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SUMMARY

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The impact of migration on pension system sustainability: scenario calculations

The Finnish population is ageing rapidly as a result of increasing life expectancy and a declining birth rate. As the bulk of pensions currently in payment are paid for by people in employment, the low birth rate is putting substantial upward pressure on pension contributions. Immigration may help to ease this pressure on pension finances. This report explores the impact of immigration on the population structure, employment, pension expenditure and pension contribution rates. The wider effects of immigration on social security expenditure and fiscal sustainability are excluded from the scope of the report. The classification of migrants used and the group differences reported are based on administrative register data.

Most migrants moving to Finland each year are either of working age or children, and therefore immigration reduces the old-age dependency ratio. Furthermore, some migrant groups have considerably higher birth rates than people born in Finland. Immigration from these groups particularly contributes to a younger age structure.

Migrant groups differ markedly in terms of employment outcomes and earnings levels. A host of factors, including motive for immigration, education level, language skills, time spent in the country, gender and age, are associated with employment outcome. People migrating for work and migrants with a high education level have high employment outcomes, while migrants with less education and people migrating for humanitarian reasons have lower employment outcomes. Those who have been in the country for a long period of time have

higher employment rates; this applies particularly to women and to men from low employment outcome groups. Earnings levels, too, are higher among migrants who have been in the country longer.

In this report migrants are divided into three groups based on their country of birth: high, medium and low employment outcome. The purpose of this classification is to investigate how migrant groups with different employment outcomes impact on the population age structure, employment, pension expenditure and pension contribution rates. It is assumed that second-generation migrants have become integrated to the extent that they share one-half of their characteristics with their parental migrant group and one-half with other people born in Finland.

The majority of migrants who move to Finland each year are from the high employment outcome group, but these same migrants are also the most likely to emigrate from Finland. Migrants in the low employment outcome group are more likely than others to remain in Finland. Among native residents born in Finland, outward migration has exceeded the level of return migration since the 1990s.

The fertility rate of migrants in the low employment outcome group is twice as high as the rate for persons born in Finland. Among migrants in the high and medium employment outcome groups, fertility is only slightly higher than among persons born in Finland.

The baseline scenario is based on Statistics Finland's 2018 population projection and its annual net immigration assumption of 15,000 persons a year. Furthermore, the baseline scenario assumes that the breakdown of net immigration by migrant groups is the same as in 2013–2017 on average. The impact of migration is investigated by varying immigration and emigration rates from different groups.

The report outlines four scenarios in which annual net immigration is assumed to exceed the baseline projection by 10,000 persons. Depending on the scenario these additional migrants come either from the high employment outcome group, the medium employment outcome group or the low employment outcome group, or the increase in immigration is spread across these three groups in the same way as in 2013–2017 on average. The emigration rate is assumed to remain the same as in the baseline scenario.

Net immigration may also increase through reduced emigration. The impact of declining emigration is examined in a scenario where the number of emigrants decreases to a level whereby annual net immigration is 10,000 persons higher than in the baseline scenario. In this scenario the population age structure differs from the scenarios mentioned above because emigrants are on average older than immigrants. Persons born in Finland account for a larger share of the population in this scenario than they do in those that project an increase in immigration.

The report furthermore examines a scenario where net immigration is 10,000 persons lower than in the baseline projection. The decrease in net immigration breaks down between the different migrant groups in the same way as net immigration did in 2013–2017 on average. Immigration has a different impact on the population structure in different scenarios. This is due not only to the number of migrants, but also to differences in fertility rates in different country-of-birth groups. Furthermore, emigrants are on average older than immigrants.

In the baseline scenario the Finnish population is projected to dwindle to around 5.1 million by 2085. If annual net immigration is 10,000 persons higher than in the baseline scenario, the population number will climb to around 6 million by 2085. If annual net immigration declines by 10,000 persons, the population will shrink to around 4.2 million by 2085.

Increased net immigration will begin to drive down the old-age dependency ratio (the number of older people as a proportion of working-age people) from early on in the projection period because the majority of migrants coming into the country are of working age or children. In 2030 the old-age dependency ratio will be around one percentage point lower than in the baseline scenario if net immigration increases by 10,000 persons a year. A decrease in net immigration will have the opposite effect.

The effects of the different fertility rates in migrant groups will begin to show up in the number of working-age people by around the mid-2030s. At the end of the projection period the old-age dependency ratio will be some 6–8 percentage points lower than in the baseline scenario if annual net immigration is 10,000 persons higher than in the baseline scenario. The effect on the old-age dependency ratio will be smaller if net immigration increases through reduced emigration. If annual net immigration is 10,000 persons lower than in the baseline scenario, the old-age dependency ratio at the end of the projection period will be some 10 percentage points higher than the baseline projection.

In scenarios that assume an increase in net immigration, the ratio of statutory pension expenditure to GDP will be around half a percentage point (middle of the century) and one percentage point (end of the projection period) lower than in the baseline scenario. A decrease in net immigration will have the opposite effect. In the early part of the projection period the pension expenditure to GDP ratio will fall the least if the migrants come from the low employment outcome group, but at the end of the projection period the ratio will fall the most in this scenario. This is due to the larger number of second-generation migrants, the higher employment rate and earnings levels of second-generation migrants compared to their parents, and the association of the length of time spent in the country with first-generation migrants' employment outcomes and earnings levels.

On average the pensions of immigrants are lower than those for people born in Finland. This is due to immigrants' lower employment rate and earnings and to their short employment careers in Finland. In scenarios predicting an increase in immigration, the ratio of mean

pensions to mean earnings will be around one percentage lower than in baseline scenario by the end of the projection period.

Employment outcome has a greater impact on the ratio of earnings-related pension expenditure to the sum of earned income than on the ratio pension expenditure to GDP because earnings-related pension is only accrued for work done. The ratio of earnings-related pension expenditure to the sum of earned income will be lower the larger the share of immigration from high employment outcome groups up until the late 2050s. After that, the effect of the higher fertility rate in the low employment outcome group will begin to show up in the number of working-age people. In scenarios that predict an increase in immigration, the ratio of earnings-related pension expenditure to the sum of earned income will be around one percentage point lower in the middle of the century and some three percentage points lower at the end of the projection period than in the baseline scenario. The effects on the ratio of pension expenditure under the Employees Pensions Act (TyEL) and the sum of earned income are similar.

In the baseline scenario the TyEL contribution rate for private sector employees will have to be slightly raised from the 2020s onwards. By the early 2030s, the contribution rate will edge up to around 24.9 per cent of wages. If annual net immigration is 10,000 persons higher than in the baseline scenario and if the additional immigration is divided between migrant groups in the same way as in 2013–2017 on average, the contribution rate will rise in the early 2030s to around 24.5 per cent of wages. In the mid-2040s the contribution rate will fall to its lowest level during the projection period, about one percentage point below the baseline figure. The rate will then begin to rise again, but not as sharply as in the baseline scenario, and at the end of the projection period it will be some two percentage points lower than in the baseline scenario.

The contribution rate will not need to be raised at all before the mid-2050s if the additional migration comes exclusively from the high employment outcome group or if the increase in net migration is due to lower than baseline emigration.

If the increase in net immigration is entirely attributable to migrants in the low employment outcome group, the TyEL contribution rate in the early 2030s will be just 0.2 percentage points lower than in the baseline scenario. At the end of the projection period, however, the TyEL contribution rate will fall to a lower level than in other scenarios, and in 2085 it will be 2.1 percentage points lower than in the baseline scenario. This is because the fertility rate in this group is around twice as high as in other groups and because it is assumed that second-generation immigrants have better employment outcomes than their parents.

If annual net immigration falls to 5,000 persons, the contribution rate will rise to over 25 per cent in the 2030s, i.e. some half a percentage point higher than in the baseline scenario. The contribution rate will remain at this level through to the late 2040s and then begin to edge up with population ageing, coming in at 2.5 percentage points higher than in the baseline scenario.

The long-term outlook for the financing of earnings-related pensions can also be gauged on the basis of the sufficient constant contribution rate. In scenarios that predict an increase of 10,000 persons in net immigration, the sufficient constant contribution rate both under the TyEL system and for all earnings-related pensions is 1–1.2 percentage points lower than in the baseline scenario, depending on the employment outcomes for additional migrants. A decrease in net immigration by 10,000 persons would drive up both constant contribution rates by around 1.3 percentage points.

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