

### Key results

In some countries, such as Hungary, Italy and the Slovak Republic, there is a very strong link between pension entitlements and pre-retirement earnings. In contrast, flat-rate benefits in Ireland and New Zealand mean that there is no link between pension and earnings.

The charts show relative pension levels on the vertical axis and individual pre-retirement earnings on the horizontal. A flat curve in the charts shows no relationship between pension and earnings, while a linear increasing function means the link is strong.

Countries have been grouped by the degree to which pension benefits are related (or not) to individual pre-retirement earnings. The grouping is based on the distribution of pension benefits relative to the distribution of earnings, set out in the previous indicator of “Progressivity of pension benefit formulae”.

Panel A shows seven countries where there is little or no link between pension entitlements and pre-retirement earnings. In addition to the flat-rate systems in Ireland, New Zealand and South Africa, the relative pension level varies little in Canada: from 38% for low earners to 44% for those on average earnings and above. Although Canada has an earnings-related pension scheme, its target replacement rate is very low, its ceiling is approximately equal to average economy-wide earnings and a resource-tested benefit is withdrawn against income from this scheme. In the United Kingdom, the earnings-related scheme has a strongly progressive formula and there is also a basic pension programme. In Australia, the relatively flat curve results mainly from the means-tested public programme. There is also a limit to the earnings for which employers must contribute to the DC scheme.

At the other end of the spectrum lie eight countries with a very strong link between pension entitlements and pre-retirement earnings (Panel F). In the Netherlands, there is no ceiling to pensionable earnings in quasi-mandatory occupational plans. In Hungary, the Slovak Republic and Italy, ceilings on pensionable earnings are three or more times average earnings. In these countries, relative pension levels increase with earnings in a linear way over most of the range shown.

The eight economies in Panel E have a slightly weaker link between individual pre-retirement earnings and pensions than those in Panel F. This group includes the average for the EU27 countries. In

Estonia and Poland, there is a strong pension-earnings link from the defined-contribution and public, earnings-related pensions. But minimum benefits are expected to play a greater role than in the countries in Panel F.

It is noteworthy that most of the non-OECD countries analysed lie in these last two groups, with a relatively strong pension-earnings link: Argentina, Brazil, China, India, the Russian Federation and Saudi Arabia. Moreover, many of these countries have large informal sectors with workers not covered by the formal pension system.

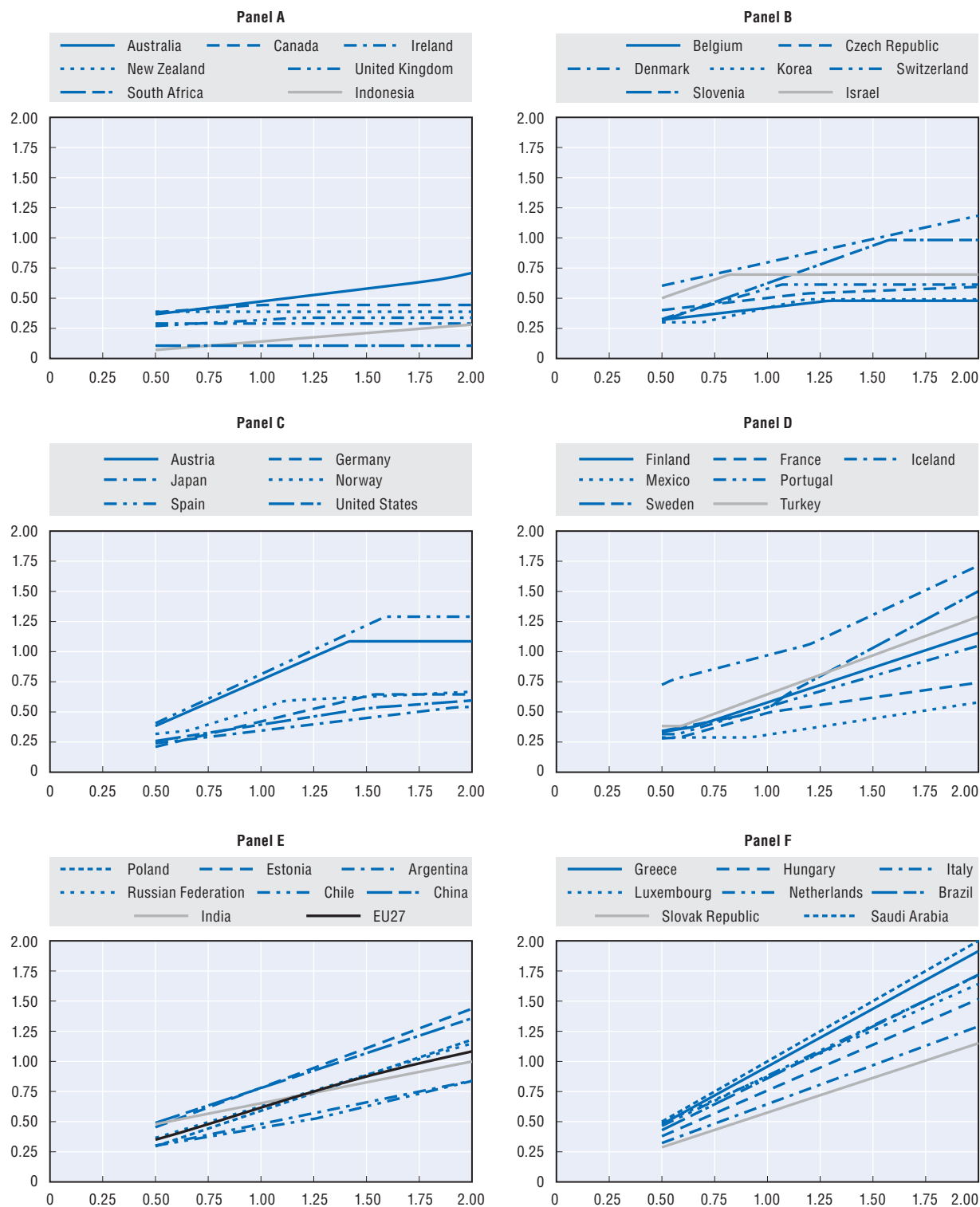
One explanation is that Luxembourg and Sweden have redistributive programmes targeting a relatively high minimum retirement income worth 38% of average earnings. Secondly, Sweden has a relatively low ceiling for pensionable earnings in its public scheme of 110% of economy-wide average earnings) that weakens the link between pay and pensions compared with the countries shown in Panel F.

The remaining countries are intermediate cases. The thirteen countries in Panels B and C exhibit stronger links between pensions and pre-retirement earnings than the first group of countries (Panel A), but their pension systems have much more progressive formulae than those of the eight countries shown in Panel F. In the Czech Republic, Korea, Norway and the United States this redistribution to low earners is primarily the result of a progressive benefit formula. These public schemes replace a larger share of pre-retirement income for poorer workers than for average and higher-income earners. In Denmark and Iceland, this progressivity is achieved by substantial basic and targeted retirement-income programmes.


Panel D shows six countries that lie towards the middle of the OECD countries in terms of the link between pension entitlements and pre-retirement earnings. France and Portugal have redistributive pension programmes – minimum and targeted schemes – at lower-income ranges. However, there is a strong earnings-benefit link at higher income levels.

### The link between pre-retirement earnings and pension entitlements

Gross pension entitlements as a proportion of economy-wide average earnings



Source: OECD pension models.

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