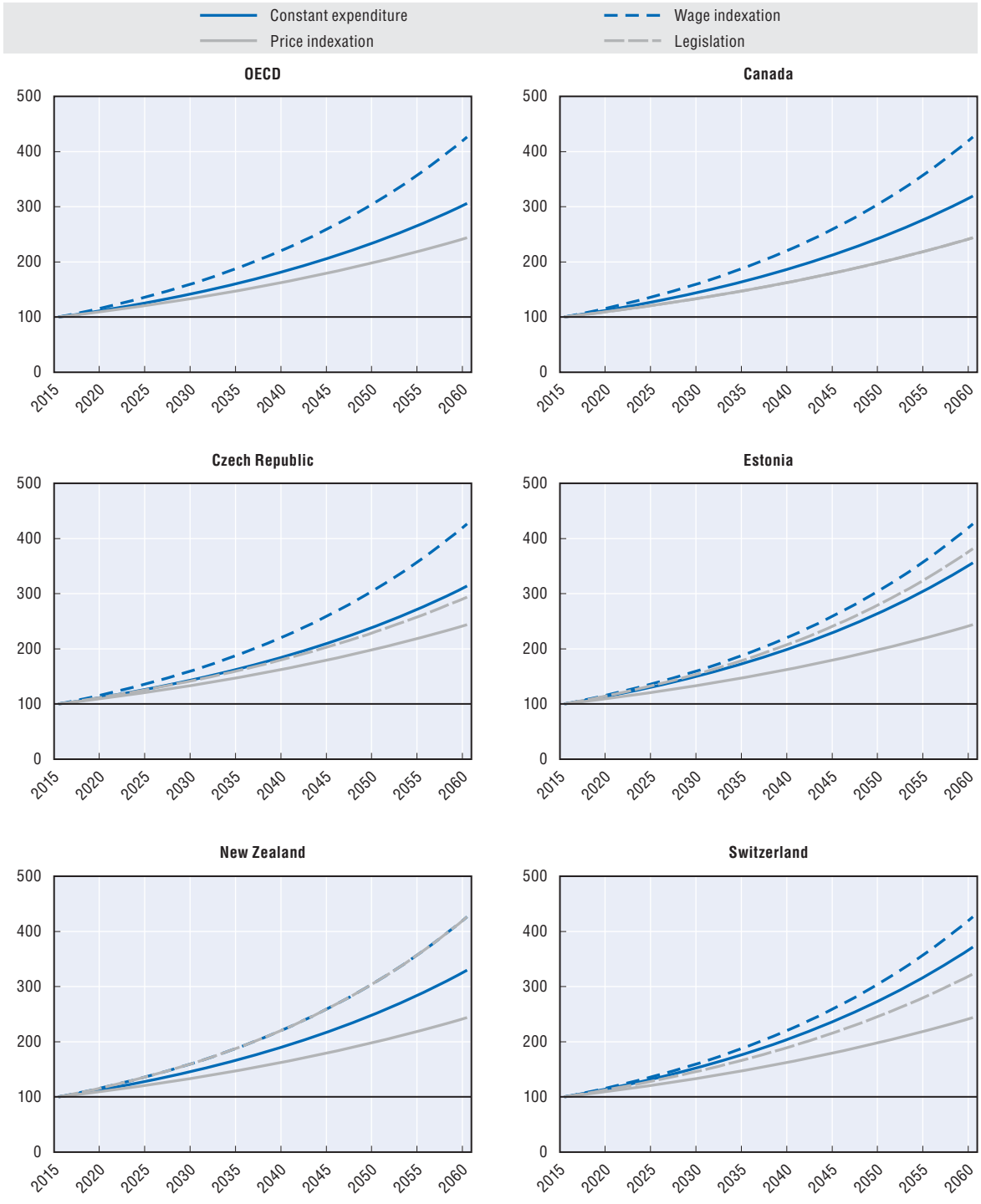
- wages minus 1.6 percentage points on average across the OECD holding the age threshold constant at 65 to compute the old-age dependency ratio
- wages minus 0.8 percentage points using the 70-year threshold for old age in 2060
- wages plus 0.1 percentage points with the 75-year threshold.

Virtually all OECD countries would have indexation well below wages even if effective age parameters were increased by five years by 2060. However, this would allow indexing first-tier benefits to prices plus 0.5 percentage points on average across countries, assuming real-wage growth of 1.25% per year as in the baseline PAG projections. In other words, indexing to prices for the next 50 years would generate direct savings on average despite population ageing, thus lowering the relative positions of those eligible to a greater extent than justified by any spending stabilisation requirement.

This average masks of course substantial differences across countries. In particular, based on the 70-year threshold, first-tier benefits in Chile, Korea, Mexico, Poland, the Slovak Republic and Turkey would need to be indexed to wages minus 1.5 to 2.4 percentage points for constant expenditure because of the rapidity of population ageing. This would imply indexation by less than prices according to PAG assumptions for real-wage growth. The upshot is that in these countries, even if age thresholds are increased by five years by 2060, either expenditure would increase (and in some of them the spending level is currently low) or the standard of living of beneficiaries will fall in the future. Conversely, the first-tier benefit levels in both Denmark and Sweden could be increased each year by around 0.2 percentage points above wage growth under the assumption of a five-year increase in the age at retirement.

Many countries are close to stabilising spending on first-tier pensions (as a percentage of GDP) under their current indexation policies based on OECD economic assumptions, provided that age thresholds are increased by five years by 2060 (Figure 2.12 for a subset of countries and the annex for all countries). In Estonia maintaining a constant expenditure under the OECD economic assumptions could be achieved by indexing first-tier pensions to around 70% of nominal wage growth (and 30% of

Figure 2.12. **Comparison between different indexation approaches to first-tier benefits, assuming the age threshold increases by five years**



Note: Vertical axis is benefit level in nominal terms, 2015 = 100. The figures show the evolution on benefits under various indexation scenarios: price indexation, wage indexation, legislation and that which would result in the stabilisation of first-tier pension expenditure as a percentage of GDP given projected demographic changes (Box 2.1).

Source: OECD calculations based on the United Nations, *World Population Prospects – 2012 Revision Data*.

StatLink http://dx.doi.org/10.1787/888933300409

price inflation) while according to current rules the indexation is close to this at 80% to wages (and 20% to prices). Likewise the Czech Republic could maintain a constant expenditure rate by indexing to approximately one-third wages and two-thirds prices, which is the policy adopted. In Switzerland indexation is to 50% wages and 50% prices which leaves some fiscal space: long-term constant expenditure could be achieved with a slightly more generous indexation formula.

In some countries, the current first-tier indexation legislation would even generate substantial savings (as a share of GDP) in the long term if it were strictly applied: Belgium, Canada, Finland, France, Israel, Italy, Sweden and the United States. In Canada, for example, according to the legislation, indexation is to prices but stabilising first-tier expenditure in GDP could be achieved by indexing to wages minus 0.75 percentage points, i.e. to 0.5 percentage points above prices according to OECD assumptions.

On the other hand, current legislation if applied strictly would boost spending at a faster pace than GDP growth in Chile, Germany, Hungary, Iceland, Ireland, Japan, Korea, Mexico, the Netherlands, New Zealand, Slovenia and the United Kingdom. For example, in New Zealand indexation could be to 0.5 percentage points above prices, whilst actual indexation includes a reference to the average wage. In assessing these expenditure projections, however, initial spending levels should also be taken into account. In Mexico, for example, the current level of both social and pension spending is low as a percentage of GDP. There is therefore room to allow an expansion of expenditure on old-age safety nets even though the pension system will be facing financial pressure due to the generosity of old pension schemes, which are being phased out over a long period of time, and to its deeply seated fragmentation (OECD, 2015a). Similarly in Chile, Iceland and Korea current spending is also very low.

2.6. Conclusion and policy implications

Main results

This chapter has analysed the eligibility criteria for basic and minimum pensions, either based on career-long contributions or length of residence in the country on reaching a particular age, and their value. The analysis also considered the role of social assistance benefits, aimed specifically at people over the retirement age who might have been unable to make sufficient contributions during their working lives, in providing protection against old-age poverty. The impact of benefit indexation was then discussed to show how benefits would evolve over time based on the current legislation.

All countries have old-age safety nets of one form or another, whether they are specifically designed as a minimum income guarantee or whether they are provided through a residence-based (basic) pension. One-half of OECD countries provide a basic residence-based or contribution-based pension. The benefit value ranges from 6% of average earnings in Iceland to 40% in New Zealand, although there is no mandatory component in New Zealand in addition to the tax-financed basic pension scheme. As for countries where the basic pension is based on contributions, Luxembourg and the United Kingdom (in its new system) require only ten years for an initial benefit which increases with additional years of contribution, while the Czech Republic requires workers to contribute for more than 35 years to be eligible for any benefit.

Minimum first-tier pensions, which are based on individual contribution history to the pension system, are present in one-third of countries; the Czech Republic and Luxembourg have both a basic and a minimum pension. The value of minimum pensions is around 40% of average earnings in Luxembourg and Turkey, but below 15% in the Czech Republic, Hungary and Slovenia. Only 15 years of contributions are required in Slovenia and Turkey, whereas the eligibility period is 35 years in the Czech Republic.

Behind the OECD's average of 22% of average earnings for the safety-net benefits covering those ineligible for a contributory pension, lie wide variations in their monetary value, ranging from 6% of average earnings in Turkey and Korea to 36% in Denmark and 40% in New Zealand. The values of minimum contributory pensions are actually lower than safety-net benefits in ten OECD countries, where pensioners can apply though for the means-tested safety net as a top-up.

How all these first-tier benefits are indexed over time is a key part of income prospects for the beneficiaries. It affects the future relative value of benefits, especially for workers just embarking on their careers, and also has an impact on the risk of poverty through retirement years. Price indexation is the most common mechanism for first-tier benefits due to its prevalence for social-assistance benefits; as wages grow more rapidly than prices, adjusting pension benefits to prices over time will reduce the relative income position of pensioners compared to that of workers. Under standard OECD assumptions, price indexation would result in a 56% reduction of the initial ratio of first-tier pensions to wages after 45 years. Chile, Korea, Mexico and Turkey all have price-indexation of their first-tier benefits, high old-age poverty rates and fast projected population ageing.

Policy implications

With governments facing growing budgetary constraints adjusting pensions to prices rather than wages is appealing. However, the resulting decline of the relative benefit value could lead to rising risks of old-age poverty in the future. Furthermore, the period of economic turmoil in a number of countries, which has resulted in higher rates of unemployment, particularly among younger workers (OECD, 2014), is likely to make it harder in the future for workers to contribute to pension systems throughout their careers (see Chapter 3). The result could be a greater reliance on first-tier pensions.

In some countries, the number of years of contributions required for the minimum pensions is high. For example, 35 years of contribution are required in the Czech Republic, 25 years in Poland and 24 years in Mexico. In some of these cases it might be necessary to lower the eligibility period with a corresponding benefit reduction or introduce a staggered minimum benefit which would increase in relation to the contribution period. For example only ten years are needed in France and 15 years in Portugal.

In some countries old-age poverty rates are relatively high and the level of first-tier pensions is low in cross-country comparison. This applies, even after controlling for the level of economic development, to Korea, Mexico and Turkey which currently spend the least on such benefits amongst OECD countries, and to Chile to a lesser extent; both Switzerland and the United States also have low levels of benefit given their level of GDP per capita and relatively high old-age poverty rates.

Current indexation policies will lead to rises in expenditure in many countries if take-up rates remain constant. While stabilising first-tier pension spending relative to GDP is not a goal in itself, and does not, alone, bear a normative significance, it can serve as a useful baseline given that financing resources tend to follow GDP. Yet, the starting point, in terms of spending levels or income inequalities affecting the bottom part of the distribution, matters a lot too. Hence, irrespective of demographic change, the scope and need to expand or reduce first-tier expenditures varies a lot across countries. Increasing the retirement age for eligibility to first-tier benefits would help in allowing first-tier pensions to be paid at a decent level at an affordable cost, but this might particularly penalise lower earners if not accompanied by similar increases in statutory retirement ages. An appealing compromise for contributory first-tier pensions might consist in indexing the benefit available to wages until retirement, and then the benefit payments to prices during retirement. The downside is to have different levels of minimum pensions depending on the year of retirement. Japan has such a policy for its contribution-based basic pension.

If age thresholds were increased by five years by 2060, many countries would be close to stabilising first-tier spending as a percentage of GDP under their current indexation policies. On average across OECD countries, given projected population ageing, first-tier benefits should be indexed to wages minus 0.8% (i.e. prices plus 0.5% based on OECD assumptions) to stabilise spending (as a share of GDP) if age thresholds were gradually increased by five years by 2060. By contrast, if age thresholds were kept constant despite population ageing, stabilising spending as a share of GDP would imply indexing to wages minus 1.6% (i.e. to prices minus 0.3%) on average across countries. However, those countries where all are entitled to basic pensions, whether residence- or contribution-based, will face greater financial pressure in case of wage indexation.

In Canada, the pension benefit is indexed to prices and therefore falls relative to wages over time; over one-third of current pensioners claim it, as voluntary pension coverage is weak among low earners, which suggests that future retirees will still need to rely on this benefit. In Chile, 60% of pensioners claim the targeted benefit and, as the population ages rapidly, spending will have to increase or benefits will have to rise more slowly than inflation to maintain constant expenditure under OECD economic assumptions.

Encouraging individuals to save, e.g. through auto-enrolment or incentives like tax breaks and matching contributions, will help reduce the reliance on means-tested first-tier benefits. Most OECD countries may need to consider such saving mechanisms in the coming years, depending on the success and effectiveness of current earnings-related schemes in providing sufficient retirement income for new pensioners and on employment performance, of older-workers in particular. Ireland and New Zealand, for instance, both have young populations today but they will be exposed to the pressures of ageing. Wage-indexed basic pensions are the main source of retirement income as neither country has any other mandatory pension scheme. The introduction of the KiwiSaver (an auto-enrolment defined-contribution system) in New Zealand will improve future pensioners' standard of living, but if the basic pension remains indexed to wages the fiscal cost will be high. Iceland, Luxembourg and Japan are similarly affected, but as these countries have mandatory earnings-related pension schemes, the value of their safety-net benefits is currently much lower than in Ireland and New Zealand.

Expenditure for the elderly is not solely limited to direct benefit payments. There are often many universal payments solely dependent on age, for example television licenses, fuel payments or public transport concessions. As the payments of these services are generally universal many recipients who could easily afford the cost of such services are also benefitting. By introducing an element of means-testing for at least some of these payments, future expenditure could be reduced.

References

OECD (2015a), *OECD Reviews of Pension Systems: Mexico*, OECD Publishing, Paris.

OECD (2015b), *In it Together: Why Less Inequality Benefits All*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264235120-en*.

OECD (2014), *OECD Pensions Outlook 2014*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264222687-en*.

ANNEX 2.A1

Supplementary figures on the effect of different indexation approaches

Figure 2.A1.1. **Effect of different indexation approaches on benefit level, assuming the age threshold increases by five years**

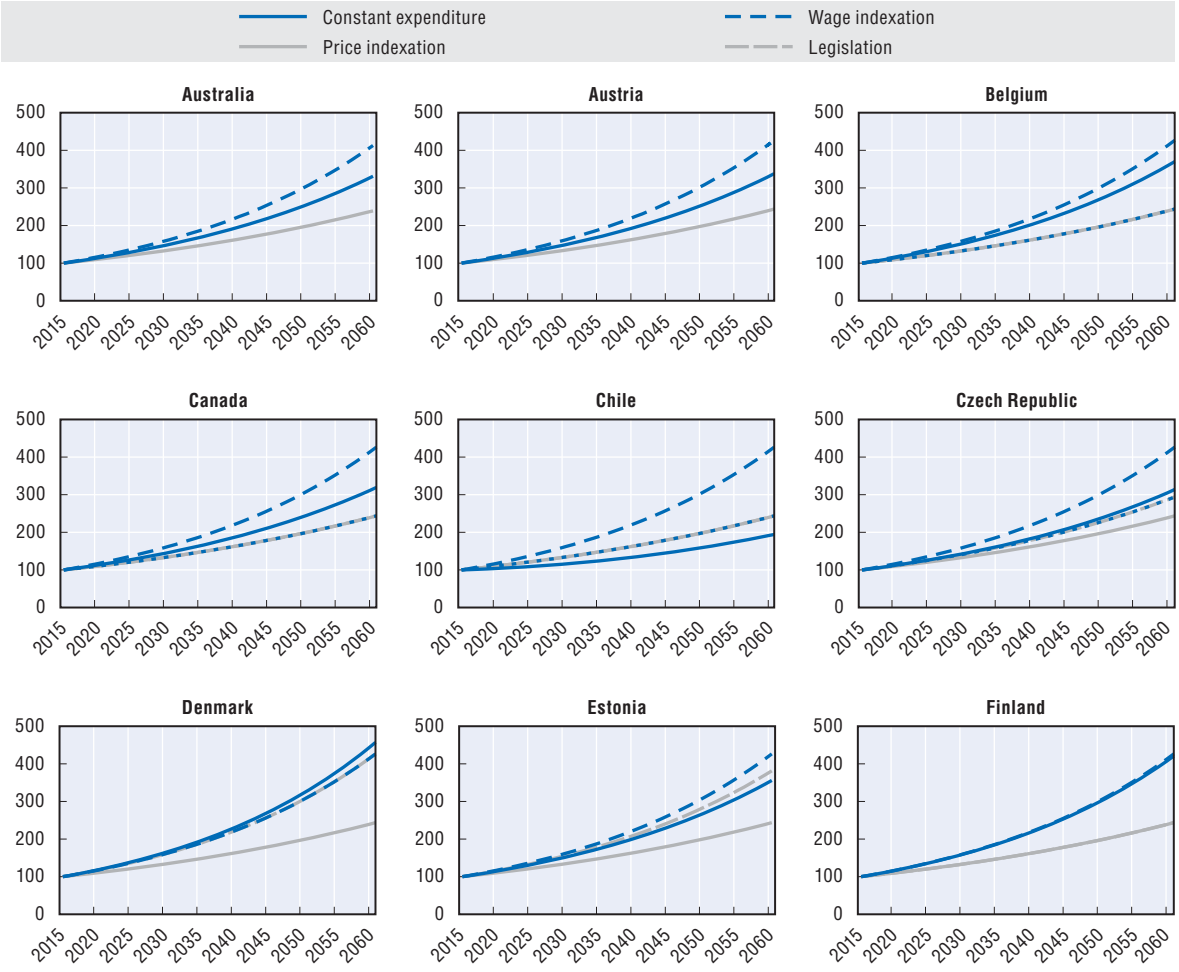


Figure 2.A1.1. **Effect of different indexation approaches on benefit level, assuming the age threshold increases by five years** *(cont.)*

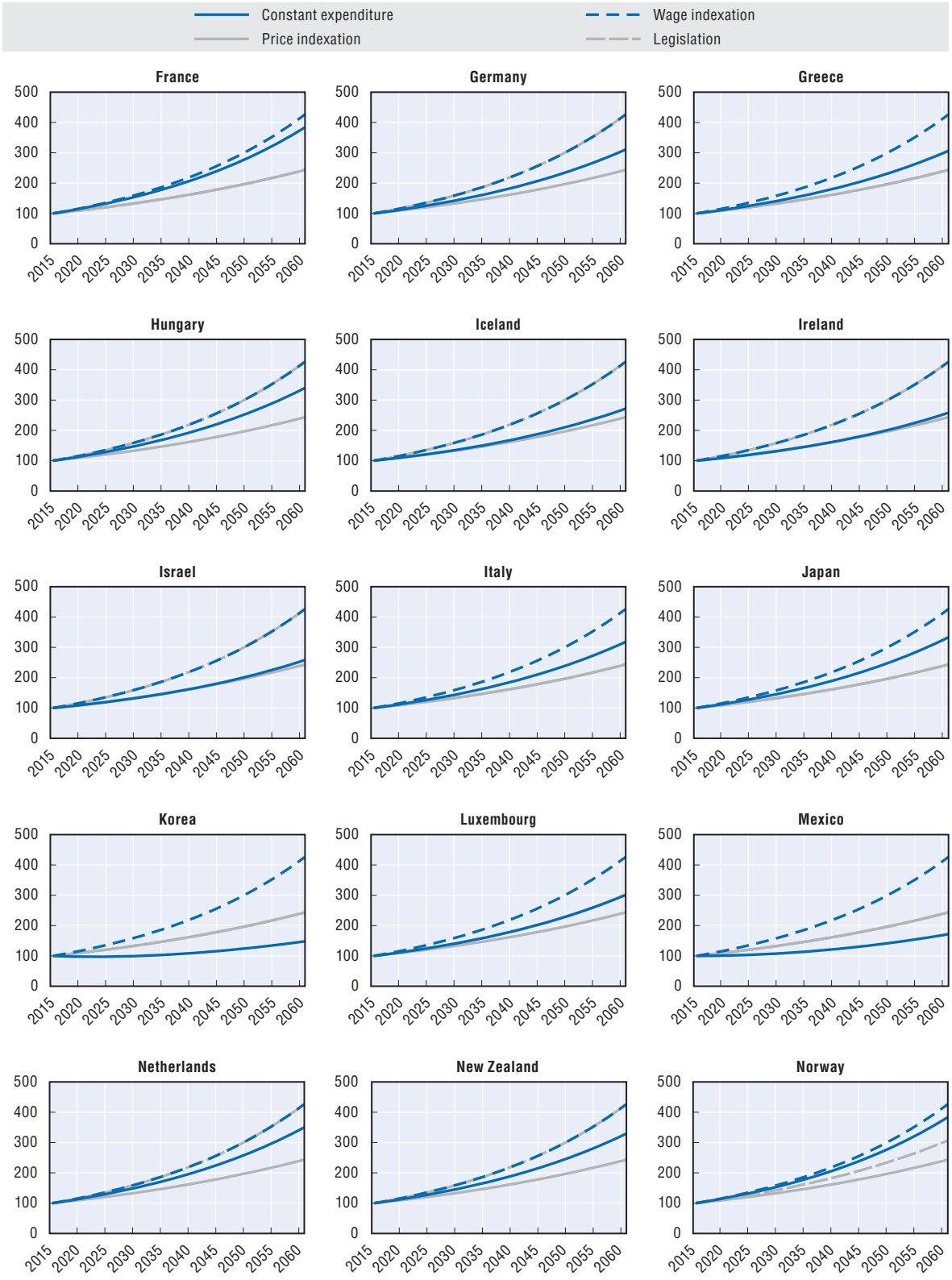
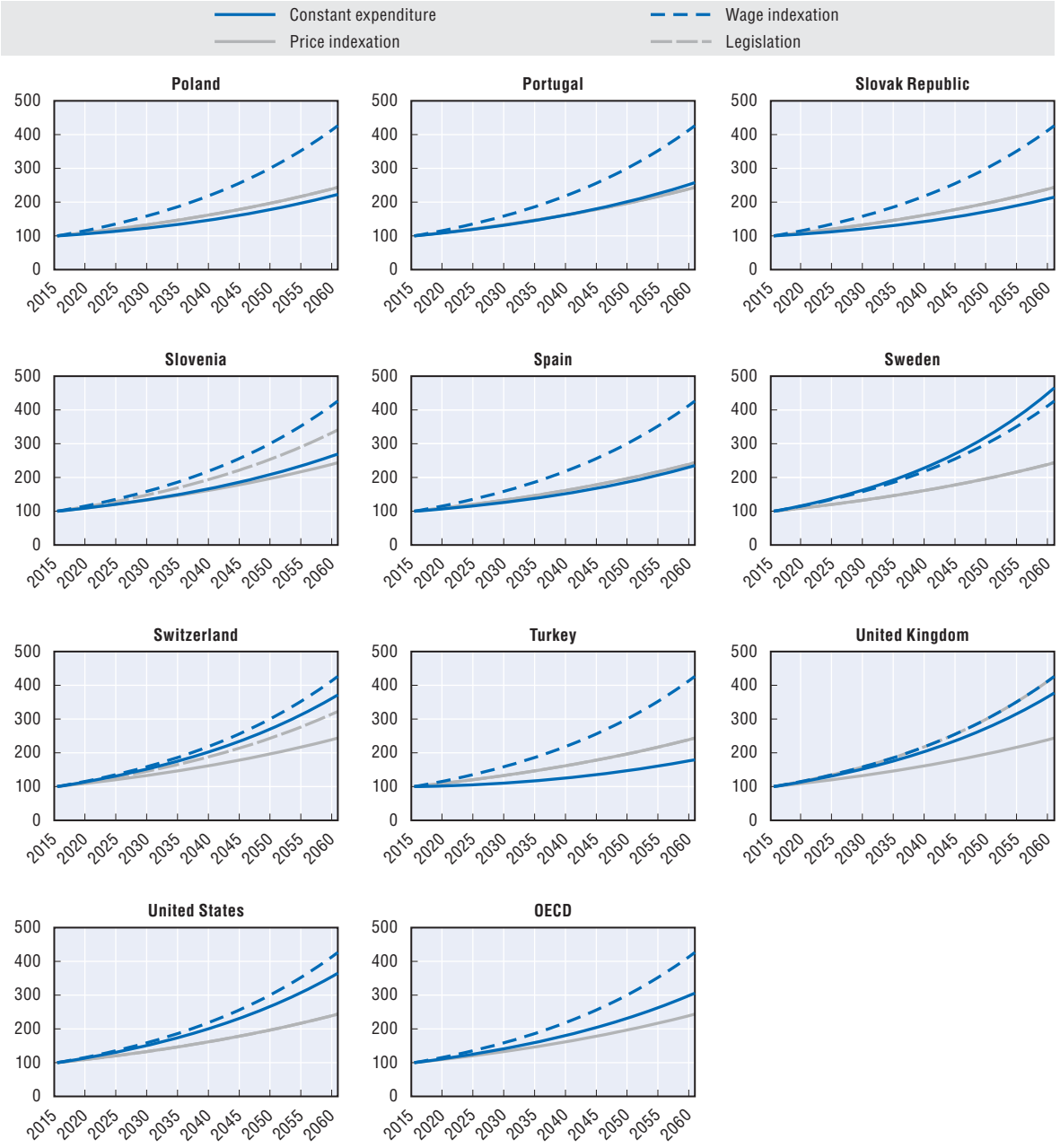


Figure 2.A1.1. **Effect of different indexation approaches on benefit level, assuming the age threshold increases by five years** *(cont.)*



StatLink http://dx.doi.org/10.1787/888933300281