Exploring Norway's Fertility, Work, and Family Policy Trends

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Foreword

There has been a long downward trend in birth rates across many OECD countries, but until 2010 Norway remained in the upper echelon of OECD countries, with fertility rates relatively close to replacement level. However, with the postponement of parenthood, fewer large families, and increased childlessness, the fertility rate in Norway is now below the OECD average. Why has this happened? Can Norwegian parents still reconcile work and family commitments? And what role do demographic trends play for the future of the Norwegian society?

This study addresses these issues, building on the OECD's rich body of data and policy work on families and children. It illustrates various aspects of fertility trends, as well as changes in the Norwegian labour market and Norway's comprehensive system of public family support. The study also looks at social attitudes and how these might be affecting family formation and fertility trends. The final chapter projects demographic, economic, fiscal and social outcomes under different fertility trend scenarios.

This report was prepared by a team of analysts in the Social Policy Division of the OECD Directorate of Employment, Labour and Social Affairs (ELS) led by Willem Adema, including Jonas Fluchtmann and Maja Gustafsson. Pauline Fron and Violetta van Veen provided statistical support. Monika Queisser (Senior Counsellor and Head of the Social Policy Division) supervised the project under the leadership of Stefano Scarpetta (Director, ELS) and Mark Pearson (Deputy-Director, ELS).

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Executive summary

Norway had a Total Fertility Rate (TFR) that was well above the OECD average for much of the 1990s and 2000s, but since 2009 has been experiencing a rapid decline in fertility. With a level of 1.98, the 2009 TFR was reasonably close to replacement level and as high as last seen in 1975. However, over the following years, the Norway's fertility dropped by almost 30%, falling to a TFR of 1.41 in 2022, the lowest rate in Norway since OECD records began and well below the OECD average.

The choice to have (more) children is influenced by a variety of factors, including economic and financial security, as well as the continuous availability of family policy supports that help parents of (young) children. OECD-wide analysis confirms the importance of family policy, economic insecurities, and labour market opportunities in shaping fertility trends. Compared to other OECD countries, Norway is performing relatively well on many of these measures. As such, Norway's fertility decline is a conundrum sparking concerns about potential downstream implications for population ageing and pressures on the Norwegian fiscal framework.

Norwegian family policy does not explicitly aim to increase fertility. It aims to ensure safe economic and social conditions that support children's development and the overall well-being of families enabling both parents to balance work and care obligations. Norwegian family policy is comprehensive and offers well-paid parental leave as well as universal and affordable Early Childhood Education and Care (ECEC). Facilitated by 15 weeks of earmarked parental leave for fathers, Norwegian men – who take about a third of all leave on average – take more parental leave than men in other OECD countries. However, fathers face stricter eligibility requirements for shareable leave, requiring that the mother works or studies at the same time. Aligning these conditions with those for mothers – who are not subject to work requirements of their partners – would be fair and could further increase paternal involvement in leave taking.

Since the early 2000s the use of the cash-for-care benefit fell from 75% of all children aged 1 to 2 to less than 25% in 2011, as with the 2003 Kindergarten Agreement (Barnehageforliket), public investment in ECEC expanded to increase capacity and affordability. ECEC enrolment rates are now among the highest in the OECD, both for 0-2 year-olds (58%) as well as 3-5 year-olds (97%). While application procedures were previously considered as cumbersome, the recent automation of case management may close the gap in eligibility and take-up of discounts of ECEC-fees, especially among vulnerable families.

In view of the timing, it may appear as if Norway's fertility decline started because of the financial crisis in 2008-09. However, Norway's robust economy only experienced a slight downturn and rapidly recovered, making it an unlikely explanation for the continued fertility decline throughout the 2010s. the last decade has been marked by strong increases in housing costs, especially for the young, while the perception of economic security seems to have worsened as well. This may have made it more complicated to establish the necessary conditions for family formation, despite objectively secure and stable economic conditions. To reduce housing costs for the young, Norway could increase the stock of social housing or improve incentives to rent out homes by removing tax concessions for homeowners.

The Norwegian labour market is remarkably stable and tends to provide families with the necessary financial stability for family formation. Good work-life balance and family supports allow both parents to combine careers with family responsibilities, resulting in one of the smallest gender employment gaps in the OECD among 25-54 year-olds (5 percentage points). However, Norwegian women in this age group are still more likely to engage in part-time employment (19%) than Norwegian men (8%), often to accommodate family responsibilities with labour market careers. While Norwegian women spend more time on unpaid house- and care work than Norwegian men on average (1 hour), this gender gap is among the smallest in the OECD. Encouraging a more equal sharing of part-time work when children are young could reduce the gap in unpaid work further. With a comprehensive equal pay auditing system, Norway has also a comparatively small gender wage gap (5%).

As the drivers behind Norway's fertility decline do not seem to be found in family policy, the economy, or labour market opportunities, a part of these developments may be attributed to changes in social norms and attitudes towards family formation. This is perhaps most noticeable in the fact that Norwegian parents have their children later in life and opt for smaller families than previous generations did. The causes of these changes are complex and varied, but can include shifting gender roles, increasing focus on careers and education, and how parenthood is prioritised relative to other life goals.

Declining fertility will have a substantial impact on Norway's economy and society going forward, despite the comfortable fiscal cushion provided by the sizable Norwegian Sovereign Wealth Fund *(Government Pension Fund Global)*. Norway's population will age substantially in coming decades, with public expenditure on pensions and health rising noticeably. With an ageing population, there will also be a significant rise in long-term care (LTC) demands. If there are no significant decreases in the staff-to-patient ratio, Norway would have a substantial mismatch between supply and demand of LTC workers by 2060. These developments are unlikely to be averted even if the TFR were to increase.

Norway will have to adapt to an ageing society. The government should continue to support Norwegians to have the number of children they desire at the time of their choice, while preparing for a future with new demographic challenges. This may require prolonging working lives, increasing long-term investment in private pension savings and improving productivity to reduce future fiscal pressures. Encouraging more people – particularly men – into the LTC workforce, while making better use of current personnel through technology and digital solutions, are approaches that respond to the quickly increasing demand for LTC. By taking a comprehensive and forward-looking approach to these challenges, Norway can position itself for a successful and prosperous future.

1 Overview: Facing a future with demographic change in Norway

Willem Adema and Jonas Fluchtmann

Norway has experienced a sharp drop in births since 2009 and total fertility rates fell below the OECD average in 2017. With no immediately obvious individual drivers for the decline, the fall in Norwegian fertility remains a puzzle with incomplete answers. Drawing on the detail in the subsequent chapters, this first chapter outlines change in the economy, society, labour market and family policy environment, which may have affected family formation in Norway. It also assesses which policies might help Norway to sustain fertility rates and how demographic trends may pressurise economic and fiscal sustainability in Norway.

1.1. Falling fertility rates: A puzzle with incomplete answers

With a strong petrol-based economy and a protective welfare state, Norway has long provided a fertile ground for family formation. Economic security combined with a comprehensive family policy system for families with children throughout childhood means that Norwegians generally are able to combine their work and family responsibilities. Indeed, without pro-natalism being an avowed policy objective, the Total Fertility Rate (TFR) was well above the European and OECD averages throughout much of the 1990s and 2000s, while employment rates for men and women were high (Chapter 2).

However, while the family support system (Chapter 3) and many headline indicators of the Norwegian economy and society remained strong, Norway's TFR declined by almost 25% over the past decade, falling from 1.98 children per woman in 2009 to 1.48 in 2020. This is the lowest rate since OECD records began in 1960 and well below the current OECD average in 2020 (1.59). After a brief increase to 1.55 in 2021, the Norwegian TFR rate has fallen once more to 1.41 in 2022. These developments have become a major topic of public and academic debate including around issues on downstream implications for population ageing and pressures on the Norwegian fiscal framework. The policy concerns about the falling birth rate were perhaps expressed most explicitly in her 2019 New Year's speech when the then Prime Minister Erna Solberg urged Norwegians to have more children.

The decline in the fertility rate also caused policy experts, academics and politicians alike to seek explanations. For example, along with other ministries, the Ministry of Children and Families financed a comprehensive research project exploring underlying drivers of the fertility decline, that were found to be complex and multifaceted (Box 1.1). As such, the trend in Norwegian fertility rates remains a puzzle with incomplete answers.

Indeed, it is hard to pinpoint a single reason why the TFR in Norway declined between 2009 and 2020, as the decision to have a(nother) child is affected by a wide range of factors, such as economic and financial security, social norms as well as the overall labour market situation and family policy environment. At first glance, the fallout from the financial crisis after 2008-09 may pose an obvious explanation for falling fertility rates. However, Norway experienced a light economic slowdown, and its economy quickly rebounded. Most Norwegians benefit from a secure labour market that allows to combine careers with family responsibilities (Chapter 4). This contributes to strong financial stability, which has remained robust in Norwegian households throughout the 2010s. Housing costs have increased in recent years, and attitudes and norms towards family formation appear to be changing, and perceptions of insecurity may also play a role (Chapter 5), but at this time, it is hard to identify objective factors that may have driven a fertility decline in the past decade.

Looking ahead, it is as yet unclear whether Norway will experience a modest rebound of the TFR in future, but fecundity problems at older ages may make a return to TFRs seen during the 2000s (around 1.9 children per woman) less likely. Whether fertility rates fall further or rise again is projected to have only a modest effect on fiscal pressures by 2060. The future of the Norwegian economy is much more susceptible to the anticipated future declines in oil revenues. The government *Pension Fund of Norway* – sometimes referred to as Norway's Sovereign Wealth Fund, financed out of oil revenue is expected to continue to finance a major proportion of state expenditure (Chapter 6). However, this is unlikely to provide sufficient support for the transition into an older society.

Aiming for higher fertility rates to avert economic and social pressures – for example, through "baby-bonuses" and similar financial incentives, which often only have a temporary effect at best – would be very expensive. Supporting Norwegians to have the number of children they desire at the time of their choice as well as other responses to demographic change – such as prolonging working lives, increasing long-term investment in private pension savings and improving productivity – might be more promising

Box 1.1. The "Causes of the Fertility Decline" project and beyond

In light of the recent decline in Norwegian total fertility rates, the Ministry of Children and Families, the Ministry of Health and Care Services, the Ministry of Labour and Social Affairs, and the Ministry of Education and Research commissioned a comprehensive research agenda under the "*Causes of the Fertility Decline*" project, implemented in 2019.

The project consisted of five reports exploring the underlying causes of the fertility decline, co-ordinated by the Centre for Fertility and Health at the Norwegian Institute of Public Health and involved researchers at various other Norwegian research institutes, including Statistics Norway, the Institute for Social Research and the University of Oslo. The findings of the project were synthesized in a final report, published in 2020, failed to identify any singular factor that could explain recent fertility trends. In fact, the project found no clear link to economic hardship following the great financial crisis unfolding in the late 2000s, nor was the decline in fertility especially pronounced among those with relatively poor health. While social value change, particularly declining religiosity, may have been a contributory driver, there is no hard-nosed evidence on this (Hart and Kravdal, 2020[1]).

The Norwegian Research Council also finances two ongoing projects focussing on fertility declines. The first one, "*The Puzzle of the Recent Fertility Decline*", aims to further explore underlying drivers that may be able to explain falling birth rates in Norway and beyond. Lars Dommermuth leads the project in collaboration with various researchers at Norwegian and European universities and research institutes, with a foreseen end in 2023 (Statistics Norway, 2022[2]). The second one, "*Falling Fertility and Rising Social Inequalities*", focusses on the role of perceived economic uncertainty how unequal fertility patterns emerge in the interplay between new gender roles and social groups. It is a collaboration involving Trude Lappegard, Axel Peter Kristensen, Lars Dommermuth, Tom Kornstad and Statistics Norway, with a foreseen end in 2024 (University of Oslo, 2022[3]).

Because of continued population ageing, Norway will also have to prepare for a substantial increase in long-term care (LTC) needs in the future. To adapt to rapidly rising LTC demand, better use needs to be made of the available health and care workforce as well as technology and digital solutions in the sector. Stylised projections also suggest that in future additional LTC workers will be needed to avert a looming LTC crisis.

1.1.1. Norwegians have their children later in life and opt for smaller families

Like most OECD countries, Norway has been experiencing record-low levels of their TFR over recent years. Despite relatively steady and high levels of fertility throughout the 1990s and early 2000s – a period over which many other countries saw their fertility rates drop substantially – Norway only experienced a strong decline in birth rates since 2009, when Norway had a TFR of 1.98 children per woman (Figure 1.1). The Norwegian TFR of 2020 (1.48 children per woman) is now well below the OECD average (1.59). Norway recorded a slight uptick in the TFR to 1.55 in 2021 following the onset of the COVID-19 pandemic, but there was no effect on first births and the TFR subsequently dropped to 1.41 in 2022. It is unclear if longer-term concerns about political, economic and security concerns arising from aftermath of the COVID-19 crisis and Russia's war of aggression in Ukraine will affect family formation in Norway.

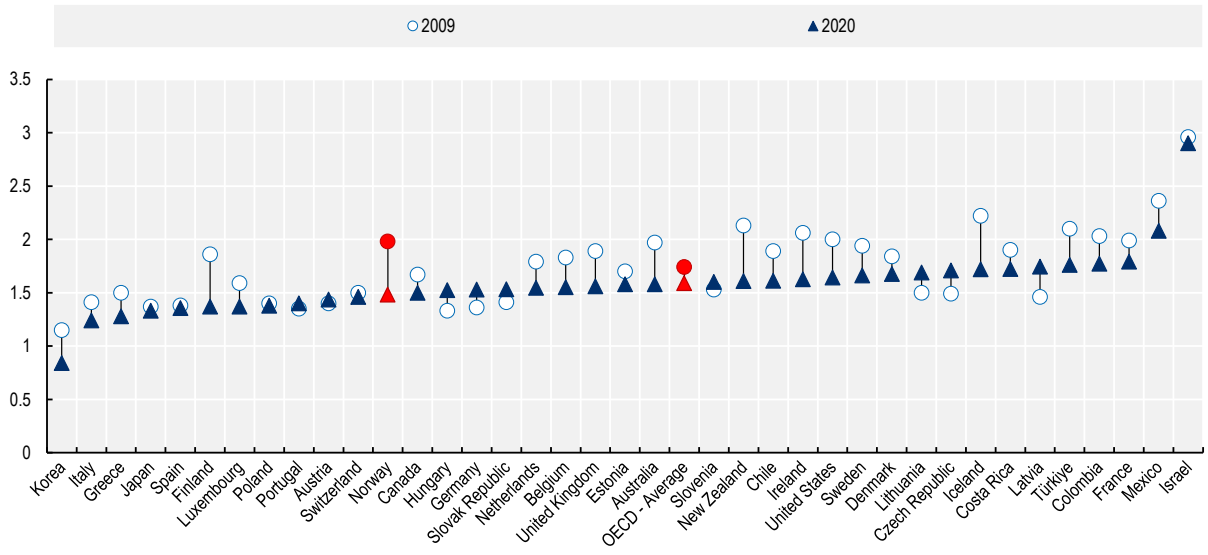
Total fertility rates are falling in large part because women in Norway – and across the OECD overall – have their children later today than a decade ago, and often have their first child in their thirties. In Norway, the average age at which mothers give birth to their children has increased from 30.0 to 31.4 between 2009 and 2020. Many more 25- and 30-year-olds are without children today than 10 years ago. Between 2010 and 2021, the proportion of 25-year-olds without any children increased by 13 percentage points to 85%, and for 30-year-olds by 11 percentage points to 52%. Even so, the two-child norm remains strong in

Norway, and the proportion of women in their late 30s and 40s who have two children remains stable (Chapter 2).

In line with a general delay in first births (as well an increase in women without children in general), the tempo-adjusted TFR remains relatively high and has not declined as fast as the TFR. This is because the concept of the TFR may underestimate the actual fertility of women over the whole span of their reproductive years as it assumes that the timing of births is the same for the current and previous generations. When adjusting for tempo effects in birth rates by using a model that accounts for the timing and parity of birth (i.e. the tempo-adjusted fertility rate), the fertility rate in Norway instead fell by 0.32 children per woman, from 2.21 in 2010 to 1.89 in 2019 (Chapter 2). These trends point towards a general postponement of births in Norway, which imply that some rebound in TFRs may occur in future.

Figure 1.1. Norway stands out in the OECD-wide fertility declines

Total fertility rate, 2009 and 2020



Notes: The total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates. It is calculated by totalling the age-specific fertility rates as defined over five-year intervals.
Source: OECD Family Database.

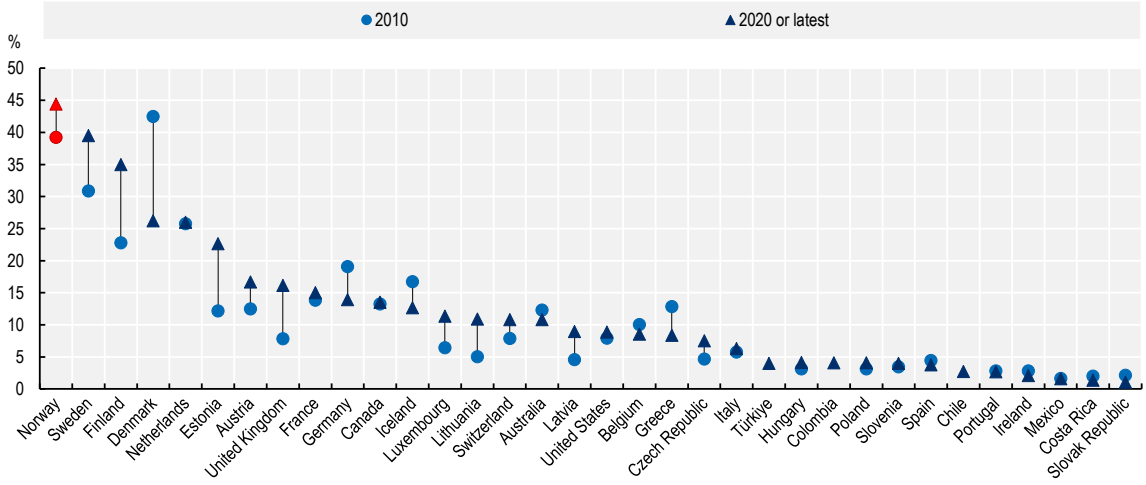
1.1.2. Family formation is changing, particularly among younger adults

For most people, it is an important prerequisite to live together with a partner before having a child. In fact, 71% of 25-44 year-old respondents to the Generations and Gender Survey (GGS) who live together as formal cohabitants and/or as legal spouses are parents, while the corresponding figure for those who are single or not living with their partner is 26% (GGS, 2020[4]).

However, fewer Norwegians cohabit with a partner today than a decade ago – particularly among young people, a trend that mirrors the decline in fertility rates among 25- to 29-year-olds. Between 2017 and 2019, only 51% of Norwegians in this age group lived with a partner on average, down by 8 percentage points from the average level between 2008 and 2010 (Chapter 2). Indeed, despite high house and rental prices, Norway has the highest share of 20-29 year-olds that live on their own (44%) across the OECD (Figure 1.2), a proportion that even increased during the period of soaring house prices between 2010 and 2020.

Figure 1.2. The highest share of young adults living on their own can be found in Norway

Proportion of 20-29 year-olds living in single-person households, 2010 and 2020 (or latest year)



Note: Instead of 2020, data refer to 2019 for Germany, Italy, and Lithuania; and to 2018 for Canada and Iceland. Data for 2010 are missing for Denmark.
Source: Special calculation from the OECD Affordable Housing Database Indicator HM1.4.

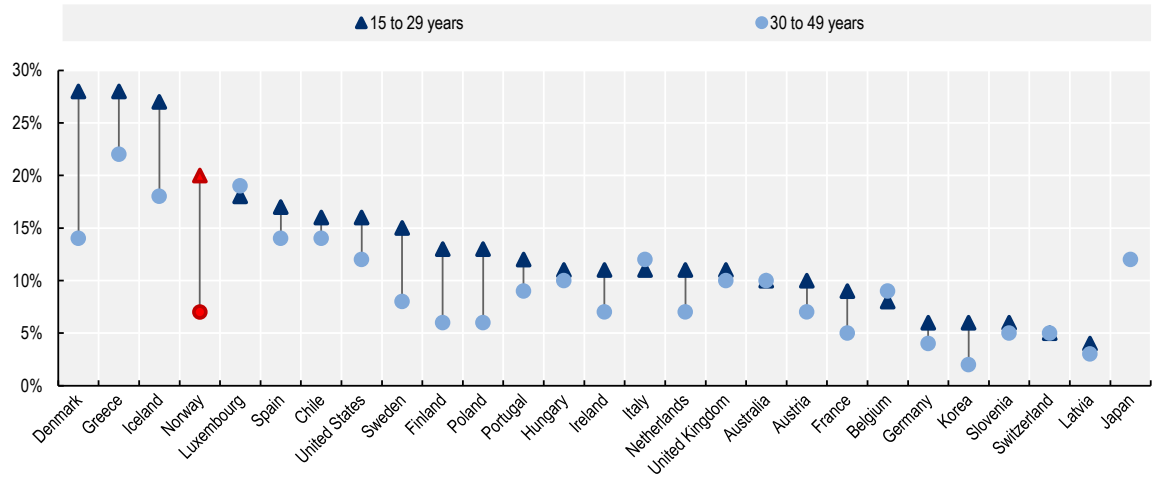
1.1.3. Budgets are put under pressure by housing costs, especially for the young

It has become more and more difficult for young people in Norway to buy a house in recent years with house prices increasing faster than incomes. In a country like Norway, where homeownership is a strong norm, buying a house may be an important prerequisite for family formation. Even if buying a house is possible, it might not satisfy the size and quality young couples require for raising a child. Those who are unable or unwilling to buy a home face high cost of rental accommodation, with higher and increasing housing cost overburden rates for tenants than for homeowners with mortgages (Chapter 2).

The high cost of housing has an unequal impact on households in Norway, with those at the bottom of the income distribution and/or the youngest hit the hardest. The rent price pressures particularly affect the group of Norwegians among which homeownership has been infeasible, including those in larger cities, those with lower incomes and those on more precarious work contracts. Indeed, Norwegians in the bottom quintile of the income distribution tend to spend more of their disposable income on housing costs than across the OECD on average (Chapter 2). At the same time, young Norwegians aged15-29 years have one of the highest housing cost overburden rates (20%) in Europe, only topped by Greece, Iceland and Denmark (Figure 1.3). The latter also has one the highest shares of young people living on their own (see Figure 1.2), which may explain high housing expenditures among this group.

Figure 1.3. Housing costs are more likely to burden younger Norwegians

Share of population spending more than 40% of disposable income on mortgage and rent, by age, 2017



Note: The data exclude households living in dwellings that are owned outright.
Source: OECD, Table B.1. Housing overburden rates, by age.

1.2. Families are well supported over the early years of a child's life

Norway provides a comprehensive family policy environment that strongly supports families over the early life-course of their child(ren). The overarching goal of the Norwegian family policy framework is to offer safe economic and social conditions that ensure the healthy development of children and support the overall well-being of families in which both parents can reconcile work and family responsibilities (Chapter 3).

The aim of full labour market participation by mothers and fathers in Norway is facilitated through universal childcare and paid parental leave with reserved periods for care by both parents. By providing such comprehensive supports over the early years of a child's life – policies which the population expects to be of a permanent and sufficiently generous nature – the Norwegian family policy framework supports family formation and well-being. Across OECD countries, increases in public expenditure on family benefits, including on parental leave and Early Childhood Education and Care (ECEC), are associated with an increase of the total fertility rate (Box 1.2 in Section 1.3).

Such a comprehensive family policy framework is expensive. Together with France and Hungary (both countries with reflections of pro-natalist notions in their family policies), as well as its neighbours Denmark and Sweden, Norway is among the OECD countries with the highest level of public expenditures on family benefits, about 3.3% of annual GDP in 2019. Most of this spending – about 60% of all public spending on family benefits – goes towards benefits in kind, such as Norway's universal childcare system, while another substantial part – about 37% of all family support expenditure – goes towards cash benefits, such as parental leave allowances. Tax breaks for families do not take central stage in Norway's family policy framework (Chapter 3).

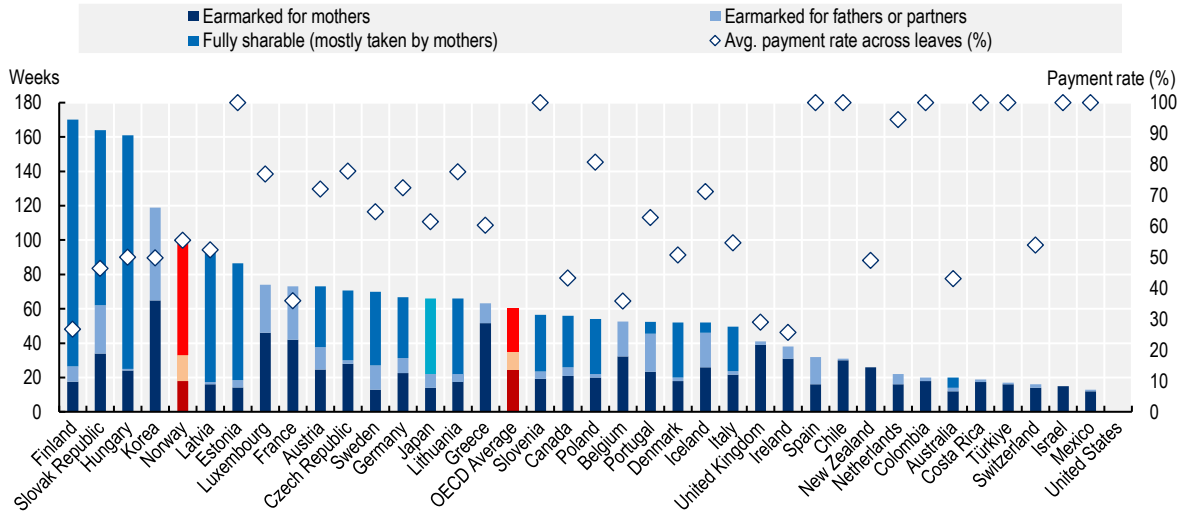
1.2.1. Parental leave is well paid and encourages both parents to care for their children

As part of its family policy environment, Norway offers different family leaves, consisting of paid parental and home care leave that taken together can typically last up to 101 weeks (Figure 1.4). In contrast to many other countries, there is no separate maternity leave and only an unpaid paternity leave, though

many fathers receive some form of wage replacement through individual or collective agreements for two weeks after birth. Instead of maternity leave and paid paternity leave, Norway integrates reserved periods for the exclusive use by fathers and mothers into their wider paid parental leave system, which replaces income at 100% of earnings up to a ceiling of NOK 55 740 (about USD 5 636) per month, about as much as the average gross monthly earnings in the country (often these payments are topped up to full replacement through collective agreements, including in the public sector).

Figure 1.4. Norway has comparatively long family leave entitlements

Duration of paid family leave entitlements in weeks[1] (left axis) and average payment rates[2] (right axis) across family leaves (maternity leave, paternity leave, parental leave, home care leave), 2022



Note: The figure refers to paid leave entitlements in place as of April 2022 and does not account for changes in leave entitlements thereafter Data reflect entitlements at the national or federal level only, and do not reflect regional variations or additional/alternative entitlements provided by states/provinces or local governments in some countries (e.g. Québec in Canada, or California in the United States). For more information on periods labelled "earmarked for mothers", "earmarked for fathers or partners" and "fully shareable" see notes to Figure 3.3 in Chapter 3. The "average payment rate" refers the proportion of previous earnings replaced by the benefit over the length of the paid leave entitlement for a person earning 100% of average national full-time earnings. If this covers more than one period of leave at two different payment rates, then a weighted average is calculated based on the length of each period. In most countries, benefits are calculated based on gross earnings, with the "payment rates" shown reflecting the proportion of gross earnings replaced by the benefit. In Austria, Chile, Germany and Lithuania, benefits are calculated based on previous net (post income tax and social security contribution) earnings, while in France benefits are calculated based on post-social-security-contribution earnings. Payment rates for these countries reflect the proportion of the appropriate net earnings replaced by the benefit. Additionally, in some countries maternity and parental benefits may be subject to taxation and may count towards the income base for social security contributions. As a result, the amounts actual amounts received by the individual on leave may differ from those shown in the figure. In Japan, the periods of parental leave that earmarked for fathers and mothers must be used simultaneously if both parents are to use the entirety of their entitlement. These periods are represented by turquoise bars. For more information, see the OECD Family Database.
Source: OECD Family Database Indicator PF2.1 and Indicator PF2.5.

Paid parental leave consists of maternal and paternal quotas that reserve 18 weeks for exclusive use by the mother (3 weeks before birth and 15 weeks afterwards) and 15 weeks for the father or recognised second-parent. If parents choose instead to be paid at 80% of pervious earnings, both quotas are extended by 4 weeks. On top of this, parents are entitled to a fully sharable period of 16 weeks (or 18 weeks when choosing 80% payment) that can be taken by either parent, though fathers face stricter eligibility conditions for this shareable leave, requiring that the mother works or studies at a minimum of 75% of full-time hours, while mothers face no such requirement. Despite wide-spread use of parental leave by fathers – about 38% of all leave days taken in 2022 – they rarely take leave for longer than their paternal quota. In fact,

while 90% of fathers take parental leave, 70% do so for precisely the length of the paternal quota and not a day longer (Chapter 3).

In addition to parental leave, Norwegian parents have access to paid home care leave if their child is not attending publicly funded ECEC services. While parental leave can be taken up until the third birthday of the child (e.g. through part-time leave option after initial 6 weeks of full-time leave or the splitting of leave in multiple blocks), home care leave is only paid for a child between one and two years of age. This leave is typically used to cover the time between expiration of parental leave entitlements and the right to a kindergarten place. Home care leave is paid through a flat-rate cash-for-care benefit of NOK 7 500 (USD 758) and thus substantially lower than parental leave benefits.

1.2.2. Universal and affordable childcare, but some fall through the cracks

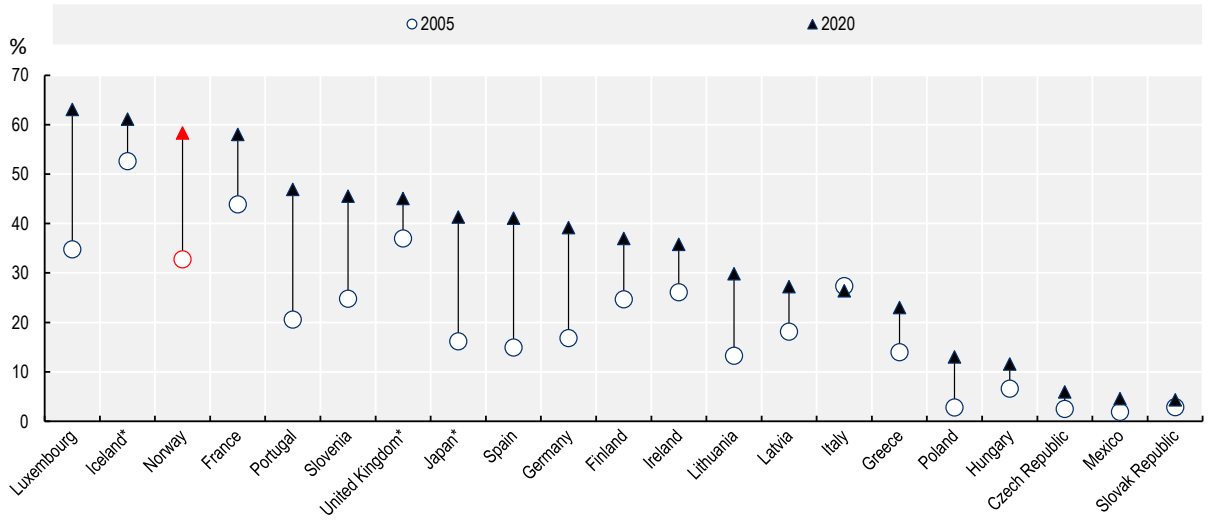
Norway provides universal and affordable childcare in their kindergartens with a statutory right to a childcare place from age one, though the exact date of enrolment depends on the birthdate (see more below). As a result, Norwegian children typically attend ECEC services after parental leave expires, which provide parents with good opportunities to reconcile work and family responsibilities. In fact, ECEC enrolment rates are among the highest in the OECD for under 3-year-olds (Figure 1.5) and almost universal among 3 to 5-year-olds, all the while hours of ECEC attendance are particularly long (about 35 hours per week). High ECEC enrolment is a direct result of a large-scale expansion of the ECEC system between 2003 sand 2009, which culminated with the individual statutory right to a kindergarten place for all children aged 1 to 5 (Chapter 3).

Many parents previously relied on the cash-for-care benefit to care for their children after parental leave expired, but the number of recipients has fallen by more than 90% since the expansion of the ECEC sector. Today, the cash-for-care benefit is mostly used to bridge gaps in family support based on the children's birthday. For example, while children who turn one between January and July are entitled to a kindergarten place in August of the same year and those who turn one between August and November have a statutory right to a place in the month, they turn one, children who turn one in December have to wait until the following August. As a result, children born on 1 December are 20 months old when they become entitled to a kindergarten place, while those born on 30 November are entitled when only 12 months old. This leaves many parents in need to find alternative care solutions.

The attendance of ECEC services is generally affordable, with regulated flat fees across pre-school ages and a range of discounts for families. For example, while the maximum attendance fee is set at NOK 3 050 (USD 308), Norwegian parents do not have to pay fees more than 6% of gross household income. Families earning less than NOK 583 650 (USD 59 011) are also entitled to 20 hours of free kindergarten attendance for their children aged between 2 and 5 years old. At the same time, parents of multiple children attending ECEC services in the same municipality receive a discount of a minimum of 30% for fees of the second child and a minimum 50% reduction in fees for any additional child. However, application procedures and documentation requirements were previously considered as cumbersome, which created a significant gap between eligibility and take-up of ECEC discounts. A newly introduced system that facilitates automated case management is intended to reduce the administrative burden and increase take-up, especially among vulnerable families (Chapter 3).

Figure 1.5. One of the highest ECEC enrolment rates among the youngest children

Percent of children aged 0-2 enrolled in early childhood education and care services, 2005 and 2020 or latest



Note: Data generally include children enrolled in early childhood education services (ISCED 2011 level 0) and other registered ECEC services (ECEC services outside the scope of ISCED 0, because they are not in adherence with all ISCED-2011 criteria). Data for, Iceland and the United Kingdom refer to 2018 and for Japan to 2019.
Source: OECD Family Database Indicator PF3.2

All Norwegian municipalities offer out-of-school hours services (OSH) once children enter school. While the take-up among 6 to 8-year-old school children is comparatively high (50%), attendance drops sharply for children in higher grades of elementary school (11%). In part, this is related to the relatively parental fees payable for OSH services – which are often about has hight as for ECEC on a monthly basis, despite considerable fewer hours of participation. Indeed, about one-third of parents who do not have their child in OSH-services state that price is a reason. Further, a previous lack of a unified national OSH curriculum, with wide ranging quality and content across OSH facilities, may have also contributed to relatively low attendance among older children. A new unified curriculum for OSD has recently been introduced (Chapter 3).

1.3. Labour markets are relatively secure and gender equal in Norway

The Norwegian economy provides safe and secure labour market conditions for many families, also when children are young. However, lower-educated people and young adults face labour market insecurities despite tight labour markets. Indeed, economic security is often a prerequisite for family formation and fertility intentions in themselves. As such, changes in the labour market situation of young couples as well as their increased barriers to homeownership may be very important determinants of fertility rates over time. Across OECD countries, changes in women's and men's employment rates are important drivers of changes in fertility outcomes (Box 1.2).

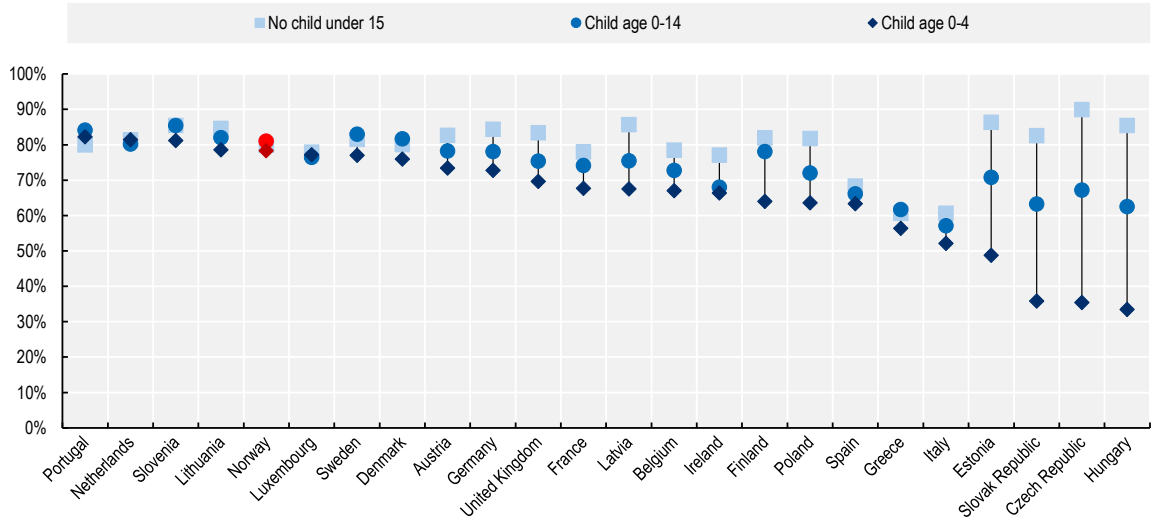
1.3.1. A "co-provider" and "co-carer" model, but some gaps remain

The continuum of family supports in Norway, with high enrolment in ECEC at young ages, facilitates a "co-provider" model with high employment rates of men and women, even as they become parents. In fact, the employment rate barely differs between women aged 25-54 without children under 15, of whom 80% were employed in 2020, and mothers whose youngest child is less than five years, of whom 78% were employed in the same year. Across most other OECD countries, the differences between mothers and non-mothers are far more pronounced, with those without children being employed much more often (Figure 1.6).

As in all OECD countries, Norwegian women still spend more time on unpaid work than men. However, with a comparatively modest gender gap in hours spent on unpaid work (59 minutes), Norway is ahead of the curve compared to other OECD countries when it comes to being "co-carers" at home, except for Sweden (49 minutes). Even though these gender gaps have declined noticeably over recent years, young Norwegian families may still be expecting more equality. Indeed, Norwegian mothers are somewhat less satisfied than fathers with the division of unpaid work in the household; they also struggle more than fathers in combining paid and unpaid work. Further helping families to achieve improved gender parity in the home may be important for fertility, as a more unequal distribution of unpaid work is linked to worse relationship satisfaction and a reduced likelihood of the first and subsequent births (Chapter 4).

Figure 1.6. Maternal employment is widespread in Norway

Female employment rates, with and without young children in the household, ages age 25-54, 2020 or latest year



Note: Data refer to 2019 for the United Kingdom.
Source: OECD calculations based on the EU Labour Force Survey. See more information in the OECD Family Database.

In the presence of a strong dual-earner norm – a result of a long-standing focus on enabling women to enter the labour market, but also high costs of living that necessitate dual incomes – Norway has one of the smallest gender employment gaps in the OECD. However, to accommodate family responsibilities with their career, some Norwegian women work part-time. While the share of Norwegian employed women aged 25-54 working part-time (19%) is about as large as across the OECD on average (20%), it is greater than in other Nordic countries. While Norway's labour market policy focuses on encouraging the norm of full-time work, the take-up of part-time work limits the long-term earnings trajectories of women relative to men and is linked to both "motherhood wage penalties" and gender pay gaps. Instead of relying in part-

time work in the early years of a child's life, it may be feasible to increase flexibility in the timing of working hours.

Despite a smaller motherhood wage penalty than in many other OECD countries and an overall comparatively low and decreasing gender wage gap – just below 5% at median for full-time earners in 2020, down 3.7 percentage points from 2009 – uncertainties over the factors contributing to the gender pay gap could contribute to parents postponing the decision to have children. Survey evidence shows that, in general, a larger proportion of women than men who do not yet have children report expecting negative impacts on their career and work hours if they were to have a child. Mothers who expect such effects on their labour market trajectories might postpone the decision to have children, or have no children at all, especially if they are strongly career focused. A U-shape in the relationship between wage increases and the likelihood of having a child, which is more pronounced among younger cohorts, may mean that today women's fertility decisions are more sensitive to wage changes than women were in the past (Chapter 4).

To address gender pay gaps, Norway is one of nine countries in the OECD that has a comprehensive equal pay auditing system. As such, every two years, all public and private employers – the latter only if they ordinarily employ more than 50 employees – are required to publish the pay differences between men and women. This system has only been in place since 2020, so it remains to be seen whether it is effective in further reducing gender pay gaps in Norway (Chapter 4).

1.3.2. Labour market insecurity is uncommon, even among the youngest

Compared to other OECD countries, the Norwegian labour market is in a relatively good position. For example, unemployment among 25- to 54-year-olds was at one of the lowest levels across all OECD countries in 2020 (at 4.1% for men and 3.6% for women). At the same time, the quality of Norwegian jobs tends to be better than in other OECD countries, with very little reliance on temporary contracts overall. Although unemployment rates and the incidence of long-term unemployment rose a little over the past decade, with younger adults a little more exposed to temporary contracts than older workers are, the proportions affected are small relative to other OECD countries (Chapter 4).

Since having a stable job might be a necessary condition for starting a family, the time it takes for young adults to potentially go through trial periods, temporary contracts, and initial periods of part-time work may force many to put off having children. Indeed, evidence suggests that the likelihood of a woman or her partner getting a permanent contract increases the possibility of having their first child more quickly, while temporary contracts are notably harmful to women's likelihood to have a child. Unions and collective bargaining can help ensure that jobs across the economy are stable and that labour rights keep up with shifting workplace demands and labour market. While people covered by unions may enjoy more job security than those who are not, Norway differs slightly from other Nordic nations with high union coverage in that many of the rights won by unions have become enshrined in national legislation.

1.4. A change in perceptions of security and attitudes towards family formation

A continuum of comprehensive family policies throughout childhood and the objective state of the economy are not the only factors that determine whether people will choose to have children. Young couples' expectations of future financial security as well as their perceptions and norms towards family formation, the perceived negative aspects of parenthood as well as norms around the intensity of parenting, are likewise important. Fertility trends also depend on changes in attitudes. While Norway has a long tradition of egalitarian gender norms, attitudes toward risk and family life have changed. Such changes might be just as important – or even more important – than the actual underlying changes in living standards and economic uncertainty.

1.4.1. A 'subjective turn' alters perceived economic security

Although Norway's economy is robust, this does not necessarily mean that Norwegians feel the same way about "economic life". Despite the potential importance of perceived or anticipated insecurity, it is complicated to measure such links properly. Nevertheless, there is some evidence that the belief of being able to bear a potential job loss or other financial setback is a particularly strong predictor of fertility, more powerful than objective economic security (Chapter 5).

Box 1.2. What influences fertility across the OECD?

To explore what underlying drivers are associated with changes in fertility rates, this report presents a cross-national regression exercise that estimates the effect of within-country and over-time changes in different aspects of the family policy framework and the labour market on fertility outcomes in a specific-country. For example, the associations found through the regressions are between within-country changes in female employment rates and within-country changes in the TFR or the MAB (mean age of mothers at the birth of their child). Importantly, the regressions do *not* provide evidence on a causal relationship between policies/outcomes and fertility but can nonetheless provide useful insights on which policies should be prioritised to impact fertility choices.

In terms of family policy, increases in public expenditure on ECEC services are associated with higher TFRs and a lower average age of mothers at first childbirth. This finding maps well to findings of quasi-experimental studies on investment in the ECEC sector, although effect-sizes may vary across birth-parity. Changes in the ECEC enrolment rate are not associated with fertility outcomes, but the effect of ECEC availability may to some degree already be captured in public expenditure on the sector itself. Also, investment in the ECEC sector does not always reverse negative fertility trends – as, for example, seen with the large-scale ECEC expansion in Korea (Chapter 3).

Increases in public expenditure on parental leave payments also have a positive association with the TFR and a negative link to the MAB. Increases in the length of parental and maternity leaves available to mothers is associated with a higher TFR, while earmarked parental and paternity leave for fathers has no discernible effect on fertility outcomes. The literature generally also finds a positive effects of parental leave on fertility rates, while effects of other non-leave lump-sum cash benefits that are designed to incentivise fertility (e.g. "*baby-bonuses*") are often limited and temporary and ineffective in sustainably raising TFRs.

The labour market position of families is an important determinant of fertility. In the OECD-wide regression, increases in women's employment rate are associated with a higher TFR and a lower average age of mothers at the birth of their children. This is well in line with findings in the international literature, which highlights the importance of women's employment for the financial security of households. Increasing employment rates has raised the opportunity costs of childbirth for women, but family polices have co-developed to ease the combination of family life with labour market careers. The employment rate of men has similar associations with the TFR, but the effects size is somewhat smaller. The literature also bears out negative effects of increasing hours in paid full-time employment by women on fertility, which the OECD-wide regressions do not find, despite a strong negative effect that remains non-significant. Similarly, the incidence of part-time employment among women does not appear to be related to fertility outcomes.

Source: See details on regressions in Annex 1.A Table 1.A.1 and Annex 1.B, as well as Chapters 3 and 4.

The timing of the fertility rates decline suggests a link with the financial crisis that materialised in 2008-09. However, the ensuing low birth rates have been more persistent than the economic consequences, which were shallow and short-lived in Norway. The Norwegian economy rebounded quickly after 2008/9 and remained one of strongest across the OECD throughout the 2010s, spurred by high and increasing oil prices, leading to quick recovery in employment and real wages. There is evidence to suggest that men and women in Norway have changed the way they consider their own economic situation after the financial crisis 2008-09. People seem to ascribe greater value to being in a stable job during the 2010s than before. It has also become more important to have more work experience before having a first child, and this is especially so for women aged 26-32 compared to younger women (Chapter 5). This suggests that women value having a stronger foothold in the labour market more today than 10 years ago.

At the same time, the 2010s were characterised by the perception of unpredictability and macro-level volatility, which might have contributed to a sense of perceived insecurity that did not entirely represent Norway's solid economic performance. Public narratives propagated through (social) media – which may have accelerated at times of rapid globalisation – play a significant role in shaping the perception of economic strength or weakness. Beyond the financial crisis, broad-based negative narratives during the 2010s also included xenophobic responses to the 2015 refugee crisis, Euroscepticism, and the development of populism, all of which contributed to the spread of a sense of instability and unpredictability. As such, Norway may have imported some of the economic insecurity, which was more present in other countries, and which may have played a role in the fertility trends of the 2010s (Chapter 5).

1.4.2. Changing attitudes toward self-realisation and family life

For Norwegians, there still is a strong norm to have children at some point in life, and "family" is at the top of many people's lists of what brings well-being. Many Norwegians state that raising children is a rewarding experience that benefits them throughout their lives. Indeed, most working age Norwegians (88%) personally consider that the reason for having children is the lifelong happiness they bring. At the same time, it is becoming increasingly acceptable not to have children. For example, researchers in Finland, observe the rise of a new childfree ideal, and in the United States more and more young adults do not want to have any children. At the same time, life goals other than family and children, including career advancement and self-realisation, have gained importance in recent years (Chapter 5).

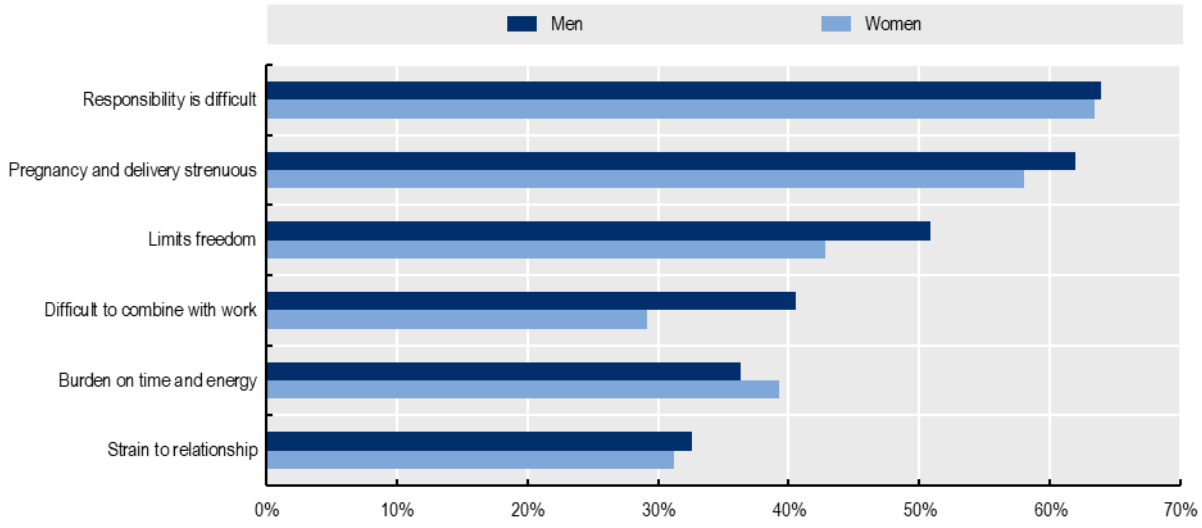
There is evidence that women feel more negatively about having kids than men do, and they often retain a kind of "veto" authority over the decision of having a child (see e.g. Stein, Willen and Pavetic (2014[5]) and Mynarska and Rytel (2022[6]). A reason for this may be stronger fears and anxiety about becoming parents than men may have, which could be related to the more direct effects on women of heavier care-load and potential health issues related to pregnancy, birth, and childcare. Indeed, along with sleep deprivation and concerns about the potential negative effects on elder siblings, the physical challenges of pregnancy and childbirth are cited among the Norwegians as reasons among parents for choosing not to have another child (Chapter 5). At the same time the proportion of female and male (including both parents and non-parents) respondents rating reasons for not having a(nother) child as "fairly important" or "very important" tend to be similar across reasons, according to data from the Generations and Gender Programme (Figure 1.7). Even though the impact of these factors does not seem to have increased in recent years, health-related issues might also be more important if there is a greater hesitancy around having children overall. People who worry about the negative aspects of childbirth and childrearing, for example, are more likely to choose not to have children (Chapter 5).

Norms have changed towards more intensive parenting, with higher involvement of fathers and mothers in the upbringing of their child. This could mean that the matter of choosing a good timing to start a family, and thereby the relevance of navigating insecurities and competing life goals, has gained importance over the long term. While women historically have had to consider life changes due to the responsibility that is placed on them through children, this is a newer phenomenon for men, who are more often concerned that

children are a burden to time and energy. It is perhaps unsurprising that young adults feel the need to take some time to navigate these new practices and norms before finding a balance between work, life, and partnerships that they are happy with. Indeed, the difficult responsibility of having and raising children is most frequently reported as an important reason for not having children (Figure 1.7).

Figure 1.7. Responsibility of parenthood is a main reason against having (more) children

Proportion of respondents aged 25-44 stating that each reason is a "fairly important" or "very important" reason to not have (more) children, by age group, 2020, Norway



Note: GGS data were obtained from the Generations and Gender Programme Data Archive and collected through the Survey on Family and Work by Statistics Norway, with contributions from Lars Dommermuth and Trude Lappegård. More information about model survey instruments can be found at: United Nations Economic Commission for Europe (2005). Generations & Gender Programme: Survey Instruments. New York and Geneva: United Nations. Respondents include parents and non-parents.
Source: GGS 2020 Generations and Gender Survey2020 Norway Wave 1.

1.4.3. Potential trade-offs between gender equality and fertility

The potential link between gender equality and fertility is a topic of continuous discussion. Many people of childbearing age find it difficult to handle the responsibility of raising children, which places additional strain on the duties and responsibilities of prospective fathers and mothers. The decision to have children increasingly hinges on both parties feeling ready to take on this responsibility as both more and more often act as parents on an equal basis. According to research, actual and perceived fairness are crucial pieces of the puzzle when attempting to comprehend young couples' decisions on fertility. However, growing gender equality could also be considered as a contributing factor to declining fertility, in part because of altered gender roles in relationships and new behavioural patterns (Chapter 5).

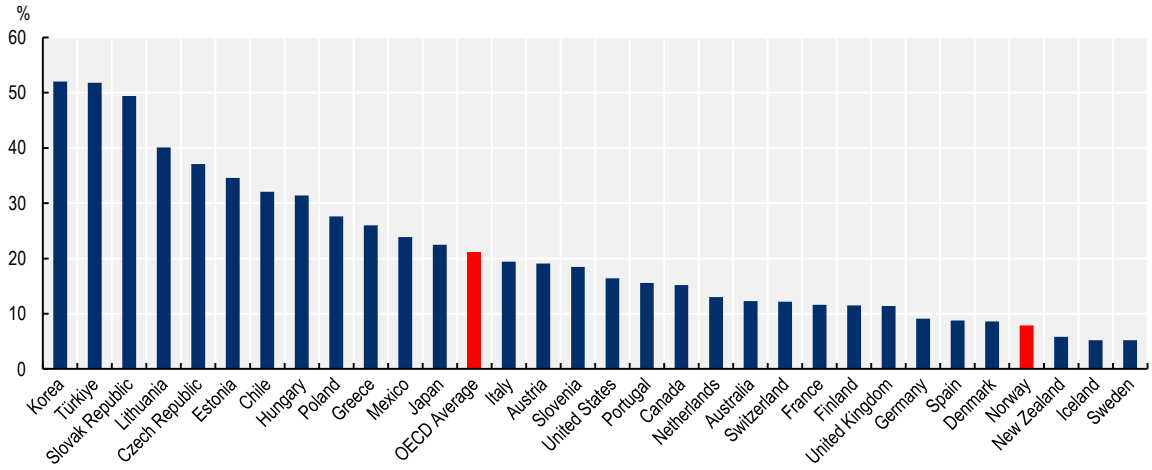
Compared with other countries, Norway still stands out as one of the OECD countries with the highest equality between men and women, reaching top levels across a range of gender equality measures in education, employment and governance. At the same time, egalitarian gender norms are common and growing over time, with strong progress over the years for Norwegian men (Chapter 5). For example, while across the OECD about 1-in-5 (21%) believe that men make better political leaders than women do, only 8% of Norwegian survey respondents think the same (Figure 1.8).

It is not always obvious whether such egalitarian gender norms encourage or discourage fertility. For instance, it has been suggested that one of the major reasons for postponing or avoiding having children

is the extra time and emotional commitment required of fathers (Chapter 5). This is consistent with recent survey data from Norway showing that men are typically the ones who argue against having a(nother) child. At the same time, the explicit goal of Norwegian family and labour market policy is to encourage equal participation by men and women in the labour-force and the household (Chapters 3 and 4). Since women are not expected to quit their jobs and earn less money to care for children, this can lower the financial and personal expenses for women to have children. By extension, such policies can support a more equitable distribution of family and caring responsibilities among men and women. A delay in first births may then be an indication that young people are taking their time to find new ways of navigating life goals, careers, self-realisation, partnerships, and gender equality (Chapter 5).

Figure 1.8. Norwegians have strong egalitarian gender norms

Proportion of respondents agreeing with the statement "Men make better political leaders than women do", 2017- 2020



Note: Data refer to 2020 for Canada, 2019 for Japan and New Zealand, 2018 for Australia, Chile, Mexico, Korea and Türkiye, as well as 2017 for all European countries and the United States.
Source: European Values Study and World Values Survey (EVS/WVS, 2021[7]).

1.5. An ageing population, with or without low fertility

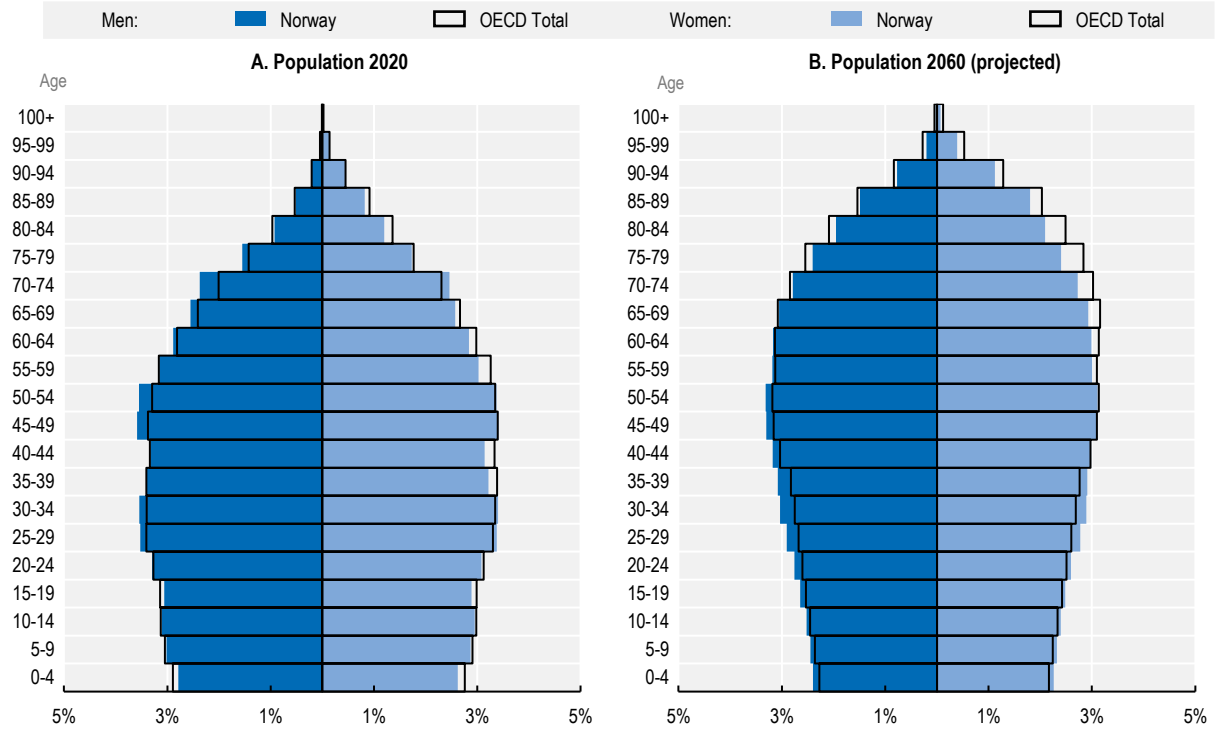
Similar to most other OECD countries, Norway will face noticeable demographic pressures over the coming decades with a rapidly ageing population. This is both a result of an increase in life expectancy and birth rates that have fallen well below replacement levels. As such, the structure of Norway's population is projected to undergo noticeable changes over the coming 40 years, with a particular increase in the share of elderly among the overall population (Figure 1.9). These trends might have strong implications on economic and social outcomes, such as rising fiscal pressures through an increasing share of the population that retires and leaves the labour market.

However, to what degree different possible scenarios on future fertility rates could avert those trends is not necessarily clear. Instead of aiming for fertility rates that rise back to previously seen levels, policy could focus on other factors – such as improving the health of the population and prolonging working lives, raising long-term investment in private pension savings, increasing the long-term care workforce and enhancing economic productivity – that are key to reduce the impact of demographic trends on economic and societal pressures (Chapter 6).

Long-term projections that link fertility scenarios with the outlook on economic and social outcomes can help to identify whether any policy aims of increasing future fertility rates are appropriate and/or necessary. The projections in this report, presenting outcomes with a horizon of 2060, are based on the OECD Long-Term Model as well as various fertility scenarios based on the population projections from Eurostat and the United Nations. For Norway, these baseline projections assume a convergence to a TFR of 1.62 by 2060. The presented fertility scenarios are chosen to converge either to 0.5 below ("low fertility") or to 0.5 above ("high fertility") this baseline, following similar scenarios used in the UN World Population Prospects. The obtained estimates result from a purely mechanical simulation and assume that any changes in fertility outcomes do not interact with factors outside of the model or have any indirect effects beyond its scope (Chapter 6).

Figure 1.9. Demographic structure of Norway and the OECD will undergo changes

Actual and projected population structure in Norway and the OECD (2020, 2060), share of total population



Note: The OECD total is a total aggregated across all OECD member countries.
Source: For Norway Eurostat Population Projections 2019, for OECD Total UN World Population Prospects 2022.

1.5.1. The labour force will grow, but it will have to support more elderly people

Demographic projections involve noticeable changes in the population shares of young, working age and elderly population groups by 2060. Mounting demographic pressures are already expected in the baseline scenario, but a lower fertility rate would exacerbate these trends. While the absolute number of people in the working age population (aged 15-64) will increase either way, it is outpaced by increases in the absolute size of the elderly population (aged 65 and above) in each scenario. This would thin out younger populations over time and likewise increase the projected old-age dependency ratio in 2060, ranging from 44% at baseline to 48% under low fertility and 40% under high fertility – a strong increase from the 27% recorded in 2020. Regardless, as the absolute size of the working-age-population increases until 2060,

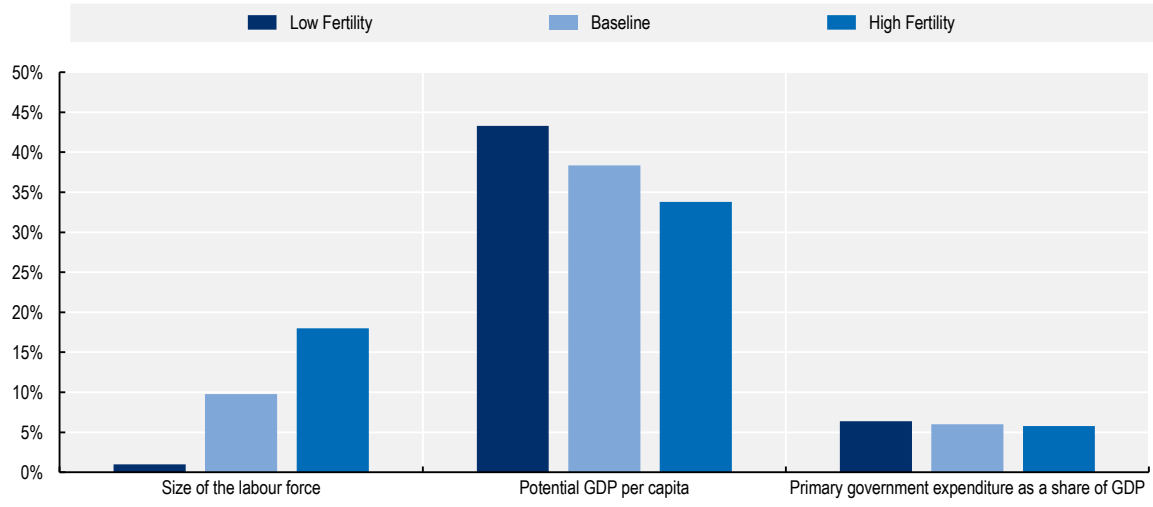
the Norwegian labour force is projected to grow by 10% at baseline. Even low fertility scenario would still see a 1% growth in the size of the labour force (Figure 1.10). However, these positive projections on the size of the labour force are likely to subside beyond the 2060 projection horizon (Chapter 6).

1.5.2. A rebounding of fertility rates would not substantially change the fiscal outlook

With a growing labour force, the economy is expected to continue to grow in absolute terms, irrespective of future fertility rates. However, when economic output is expressed on a per capita basis, future projections on production highly depend on the size of the working-age population. As the entry into the workforce comes many years after birth, lower than projected birth rates would initially mean that the size of the labour force and economic output would initially remain stable. Indeed, under a low fertility scenario for Norway, economic output per capita would increase until the effect of fewer births reduces the size of the labour force relative to the baseline scenario, with negative effects on economic growth per capita towards 2060 (Chapter 6). Overall, however, lower than baseline fertility would result in annual potential GDP per capita growth of 0.96 percentage points on average between 2020 and 2060, slightly higher than the 0.89 percentage points at baseline. This would culminate in aggregate growth of potential GDP per capita of 43% under low fertility, relative to 38% at baseline and 34% under high fertility (Figure 1.10).

Figure 1.10. No negative implications for economic outcomes by 2060

Relative changes in major economic outcome measures between 2020 and 2060, percent



Note: The baseline scenario refers to baseline fertility rates in the Eurostat population projections, which converge to a TFR of 1.62 by 2060 for Norway. "Low fertility" refers to fertility rates that converge to a TFR 0.5 below baseline. "High fertility" refers to fertility rates that converge to a TFR 0.5 above baseline.
Source: Eurostat Historical Population Projections 2019 and the OECD Long-Term Growth Model

With an ageing society, public expenditure on retirement income as well as health and long-term care is expected to increase. Irrespective of the development of fertility rates, Norway thus faces substantial fiscal pressures in the future. In fact, Norway's primary public expenditure as a share of GDP in 2060 is set to increase by 12-13% relative to 2020 irrespective of whether fertility rates will follow baseline or alternative scenarios (Figure 1.10). While the proportion of expenditure on health and retirement among all public spending increases, low fertility would decrease other spending, mainly because public expenditure on ECEC, school and general family benefits is likely to decline (Chapter 6).

The question of whether all of these trends will lead to more fiscal strain on Norway in the future cannot be answered by this report, as it cannot provide answers on the development on the public revenue under different fertility scenarios. National projections of Statistics Norway and the Norwegian Ministry of Finance point to a slightly lower fiscal pressure under lower than baseline fertility rates. However, Norway will likely lose some of its former fiscal flexibility in the future as petrol revenues are expected to decline. At the same time, the sizable *Norwegian Government Pension Fund Global*, is expected to continue to finance a major proportion of state expenditure (Chapter 6).

As such, fiscal pressure may mount, generally independent of future fertility rates. Instead of aiming for higher fertility rates to avert economic and social pressures, prolonging working lives, increasing long-term investment in private pension savings and improving productivity might thus be more effective. Fewer births than in previous decades are therefore not necessarily a serious fiscal and economic concern, as long as Norway prepares for the future and keeps its population well informed about necessary adjustments in policies.

Independent of any fiscal pressures, ageing societies will require increased long-term care provision. For Norway, this would mean that the required Long-Term Care (LTC) workforce would have to be more than twice as large than what is projected for 2060 if the aim would be to keep provision at the current level. Even when factoring in productivity increases in the LTC sector, the required workforce would still be 69% larger than what is projected. However, the Norwegian *Helsepersonellkommisjonen* (Health Personnel Commission), for example, assumes that a better utilisation of the available health and care workforce and the increased use of technology and digital solutions would suffice in averting a looming LTC crisis (Ministry of Health and Welfare (2023[8])). Nevertheless, such a productivity boost in the health and care sector would have to be noticeably larger than the projected productivity increase for the aggregate Norwegian economy by 2060 (Chapter 6). Higher fertility rates would somewhat reduce these pressures as more individuals would flow into the labour force over time – and thus also enter LTC professions – but this would not be sufficient to avert a looming LTC crisis in the future, even with higher productivity. Along with a better utilisation of the workforce and the increased use of technology, Norway could therefore aim for an expansion of the LTC workforce by steering more into training and education related to geriatric care – including boys and men – or specific migration channels to recruit foreign LTC workers, to avert a looming LTC crisis in the future (Chapter 6).

Policy recommendations

Norway is doing well in terms of its family policy approach and labour market outcomes, and there is little evidence that the country could introduce or change specific policies that would bring total fertility rates back to two children per women or just above – the replacement TFR of 2.1. This is not necessarily problematic, as demographic change will substantially affect Norway largely independently of the exact trajectory of future fertility rates. Thus, the country is well advised to prepare for demographic change, rather than having a narrow focus on fertility trends.

Despite the overall good performance of Norway on a wide range of indicators, there are some outstanding issues that, while not necessarily affecting fertility much in themselves, may improve the continuum of care over the early life of a child as well as the parental labour market position, particularly of young and vulnerable Norwegians. Concrete recommendations identified in this report include:

- *Parental leave:* Norway could consider aligning the eligibility requirements for shareable parental leave, so that mothers do not have to be in employment or study for fathers to take sharable leave. Shareable parental leave could also be phased out over time, while eventually granting each parent half of the entire leave at default with the option of transferring a certain number of weeks to their partner, similar to the approaches followed in Iceland and Finland.
- *More scope for flexibility in working hours when children are very young*: At present, part-time work during parental leave requires agreement of the employer. Legislation could be redesigned to grant a unilateral right to parental leave on a part-time basis. If leave rights were also individualised this could further promote a more equal "co-caring" approach among fathers and mothers. Financial incentives in the form of "bonus months" could be used to increase take-up. If parents both used the system with similar intensity, sharing of part-time work and caring could be one way to address the potential gap between parental leave expiry and enrolment in ECEC.
- *Early childhood education and care*: another option to address the gap between the end of parental leave entitlements and effective enrolment in ECEC facilities would be to grant the right to a kindergarten place to all children at the end of the month in which they turn one. This could also facilitate a phase-out of the cash-for-care benefits, which is frequently used to cover for the time between paid parental leave and kindergarten enrolment.
- *Gender Pay Gaps:* The Norwegian Government could extend the nature of pay audits to contribute to a better understanding of drivers of the parenthood wage gap and continue to put pressure on employers to address parenthood wage gaps as well as wider gender wage gaps in their wage-setting strategies. For example, it could expand the requirements to indicate parenthood penalties by reporting wages of parents at a given period after returning from parental leave.
- *Housing market:* To improve the efficiency and fairness of taxes on housing assets Norway could cut back on tax related concessions provided to homeowners, introduce capital gains tax from home sales and scrap special wealth tax discount rates for housing. Norway could enhance the performance of rental markets by, for example, removing the income-tax concessions for owner-occupiers renting out parts of their primary residences or second dwellings. Norway could also focus on increasing the stock of social housing, especially in cities, for instance by increasing loans for construction.
- *Supporting the disadvantaged in the labour market*: The vast majority of Norwegian workers are provided with job security, fair contracts and reskilling opportunities, but this does not hold for all workers. Norway should carry on with supporting disadvantaged workers into good and secure jobs, though continued investment in upskilling and reskilling programmes for adults and broader active labour market supports.

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Annex 1.A. Additional tables

Annex Table 1.A.1. The link between fertility and family policies and the labour market

Effects sizes of a two-way fixed-effects model with heteroskedasticity-corrected standard errors

	Total fertility rate (log)	Mean age at birth (log)
Public spending on family leaves (USD 1 000 PPP per child aged 0-5)	**0.0117*** **	**-0.0 017** **
	(0.0043)	(0.0008)
Public spending on ECEC (USD 1 000 PPP per child aged 0-5)	**0.0128*** **	**-0.0011*** **
	(0.0027)	(0.0003)
Public spending on family allowances (USD 1 000 PPP per child aged 0-17)	**0.0130** **	**-0.0003**
	(0.0061)	(0.0005)
Weeks of paid maternity and parental leave available to mothers	**0.0005** **	**0.0000**
	(0.0002)	(0.0000)
Weeks of paid paternity and earmarked parental leave for fathers	-0.0003	0.0000
	(0.0004)	(0.0000)
ECEC enrolment rate 0-2 years (%)	-0.0002	0.0000
	(0.0004)	(0.0001)
ECEC enrolment rate 3-5 years (%)	-0.0001	0.0001
	(0.0004)	(0.0001)
Employment rate of women (%)	**0.0070*** **	**-0.0006** **
	(0.0021)	(0.0003)
Employment rate of men (%)	**0.0043** **	**-0.0002**
	(0.0019)	(0.0003)
Share of part-time employees among women (%)	-0.0022	0.0003
	(0.0037)	(0.0003)
Weekly usual hours worked by women in full-time jobs	-0.0307	-0.0017
	(0.0340)	(0.0016)
Weekly usual hours worked by men in full-time jobs	0.0046	0.0005
	(0.0130)	(0.0007)
Log GDP per capita	0.7418	**0.2991*** **
	(0.9865)	(0.1112)
Log GDP per capita (squared)	-0.0442	**-0.0127** **
	(0.0480)	(0.0052)
Average years of schooling among women aged 25+	-0.0038	0.0024
	(0.0146)	(0.0024)
Average years of schooling among men aged 25+	0.0079	-0.0033
	(0.0199)	(0.0036)
N	421	421

Note: The table shows regression coefficients that capture effects of within-country, over time variation between labour market outcomes and log-transformed fertility outcomes. Estimates are based on a two-way fixed-effects regression, with year and country fixed-effects as well as linear time trends for each country. The model is estimated over the period 2002-18 using country-level data from Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, the United Kingdom and the United States. Missing values for average years of schooling and ECEC enrolment rates are handled through multiple imputation, using five iterations of predictive mean matching (van Buuren (2018[9])). The standard errors are heteroskedasticity- and panel-corrected and shown in parenthesis. ***, ** and * represent significance at 1%, 5% and 10% level, respectively. Detail on the methodology is available in Annex 1.B. and Fluchtmann, van Veen and Adema (Forthcoming[10]).

Source: OECD calculations based on data from the OECD Family Database, the OECD Employment Database, the OECD Social Expenditure Database, the OECD National Accounts, the UNESCO UIS Database and the UN World Population Prospects.

Annex 1.B. OECD-level regressions: Econometric specification

The regression in this report mainly explores the link that fertility outcomes have with family policy and labour market outcomes. This builds on earlier work, such as Ahn and Mira (2002[11]), d'Addio and Mira d'Ercole (2005[12]), Luci-Greulich and Thévenon (2013[13]), Adema, Ali and Thévenon (2014[14]) and OECD (2019[15]). All presented regressions use country-level data, rather than data on the level of the individual, findings therefore must be interpreted with caution and some caveats are discussed below. For a more detailed overview of the methodological approach, see Fluchtmann, van Veen and Adema (2023), forthcoming.

The specific outcomes and policy variables of interest are the *Total Fertility Rate* (TFR) and the *Mean Age of women at the Birth of their child* (MAB). The TFR is defined as the average number of children that would be born to a woman over her lifetime if she were to experience the exact current age-specific fertility rates throughout her lifetime and if she lives from birth until the end of her reproductive life. It is obtained by summing the single-year age-specific rates at a given time. The MAB is defined as the average age of the mothers at the time of birth of their children, standardised for the age structure of the female population of reproductive age.

The base data obtained from the OECD Family Database, the OECD Employment Database, the OECD Social Expenditure Database, the OECD National Accounts, the UNESCO UIS Database and the UN World Population Prospects contains a substantial degree of missing observations. For this reason, only countries with widely available data over the period 2002 to 2018 are selected. In practice, this means that countries that became OECD members from 2010 and onwards are not included (Chile, Costa Rica, Colombia, Estonia, Latvia, Lithuania, Slovenia) as well as some other countries that are outliers in terms of their fertility rates (Israel, Mexico and Türkiye). Japan is not included in the regression because of the lack of comparable data on average usual working hours in full-time employment, while Iceland is dropped for a lack of comparable data on average years of schooling and Switzerland for insufficient data on social expenditure. Data for the remaining 25 OECD countries were included in the regressions (Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, and the United Kingdom).

Most data that enter the regression is generally widely available for the included countries, particularly for family policy expenditure and labour market outcomes. However, there is a substantial degree of missing data for childcare enrolment rates among 0 to 2 and 3- to 5-year-olds, which are an important indication of childcare availability, as well as for the average years of schooling of men and women, which are important control variables. In order to still include these variables in the regression without reducing the number of available observations through a listwise-deletion process (i.e. dropping observations with any missing data entirely from the regression), missing data for these variables is imputed a using multiple imputation model based on predictive mean matching (see e.g. Rubin (1987[16]) and van Buuren (2018[9])). This maximises the number of regressors that can be utilised as well as the available statistical information – which is especially important in this small-sample cross-country setting. While these results need to be viewed with the necessary caution, there are no qualitative differences with a model that does not impute any observation and excludes childcare enrolment rates and average years of schooling. This approach is discussed in detail in Fluchtmann, van Veen and Adema (2023), *forthcoming*. The results are robust to excluding the imputed variables (regression tables are available upon request).

The regression controls for country specific effects on fertility to account for unobservable factors that differ between countries – for example due to cultural differences – by including country fixed effects. In addition, the regressions also control for linear movement in the outcome variable over time – such as changing attitudes towards parenthood – as well as for specific shocks to the outcome in each particular year, using linear time trends for each country as well as aggregate year fixed effects.

As laid out in in Adema, Ali and Thévenon (2014[14]), panel regressions as used in this report typically suffer from non-constant error variances across countries and years (i.e. heteroskedasticity) and autocorrelation. To account for this, the standard errors used in the regressions are heteroskedasticity- and panel-corrected following the approach laid out by Driscoll and Kraay (1998[17]) (the often used standard error correction for panel datasets by Beck and Katz (1995[18]) can be sensitive to panels with short time periods, as is the case here). As the data contains several country clusters, it would be ideal to estimate cluster robust standard errors. However, with many countries dropped and an overall small number of countries, cluster robust standard errors are unlikely to converge towards true standard errors, so that inference using the cluster robust estimator may be incorrect more often than when using the simple robust estimator. For this reason, the regressions do not correct for within-country correlation and only report heteroskedasticity-robust panel-corrected standard errors instead.

A possible limitation of the regression models is that the relationship between a regressor and fertility outcomes can also work in the opposite direction. For example, it is possible to assume that long working hours are discouraging women to have children, while it is also possible that high fertility is pushing women to work fewer hours on an aggregate level. For this reason, all independent variables in the regressions are lagged by one year. The rationale is that the decision of having a child (in most cases) occurs at least 9 months before the actual birth, thus the variables affecting the choice should be measured at the time of the decision, and not when the child is born. A further limitation of the model is that the unit of observation is the country average for each indicator. Thus, heterogeneity along economic, education, racial and regional lines between individuals in a country is not accounted for. Individual data would allow for a more robust identification: for example, the fact that having a secure job has an impact on a woman's individual intentions of having children. On the contrary, the fact that a certain percentage of women in a country has a secure job may have a relationship with the total fertility rate of such country, but the link is less strong.

2 Family formation in Norway

Maja Gustafsson

This chapter outlines the trends in fertility in Norway and some comparator countries over the past decades. It shows that fertility rates fell after 2009 and throughout the 2010s. It goes on to explain that this decline was in large part related to a decline in first births. While more women wait, or avoid, having children, the two-child norm is still strong among Norwegians. The chapter also looks at changes in living arrangements among young adults, and ends with considering increased pressures on household budgets as related to rising housing costs.

2.1. Introduction and main findings

Despite a steady economy and a solid welfare net, Norway – like many other OECD countries – finds itself with low fertility rates, which has caused policy experts, academics and politicians alike to seek explanations for the recent fall in births. Low fertility can have both personal implications if it means that those who want children can't have any, and have national implications, in terms of economic and societal effects as related to population ageing, as well as pressures on the welfare state.

This chapter lays out the history and current situation of falling birth rates in Norway by first illustrating that people – and people in their 20s in particular – have been opting for smaller families in Norway since the financial crisis of 2007/08.[1] It goes on to consider how family structures have changed more broadly in Norway over the same period.

After relatively stable fertility rates between 1990 and 2009, the number of births per woman dropped suddenly and kept falling over the course of the 2010s. The falls since 2009 are driven by a smaller number of first births. Births at higher parities – that is, more than one child in the same family – have become less likely as well, and this is part of a longer-term trend towards smaller families. The two-child norm remains strong in Norway, and many women who have already had one child choose to have one more. Many families also choose to stop at two children, without extending their families to three or more children. This trend became poignant during the COVID-19 pandemic, when the small upswing in births observed happened among women who already had one child. The pandemic might therefore have been seen as a good opportunity to have the second child, as planned.

The "typical" family is becoming less common with adults in their 20s increasingly less likely to live with a partner. This is important because being in a partnership – and especially a stable relationship – is a key precondition to people's intention to have children. Sufficient family housing is often precondition for family formation, but the growth in housing costs – both house prices and rent prices – have outgrown increases in wages and put a pressure on the household budgets of people. High costs have been especially keenly felt for lower-income families and young people.

2.2. People have been opting for smaller families over the past decade

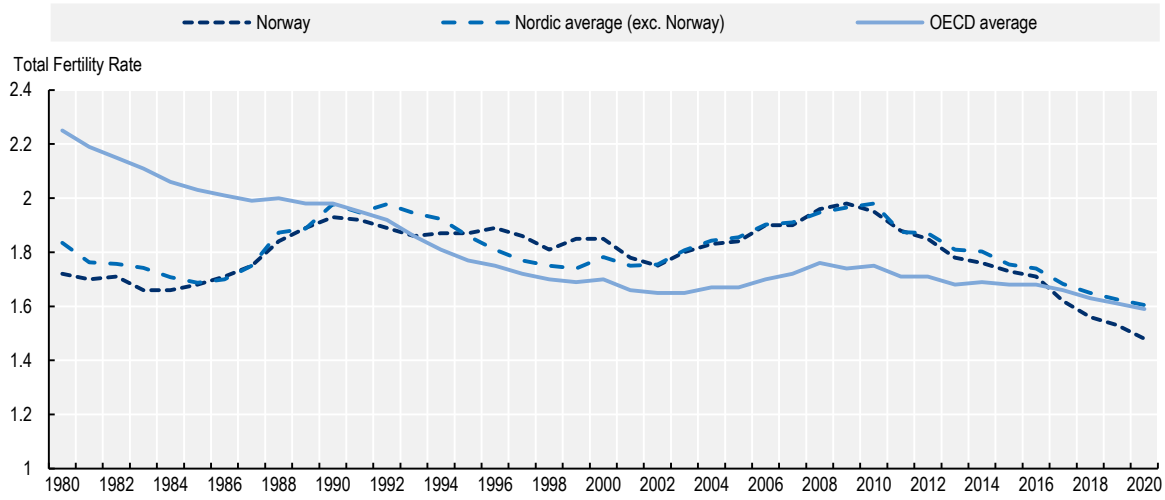
People in Norway have been opting for smaller families since 2009, with fertility in Norway now lower than all the other Nordic countries except for Finland. The large falls in Norway are mainly due to a fall in birth rates among people in their 20s – a postponement of first births – while the desire for a two-child family is still strong. It is yet unclear whether births will catch up or whether the low fertility is a lasting feature in Norway.

2.2.1. Fertility rates in Norway have dropped over the past decade

Historically, fertility rates in Norway have been high relative to other OECD countries. The Total Fertility Rate (TFR) is perhaps the most common way to estimate current number of births per woman. It refers to the total number of children that would be born to each woman if she were to live to the end of her childbearing years and give birth to children in alignment with the prevailing age-specific fertility rates. In the late-2000s, the TFR in Norway was consistently higher than the OECD-wide TFR, like its Nordic neighbours (Figure 2.1). The "Nordic model" of supportive family policies and gender equal attitudes was good at keeping birth rates up, even in the face of falling birth rates in the rest of the OECD (Ellingsæter, 2012[1]).

Figure 2.1. The fertility rate in Norway was relatively stable before dropping in the 2010s

Total fertility rates, selected geographies, 1980-2020



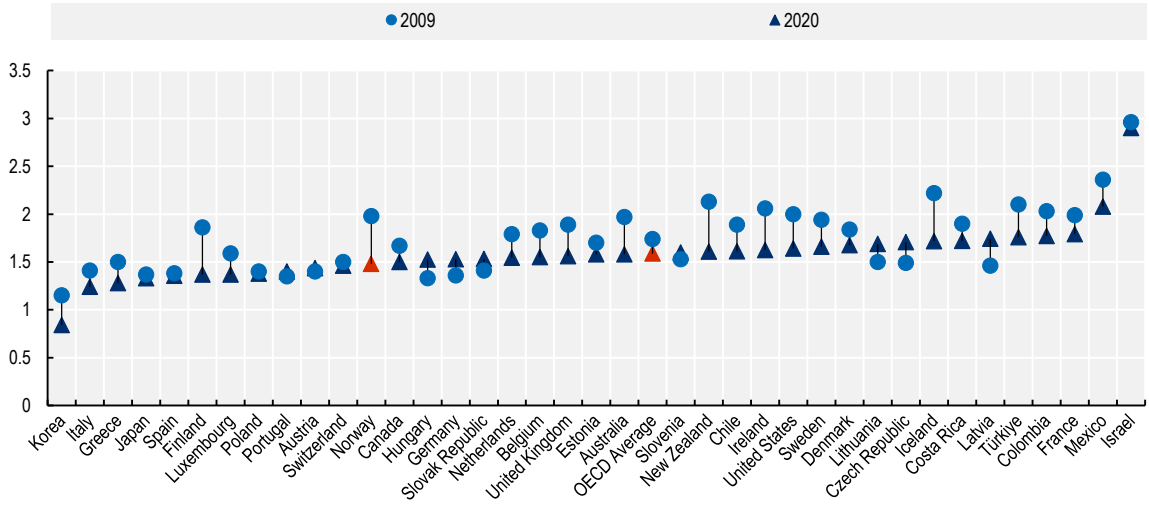
Notes: The total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates. It is calculated by totalling the age-specific fertility rates as defined over five-year intervals. The Nordic average (exc. Norway) refers to the simple average across Denmark, Finland, Iceland, and Sweden.
Source: OECD Family Database Indicator SF2.1.

However, since 2009, the TFR has fallen dramatically in Norway and some other countries, including Finland, Iceland, Ireland, New Zealand, and Norway's most recent TFR is below the OECD average (Figure 2.2). Since hitting a 45-year peak of 1.98 children per woman in 2009, Norway's TFR declined by 0.50, to 1.48, in 2020; the TFR increased to 1.55 in 2021 to drop to 1.41 in 2022. The 2020- low in Norway is well below the 2020 figure in France (1.79) – a country with pro-natalist elements in its family policy – and the OECD average in 2020 (1.59) (Figure 2.2). Norway's fall in TFR is similar to falls in Finland where TFR has collapsed by 0.49 since 2009, to 1.37 in 2020 and in New Zealand it has fallen by 0.52 since 2009 to 1.61 in 2020. Norway's other Nordic neighbours Denmark, Sweden and Iceland have also experienced falls in the birth rate. Nonetheless, their TFRs remain higher than the OECD average, at 1.67 in Denmark; 1.72 in Iceland; and 1.66 in Sweden (Figure 2.2).

A sustained fall in births would contribute to an increasing pressure on the welfare state that also arises in part from increased longevity. Life expectancy at birth has been steadily increasing in Norway since 1960 and was in 2020 the third highest in in the OECD, at 83.3 years, only lower than in Japan and Korea (OECD, 2022[2]). An ageing population with increased numbers of people in retirement means that the proportion of people who are economically active falls relative to those who are not. This puts increasing fiscal pressures on the welfare state (Chapter 6).

Figure 2.2. During the 2010s, TFRs fell most in Finland, Iceland, Ireland, New Zealand, and Norway

Total fertility rate, 2009 and 2020



Notes: The total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates. It is calculated by totalling the age-specific fertility rates as defined over five-year intervals.
Source: OECD Family Database Indicator SF2.1.

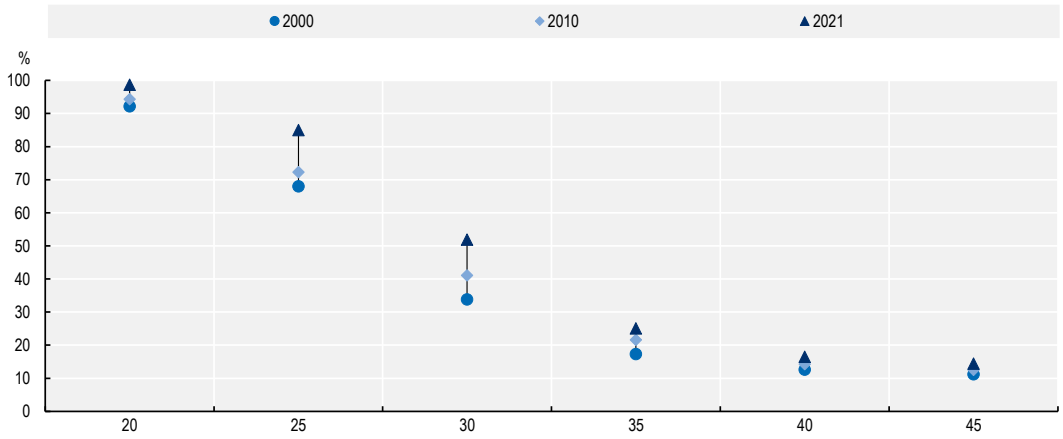
2.2.2. Falls in first births contribute to recent drops in fertility in Norway

The number of children per woman has decreased across all ages, but the greatest falls observed for women aged 25 and 30 arise out of the increasing number of women who are without children in this cohort (see, for example (Ellingsæter, 2017[3]; Dommermuth and Lappegård, 2017[4]; Comolli et al., 2021[5]) and Chapter 5). Overall, the average number of children born to 30-year-old woman fell from 1.0 in 2010 to 0.8 in 2021 and from 0.4 to 0.2 per 25-year-old woman. Women aged 35, 40 and 45 have had a slightly smaller decrease in births (Statistics Norway, 2022[6]). The most important reason behind the considerable falls in births to younger cohort is an increase in the number of women without any children (Figure 2.3). The proportion of 25-year-olds without any children increased by 13 percentage points to 85% between 2010 and 2021, and for 30-year-olds the corresponding increase was 11 percentage points to 52% between 2010 and 2021.

The increase in the share of women who do not have any children should be thought of in the context of a wider trend of delays in first births. Births have been delayed into older ages across almost all countries in the OECD, and Norway is no exception. The mean age when mothers have their children increased by 1.2 years across the OECD, from 29.5 in 2009 to 30.7 in 2020. In Norway, the age at which mothers have their children increased by 1.4 years between 2009 and 2020, from 30.0 to 31.4 (Figure 2.4).

Figure 2.3. More 25- and 30-year-olds remain without children today than 10 years ago

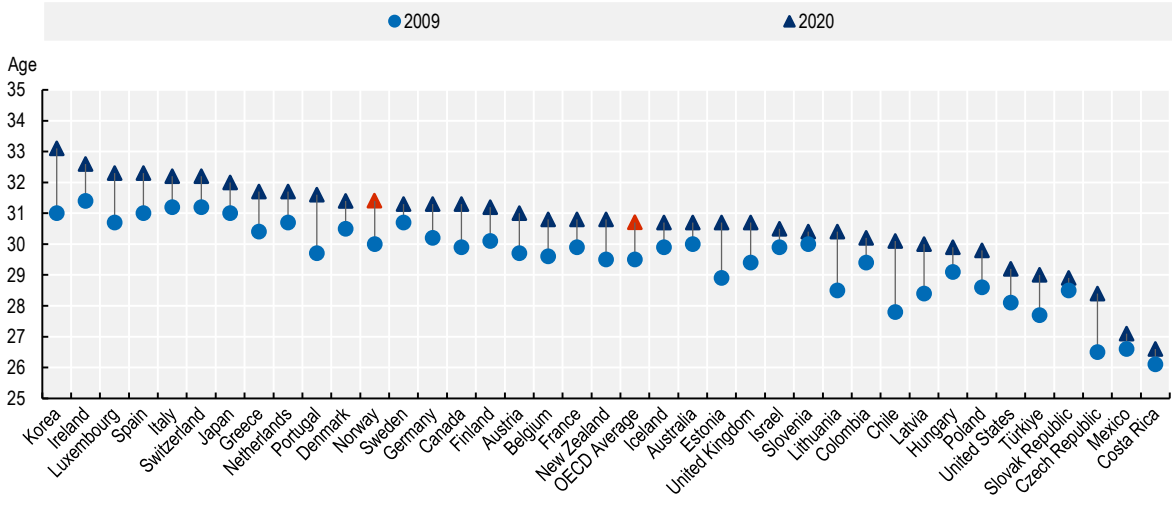
Proportion of women who do not have children, by age cohort and year, Norway, 2000, 2010, and 2021



Notes: This data series will appear smoothed due to the availability of data in 5-year intervals and the latest year only from Statistics Norway.
Source: Statistics Norway.

Figure 2.4. Women across the OECD have their children later, and Norway is no exception

Mothers' mean age at childbirth, 2009 and 2020



Source: OECD Family Database Indicator SF2.3.

Although the share of women without children has increased and the number of children that women tend to have on average has fallen for younger women, it is births in the higher parities that have declined for older women. According to Statistics Norway, along with increases in the share of women without children (2 percentage points), the proportion of 40-year-old women with one or two children increased (2 percentage points) between 2010 and 2021 while fewer women had three or more children. Having two children is still the most common outcome for 40-year-olds, with 42% having two children in 2021, up from 41% in 2010 (Statistics Norway, 2022[6]).

The share of men without children has increased as well, but from a higher base. The share of 25-year-old men without children increased by 6 percentage points to 93% and among 30-year-olds increased by 8 percentage points to 69% between 2010 and 2021. By the age of 45, over a quarter of men remained without children (26%) in 2021, up by 3 percentage points compared to a decade ago. Having two children is still the most common outcome among 45-year-old men, although just a little under 36% achieve this, up from 34% in 2010 (Statistics Norway, 2022[6]).

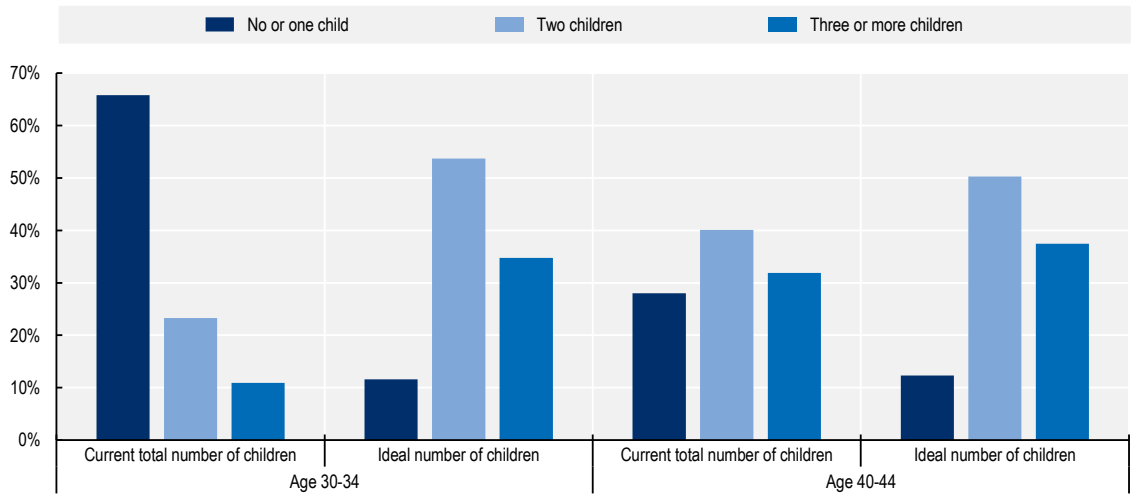
2.3. The two-child norm is strong in Norway

2.3.1. Having two children is the most common family choice

The two-child norm remains strong in Norway even if not everyone achieves it in practice by the end of a typical reproductive life. Figure 2.5 shows that two children is the most common ideal family size, and this desire is similar for people in their early 30s and 40s. At age 30-34 most women and men report thinking that they ideally would like two or more children, even though most of them do not yet have any children at that point in their lives. Nonetheless, more people than had ideally wished for it tend to end up with smaller families towards the end of their reproductive life at ages 40-44. While 88% ideally want two or more children at age 40-44, only 72% had achieved it in 2020 (Figure 2.5). The higher number of desired children compared to achieved children is not unique to Norway either by geography or time; people consistently state that they ideally would like more children than they subsequently end up having (OECD, 2022[7]).

Figure 2.5. Respondents in their early 30s and 40s have a similar ideal number of children

Reported current total and personal ideal number of children, ages 30-34 and 40-44, Norway, 2020



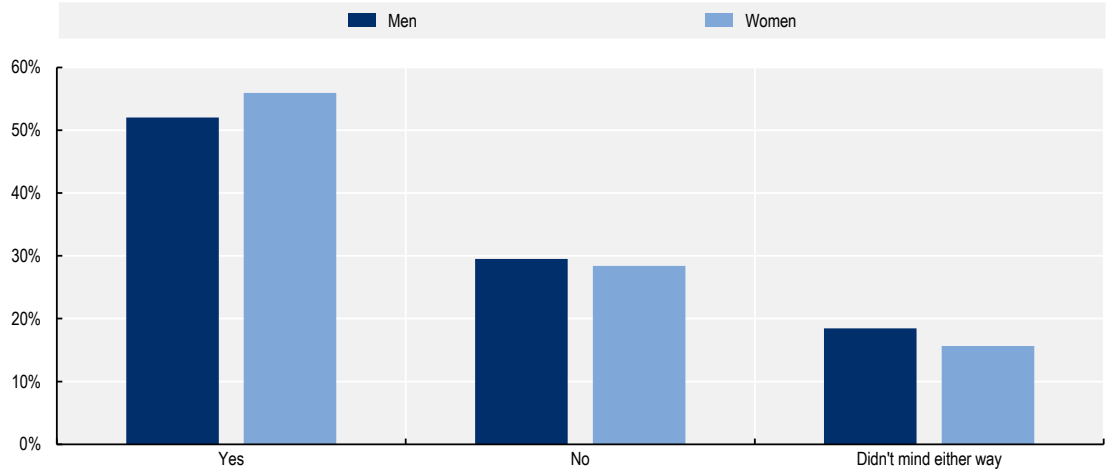
Note: GGS data were obtained from the Generations and Gender Programme Data Archive and collected through the Survey on Family and Work by Statistics Norway, with contributions from Lars Dommermuth and Trude Lappegård. More information about model survey instruments can be found at: United Nations Economic Commission for Europe (2005). Generations & Gender Programme: Survey Instruments. New York and Geneva: United Nations. Respondents choosing not to answer or the option "Don't know" are not included.
Source: GGS 2020 Generations and Gender Survey2020 Norway Wave 1.

Despite having clear goals about the number of children wanted, many people seem to have a fairly relaxed attitude to whether they actually have another child. Just a little over half of 25- to 44-year-old male respondents (52%) actively intended to have a(nother) baby when they conceived their youngest child and only 56% of 25- to 44-year-old female respondents had intended this. The rest did not intend to conceive or were relaxed about the outcome (Figure 2.6).

While the number of unintended pregnancies might seem high, it should be seen in the wider context of falling rates of unintended pregnancies (Bearak et al., 2020[8]). Indeed, some have gone as far as to conclude that the fall in births, especially among lower-educated adults, has been largely due to an increase in information and availability of contraception and therefore a decrease in unintended births (Ciganda, Lorenti and Dommermuth, 2021[9]). It is good that unintentional births have fallen in Norway and elsewhere. For instance, the number of births stemming from teenage pregnancies is among the lowest in the OECD in Norway, only after Korea and Denmark (OECD, 2022[7]). The fact that people can plan their lives and their childbirths better today than in the past should be appreciated, and work should continue to make sure that everyone has a right to advice and access to contraceptives without stigma or taboo.

Figure 2.6. Nearly 3-in-10 responding parents in Norway did not intend to conceive their youngest child

Proportion of respondents reporting that they did or did not intend to have a(nother) baby when their youngest child was conceived, ages 25-44



Note: GGS data were obtained from the Generations and Gender Programme Data Archive and collected through the Survey on Family and Work by Statistics Norway, with contributions from Lars Dommermuth and Trude Lappegård. More information about model survey instruments can be found at: United Nations Economic Commission for Europe (2005). Generations & Gender Programme: Survey Instruments. New York and Geneva: United Nations. Respondents choosing not to answer or the option "Don't know" are not included.
Source: GGS 2020 Generations and Gender Survey2020 Norway Wave 1.

2.3.2. More siblings, not first-borns, during COVID-19

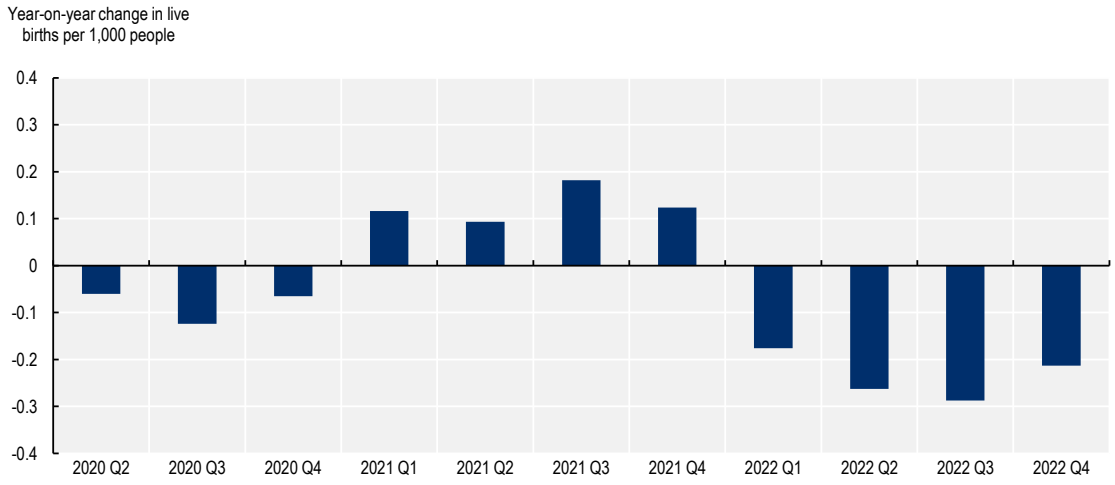
Increased economic uncertainties due to the economic crisis that ensued from the policy response to the COVID-19 pandemic suggest that births could decline further, but births in Norway in fact increased slightly (Aassve et al., 2021[10]). Figure 2.7 shows that births per person started to increase slightly in the first quarter of 2021, approximately 9 months after the COVID-19 pandemic broke out in the end of the first quarter of 2020. Compared to the year before, births then fell in 2022.

It should not be taken to mean that this slight increase is the beginning of a trend reversal. While the fall in birth rates over the 2010s has largely been a result of the increase of women (not yet 30 years of age) without children, the pandemic resulted in a significant increase in births among women who already had at least one child and/or those that faced relatively secure economic and labour market conditions. There was no positive effect of the pandemic on women who have not yet had a child, and the trend of increasing maternal age at first birth continued in 2021 (Lappegård et al., 2022[11]; Sobotka et al., 2022[12]). Thus,

there was no catch-up effects in first births. The increase in births could therefore be seen as a result of the prevailing two-child norm: parents who wanted a second child anyway thought the work-from-home flexibilities that were extended during the pandemic offered a good opportunity to extend the family. Alternatively, it was seen as a good time to take parental leave, as some work slowed down due to social distancing measures (Neyer et al., 2022[13]). It is unclear whether – and if so how – longer-term worries about the political, economic and security concerns that arise in the aftermath of the COVID-19 crisis, high inflation, and Russia's war of aggression in Ukraine will affect family formation in Norway.

Figure 2.7. The annual change in birth rates remained positive through 2021

Year-on-year change in live births per 1 000 people during the COVID-19 pandemic, by quarter, Norway, Q2 2020 – Q4 2022



Note: Quarterly population data is missing for Q1 2020 and has been imputed as the average of Q4 2019 and Q2 2020.
Source: Statistics Norway.

2.3.3. TFR can stabilise somewhat if new trends largely reflect delays

The TFR is likely to catch up somewhat if and when delays stabilise

So far, there have been no changes to completed fertility rates, which measures the number of children per women at the end of her reproductive years (here taken to be age 44-50). Both women in the birth cohorts 1960 and 1970 have experienced a completed fertility rate of 2.1 in Norway. For the cohort born 1970, this was the fourth highest for which we have accessible data, only after Iceland (2.3), the United States (2.1) and Northern Ireland (2.1). It remained higher than Sweden (2.0), Denmark (2.0) and Finland (1.9), and significantly higher than the lowest-ranking countries Spain (1.5) and Japan (1.5) (OECD, 2022[7]). The stable completed fertility rate reflects the fact that the TFR remained stable in Norway up until the 2010s. Changes to fertility behaviour among women in their late 20s and early 30s from 2010 onwards will therefore not have been captured when considering women aged 44-50 today. In order to see any effect on completed fertility rates, we will have to wait a while longer.

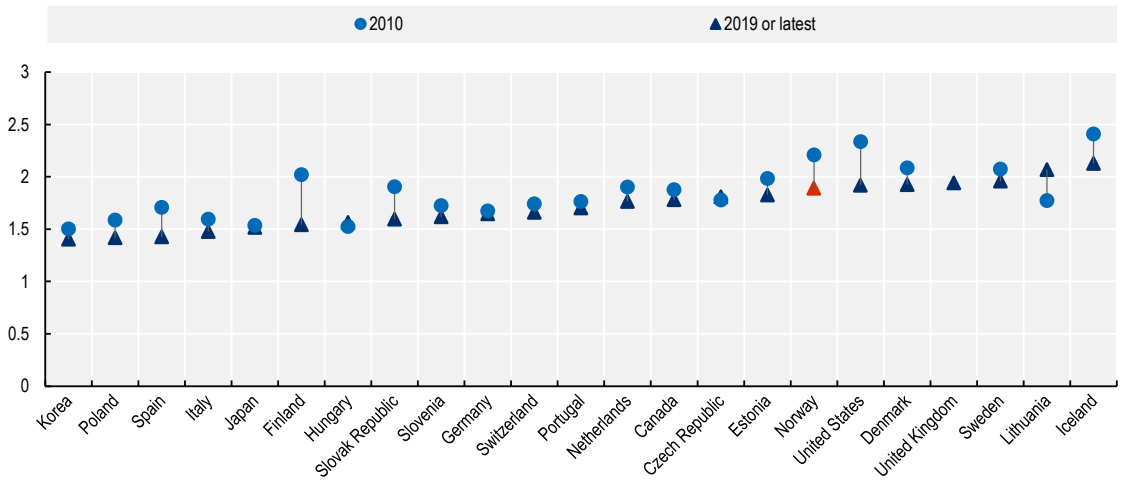
While completed fertility rates cannot accurately capture the most recent birth trends, it is also likely that the TFR underestimates the actual fertility rate. This happens per definition when there is a general delay in the decision to have a child. The TFR estimates the current birth rate by assuming that young women who have not yet reached the end of their fertility (usually taken as 45 years of age) will live out their fertile years in alignment with current age-specific fertility. That means that even if young women today end up

having a similar number of children at 45 as mothers did a decade prior, if births consistently occur later in women's lives, the TFR will underestimate the number of births per woman. This is because the calculation to for the TFR assumes that the timing of births across the life course is the same for the current generation as for the previous generation.

To account for this, the tempo-adjusted fertility rate attempts to adjust for such tempo effects in birth rates by using a model that accounts for the timing and parity of births, giving a more accurate indicator of current birth rates (Human Fertility Database, 2015[14]). The tempo-adjusted fertility rate suggests that the actual number of births in Norway is not quite as low as the headline TFR indicates at first sight. The tempo-adjusted TFR is still relatively high and has not declined as fast as the TFR (Figure 2.8). The tempo-adjusted TFR was only slightly lower in 2019 in Norway than in its Nordic neighbours Denmark, Iceland, and Sweden. The tempo-adjusted rate fell by 0.32 children per woman, from 2.21 in 2010 to 1.89 in 2019 in Norway. This fall can be compared to other countries with similar falls, such as the Slovak Republic (0.31), Iceland (0.28) and Spain (0.28). The largest falls were seen in Finland (0.48) and United States (0.42). This is consistent with previous research that finds that tempo effects cannot explain the full size of the fall in TFR (Hellstrand et al., 2021[15]).

Figure 2.8. Tempo-adjusted total fertility rates suggest a much smaller fall than the TFR

Tempo-adjusted total fertility rates, selected countries, 2010 and 2019 (or latest)



Notes: The following countries are excluded because of lack of data: Australia, Belgium, Chile, Colombia, Costa Rica, France, Greece, Ireland, Israel, Latvia, Luxembourg, Mexico, New Zealand and Türkiye. Instead of 2019, latest year refers to 2018 for Austria, Canada, the Czech Republic, Estonia, Lithuania, the Netherlands, the United States; 2017 for Iceland, Italy, Japan, Korea, Spain, Switzerland, and the United Kingdom; 2016 for Germany, Hungary, and Slovenia; 2015 for Poland; and 2013 for the Slovak Republic.
Source: Human Fertility Database.

Having children becomes somewhat less probable with age, but not unrealistic

It seems possible that a delay in births might mean that some women and men become biologically unable to have children due to their age. This might be especially true for higher-order births rather than first births, if women decide to start their families later in life. Indeed, survey work suggests that there might be something to this. Despite being a leader in terms of healthcare with heavily subsidised IVF options (Fernandes et al., 2020[16]), the answer "we did not succeed in having (more) children" in a recent survey was the third most common response (after "I didn't want more children" and "my partner didn't want more children") to why respondents had not had another child (Cools and Strøm, 2020[17]).

However, in a report to the Norwegian Ministry of Children and Families, there is little concern about couples starting a family "too late", and this view seems to hold out in research. Ellingsæter (2017[3]) maintains that later births are not necessarily a problem, but that it is a good thing that young adults have time to transition into adulthood and take their time to establish relationship, develop jobs and careers and form independent identities (Ellingsæter, 2017[3]). The report claims that young adults can easily wait until their early to mid-thirties before they have their first child. Other research supports this idea. One study finds that 82% of 35-to-39-year-old women conceive within a year of trying, compared with 86-87% of 27-to-34-year-olds, with roughly half of those who did not succeed the first year being able to conceive the following year (Dunson, Baird and Colombo, 2004[18]) – see also (Rothman et al., 2013[19]).

2.4. The "typical family" is not so typical, at least among young adults

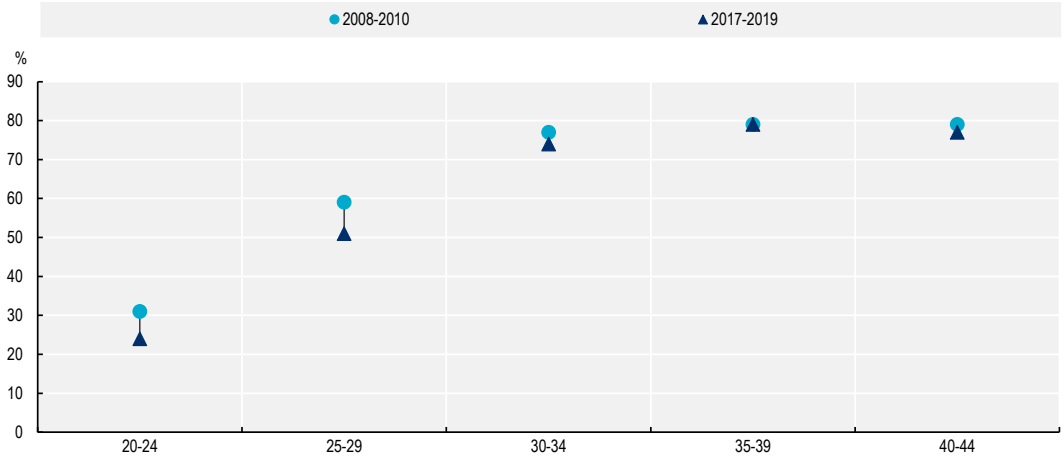
Family composition is changing in Norway, with young people moving in with their partners later in life and relationships breaking up more often in Norway than in other OECD countries. More children in Norway than elsewhere tend to live with single parents, but as will be seen in the next section, this does not seem to translate into more children living in precarious economic conditions.

2.4.1. Adults have become less likely live with a partner in their 20s

Overall, the proportion of people who live together as couples in Norway is lower today than it was a decade ago. Falls in living with a partner as cohabitees or married partners can be observed for all age groups (with the exception of 35- to 39-year-olds where these rates remained at the same level) but are especially notable for people under the age of 30. Only 24% of 20- to 24-year-olds lived with a spouse or cohabiting partner in 2017-19, compared to 31% in 2008-10. The fall was also considerable for 25- to 29-year-olds. Just 51% lived with a partner in 2017-19, a fall from 59% in 2008-10 (Figure 2.9). This cohabitation pattern whereby the greatest changes have occurred for people in their 20s mirror changes in fertility rate, where the greatest falls were also seen among women aged 25 and 30.

Figure 2.9. Adults in their 20s have delayed moving in with a partner

Proportion cohabiting or married individuals, by age group, Norway, 2008-10 and 2017-19

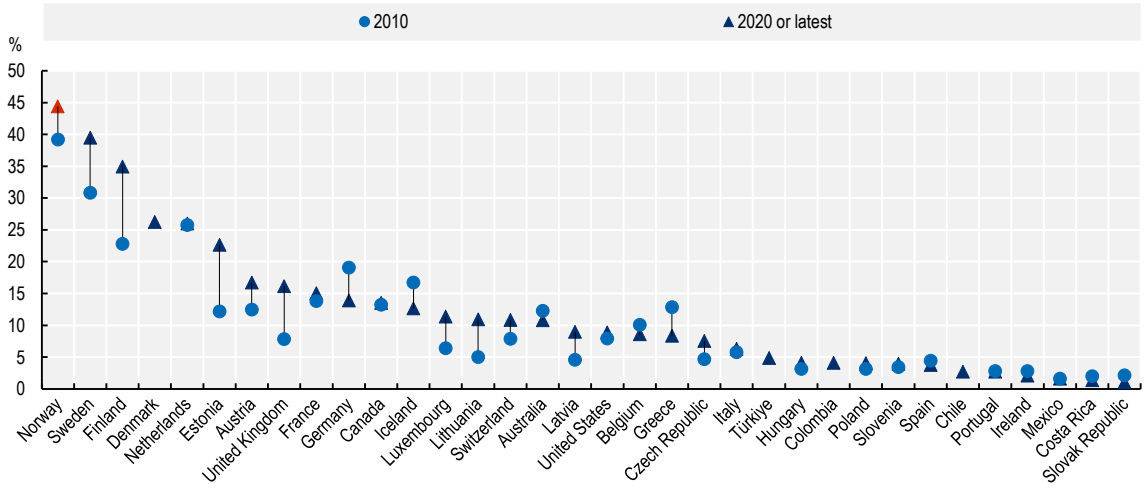


Source: Statistics Norway.

Since house prices and rental prices have risen dramatically in many OECD countries, the decline in partnership formation among people in their 20s may be due to more young people living with their parents, but data does not bear this out (OECD, 2022[20]). Living with parents can for some young people be the only way to deal with a situation of high rental prices and insecure jobs that are few and far between. However, Norway, Denmark and Finland have the lowest proportions of young people living with their parents (OECD, 2022[20]), and as Figure 2.10 shows, the proportion of 20-29 year-olds living on their own is higher in Norway (44%) than in any other OECD country where data is available. This proportion actually increased in Norway between 2010 and 2020, as it did in Sweden and Finland over the same period.

Figure 2.10. More young adults in Norway live on their own than across other OECD countries

Proportion of 20-29 year-olds living in single-person households, 2010 and 2020 (or latest year)



Note: Instead of 2020, data refer to 2019 for Germany, Italy, and Lithuania; and to 2018 for Canada and Iceland. Data for 2010 are missing for Denmark.
Source: Special calculation from the OECD Affordable Housing Database Indicator HM1.4.

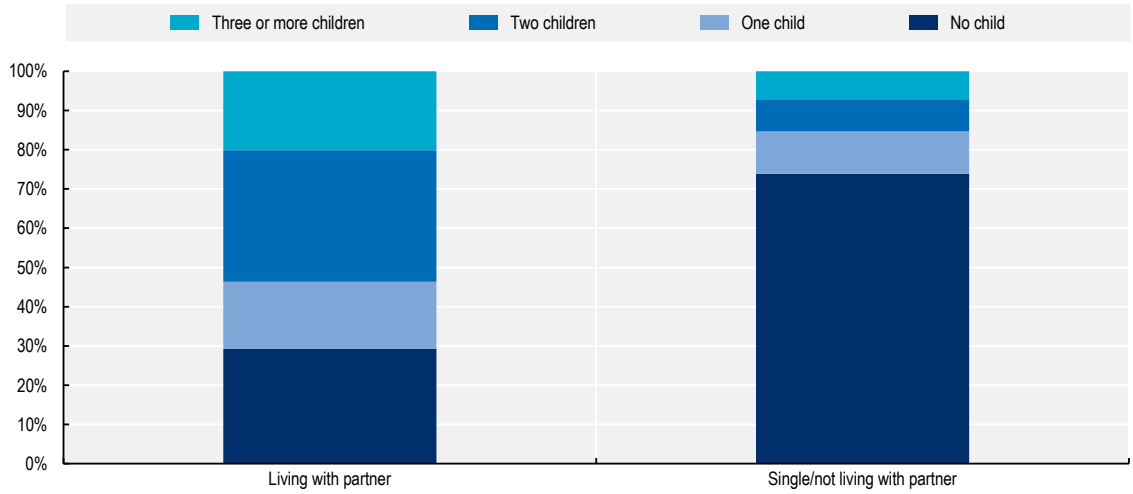
2.4.2. A stable, cohabiting partner is for many a precondition for having children

Living with a partner is for many a precondition for deciding to have a(nother) child, so prime-age adults are more likely to have children – and to intend to have children – when they live with a partner, whether as legal spouses or as cohabitees (Cools and Strøm, 2020[17]; Hellstrand, Nisén and Myrskylä, 2022[21]). This could be because people who have a stronger desire for children spend more time and energy working on their partnership and/or because it is easier to envision having children when in a stable partnership (Hellstrand, Nisén and Myrskylä, 2022[21]).

These trends can also be observed for children currently present in households. Adults aged 25-44 living with their partners either as cohabitants or as legal spouses are more likely to have children (71%), compared to people who are single or not living with their partner (26%) (Figure 2.11).

Figure 2.11. Responding cohabitees tend to have more children than separated partners and single adults

Respondents by number of children and living arrangement, age 25-44, Norway, 2020



Note: GGS data were obtained from the Generations and Gender Programme Data Archive and collected through the Survey on Family and Work by Statistics Norway, with contributions from Lars Dommermuth and Trude Lappegård. More information about model survey instruments can be found at: United Nations Economic Commission for Europe (2005). Generations & Gender Programme: Survey Instruments. New York and Geneva: United Nations. Partnered, living together refer to respondents reporting that they are legally married to or in a relationship with a partner also living in the same household; partnered, living separately refer to respondents reporting that they are in a relationship with a partner not living in the same household; single refer to respondents reporting that they are not in a relationship.
Source: GGS 2020 Generations and Gender Survey2020 Norway Wave 1.

Delays in partnership formation can only explain a part of the in births, and decision-making within couples may matter even more. Research from Finland shows that delays in formation and dissolution of partnerships caused around one-quarter of the fall in births after 2010, whereas falls in births within partnerships drove three-quarters of the decline (Hellstrand, Nisén and Myrskylä, 2022[21]).

The stability and satisfaction with relationships are importance to the intention to have a(nother) child. Being a parent of a young child after a relationship rupture can have undesirable effects for various reasons, including psychological challenges, social implications and financial difficulties. Adults aged 25-44 are more likely to be intending to have a(nother) child within three years when they are satisfied with their relationship than when they are not so satisfied: 30% of respondents reporting to be satisfied (scoring their level of satisfaction between 6 and 10) in their relationship intend to have a(nother) child within three years, and 14% are unsure (excluding respondents choosing not to reply or answering “don’t know”). By contrast, those who are not satisfied in their relationship or finding it “average” (scoring their level of satisfaction between 0 and 5) are equally likely to report that they are unsure about their fertility intentions as they are to report that they are intending to have a(nother) child (18%) (GGS, 2020[22]). Fertility intentions have been shown to matter for outcomes: fertility intentions for the coming three years correlate with outcomes four years after the survey date (Dommermuth, Klobas and Lappegård, 2015[23]).

Insecurity about whether partners can trust each other can have dampening effects on fertility as some people are hesitant to start a family when they are not sure about their relationship with their current partner (Jensen, 2016[24]). Worries about relationship rupture may be well-founded: one-in-four children live in families where the two parents no longer live together (Amundsen, 2019[25]) Increasingly, children of separated parents in Norway have dual residences and share their time between each parent, with a 50/50 split being seen as the fairest option for both children and parents (Kitterød and Lidén, 2020[26]). Having

multiple stable relationships over adult lives may also mean that people are more inclined to have a(nother) child. Having child(ren) together with a partner is often seen as a way to formalise the relationship, especially in societies like that in Norway where marriage has lost much of its importance as a way to signal the permanency of a union (Lappegård and Noack, 2015[27]).

There are some differences in partnership behaviour across socio-economic groups of young people. Qualitative work found a class divide among men in attitudes toward the value of forming partnerships. The majority of the upper-middle-class men in the study lived with a partner and a few of the singles had just come out of long-term relationships. By contrast, the majority of working-class young men were single, and those who were in relationships had been in them for a relatively short time or treated them in a more casual way (Jensen, 2016[24]).

2.5. Housing costs pressure budgets, especially among lower-wage families

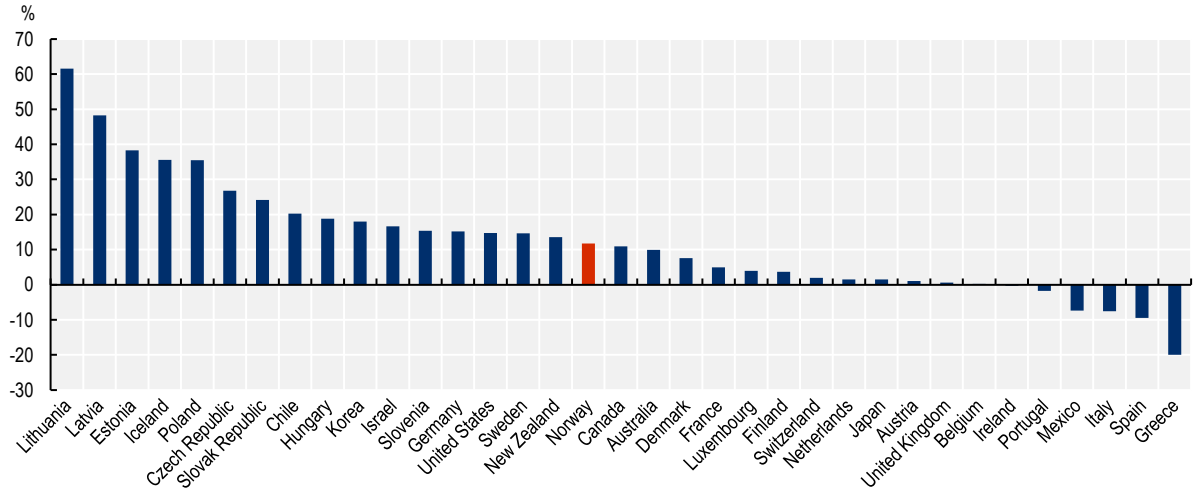
Families need somewhere to live, so it is important to understand how people are faring in terms of their budget and prospects to achieve typical life milestones such as moving into a family home and/or buying a house. Indeed, survey evidence supports the idea overall household budgets are important fertility decisions: 78% respondents in a recent survey in Norway say that they want to be financially comfortable before having children (Cools and Strøm, 2020[17]). This section also includes some focus on young adults given that household budgets tend to improve as people age, but fertility decisions are for many made relatively early on in adulthood.

2.5.1. Wages have increased, and were shared relatively evenly

The low number of births could be due to weak wage growth in the years since the financial crisis, and although it was the case in many OECD countries, it has not been a large problem in Norway. People in Norway have experienced real wage increases since 2009 that rank around the middle across OECD countries (Figure 2.12). Wage increases in Norway (12%) have not been as large as in some other northern European countries like Germany (15%) or Sweden (15%).

Figure 2.12. Wage growth has been middling, but positive overall, in Norway since 2009

Growth in real average annual wages between 2009 and 2020

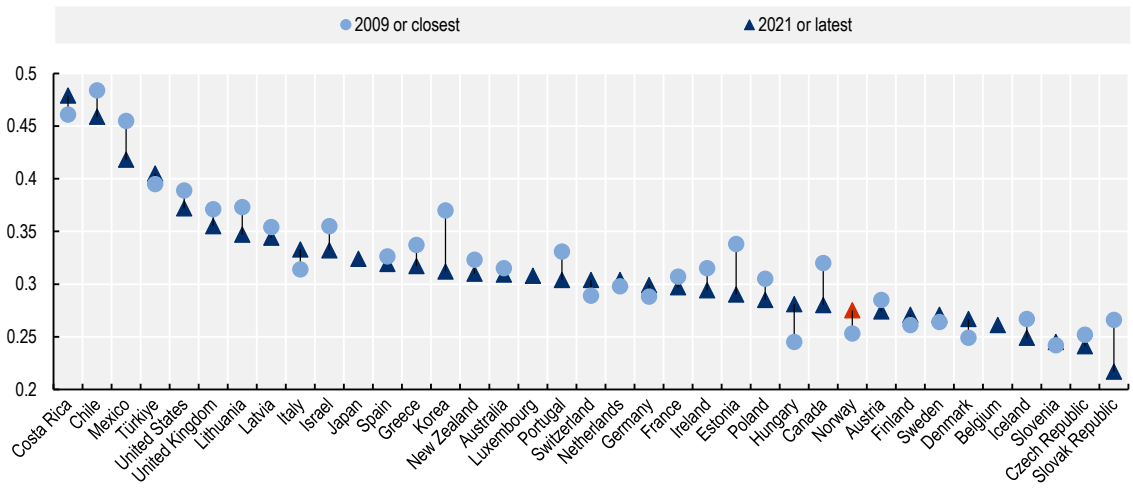


Note: Wages refer to 2020 constant prices in national currencies.
Source: OECD estimates based on OECD (2022), OECD Economic Outlook, Volume 2022 Issue 1, OECD Publishing, Paris and OECD Annual National Accounts Prices and Purchasing Parities Database.

Poor wage growth could still be a problem concentrated in some groups if wage growth had only occurred among well-paid, settled workers, but again this is not what the data show. Despite slight increases in wage inequality, the improved economic conditions since 2009 have been shared fairly equally in Norway in terms of earnings. The ratio of middle-decile earnings to bottom-decile earnings has remained broadly stable, increasing marginally from 1.37 in 2009 to 1.43 in 2020. This increase is similar to that in Sweden (1.29 to 1.36). Looking at incomes after redistributive taxes and transfers have taken place, incomes are more equally distributed in Norway than in many other OECD countries, despite the slight increase in inequalities since 2009. The Gini coefficient (a measure of income inequality where 1 means perfect inequality and 0 means no inequality) of the net income of 18-65 year-olds in Norway was relatively low in 2020 (0.28), similar to that in Canada and Austria and lower than in the high-fertility country of France (Figure 2.13).

Figure 2.13. Incomes are shared relatively evenly across Norway

Net income inequality (Gini coefficient of disposable income after taxes and transfers), individuals age 18-65, 2009 (or closest) and 2021 (or latest)



Note: New income definition since 2012. Instead of 2009, data refer to 2008 for Germany; 2010 for Costa Rica; 2011 for Denmark, Israel, Korea, the Netherlands, Türkiye; 2012 for Australia, France, Mexico; 2013 for Estonia, Sweden, and the United States. Data for 2009 is missing for Belgium, Japan, and Luxembourg. Instead of 2021, data refer to 2020 for Australia, Canada, Finland, Korea, Latvia, Mexico, the Netherlands, New Zealand, Norway, Sweden, the United Kingdom; 2019 for Austria, Belgium, the Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Israel, Lithuania, Luxembourg, Portugal, the Slovak Republic, Slovenia, Spain, Switzerland, Türkiye; 2018 for Ireland, Italy, Japan, Poland; 2017 for Chile, and Iceland.
Source: OECD Income Distribution Database.

2.1.1. Housing costs can influence fertility

Active decisions to have children will likely involve questions whether the own living space, housing costs and neighbourhood are possible to combine with having children. More space is often needed to sufficiently accommodate additional family members, so the availability of suitable housing may influence childbearing intentions and behaviour (Kulu and Steele, 2016[28]). For instance, home ownership or long-term rentals provide additional housing security, which can increase likelihood of intending to have – or indeed to have – a(nother) child (Vignoli, Rinesi and Mussino, 2013[29]).

House prices might affect family formation and fertility through at least two different mechanisms. First, higher house prices may negatively influence birth rates among renters as a home purchase becomes less

affordable. Second, owner-occupiers might see a wealth effect whereby they increasingly feel that they can afford a(nother) child (OECD, 2020[30]).

Fertility seems to be negatively associated with increasing housing prices, perhaps primarily among renters who are looking to buy a home. However, new evidence from the United Kingdom suggests that fertility rates among homeowners have declined between 1991 and 2016, and now resemble those of private renters, which have remained largely stable over the same period. This may be the result of the need to have dual incomes for couples to service mortgage debt under increasing house prices. Those that can afford homeownership may therefore have stronger preferences for careers rather than parenthood (Tocchioni et al., 2021[31]).

Although the effect of house price and rent price increases seem to vary by age, wealth, housing tenure, regional factors and other contextual circumstances (OECD, 2020[30]), some evidence shows that house price increases in particular can have effects on younger women and renters. For instance, studies using variations in house prices arising from planning restrictions in England and the United States find that higher house prices negatively influence the fertility rates among younger men and women (Aksoy, 2016[32]; Russell, 2018[33]), while OECD (2019[34]) holds some evidence on Korea. Government support for renters is also associated with a lower mean age at first birth, suggesting that more affordable rental housing may make it easier for younger couples to have children (Brauner-Otto, 2021[35]). Falls and/or delays in first births are of particular interest since they are pertinent to Norway's fertility trends over the 2010s, so house and rent prices are important to consider.

2.5.2. High housing costs have raised the bar for starting a family

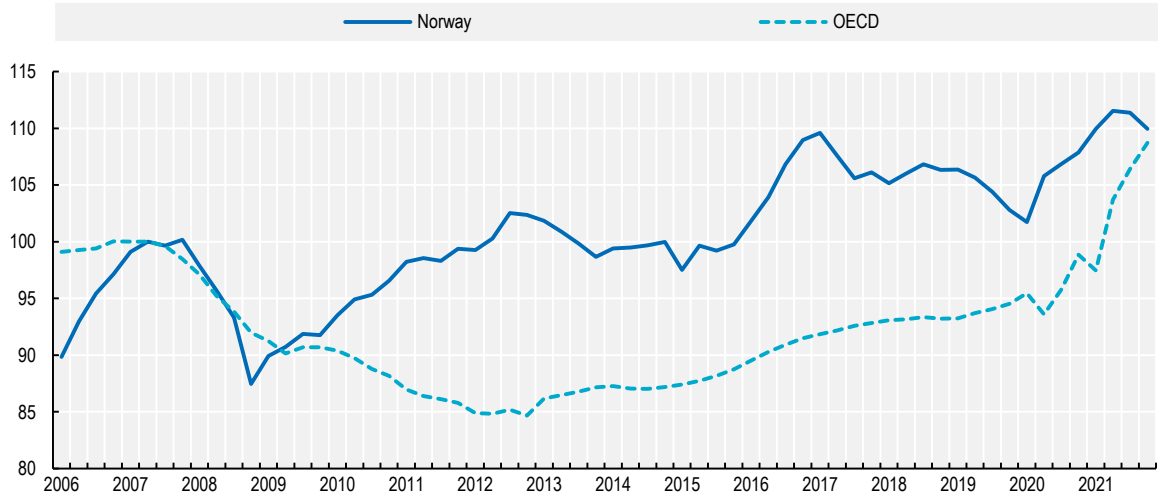
While there seems to be little cause for concern in terms of earnings and earnings inequality in Norway, increasing house prices and housing costs have put pressure on family budgets. Expenditure on housing is key when trying to understand the sustainability of household budgets since it tends to be the largest expense households face. It also tends to be relatively fixed, with little scope for making any savings if needed in a possible downturn.

Buying a home might be a priority for young couples aiming to start a family, but this has become more difficult over time. Real house prices have increased faster than incomes in both the OECD and in Norway, albeit slightly faster in Norway (OECD, 2022[36]). Figure 2.14 shows that house price to income ratios dropped sharply in 2008 and then increased back to pre-financial crisis levels at a quicker rate than on average across the OECD. Since then, house price to income ratios in Norway have remained elevated and even increased slightly. Since the outbreak of the COVID-19 pandemic in 2020, average increases in house price to income ratios across the OECD have almost caught up with those in Norway. In Q4 2021, house price to income ratios were 10% higher than in 2007 in Norway and 9% higher across the OECD (Figure 2.14).

Fast-rising house prices incentivise those who are planning to buy a home at some point to "get on the housing ladder" as soon as they can. With a strong norm to own a home, it can be stressful for young people to achieve this early life goal. An indication of this is that the average age of first-time buyers has decreased since the financial crisis in 2008-09. When couples plan their financial future, it is possible that the expense of a home purchase is prioritised over the expense of having children. At the same time, fewer young adults are able to buy a home. Falls in ownership are most pronounced for those who work part-time, have low incomes and live in the largest cities (SSB, 2019[37]; Halvorsen and Lindquist, 2017[38]). It has become more important to have parents who are willing to help with a monetary gift or to act as a guarantor on the mortgage application become increasingly important. Intergenerational transfers have increased considerably in importance around 2009, with that average marginal effect of gifts from parents to children on home ownership increased from approximately 1 to 3 between 2009 and 2014 (Halvorsen and Lindquist, 2017[38]).

Figure 2.14. House prices have increased faster than incomes since the pre-financial crisis peak

House-price-to-income ratio (indexed 100 = 2007), 2006 – 2021



Source: Norges Bank; OECD Economic Outlook database; OECD dashboard of household statistics; and Real Estate Norway (Eiendom Norge) via Refinitiv Datastream database.

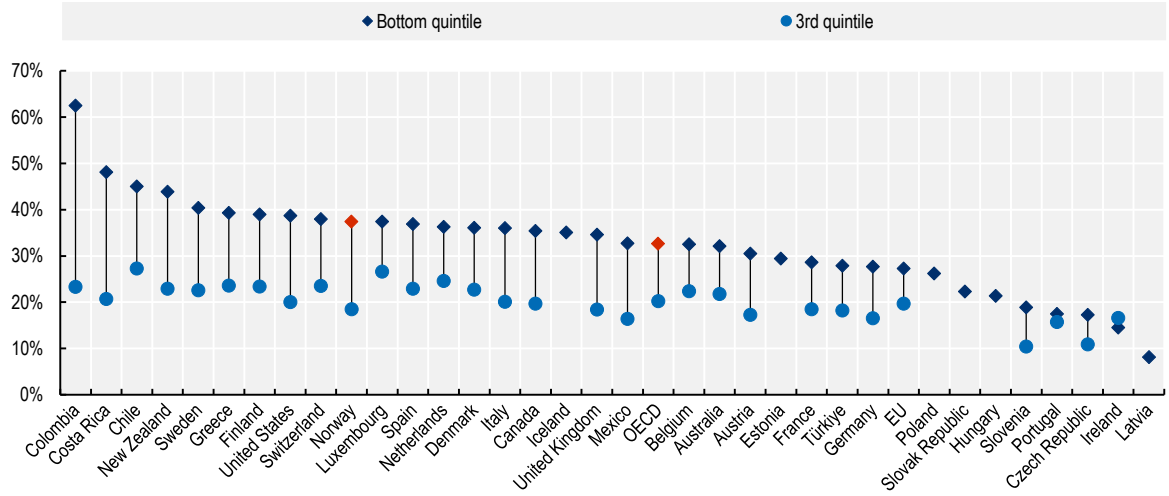
Those who end up not being able to buy a house have to resort to the rental market, but housing prices are elevated there as well (Figure 2.15). Given the increase in house prices and the strong desire of young people in Norway to move out of the parental home, it is unsurprising that the proportion of young people who live in rented accommodation has increased in recent years (Killengreen and Arnesen, 2021[39]; OECD, 2022[36]). Housing cost overburden rates are higher for tenants than for mortgagers and have increased. In 2010, 17% of private renters paid on more than 40% of their income in rent, compared to 3% of mortgagors. By 2012, this figure had increased to 24% for renters and by 2019 it was 23%, having peaked at 30% in 2015 (OECD, 2019[40]).

Norwegian renters in the bottom income quintile tend to spend more of their disposable income on housing costs (37%) compared to people in the middle income quintile in Norway and while this is higher than the OECD average (33%), households tend to spend more in Sweden (40%), Finland (39%) and Denmark (36%) (Figure 2.15). Overall, renting households with children tend to spend a slightly smaller share of their disposable income on housing costs than renters without children in Norway, as is also the case in the other Nordic countries (OECD, 2020[41]). More of the youngest people are also seeing high housing prices in Norway. One-fifth (20%) of 15- to 29-year-olds in Norway were overburdened by housing costs in 2017, which can be compared to the smaller proportions in Sweden (15%) and Finland (13%). However, even more young face high housing costs in Denmark (28%) – which may be explained by a relatively high share of young people are living on their own (OECD, 2022[20]) - and Iceland (27%) (Figure 2.16).

To improve the efficiency and fairness of taxes on housing assets Norway could cut back on tax related concessions provided to homeowners and introduce capital gains tax from home sales and scrap special wealth tax discount rates for housing. Norway could enhance the performance of rental markets by, for example, removing the income-tax concessions for owner-occupiers renting out parts of their primary residences or second dwellings. Norway could also focus on increasing the stock of social housing, especially in cities, for instance by increasing loans for construction. For a more detailed assessment of the Norwegian housing market, see OECD (2022[36]).

Figure 2.15. Housing costs are a heavier burden on lower-income groups

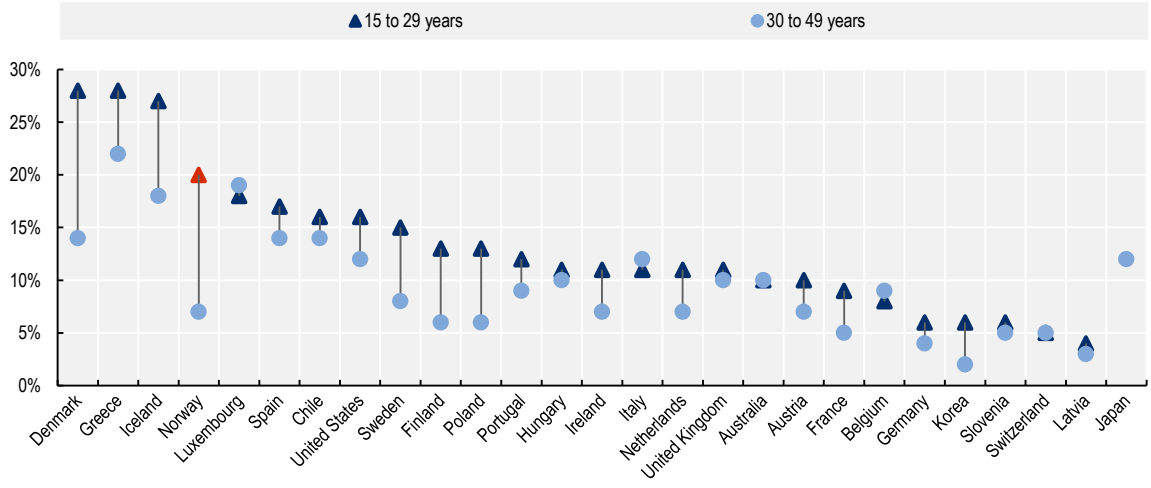
Median rent burden as a share of disposable income in the bottom and the third quintiles of the income distribution, 2020 or latest year available



Notes: Data refer to the median of rent burden of both private market and subsidised rent. In Chile, Colombia, Mexico, and the United States gross income instead of disposable income is used due to data limitations. Instead of 2020, data refer to 2019 for Germany and Italy; 2018 for Canada and Iceland; and 2017 for Chile. Data for Korea is missing.
Source: Table HC1.2 Housing costs over income. OECD Affordable Housing Database

Figure 2.16. The young face relatively high housing costs in Norway

Share of population spending more than 40% of disposable income on mortgage and rent, by age, 2017



Note: The data exclude households living in dwellings that are owned outright.
Source: OECD (n.d.[42]), Table B.1. Housing overburden rates, by age, https://www.oecd-ilibrary.org/sites/196db741-en/index.html?itemId=/content/component/196db741-en#tablegrp-d1e8933.

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Note

[1] This report takes a heteronormative approach to childbearing and childrearing. While society in Norway and elsewhere is changing, with different children growing up in families of different gender constellations, the number of couples that will have been affected by such developments during the past decade is still small. The OECD is looking forward to following developments in fertility and the LGBT+ community, especially if more data becomes available so that one can follow such developments in detail.

3 Norway's comprehensive model of family policies

Jonas Fluchtmann

Comprehensive family policy helps both fathers and mothers to engage full-time in the labour market and can play an important role in families' choices to have (more) children. Overall, the Norwegian family policy framework is a well-functioning system, which is rightfully seen as a good practice example in the OECD. However, also in Norway, family policies can be fine-tuned to improve coverage whilst also promoting a greater gender balance in its use. This chapter analyses the current state of Norway's family policy framework of parental leave policies, family cash benefits, early childhood education and care provisions, as well as out-of-school-hours supports.

3.1. Introduction and main findings

Norwegian families are supported by a wide range of family policies that offer generous paid parental leave as well as universal and affordable early childhood education and care. These supports help both fathers and mothers to participate full-time in the labour market and can be important in promoting families' choice to have (more) children. Even though the Norwegian set of policies is one of the most comprehensive across the OECD, some families may not always have access to supports when they would like to do so or otherwise face barriers in practice. Also, men face different eligibility conditions when taking shareable parental leave than women, which may reduce their average leave-taking beyond the father's quota. Overall, however, the Norwegian family policy system is working well and is rightfully seen as one of the "leaders" in family-policy in the OECD.

This chapter first provides an overview of Norway's family stance and looks in some details at parental leave, cash for care, Early Childhood Education and Care (ECEC) and out-of-school-hours (OSH) services. Throughout the chapter it refers to policy experiences across the OECD and the evidence in the literature on the impact of family policies on fertility behaviour. It also provides new evidence from cross-national econometric analysis on the impact of policy on the total fertility rate (TFR) and the mean age of mothers at the birth of their children (MAB).

3.1.1. Main findings

Norway provides a comprehensive family policy environment with well-paid parental leave and universal and affordable formal childcare. The aim of Norway's family policy environment is not primarily to encourage fertility, but rather the assurance of safe economic and social conditions that support children's development over the early life-course and contribute to overall well-being of families and support the reconciliation of work and family responsibilities of both parents.

Through a combination of paid parental leave and cash-for-care benefits, Norway provides comparatively long entitlements to care for young children at home. However, while parental leave is well-paid, replacing income up to a ceiling of NOK 55 740 (USD 5 636) per month, close to the average full-time wage, the cash-for-care benefit is paid at a lower rate of NOK 7 500 (USD 758) per month. Both parents have earmarked parental leave quotas, topped up with a sharable leave period. While there is high take-up among fathers, they rarely take leave beyond their quota. Fathers are also subject to stricter eligibility requirements for shareable leave, with entitlement only if the mother works or studies at a minimum of 75% of full-time hours. To further increase leave uptake by fathers, Norway could consider aligning the eligibility requirements for both parents to take shareable parental leave, so that mothers do not have to be in employment or study for fathers to use it. Alternatively, shareable parental leave could be phased out over time, while eventually granting each parent half of the entire leave at default with the option of transferring some of weeks to their partner, similar to approaches in Iceland and Finland.

Since large-scale increases in the availability of early childhood education and care (ECEC) places in the early 2000s, Norway provides universal and affordable childcare in their kindergartens with a statutory right to a place from age 1. Norway therefore has very high enrolment in ECEC, which is often positively related to fertility trends across the OECD. However, even though a statutory right should ensure a continuum of family-friendly supports throughout childhood in theory, in practice, there can be gaps. For example, depending on their birthday, children who are born between 1 December and 1 July are 13 to 20 months old before they become entitled to a kindergarten place, which leaves their parents to find alternative care solutions. One option to avoid this gap would be to grant the right to a kindergarten place at the end of the month children turn 1 for all children regardless of their birthday. This would contribute to phasing out the cash-for-care benefits, which are frequently used to cover for the time between paid parental leave and kindergarten enrolment. Such an approach is, for example, taken in Denmark, where children have the

right to attend ECEC once they are 26 weeks old, this may not work for all children in practice, but the approach gives a clear policy signal on the prevailing rights of families.

A wide availability of discounts on parental fees for kindergartens makes the ECEC system affordable for most. While this is particularly helpful for low-income families and those with multiple children in ECEC, there is a significant gap in eligibility and take-up. This may have been related to difficult documentation procedures based on previous tax records that parents had to submit to municipalities. This process has recently been streamlined by allowing municipalities to directly obtain administrative records from the tax authorities to automatically grant eligible families discounts.

All Norwegian municipalities offer out-of-school hours services (OSH) which help families combine their family and career commitments once their children enter primary school. While take-up among the youngest school children is high, attendance drops sharply for children in higher grades of primary school. Older children lose appetite for attending OSH services, but relatively high fees may also play a role. For example, ECEC fees are lower for the second child of a family who participates in ECEC, but this discount does not apply to families with one child in ECEC and another attending OSH-services. The recent introduction of free 12 hours of OSH for first graders is a good step in making the system more affordable but could be extended to further grades as well, as done in some municipalities. The implementation of a national OSH-curriculum in August 2021 may also improve and streamline the quality and attractiveness of OSH-services in Norway.

To explore what underlying drivers are associated with changes in fertility rates, this chapter also presents an OECD-wide regression that estimates the effect of changes in different aspects of the family policy framework in a specific country and its respective fertility outcomes. The results do not establish causal relationships but do suggest that fertility outcomes are associated with public expenditure on the provision of ECEC services and parental leave allowances. Increases in both expenditure categories are significantly associated with rising TFRs and decreases in the mean age of mothers at the birth of their children. At the same time, expansions of parental leave entitlements are also linked to changes in fertility outcomes, associating more leave available to mothers with higher TFRs. Increases in family allowances paid throughout childhood are positively associated with higher TFRs, but their effect is only weakly significant.

3.2. The family policy environment in Norway

Together with its Scandinavian neighbours, Norway defines the Nordic model of family and gender-equality policy with wide-ranging public family supports for parents of young children. At about 3.3% of annual GDP in 2019, public spending on family benefits is Norway is among the highest in the OECD (Figure 3.1). However, Norwegian family policy is not necessarily driven by explicit aims around the increasing of birth rates. Instead, the primary motivation for extensive family policy support in Norway is supporting the reconciliation of work and family responsibilities of both parents and ensuring economic and social conditions that enhance the development of children over the early life-course and contributes to the overall well-being of families and children (OECD, 2018[1]; Lappegård, 2009[2]; Esping-Andersen, 1999[3]).

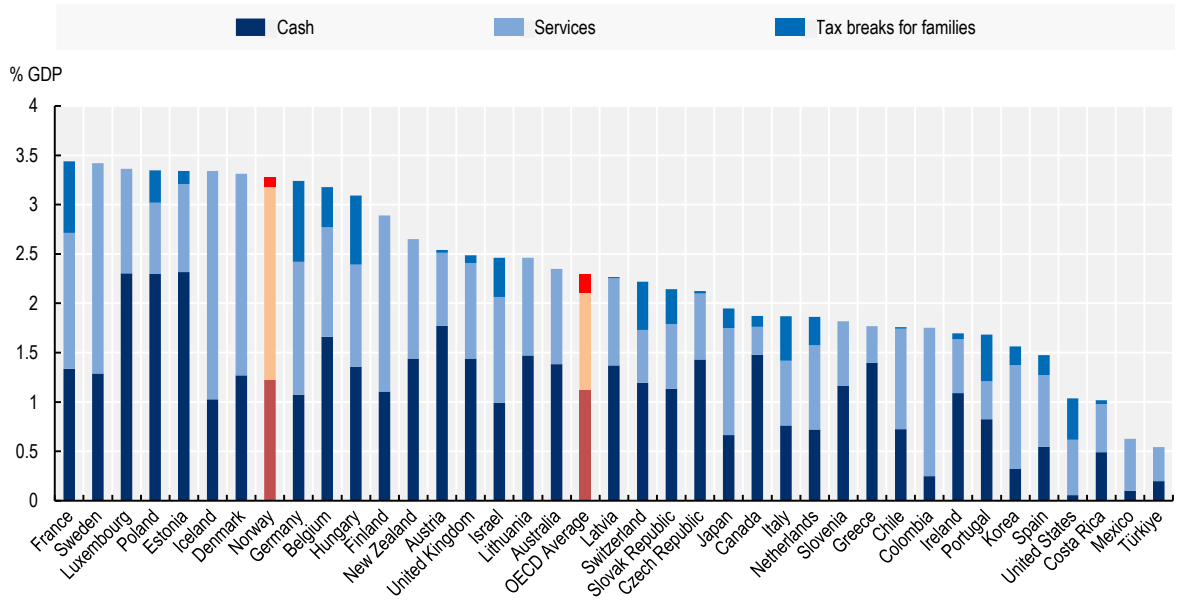
Across the OECD, different emphases on underlying family policy objectives lead to differences in the design of family policy across countries. In some countries with elements of “pro-natalist” family policies – a proportional increase in cash and/or fiscal supports for families with 3 or more children, like Hungary (Box 3.1), families are also provided with financial support through universal cash benefits and tax breaks that are designed to facilitate one parent – often the mother – to care for children at home up to the third birthday.

In Norway, the aim of full labour market participation by fathers and mothers is facilitated through services and supports that promote the combination of work- and family responsibilities, including paid parental leave. Norway also recognises the right of fathers regarding their children and of children regarding their fathers and aims to facilitate a central role for both fathers and mothers in the household and the care for children (Ministry of Children and Families, 2017[4]). Upon expiry of paid leave, families have access to the system of family services, including an extensive Norwegian ECEC system.

Trust in the family policy system is high among the Norwegian population, with robust expectations regarding the stability of its generous support provisions. A large portion of the population is also highly supportive of policy interventions that support gender equality at home and in the labour market. As such, Norwegian family policy provides low barriers to parenthood (Ellingsæter and Pedersen, 2015[5]; Jakobsson and Kotsadam, 2010[6]).

Figure 3.1. Public spending on family benefits

Public expenditure on family benefits by type of expenditure, in percent of GDP, 2019 or latest available



Note: Public spending accounted for here concerns public support that is exclusively for families (e.g. child payments and allowances, parental leave benefits and childcare support), only. Spending in other social policy areas such as health and housing support also assists families, but not exclusively, and is not included here. Coverage of spending on family and community services in the OECD Social Expenditure data may be limited as such services are often provided and/or co-financed by local governments. The latter may receive general block grants to finance their activities, and reporting requirements may not be sufficiently detailed for central statistical agencies to have a detailed view of the nature of local spending. In Nordic countries (where local government is heavily involved in service delivery) this does not lead to large gaps in the measurement of spending, but it does for some countries with a federal structure, for example, Canada and Switzerland. National authorities provided estimates on the value of tax breaks for Switzerland. Spending for the United Kingdom is likely to be underestimated, as information on the tax part of the WTC and CTC are no longer available, they have been estimated.
Source: OECD Social Expenditure Database.

Box 3.1. A mix of long leaves and cash incentives for higher-parity births in Hungary

Following low fertility rates since the early 2000s, Hungary has adapted a decidedly pro-natalist stance with wide-ranging family supports aimed at stimulating fertility, particularly higher-parity births. This has culminated in one of the highest expenditures on public family benefits across the OECD (3.09% of GDP in 2019) and appears to have stabilised falling fertility. The policy approach includes:

- Infant care (*CSED*) and childcare fee (*GYED*): Parental leave benefits for parents paid until the child's third birthday. Insured parents, receive two years of an earnings-related parental-leave benefit (GYED) followed by one year of a flat-rate benefit (GYES). GYED is paid up to a limit of HUF 234 360 (USD 584). GYED, which is also available for uninsured parents for three years, is a flat-rate benefit of HUF 28 500 (USD 71) – far less generous than GYED.
- Family allowance (*családi pótlék*): A non-contributory, non-means-tested cash benefit available to all families, with payment dependent on family size. In 2022, parents with one child receive 12 200 HUF (USD 30.41) per child/month, while those with three or more children receive 16 000 HUF (USD 39.88) per child/month.
- Housing benefit (*CSOK*): A benefit for the purchase or construction of housing dependent on the number of (planned) children in the family. It consists of a non-refundable subsidy ranging HUF 600 000 (USD 1 495) in the case of one (planned) child to HUF 10 million (USD 24 923) for three or more (planned) children. Families with two or more (planned) children are also eligible for an additional loan with reduced interest rates.
- Tax base allowance (*családi kedvezmény*): A per-child non-refundable allowance deductible from taxable income, also increasing with family size. In 2022, families with one child receive a discount of HUF 66 670 (USD 166) on their tax base, while families with three children receive a discount of HUF 660 000 (USD 1 645). Through *NÉTAK,* mothers who have had four or more children are fully exempt from personal tax on work-related income.

Such strong family supports seem to have stopped the downward trend in fertility rates, but at substantial fiscal cost without countering the ongoing population declines. Among the various measures, grants towards homeownership seem to have had the biggest upward effect on birth rates (Szántó, 2021[7]; Szabo-Morvai, 2019[8]).

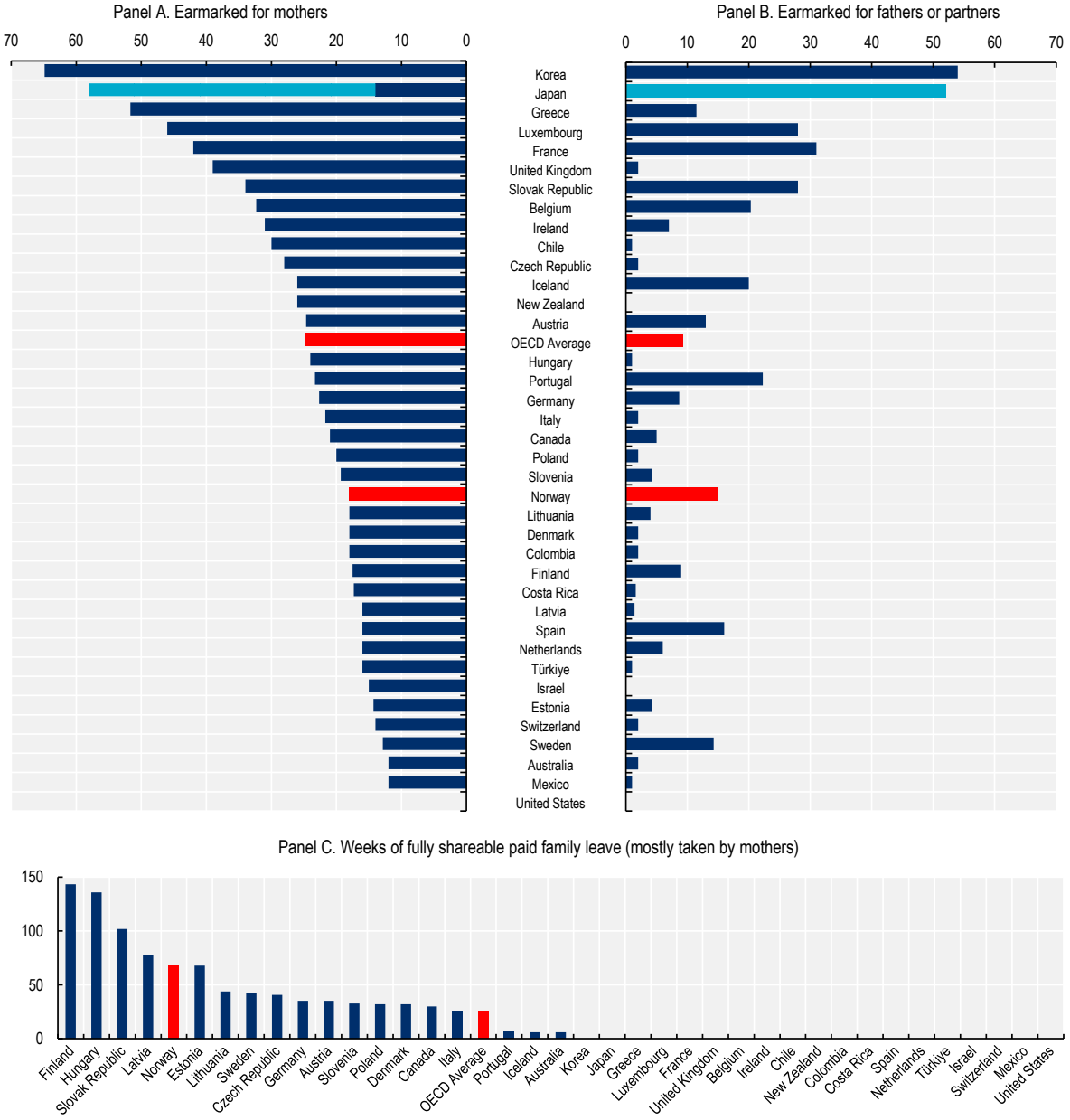
Source: Albert (2020[9]), OECD (2022[10]).

3.3. Norwegian family leave is comprehensive and norm-setting

Through its paid parental leave (*foreldrepengeperioden*), Norway grants parents relatively well-paid employment-protected family leave entitlements of considerable length, made up of separate individual entitlements for fathers and mothers along with a shareable part of the parental leave period (the design of parental leave is a topic of considerable debate in Norway (Ellingsæter, 2020[11]) as elsewhere). Norway does not have a separate maternity leave entitlement, but like, for example, Iceland, Portugal and Sweden, it offers paid parental leave reserved for the exclusive use of the mother (Figure 3.2). This so-called maternal quota (*mødrekvoten*) grants three weeks of paid job-protected leave before birth and either 15 weeks (the "normal option") or 19 weeks following birth (the "long option"). For health reasons, it is mandatory for mothers to take at least 6 weeks of leave following birth, while any kind of paid parental leave entitlement can be taken up to child's third birthday after this period. In addition to paid parental leave, mothers who breastfeed are also entitled to a breastfeeding break from work of up to one hour per day for children under one year old, fully paid by their employer (Bungum and Kvande, 2021[12]).

Figure 3.2. Taken together, father's and mother's leaves in Norway are relatively long

Duration of paid family leave entitlements in weeks, 2022



Note: Information refers to paid birth-related leave entitlements to care for young children in place as of April 2022, such as maternity-, paternity- home care- and parental leave. Leave entitlements for Norway assumes that parents opt for the shorter but higher paid "49 week" parental leave option. The 18 weeks of parental leave reserved for the mother are recorded as a maternity entitlement. It is further assumed that the child is not attending publicly funded early childhood education and care (ECEC) services, thus parents receive the flat-rate cash-for-care benefit for one year after parental leave expires. Periods labelled "earmarked for mothers" (Panel A) and "earmarked for fathers or partners" (Panel B) refer to individual non-transferable entitlements for paid employment-protected leave of absence for employed parents and/or paid maternity and paternity leave (or birth leave for partners), "mummy and daddy quotas" or periods of an overall leave entitlement that can be used only by one parent and cannot be transferred to the other, and any weeks of shareable leave that must be taken by one or both parents for the family to qualify for "bonus" weeks of parental leave. Weeks of fully shareable leave (Panel C) refer to parental- and home care leave entitlements that can be freely shared between mothers and fathers/partners.

Data reflect entitlements at the national or federal level only and do not reflect regional variations or additional/alternative entitlements provided by states/provinces or local governments in some countries (e.g. paid leave in California, the United States, or supplements to the home-care allowance in some Finnish municipalities), or any employer-provided benefits that are paid beyond the statutory minimum duration. Parents are assumed to take the option with the highest available weekly payment. Data refers to statutory entitlements only. For some countries (e.g. Japan) the individual parental leave entitlements for the mother must be taken used simultaneously with the partner if both parents are to use the entirety of their entitlement and are therefore presented in turquoise. See more information in the OECD Family Database indicator.

Source: OECD Family Database Indicator PF2.1 and Indicator PF2.5.

Similar to maternity leave, there is no separate paid paternity leave programme, but fathers have the right to 2 weeks of unpaid, job-protected "daddy-days" (*omsorgspermisjonen*) after the birth of their child. Many fathers receive employer-provided paid leave benefits as agreed through collective or individual bargaining, but payment rates vary. Instead of statutory paternity leave, fathers – or same-sex partners – are entitled to the paternal quota (*fedrekvoten)* in parental leave*,* which offers the same post-birth right to paid parental leave as mothers (i.e. 15 or 19 weeks), and is subject to the same eligibility criteria. When it introduced this entitlement in 1993, initially for 4 weeks, Norway was the first country worldwide to offer fathers a non-transferable right to parental leave (Haas and Rostgaard, 2011[13]).

Parents are further entitled to a fully shareable period of paid parental leave (*fellesperioden*), which can last either 16 weeks under the normal option or for 18 weeks under the long option and can be shared by fathers and mothers (Bungum and Kvande, 2021[12]). In 2021, about 79% of parents used the long option, which is an increase by more than 20 percentage points compared to 2012 (Arbeids- og velferdsetaten, 2021[14]). After the first 6 weeks of leave, all parental leave can be used on a part-time basis combined with part-time employment (with agreement of the employer) or divided into smaller blocks of time (Bungum and Kvande, 2021[12]).

The maternal and paternal quota, as well as the shareable period of paid parental leave, grants a total of 49 weeks of a parental benefit (*foreldrepenge*) at 100% of previous earnings, capped at 6 times the national insurance scheme basic amount[1] (NOK 55 740 or USD 5 636 in 2022), for the normal option (about as much as average gross monthly earnings). In practice, many collective or individual agreements cover the difference between the cap and full replacement of previous income, including in the public sector. The "long option" grants a total of 59 weeks of parental benefit at 80% of previous earnings and is capped at the same monthly threshold as the normal option. The parental benefit is the same during the maternal and paternal quota as well as the shareable period, and only differs by the chosen duration (Bungum and Kvande, 2021[12]). Overall, the compensation during parental leave is relatively high in comparison to many other OECD countries (*OECD Family Database*). In addition to the parental benefit, both parents have the right to a full year of unpaid leave after their entitlement to paid parental leave ends (*ulønnet permisjon*), up to the child's third birthday.

In comparison to other OECD countries, the Norwegian parental leave system stands out in terms of the length of shareable leave entitlements and those reserved for the exclusive use of fathers, while earmarked entitlements for mothers are shorter than elsewhere. Across the OECD, for example, mothers receive 25 weeks of reserved maternity and paid parented leave on average, which is 7 weeks longer than what the maternal quota offers under the normal option (Figure 3.2, Panel A). However, Norway's paternal quota is almost twice as long as the average paternity and paid parental leave reserved for fathers across the OECD (Figure 3.2, Panel B), while the shareable paid parental and home care leave under the normal and highest-paid option is more than twice as long as on average across the OECD (Figure 3.2, Panel C).

Compared to other Nordic countries, Norway has longer overall entitlements to paid parental leave for fathers and mothers than in Iceland and Sweden (Denmark introduced 11 weeks of leave earmarked for fathers in August 2022). However, the duration of total entitlements is not as long as in Finland, where paid home-care leave can be taken until the child turns 3. Despite the comparatively long parental leave in Norway, previous reforms in the 1980s, 1990s, and early 2000s that led to this entitlement have not had an effect on women's likelihood to make it to the top in companies, and no impact on gender gaps in hours and pay (Corekcioglu, Francesconi and Kunze, 2022[15]).

3.3.1. Fathers have stricter eligibility requirements for parental leave taking than mothers

The general eligibility criteria for the maternal and paternal quota are the same – either parent must have been in employment for 6 of the last 10 months before expected birth while having earned at least half the national insurance scheme basic amount the previous year (NOK 54 892 or USD 5 550 in 2022). Mothers that do not fulfil the general eligibility criteria are entitled to a tax-free one-off payment at birth (NOK 90 300

or USD 9 403 in 2022), which concerns about a fifth of all mothers, mostly those with births at younger ages and those with a migration background (Bungum and Kvande, 2021[12]; Hasane, 2020[16]).

However, there are some differences regarding eligibility when it comes to the employment status of mothers' and fathers' partner. Fathers can only use their quota if the mother is also eligible for parental benefits, while for mothers there is no requirement on their partner's eligibility status. Similarly, mothers can take the shareable paid parental leave period without any requirements on their partner's employment status, but fathers can only use the shareable period of paid parental leave if the mother takes up work or studies at a minimum of 75% of full-time hours (Bungum and Kvande, 2021[12]). Therefore, about 13% of all fathers are not eligible for parental benefits (Kitterød, Halrynjo and Østbakken, 2017[17]). These differences in eligibility criteria for fathers and mothers, are justified with reference to the notion that leave taking by fathers can only improve the division of paid and unpaid work between both parents if fathers are at home on leave while mothers are at work (or study) at the same time (Norwegian Ministry of Children and Equality, 2016[18]).

Norway could align the eligibility criteria for parental leave for fathers and mothers, with potentially positive effects on paternal leave-taking, and the division of childcare among parents.[2]

3.3.2. Many fathers take leave, with positive effects for the whole family

Since the introduction of the paternal quota in 1993, Norwegian fathers have substantially increased their use of leave, but their usage is highly dependent on the length of their quota (Kvande, 2022[19]). For example, fathers took out almost 38% of leave days in 2022, which is reasonably close to the share of parental leave entitlements that is reserved for them. Indeed, as 90% of fathers took parental leave, 70% did so for precisely the length of the paternal quota (Shou, 2017[20]; Rudlende and Bryghaug, 2017[21]; Kitterød, Halrynjo and Østbakken, 2017[17]). Recent changes in the paternal quota also had a direct impact on the distribution of leave taken. For example, after several reforms that increased the quota over the years, it was reduced from 14 weeks to 10 weeks in July 2014, which led to a decrease in fathers' share of leave taken in the following years. An increase to 15 weeks in July 2018 (under the normal option) led to a subsequent rise in the share of leave days taken by fathers (Figure 3.3).

There is scope to scope to encourage more equal sharing of leave entitlements among parents in Norway. For example, the shareable part of paid parental leave could be phased out over time, by simultaneously increasing both the paternal and maternal quota by a transferable right that eventually reaches additional 9 weeks of leave (under the normal option). This would keep the non-transferrable right for both parents at the same level and still allow for a similar division of leave as today but may create a new default norm of equal leave taking for fathers and mothers.

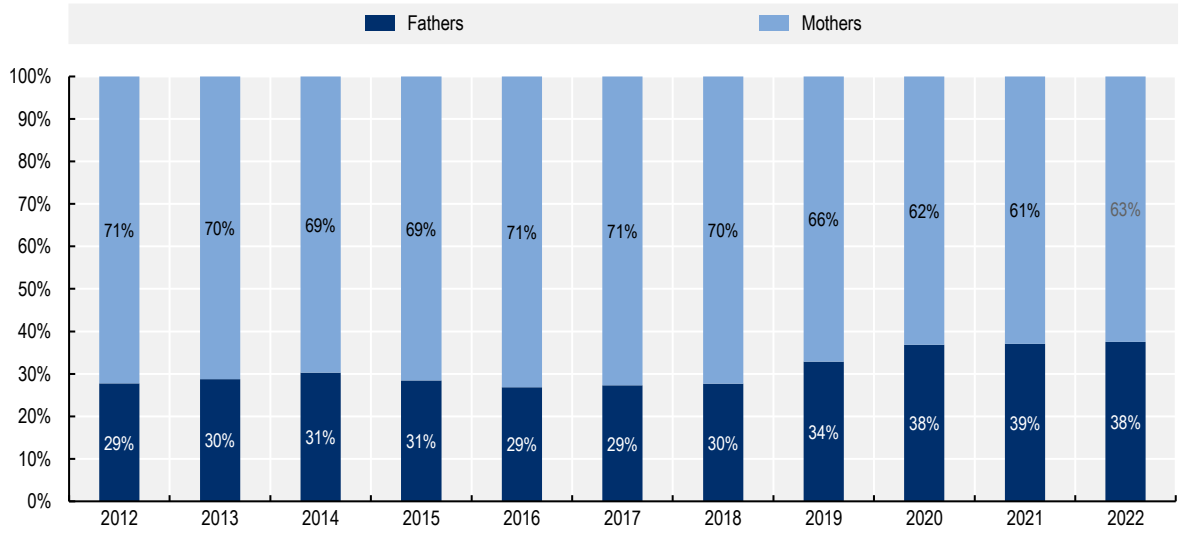
Such a system where each parent gets the same amount of allocated paid leave entitlement is, for example, in place in Iceland, where 6 months of paid leave are reserved for fathers and mothers each, with 6 weeks of the individual entitlement transferable to the partner (Eydal and Gíslason, 2021[22]). Finland recently also introduced similar individual entitlements with a transferable portion. Since September 2022, both parents are entitled to 6.4 months of leave, of which 2.5 months can be transferred to the other partner (Finnish Ministry of Economic Affairs and Employment, 2022[23]).

Periods of parental leave that are reserved for fathers have shown to be an important contributor to family well-being and the ability to combine household and care responsibilities with careers on the labour market. For example, international evidence suggests that fathers' leave taking can increase the relative income of mothers and lead to a more equal division of unpaid house- and care work in couple households an effect which persists well beyond the years of actual leave-taking (Patnaik, 2019[24]; Tamm, 2019[25]; Druedahl, Ejrnæs and Jørgensen, 2019[26]; Knoester, Petts and Pragg, 2019[27]). This increased involvement additionally improves the communication and closeness between children and fathers (Petts, Knoester and Waldfogel, 2019[28]). Recent evidence suggests that the availability of reserved leave for

fathers increases the overall life satisfaction for both parents, but particularly for mothers (Korsgren and van Lent, 2022[29]). At the same time, Norwegian employers generally have a favourable view of the paternal quota (Brandth and Kvande, 2019[30]). However, there is little evidence on whether employers are supportive of fathers that take leave beyond the paternal quota. Such support would be essential to reduce the remaining discrepancies in leave uptake and the time dedicated to childcare and unpaid work in the household in general, as well as to eradicate the disproportionate earnings and employment penalties that mothers face relative to fathers once becoming a parent (for example, Kleven et al. (2019[31])).

Figure 3.3. Men's share of leave days taken increases, but mostly in line with their quota

Gender distribution of parental benefit days taken, 2012-22



Note: The data contains both leave at 100% payment coverage and leave at 80% coverage and the distribution of days taken does not differ to markedly between both options.
Source: Arbeids- og velferdsetaten - Foreldrepenger, engangsstønad og svangerskapspenger.

There is mixed evidence on the effect of leave use among fathers in Norway on fertility rates (Duvander et al., 2019[32]; Duvander, Lappegård and Andersson, 2010[33]; Bergsvik, Fauske and Hart, 2020[34]; Duvander, Lappegard and Johansson, 2020[35]). However, a more equal division of paid- and unpaid work could dampen the worries over negative effects of births on career and leisure, which is already one of the biggest concerns among childless Norwegians (Cools and Strøm, 2020[36]) (more on the link between parental leave and fertility in Section 3.7.3).

3.4. Cash-for-care benefits have become less important

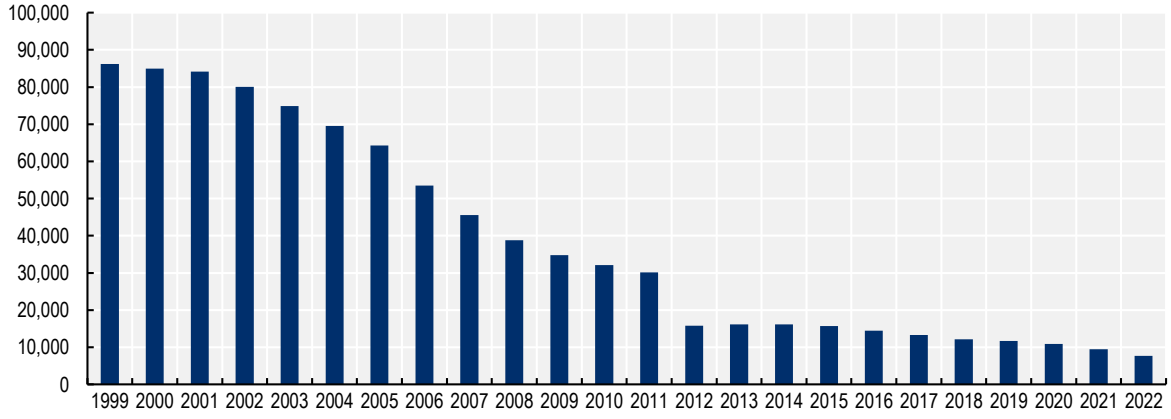
If their child is not attending publicly funded ECEC services, parents with a child between the age of 1 and 2 can receive a "cash-for-care" benefit (*kontantstøtte*). Norway introduced the benefit scheme in 1998 – prior to a large-scale expansion of the ECEC sector (see more in Section 3.5 below) – intending to give parents the freedom of choice between kindergarten and spending more time with their children, while also supporting those unable to find a kindergarten spot. The benefit initially paid NOK 3 000 (USD 304) per month to parents of children aged one not attending kindergarten but was temporarily extended to those aged 1 or 2 in 1999 and 2012. Today, parents of children aged 1 who do not attend kindergarten can receive NOK 7 500 (USD 758) per month, which is substantially lower than the parental leave benefit. The

cash-for-care benefit is paid up to and including the month the child starts kindergarten and can also be paid at reduced amounts for part-time kindergarten attendance (Bungum and Kvande, 2021[12]; Bungum and Kvande, 2013[37]).

The cash-for-care benefit has been subject to much public and political debate over the last two decades. While the benefit was initially popular, used by 91% of all eligible parents, it has since lost much of its appeal following the expansion of the ECEC sector since 2003, so that in 2022 only about 15% of all eligible parents received it (Figure 3.4). Evolving from being an alternative to ECEC for children, today the cash-for-care benefit is mainly used to cover the potential gap between the end of paid parental leave and entering kindergarten (Bungum and Kvande, 2021[12]; 2013[37]).

Figure 3.4. Cash-for-care benefits have become less popular among Norwegian parents

Recipients of cash-for-care benefits, as per 31 December



Note: There is no official data for 2017, but here it has been imputed with the average of recipients in 2016 and 2018. Benefits for two-year olds have been phased out in 2012, which explains the sharp drop in recipients that year.
Source: Arbeids- og velferdsetaten - Kontantstøtte

In terms of fertility rates, it has been found that the cash-for-care benefit slowed the progression to second births and decreased births among employed mothers with upper secondary education (a more detailed discussion on the link between fertility and cash benefits can be found in Section 3.7). This may be explained by interactions of the cash-for-care benefit scheme with the Norwegian parental leave framework, as mothers first have to return to work for a minimum of six months before becoming eligible again to parental leave (Andersen, Drange and Lappegård, 2018[38]).

Ever since its introduction, the cash-for-care benefit has been seen as an obstacle to gender equality and has thus been heavily debated in Norway. One main criticism concerned its initial effect on the relative price between public childcare and care at home, which contributed to a decline of female labour force participation when the benefit was introduced. This effect was particularly strong for low-income workers, including many non-western immigrant mothers – a 5-year residency requirement was introduced in July 2017 (Arntsen, Lima and Rudlende, 2019[39]; Hardoy and Schøne, 2010[40]). Similar effects on female labour force participation have been observed following the introduction of a substantial child benefit in Poland (Box 3.2).

Box 3.2. Family cash benefits can push women out of the labour market

The post-1989 economic transition of Poland, contributed to a drop in the TFR to around 1.2 children per women in the early 2000s. To counter this trend and to reduce future demographic pressures, Poland introduced a range of policies aimed at making it easier for families to have children, resulting in public spending on family benefits increasing to 3.35% of GDP in 2019, well above the OECD-average of 2.29% of GDP. The system comprises a range of policies, in part explicitly incentivizing higher-parity births:

- Parental leave (*urlop rodzicielski*): A family entitlement to 32 weeks of parental leave, paid at different replacement rates between 60 and 100% of previous earnings.
- Basic family allowance (Zasiłek rodzinny): A child benefit of between PLN 95 (USD 20) to PLN 135 (USD 29) per child, dependent on the age of the child and paid for children up to the age of 24.
- 500+ programme (*Rodzina 500+*): A tax-free benefit paying PLN 500 (USD 106) for each child up to the age of 18. Initially only paid for all second births and above, it was extended to cover all families in 2019.
- Supplementary family allowance (*dodatek z tytułu wychowywania dziecka w rodzinie wielodzietne*j): A supplement of PLN 95 (USD 20) paid for the third and subsequent children entitled to family allowance.

Despite spending large sums on family benefits, this did not lead to a major increase in birth-rates. For example, the tax-free cash benefit for all second births and above offered through the Polish *500+ programme* from 2016, has led to marginally increasing births in the year after its introduction. However, since 2017, the Polish TFR has not increased. At the same time, the reform has reduced financial incentives to work for mothers with young children, particularly those with limited earnings. With negative effects on maternal labour supply, the reform may therefore limit gender equality in the labour market and reduce the tax base of the Polish economy (Magda, Kiełczewska and Brandt, 2020[41]; Bargu and Morgandi, 2018[42]).

Poland has recently launched a new *Demographic Strategy 2040*, which aims to lift TFRs closer to replacement level. This strategy is focused on three goals: strengthening the family, removing barriers for parents wishing to have children and improving the quality of governance and implementation of policies. Whether it will be effective in lifting the TFR remains to be seen, yet a return to replacement level fertility is unlikely.

Source: Bargu and Morgandi (2018[42]), Magda, Kiełczewska and Brandt (2020[41]), Hoorens et al. (2011[43]), Ekert (2022[44]), Ministry of Family and Social Policy (2022[45]).

Since 1 August 2022, the cash-for-care benefit is no longer granted in the month the child starts kindergarten. This new policy is estimated to reduce public expenditure by about NOK 102 million (USD 10.31 million) in 2022 and NOK 152 million (USD 15.37 million) in 2023. In addition, the government is considering a replacement of the cash benefit for children between 18 and 24 months with a toddler benefit (*småbarnstøtte*), paid only to those who have applied for, but not received, a kindergarten place (Finansdepartementet, 2021[46]).

Box 3.3. Long-standing pro-natalist policy in France prop up birth rates

France has long-standing pro-natalist elements in its policy framework, i.e. the "code de la famille", first launched in 1939 amid worries of population decline, and still in place in updated form today. The system includes parental leave and parental allowance policies, subsidised childcare and other measures to encourage high labour market participation of both mothers and fathers. Some policies in France, however, explicitly incentivise families to have more than two children (*famille nombreuse*). As a result of this comprehensive family policy framework, France had the largest expenditure on family benefits in the OECD, amounting to 3.44% of GDP in 2019. While, in recent years, policy focus has shifted more and more toward ECEC provision to help parents balance work and family life, France nevertheless continues to incentivise higher-order births through a range of family benefits:

- Childcare allowance (*PreParE*): Parents of a single child receive six months of childcare allowances per parent during parental leave, payable at between EUR 149 and EUR 398 per month, depending on income and employment situation. Parents with two or more dependent children under the age of 20 can receive the childcare allowance for a total of 36 months, with a maximum of 24 months to any one parent. Lower income families also receive a supplementary early childhood allowance (*Allocation de base, PAJE*) of up to EUR 171.
- Family allowance (*allocation familiale*): Parents with two or more dependent children under the age of 20 can receive a means-tested family allowance, which increases with the number of children and is further increased for each child over the age of 14 years (for two children only for the eldest). Depending on household income and age of the children, a family with 3 children can for example receive between EUR 80 and EUR 530 in monthly benefits.
- Supplementary family allowance (*complément familial*): Parents with at least 3 children above the age of 3 also receive a means-tested supplementary family allowance between EUR 182 and EUR 273 per month.
- Family quotient (*quotient familial*): The net taxable income of a married household (or those in registered partnerships) is divided by a certain number of tax shares that depend on the size of the family. Joint households without children divide their net taxable income by 2, whereas those with 1 child do so by 2.5 and those with 2 children by 3, while families with 3 or more children receive one additional tax share per child.

France has one of the highest fertility rates in the European Union and the OECD. While there is a lack of comprehensive studies that measure the casual effect of family policy on fertility rates in France, it seems to have created favourable sentiments toward families with two or three children and a decreased likelihood to stay childless (Thevenon, 2010[47]). Overall, financially incentives for childbirth seem to have contributed to sustaining birth rates (Laroque and Salanié, 2013[48]). Recent evidence also suggests that the supplementary childhood allowance contributes to earlier childbirth, so that a restriction of eligibility criteria for the supplementary early childhood allowance (*PAJE*) exerted a downward effect on the TFR, part of which may be due postponement of births (El-Mallakh, 2021[49]).

Source: Thévenon (2010[47]), Boyer and Fagnani (2021[50]), République Française (2021[51]).

In addition to parental leave and cash-for-care benefits, Norway also pays a monthly child benefit until the child turns 18 (*Barnetrygd*). The child benefit can be paid either to the father or mother or split equally between them if they live together. It amounts to NOK 1 676 (USD 169) per child for under 6-year-olds and NOK 1 054 (USD 107) per child for over 6-year-olds. Parents with sole custody of their children may also be entitled to an extended child benefit (*utvidet barnetrygd*) of an additional NOK 1 054 (USD 107). While the Norwegian cash benefit system is comprehensive, it does not directly incentivise higher-parity births, such as the French family benefit system (Box 3.3).

3.5. Early childhood education and care (ECEC) is widely available and affordable

After the entitlement to paid parental leave runs out, employed parents can use ECEC services for their children, to help them combine a return to full- or part-time work with the child's need for care. Under the Kindergarten Framework Plan, Norwegian kindergartens aim to address children's need for care, play and development, while also promoting learning, community, and communication (Utdanningsdirektoratet, 2017[52]). The availability of ECEC services has important positive links to fertility (Section 3.7), especially on higher order births, while the affordability of these services appears to have positive links to first births (Bergsvik, Fauske and Hart, 2020[34]).

3.5.1. Many children attend kindergarten from the age of one

In contrast to many other OECD countries, Norwegian ECEC is a unitary system in which a single entity, the kindergarten (*barnehage*), provides predominately centre-based childcare services to children from age zero up to school start in the year they turn six.[3] Kindergartens usually operate for 9 to 10 hours a day between Mondays to Fridays, while children can attend full- or part-time. Kindergarten attendance is not compulsory, but a combination of wide-spread availability and comparatively low prices ensure high attendance rates, which is among the largest in the OECD for under 3-year-olds and almost universal among 3 to 5-year-olds (Figure 3.5) (Trætteberg et al. (2021[53]), *OECD Family Database*).

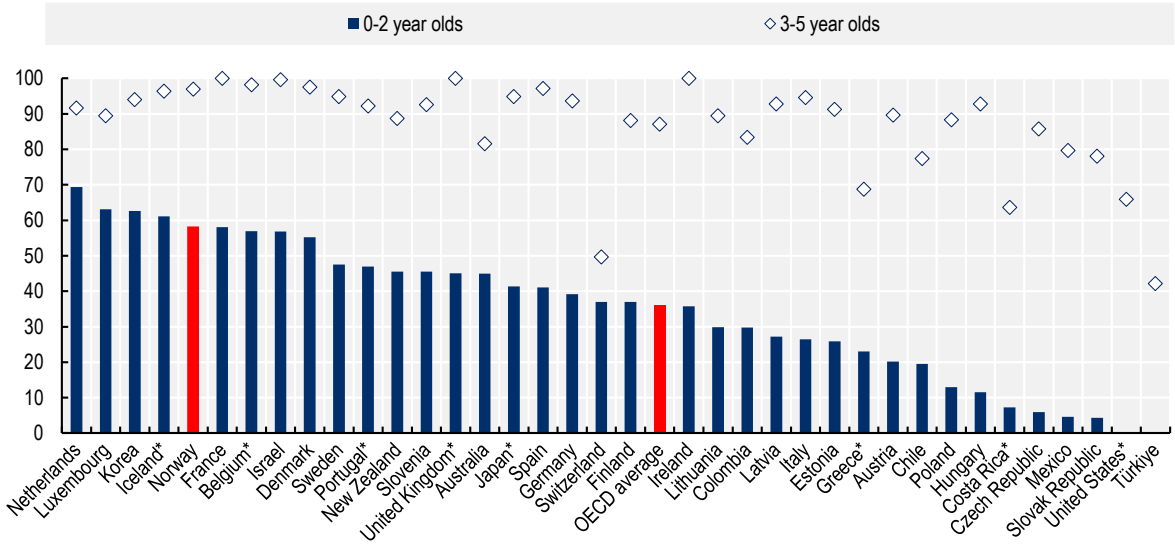
In 2021, roughly similar numbers of children attended private (49.7%) and municipal or other public (50.3%) kindergarten (Statistics Norway, 2023[54]). Both types of kindergarten receive similar funding, with more financing for younger children, which require a lower child-to-staff ratio than the older ones. Municipal funding covers about 80% of the running costs, with the remainder financed by parental fees and a small part contributed by earmarked government subsidies and other grants from municipalities and centre owners (Utdanningsdirektoratet, 2021[55]; Trætteberg et al., 2021[53]).

The staff in Norwegian kindergarten consists of about 40% qualified kindergarten teachers and 20% childcare and youth workers, while the rest is made up of other professions. Regulations require that there is a minimum of one core staff member for every 3 children under the age of 3 and one for every 6 children over the age of 3. For the latter, there also needs to be at least one qualified kindergarten teacher for every 14 children. There is a slightly larger staff density in public (5.7 children per staff member) than in private (6.0 children per staff member) kindergartens (Utdanningsdirektoratet, 2021[55]; Trætteberg et al., 2021[53]).

The high attendance rate in Norwegian kindergarten, especially for children aged 1-2 years, is a result of a broad political consensus that led to significant changes to the financial and legal framework of the ECEC sector in 2003. To meet the growing demand and consolidate the sector, the so-called Kindergarten Agreement (*Barnehageforliket*) substantially increased access and affordability of the ECEC in Norway. Previously, demand for kindergarten places far exceeded supply, while childcare fees varied considerably and were especially expensive in private kindergarten. Many families had to rely on alternative childcare solutions, such as childminders or the help of family members, and kindergarten enrolment rates for the youngest children were low (Figure 3.6) (Trætteberg et al., 2021[53]; Norwegian Ministry of Children and Family Affairs, 2015[56]).

Figure 3.5. Enrolment rates in early childhood education and care services in Norway are high

Percent of children enrolled in early childhood education and care services, 2020 or latest available



Note: Data for 0-2 year-olds generally include children enrolled in early childhood education services (ISCED 2011 level 0) and other registered ECEC services (ECEC services outside the scope of ISCED 0, because they are not in adherence with all ISCED-2011 criteria). Data for 3-5 year-olds include early childhood education services (ISCED 2011 level 0) and other registered ECEC services, as well as primary education (ISCED 2011 Level 1). For 0-2 year-olds, data for Costa Rica, Iceland, and the United Kingdom refer to 2018 and for Japan to 2019. For 3-5 year-olds, data for Belgium, Greece, Portugal refer to 2019 and for the United States to 2018. Data on 0-2 year-olds for the United States is missing. More details are available in the OECD Family Database.
Source: OECD Family Database Indicator PF3.2

With the Kindergarten Agreement, municipalities received increased financing for the sector, which tripled state funding between 2003 and 2011, so that universal provision of kindergarten places under reduced parental fees was made possible – the parental fees were capped at a specified maximum. At the same time, municipalities were obliged to provide per-child funding for private kindergarten, which were made subject to the same regulated parental fees. The agreement also introduced an individual statutory right to a kindergarten place for all children aged 1-5, which came into effect in 2009. Initially, it granted the right to a kindergarten place from August to all children turning one before September of the same year. However, this right has since been extended with amendments to the *Kindergarten Act* in 2016 and 2017. Since then, those turning one between September and November have such a right by the end of their birthday month, while children turning one in December still have to wait until the following August to enter kindergarten (see below) (Trætteberg et al., 2021[53]; OECD, 2015[57]).

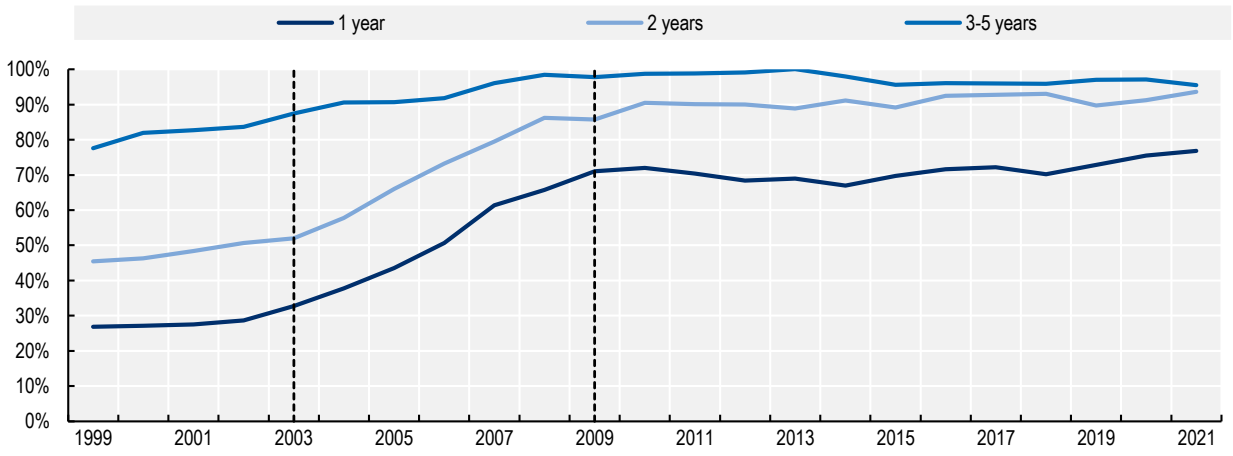
Following the Kindergarten Agreement, the supply of kindergarten spaces critically increased since 2003. Overall, the expansion mainly increased the enrolment of children in kindergarten (+46% between 2000 and 2010), while the number of kindergarten centres grew much more muted over the same period (+13%) (Statistics Norway, 2023[54]). Especially for the youngest children enrolment rates increased substantially between 2003 and 2009, when the statutory right for a kindergarten place came into effect. For example, while in 2002 about 29% of children aged 1 were enrolled in a kindergarten, about 71% were so in 2009 (Figure 3.6).

The increased access to high-quality and affordable childcare and the expansion of the ECEC sector in Norway has not only increased the involvement of fathers in childcare – noticeable reduction in the inequality of paid and unpaid workloads between fathers and mothers – it has also positively influenced fertility (Rindfuss et al., 2007[58]; Kitterød and Rønsen, 2017[59]). For example, it has led to a younger age

it first birth, while also substantially increasing fertility across all birth parities. Estimates of Rindfuss et al. (2010[60]) even suggest that going from zero available kindergarten places to affordable childcare slots for 60% of pre-school children increases the TFR of an average woman by between 0.5 and 0.7. Such positive effects of affordable ECEC provision are also found in some other countries (Section 3.7), but in Korea – where spending on the ECEC sector increased more than tenfold between 2000 and 2014 – it has not been able to reverse strong downward trends in fertility (Box 3.4).

Figure 3.6. The Kindergarten Agreement substantially increased enrolment among the youngest

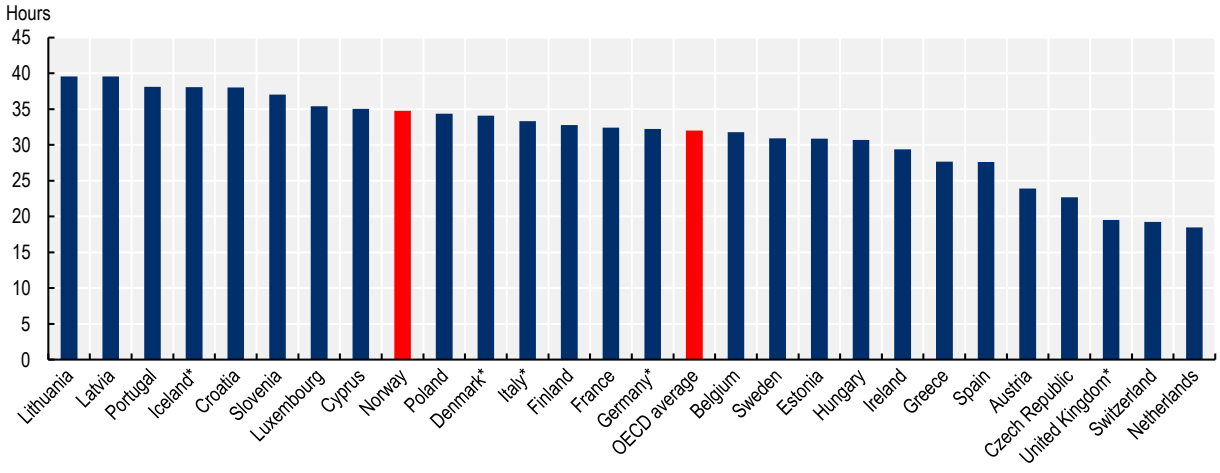
Kindergarten enrolment-to-population ratio in Norway, by age



Note: Reference lines highlight the Kindergarten Agreement of 2003 and the statutory right to a kindergarten place from 2009.
Source: Statistics Norway (SSB) - Kindergartens

Figure 3.7. Average usual weekly hours in early childhood education and care services are long

Average usual weekly hours for children using early childhood education and care services, 0- to 2-year-olds, 2020 or latest available



Note: Data for Iceland and the United Kingdom refer to 2018, for Denmark, Germany and Italy to 2019. Data refer to children using centre-based services (e.g. nurseries or day care centres and pre-schools, both public and private), organised family day care, and care services provided by (paid) professional childminders, regardless of whether or not the service is registered or ISCED-recognised.
Source: OECD Family Database Indicator PF3.2.

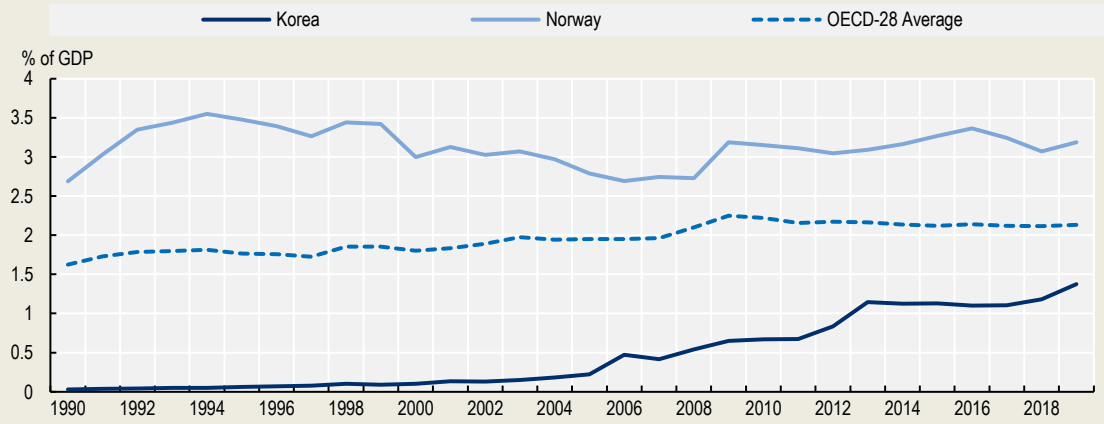
Box 3.4. Koreas experience with expanding family supports to boost fertility

Over the past six decades, Korea has experienced a sharp decline in birth rates. After crossing below a total fertility rate (TFR) of 1.5 in the early 2000s, Korea recorded the lowest TFR among all OECD countries today (0.81 in 2021). This contributes to Korea being the fastest ageing OECD country, with a dramatic increase in median age from 43 in 2018 to 56 in 2050.

To respond to declining fertility rates and an ageing population, Korea has rapidly expanded their expenditure on public family support – predominantly in-kind, since the early 2000s. The most significant approach was the development of a comprehensive system of public and private formal day-care and kindergarten support for young children. ECEC attendance in Korea is now on par with the Norway and other Nordic countries (Figure 3.5). Other key family policy developments include the introduction of an individual entitlement to paid parental leave in 2008. Today, eligible parents can take up to 12 months paid parental leave each until the child's eighth birthday (or until they enter the second year of primary education) – the payment rate is earnings-related.

Figure 3.8. Koreas expenditure on family benefits and services increased 10-fold since 2000

Public expenditure on family cash and in-kind benefits, as percentage of GDP, 1990 to 2019



Note: Public spending accounted for here concerns public support that is exclusively for families (e.g. child payments and allowances, parental leave benefits and childcare support), only. Spending in other social policy areas such as health and housing support also assists families, but not exclusively, and is not included here. The data covers public expenditure on family cash and in-kind benefits only, and do not include spending on tax breaks for families. The OECD-28 Average does not include Chile, Colombia, Costa Rica, Estonia, Hungary, Israel, Latvia, Lithuania, the Slovak Republic, and Slovenia.
Source: OECD Family Database

As a result of the expansion of Korean family supports, public expenditure on family benefits increased more than tenfold between 2000 and 2014, from approximately 0.1% to about 1.1% of Korean GDP (Figure 3.8), most of which is spent on the ECEC sector. While this is lower than in Norway and the OECD on average, it marks an important shift in Korean family policy.

Despite this massive expansion of ECEC and family supports in general, Korea has not been able to reverse its downward trend in birth rates. Part of this may be explained by the difficulties to reconcile work and family life, for example, because very long working hours. Other potential factors include changing societal norms and notions on gender roles, labour market dualism and the large number of parents that are reluctant to use or are ineligible for paid leave around childbirth, as well as the relatively high cost in Korea of raising children in cash and time – as related to private education.

Source: OECD (2019[61]; 2019[62]), Kostat (Kostat, 2022[63]).

Compared most other OECD countries, Norwegian children attend kindergarten for long hours. While the OECD average weekly hours in ECEC services was 30.6 hours for children aged zero to two in 2019, Norwegian children of this age group attended kindergarten for an average of 34.6 hours (

Figure 3.7). This is facilitated by the long opening hours of kindergarten in Norway, which typically operate for 10 hours between 7:00 or 7:30 and 17:00 or 17:30. A low and decreasing number of Norwegian children at all kindergarten ages are also enrolled on a part-time basis, especially when their mother has some flexible working arrangements and the number of siblings is low (Moafi, 2017[64]).

3.5.2. Childcare is affordable

Besides the expansion of childcare places, the *Kindergarten Agreement* also set a maximum price for kindergarten attendance, regardless of whether children attend public or private facilities. As of 1 August 2022, the maximum fee is set at NOK 3 050 (USD 308) to reach the original price level set at the time of the *Kindergarten Agreement* in 2003. Kindergartens can require a payment for meals, which varies across municipalities and is currently set at NOK 190 (USD 19.21) per month in Oslo, for example (Government of Norway, 2021[65]).

A variety of discounts on the kindergarten fees are granted depending on parents' income level. For example, since 2015, childcare fees are capped at a maximum of 6% of gross household income. If parents have more than one child attending kindergarten in the same municipality (not necessarily the same kindergarten), they receive a reduction in kindergarten fees (*søskenmoderasjon*) of a minimum of 30% for the second child and a minimum 50% reduction for any additional child. Families earning less than NOK 583 650 (USD 59 011) are entitled to 20 hours of free "core time" (*kjernetid*) in kindergartens for their children aged between 2 and 5 years old (Government of Norway, 2021[65]). Single parents can receive an additional benefit for formal centre-based care (*stønad til barnetilsyn*) that covers up to 64 percent of the expenses for childcare up to a maximum ceiling that depends on the number of children in childcare (Arbeids- og velferdsetaten, 2022[66]).

The cap on fees and other discount schemes have helped to keep the costs of participation in ECEC down to parents. In Norway, out-of-pocket childcare costs for a family with two children with two low-wage earners is only 8% of the average wage (where low-wage refers to earning two-thirds of the average wage). This figure can be compared with the slightly higher out-of-pocket cost of 11% of average wage on average OECD-wide. For a single parent low-wage earner with two children, the out-of-pocket cost is 1% of average wage in Norway and 6% on average across the OECD (Figure 3.9) (OECD, 2020[67]).

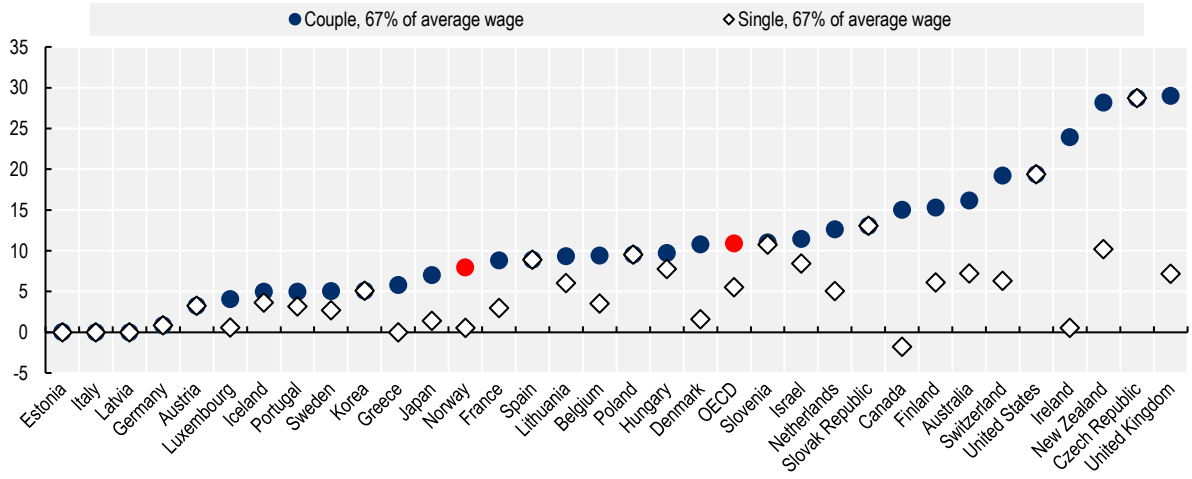
Support for ECEC expenses have helped many families financially. The supports themselves are estimated to have led to a 4% increase in disposable income for low-income families through the 6% cap on parental fees, while the free core time has resulted in a 7% increase in disposable income for these families. However, not everyone entitled to discounts on the fees for kindergarten attendance receives a discount. While the number of families receiving discounts is increasing over time, many of families who are entitled are not reached (Østbakken, 2019[68]). For example, in 2017, only about 60% of the children who are entitled to free core time received the relevant fee-reduction. Such "non-claims" of discounts may be the result of complicated application procedures and documentation requirements, particularly for recent immigrants to Norway (Trætteberg and Lidén, 2018[69]; Østbakken, 2019[68]). A recent simplification and streamlining of the process could make it easier for families to claim the discounts, as since August 2022, municipalities can directly collect information about the parent's income from the tax authorities, rather than requiring documentation from the parents themselves (Utdanningsdirektoratet, 2022[70]).

Overall, the expansion of the ECEC sector, with the statutory right to a kindergarten place and the regulation of kindergarten fees, has led to improved attendance – children from low-income families in particular increased their enrolment rates disproportionately since 2003 (Dearing et al., 2018[71];

Ellingsæter, Kitterød and Lyngstad, 2016[72]). An earlier expansion of subsidised childcare in 1975, granting ECEC eligibility to all 3-6 year-olds independent of their parents employment and marital status, also contributed to increased earnings among children of low-income parents in the long-term and increased intergenerational income mobility (Havnes and Mogstad, 2015[73]). The availability of discounts on the kindergarten fees also had a positive impact on subsequent school performance. For example, free core time (see above) was introduced in Oslo in 2006, and children who received it improved their reading performance by grade 8, with stronger effects for boys and in families with low incomes or mothers outside of the labour force (Drange, 2021[74]). Altogether, the wide-scale reforms of the ECEC sector have changed the attitudes of Norwegian parents, so that the majority now considers it the best care children can receive from as early as between age 1 and 2 (Ellingsæter, Kitterød and Lyngstad, 2016[72]).

Figure 3.9. Childcare in Norway is relatively cheap to parents

Couple, 67% of average wage / Single parent, 67% of average wage, percentage of average wage, 2021 or latest available



Note: Net childcare cost are equal to gross fees less childcare benefits/rebates and tax deductions, plus any resulting changes in other taxes and benefits following the use of childcare. Calculations are for full-time care in a typical childcare centre for a two-child family (children aged 2 and 3), where both parents are in full-time employment and the children are aged two and three. Full-time care is defined as care for at least 40 hours per week. For couples, both parents earn 67% of the average wage. In countries where local authorities regulate childcare fees, childcare settings for a specific municipality or region are modelled. In the case of Norway, childcare settings for Oslo municipality are modelled. For more details see the OECD Tax-Benefit model methodology.
Source: OECD Tax and Benefit Models.

3.5.3. Kindergarten age thresholds leave some in need for alternative care

Because of the age-threshold for kindergarten eligibility, some families are left without a kindergarten place once their entitlement to paid parental leave ends. Children who turn one between January and July are entitled to a kindergarten place in August of that year and those who turn one between August and November have a statutory right to a place in the month they turn one. However, children who turn one in December have to wait until the following August. This has raised some concerns regarding equal opportunities and child development, as it is argued that delayed childcare enrolment for the youngest can impact language- and mathematics performance at age 6-7, particularly for children from disadvantaged families (Drange and Havnes, 2019[75]; Drange, 2019[76]).

Families with a gap between paid parental leave entitlement and the right to a kindergarten place have to find alternative solutions, for example, the uptake of unpaid leave, extended parental leave at reduced pay,

or the employment of a nanny (*dagmamma*) (for example, Østbakken, Halrynjo and Kitterød (2018[77]), Ellingsæter (2020[78]) and Moafi (2017[64])). The reduced income or the additional expenses under these arrangements are often paid through the cash-for-care benefit.

Nevertheless, parents can still apply to a kindergarten place even if their child is below the age of one. Subject to availability, priority is given to children of single parents, siblings of children already in the kindergarten as well as foster children or those with special needs. This leads to an enrolment of about 5% of children below the age of one a kindergarten in 2021 (Statistics Norway, 2023[54]). However, it often means that these children do not attend kindergarten in the close vicinity of their home.

One potential avenue to avoid the unequal waiting period – and current fertility trends will diminish demand – would be to grant the right to a kindergarten place at the end of the month children turn one not only to those born between September and November but also to children born in the December to August period. This would minimise the problems with late eligibility to kindergartens and likely reduce the reliance on unpaid leave, costly nannies and other alternative childcare arrangements. The vast majority of municipalities – a little more than 9 out of 10 – support such a further extension of the statutory right to a kindergarten place (Naper et al., 2021[79]).

Such an entitlement is, for example, granted in Denmark, Germany, and Sweden. In Denmark, the *Act on Day Care* of 2001 grants the statutory right to a place in a day-care facility from the age of 26 weeks regardless of their birth-month, while municipalities face financial sanctions should they not be able to provide such a place (Eurydice, 2019[80]). This has resulted in very high enrolment rates at the youngest ages – about 18% below the age of 1 attend centre-based childcare, while 90% of children between the ages 1 and 2 do so (Blaakilde and Siren, 2021[81]). These policies have had a positive impact on the education outcomes of children in disadvantaged families, while at the same time enabling mothers to engage on the labour market (Heckman and Landersø, 2021[82]; Lind, 2021[83]). The *Education Act* of 2010 in Sweden, grants working parents a place in centre-based preschool once their child turns one, which has to be offered within 4 months after their application. Since 2013, Germany offers parents a right to a place in centre-based or home-based care for children from their first birthday (Eurydice, 2019[80]). However, Germany is currently still struggling to meet the high demand for childcare places, so that 13% of parents that want to place their child in day-care are unable to find a place, particularly affecting those from disadvantaged socio-economic backgrounds (Jessen and Spieß, 2019[84]).

A seamless transition from paid parental leave through a right to a kindergarten spot at age one could facilitate a phase-out of the cash-for-benefit scheme (*kontantstøtte*) which has been criticised for its dampening effects on gender equality within households. Today, it is often used to cover for the time after paid parental leave and before children enter kindergarten (Arntsen, Lima and Rudlende, 2019[39]). The money saved from phasing the cash-for-care benefit out could be steered towards kindergarten.

3.6. Out-of-school-hours services are only used by the youngest

Children in Norway enter school in the calendar year they turn 6, with compulsory schooling for ten years over two distinct stages in primary school (grades 1 to 7) and lower secondary school (grades 8 to 10). A school year typically runs from mid-August to late June and primary school children start their school day at 08:15 and typically end it before 14:00. As such, normal school hours are generally incompatible with a full-time working week for both parents. Similar situations in many OECD countries have led to the development of more or less comprehensive out-of-school-hours (OSH) service systems across, particularly since the early 2000s and as well in Norway (Fukkink and Boogaard, 2020[85]; Plantenga and Remery, 2017[86]).

Since 1999, all Norwegian municipalities have to offer voluntary day-care facilities (*skolefritidsordningen* or SFO) before- and after school hours to cover the time parents of primary school children may be

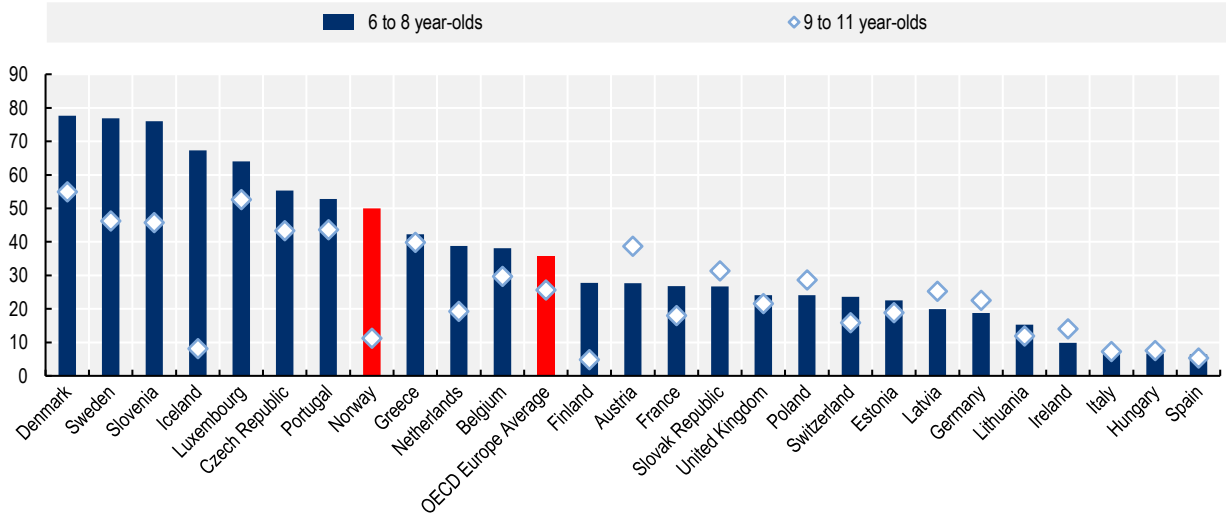
engaged in work. The facilities are typically open outside of school hours until 17:00 and can be used on a full- or part-time basis, thus offering parents flexibility when it comes to engagement on the labour market. For children with special needs, SFO is available up to grade 7 (Eurydice, 2022[87]). Since 2010, Norwegian schools offer free voluntary homework assistance in co-operation with the SFOs, for children from grades 1 to 4. In 2014, this offer was further extended to cover children in all grades of compulsory schooling, thus up till grade 10 (OECD, 2020[88]).

From an international perspective, enrolment in Norwegian SFO is fairly widespread, with half of all 6 to 8-year-old children attending in 2019 (50%), while on average across European OECD countries about every third child attends centre-based out-of-school-hours services. There is a sharp drop in attendance among Norwegian children aged between 9 and 11 years – only about 11% of these children attend SFO, while across European OECD countries it is more than twice as much (26%). Attendance across ages is substantially lower in Norway than in neighbouring Denmark and Sweden – where attendance also falls away with age – but very similar to Iceland and notably higher than in Finland (Figure 3.10).

The comparatively low attendance rate in SFO for older children can, in part, be explained by the relatively high prices, especially in comparison to the Norwegian ECEC-system which covers longer weekly hours. About one-third of parents who do not have their child in SFO state that price is a reason. Fees for SFO attendance vary by municipality. In the school year of 2019-20, the average monthly fee was about NOK 2 500 (USD 253) for a full-time SFO, while part-time SFO was slightly cheaper at NOK 1 500 (USD 152). However, some municipalities charge over NOK 3 000 (USD 303) a month for a full-time place, while about a third of all municipalities offer at least some free SFO places (e.g. to attract families). Other reasons for non-attendance include children of this age not wanting to be in SFO and a lack of transport, which is only provided for school hours (Utdanningsdirektoratet, 2020[89]; Wendelborg et al., 2018[90]).

Figure 3.10. Enrolment in centre-based out-of-school-hours drops sharply with age

Proportion (%) of children using centre-based out-of-school-hours (before and/or after school) care services during a usual week, by age group, 2019 or latest



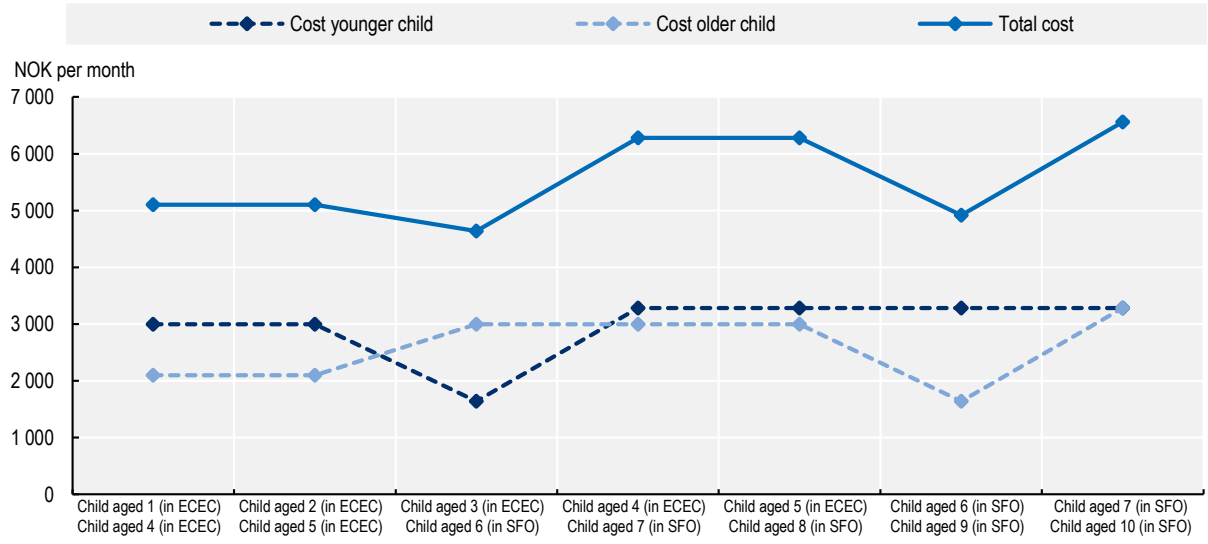
Note: Data for Iceland and the United Kingdom refer to 2018. Data generally reflect the proportion of children who use centre-based out-of-school-hours services for at least one hour during a usual week, cover the use of services offered before and/or after school hours only, and do not cover 'school-going' children who use centre-based services only during school holidays or only on days when schools are closed. Exact definitions differ across countries, see source notes for more details.
Source: OECD Family Database Indicator PF4.3.

To reduce the financial pressure on parents who want to place their children in SFO, there are several discounts and support schemes available. For example, since 2020 municipalities are required to offer a reduction in parental payment that caps the fee at a maximum of 6% of the gross household income. This applied initially to 1st and 2nd graders, but since August 2021, it also covers children 3rd and 4th grade. For children with special needs between grades 5 and 7, SFO is free (Utdanningsdirektoratet, 2020[91]). From August 2022, first graders have been entitled to 12 hours of free core time in SFO per week (Kommunal- og distriktsdepartementet, 2022[92]). In some municipalities, for example Oslo, 12 hours of free core time in SFO per week are granted for all children in grades 1 to 4 in the school year 2022/2023, and some other municipalities offer reductions in SFO fees if parents have multiple children attending, similar to the *søskenmoderasjon* reduction in kindergarten (see above).

Despite available support schemes, SFO can often be as expensive as the fees paid for kindergarten attendance, especially as some support measures are not streamlined between kindergarten and SFO. If parents receive a reduction on their fees while two children attend kindergarten, they lose it once the oldest enters school and attends SFO facilities. This is does not have a large effect on aggregate costs for parents while children receive free core time in SFO, but in some municipalities parents can face somewhat higher total fees when this measure is no longer granted. For example, the municipality of Trondheim has relatively high full-time SFO fees of NOK 3 280, which means that once the oldest child of a hypothetical two-child family enters the 2nd grade and loses the right to free core time, the aggregate fees paid for kindergarten and SFO are almost 25% higher than when both are in kindergarten (Figure 3.11). While this does not represent a critical barrier to employment – nor is it a substantial "discount cliff" – but it could be beneficial for the financial stability of families to streamline the discount schemes not only nationally, but also across kindergarten and SFOs.

Figure 3.11. SFO fees can be about as high as kindergarten fees

Monthly cost for full-time kindergarten and SFO attendance, family with two children born 3 years apart, Trondheim



Note: Data refers to prices in the 2022/2023 school year for full-time attendance in both kindergarten (ECEC) and SFO within Trondheim Municipality. The gross household income of the modelled family exceeds any earning thresholds that would qualify for fee discounts in kindergarten or SFO (e.g. it does not qualify for free core time in kindergarten by earnings more than NOK 583 650 (USD 59 011) per year). When both children attend kindergarten, the fees for the second child are reduced by 30%. When attending SFO in grade 1 (6 years old), children receive 12 weekly hours of free core time in SFO regardless of the family's income. Full-time kindergarten fees amount to NOK 3 000 per month and full-time SFP fees amount to NOK 3 280.
Source: Trondheim Kommune

Free centre-based out-of-school-hours care is, for example, offered in Slovenia, where children from 1st to 5th grade can voluntarily attend the extended stay programme (*Razširjeni programme*). The programme is typically organised from after school until 17:00, while 1st graders can also attend morning care from 06:00. Aside from providing room for study and homework, the programme is organised under a national curriculum that aims to provide extra-curricular activities that foster healthy and holistic personal development based on children's individual abilities, interests, and talents. The expenses of these programmes are entirely covered by the state (Euredyce, 2022[93]; Zavod rs za šolstvo, 2021[94]). As a result, centre-based out-of-school-hours care attendance for all ages between 6 and 11 in Slovenia is among the highest in the OECD (Figure 3.10).

In Norway, SFO was introduced without a unified national curriculum and framework plan, which has led to considerable variation in the SFOs quality, organisation, content, and objectives across municipalities. While some SFOs are have developed comprehensive pedagogical plans and curricula that offer free play and learning support in co-ordination with school content, others operate more as a place for the supervision of children while they wait until their parents return from work. Such a variation in quality and content could help explain why some children do not want to attend SFO (Wendelborg et al., 2018[90]). However, from August 2021 a new framework plan that provides unified guidelines for quality development and planning work across Norway has been introduced, which may elevate and streamline the quality and content of SFOs across Norway.

The framework plan specifies that SFOs have to operate under the same values as kindergartens and schools to facilitate a better transition between kindergarten, school and after-school services Utdanningsdirektoratet (2021[95]), and Wendelborg et al. (2018[90]). At the same time, the guidelines require SFOs to provide health-promoting content around indoor and outdoor play, as well as culture and leisure activities adapted to the children's age. While each SFO can adjust their content to the school, there is no explicit requirement for this, and the main emphasis is put on free play and other child-led activities. In contrast to the practice in most Norwegian SFOs so far, the new framework spells out the inclusion of minority language and immigrant children as a core pillar, so that diversity in culture, language and forms of expression can be included and fostered in play and activity.

3.7. Family policy can support birth rates, but linkages are not fully clear

Family policy provides varying degrees of support for families over the early life-course of their child(ren). Policies in Norway provide a continuum of supports – parental leave, ECEC services, schools and OSH-services. Nevertheless, despite the comprehensive family policy framework, Norway and many other OECD countries, have recently experienced declining TFRs.

This section presents the results of an OECD-wide regression that estimates the within-country over-time association between different aspects of the family policy framework and fertility rates as well as the mean age of mothers at childbirth (Figure 3.12). As in other chapters of this report, the resulting coefficients should be interpreted as an association between policies in a specific country and its respective fertility outcomes. The results do *not* provide evidence of a causal relationship between family policy and fertility, but nonetheless provide insights on which policies may be more likely to affect birth rates than others. Based on data availability, all regressions refer to the period 2002-18. A more detailed methodology is available in Annex 1.B.

3.7.1. The link between family leaves and fertility is often positive

The availability of paid maternity-, paternity- and parental leaves can support fertility, as it allows to take the necessary leave of absence from work to care for a young child. The precise effects of these leaves on fertility are, highly context dependent, particularly for fathers' leave (see below). Figure 3.12 shows a

significant association between increases in the length of paid leave available to mothers and increases in the TFR, but not with their mean age at childbirth. Increases in paid weeks of paternity and parental leave reserved for fathers, are not associated with fertility rates, nor with small decreases in the mean age of mothers at childbirth. There is a strong and significant positive effect of increases in the per-child expenditure on family leave benefits on fertility and a significant negative effect on the mean age at childbirth.

In the literature, the effect of parental leave on fertility is difficult to capture. As pointed out by Bergsvik, Fauske and Hart (2020[34]), the effects of changes in parental leave entitlements are difficult to evaluate as the links with fertility rates are highly dependent on the country's context as well as the extent of the change in the studied reforms. In general, however, there seem to be positive effects of parental leave reforms on subsequent fertility rates (Thomas et al. (2022[96])). For example, second births among Austrian mothers increased when parental leave was increased from one year to two years in 1990 (Lalive and Zweimüller, 2009[97]). For the Nordic countries, some studies find timing effects after parental leave reforms, while no general effects of parental or paternity leave extensions on fertility rates are apparent (Cools, Fiva and Kirkebøen, 2015[98]; Hart, Andersen and Drange, 2019[99]; Liu and Skansy, 2010[100]; Duvander, Lappegard and Johansson, 2020[35]). In Norway, several reforms that increased parental leave entitlements between 1987 and 1992 had only marginal effects on fertility over the 14 years after the reforms (Dahl et al., 2016[101]).

In terms of parental leave use by fathers, Icelandic, Norwegian and Swedish families in which fathers take parental leave are more likely to have a second child, although the results for the likelihood to have a third child are inconclusive (Duvander et al., 2019[32]; Duvander, Lappegård and Andersson, 2010[33]). In Spain however, the introduction of two weeks of paid paternity leave resulted in delayed subsequent fertility (Farré and González, 2019[102]), while in Korea, fathers who took family leave were less likely to want another child relative to those who are just about to start their leave (Lee, 2022[103]). In Norway, an extended father's quota had no effect on subsequent fertility (Hart, Andersen and Drange, 2022[104]).

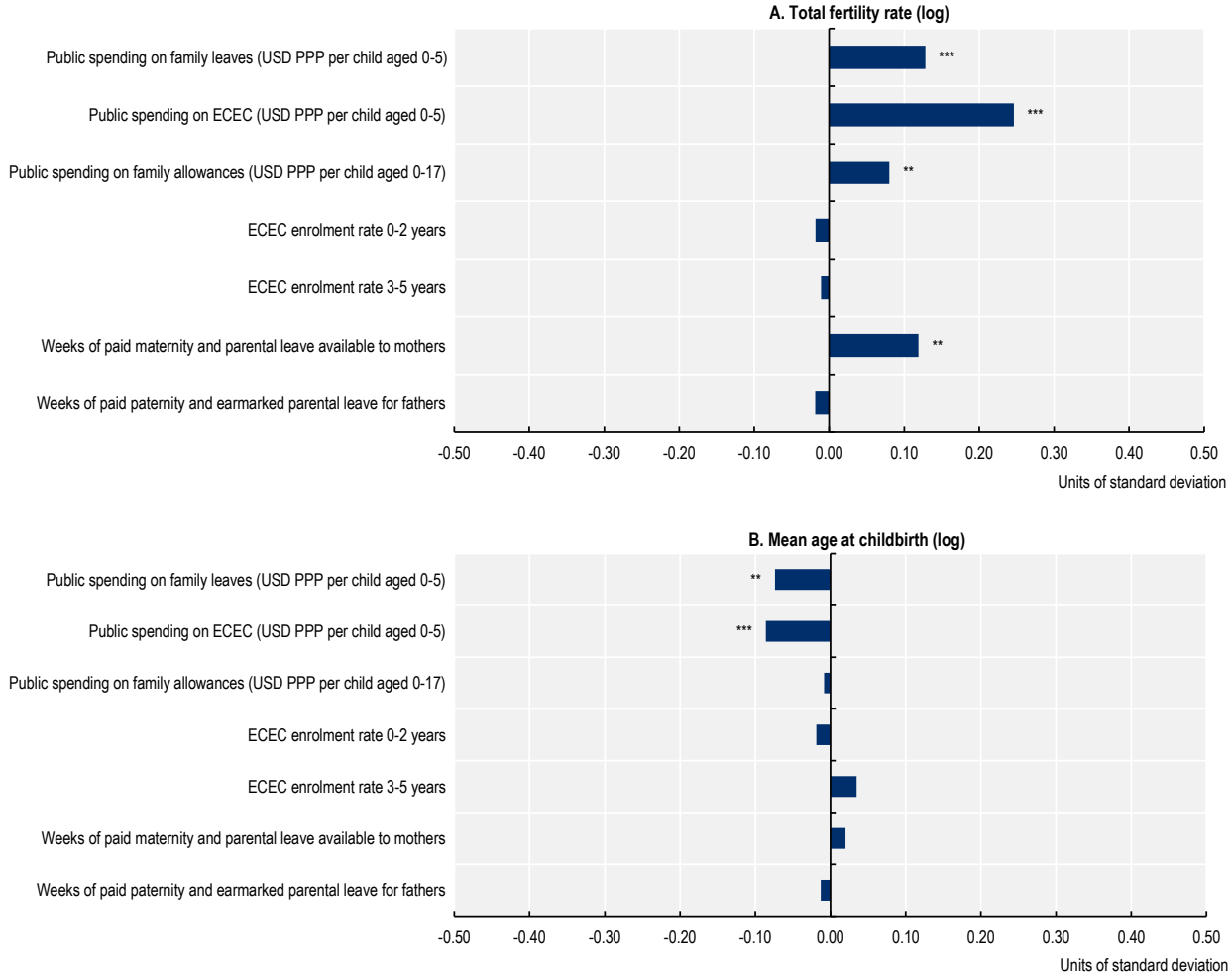
3.7.2. ECEC services have a positive association with fertility rates

ECEC services help both parents combine work and family commitments, until children go to primary school. The availability and affordability of ECEC services may affect decisions around (the timing of) becoming a parent or extending the family. However, the aggregate enrolment in public childcare facilities is not clearly associated with TFRs or the average age of mothers at childbirth (Figure 3.12). However, increases in public spending on childcare services – which includes, the direct financing or subsidisation of ECEC facilities – strong and significant positive link with the TFR and a significant negative link with the mean age at childbirth. Overall, this appears to suggest that the quality and affordability of ECEC – both of which are captured in the public expenditure on in-kind family benefits, alongside expenditure related to ECEC capacity – are important factors for the transition to parenthood at earlier ages.

In the literature, a positive impact of ECEC provision on fertility is found in quasi-experiments in Norway (Rindfuss et al., 2010[60]; Rindfuss et al., 2007[58]), Sweden (Mörk, Sjögren and Svaleryd, 2011[105]), Germany (Bauernschuster, Hener and Rainer, 2015[106]), Japan (Fukai, 2017[107]) and Belgium (Wood and Neels, 2019[108]). Some of these studies highlight that the effect of ECEC is strongest for second and third births, which may be the reason why benefits in kind are not significantly associated with the mean age at first birth. However, particularly for dual-earner households, ECEC may also have a noticeable effect on first births (Bergsvik, Fauske and Hart, 2020[34]) Individual country experiences can be different, as for example illustrated by the experience in Korea (Box 3.4).

Figure 3.12. Family policies and fertility trends in the OECD

Estimated association between family policy factors and fertility outcomes, 2002-18



Note: The figure shows standardised regression coefficients that capture effects of within-country over-time variation between family policy variables and log-transformed fertility outcomes. Estimates are based on a two-way fixed-effects regression, with year and country fixed-effects as well as linear time trends for each country. All independent variables are lagged by one year to avoid reverse causality. The regression also controls for labour market outcomes (Chapter 4), log GDP per capita and squared log GDP per capita as well as the average years of schooling for men and women.

The model is estimated over the period 2002-18 using country-level data from Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, the United Kingdom and the United States. Missing values for average years of schooling and ECEC enrolment rates are handled through multiple imputation, using five iterations of predictive mean matching (van Buuren (2018[109])).

The standard errors are heteroskedasticity- and panel-corrected. ***, ** and * represent significance at 1%, 5% and 10% level, respectively. Since the regression coefficients are standardised, their magnitude is measured in units of standard deviation of the dependent variable. Detail on the methodology is available in Annex 1.B. and Fluchtmann, van Veen and Adema (2023), *forthcoming*.

Source: OECD calculations based on data from the OECD Family Database, the OECD Employment Database, the OECD Social Expenditure Database, the OECD National Accounts, the UNESCO UIS Database and the UN World Population Prospects.

3.7.3. Cash benefits usually only have temporary and transitory effects on fertility

Theoretically, cash transfers for families with children, such as family or child allowances, reduce the (opportunity-) costs of childbirth and could therefore increase fertility rates, but negative substitution effects, such as investing more in children already born, may suppress such positive associations (Bergsvik, Fauske and Hart, 2020[34]). Although studying their effects on fertility is complicated by a lack of natural experiments, most research indicates that cash transfers for families with children have no or only moderately positive effects on fertility (Skirbekk, 2022[110]). Figure 3.12 shows that increases in family allowances are linked to rising fertility, potentially by making the transition to parenthood easier and more affordable. It is important to note that family allowances in this context refer to child benefits that are paid to the family throughout childhood (e.g. the Norwegian *Barnetrygd* until the child turns 18), rather than so-called "*baby-bonuses*" that are paid once upon birth.

In the literature, the impact of cash transfers varies widely based on the country studied and has mostly focused on the direct effect of *"baby-bonuses*" as they are designed as a direct incentive for childbirth Research on the Australian Baby Bonus, for example, demonstrates that such cash transfers have played a small but statistically significant role in increasing the fertility rate, with the strongest positive effect on immigrant women with low educational attainment (Bonner and Sarkar, 2020[111]; Parr and Guest, 2011[112]). In the Italian region of Friuli-Venezia Giulia, a baby bonus increased higher-order births, especially for lower educated mothers (Boccuzzo et al., 2007[113]).

Any positive effects of family cash benefits on fertility are, however, generally only temporary and transitory in nature. For example, Swiss lump-sum birth allowances, rolled out in a number of different cantons over time, temporarily increased the TFR by 5.5%, but this effect faded quickly (Chuard and Chuard-Keller, 2021[114]). In Spain, the implementation of a lump-sum universal child transfer led to an increase in 3% in the TFR, but a cancelation of the programme in 2010 led to a decrease in the TFR of 6%, outweighing the increase that existed while the programme was active (González and Trommlerová, 2021[115]). Similarly in France, a restriction of the eligibility criteria for early childhood allowances (PAJE) led to declining fertility through postponement of births to later ages (El-Mallakh, 2021[49]). Hungary has spent large sums on incentivising higher-parity births through various cash benefits, and these have may contributed to a stabilisation of birth rates rather than the desired increase which would stop the ongoing population decline (Box 3.1). The Polish *500+* child benefit also failed to raise fertility rates noticeably, while at the same time weakening financial incentives to work for mothers with young children (Box 3.2). In Norway, the cash-for-care benefit, has slowed the progression to second births, while fertility declined among employed mothers with upper secondary education. However, this effect may be driven by interactions with the employment-history eligibility requirements of the parental leave system (Section 3.4).

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Notes

[1] The National Insurance scheme basic amount is a critical factor in calculating many of the benefits in the Norwegian welfare state. The basic amount is updated yearly as of the 1st of May and often simply referred to as "G".

[2] The gender differences in eligibility criteria for parental leave have led to formal court proceedings with the application of the *European Free Trade Association's Surveillance Agency* (ESA) on grounds of gender-based discrimination of fathers. However, in 2019 the court of the *European Free Trade Association* (EFTA) judged that Norway's paid parental leave regulations established under the *Norwegian National Insurance Act* are not breaching existing gender equality regulations, because in the courts' judgement the paternal quota itself falls outside the "employment and working conditions" regulations of the *European Equal Treatment Directive* Article 14.1.c (EFTA Court, 2019[117]).

[3] A small minority of children, usually around 1%, is also enrolled in family kindergartens in private homes and "nature kindergarten".

4 The work/family balance in Norway

Maja Gustafsson

Stable labour markets provide security in terms of steady earnings and good family-oriented labour market conditions are important in determining whether parents can continue to work after the arrival of a child in their household. Labour markets can thus affect how early, and how many, children families decide to have. In Norway, the focus of policy has been on facilitating the labour market engagement of dual-earner families on a full-time basis. Policies encourage high employment rates among men and women and have helped parents in families to become “co-providing and co-caring”. Nevertheless, some groups are facing labour market insecurities, notably the lower-educated, including youth and young men in particular. However, these issues alone do not seem to have led to the sustained fall in births seen in Norway during the 2010s.

4.1. Introduction and main findings

Making decisions about whether, when and how to raise a family is hardly ever simple, and labour market conditions and policies can have important implications for family life. One of the main policy goals in Norway has been to operationalise a family policy model that effectively achieves the "ultimate balancing act" between work and family right for both partners in a household (Danbolt, 2016[1]),

Economic conditions have facilitated many households to be dual-earner families, and Norway frequently scores in the upper end among OECD countries when it comes to indicators of household financial stability, standards of living and gender equality (OECD, 2022[2]), and this has helped maintain high fertility rates through periods of falling fertility in many other OECD countries (OECD, 2019[3]). Nevertheless, while most benefit from this financial security, some groups – particularly lower-educated, youth and young men in particular – risk missing out as they face insecurities in labour and partnering markets.

This chapter considers the linkages between labour market opportunities, the work/family balance and fertility decisions of people in Norway amidst suggestions for future policy. It first considers how existing policy has facilitated family life for dual-earner families in Norway and subsequently evaluates to what extent some groups face labour market insecurities despite tight labour markets, concluding with evidence on OECD-wide relationships between fertility and labour market outcomes.

4.1.1. Main findings

Norway has done well to develop a family-friendly welfare state that encourages dual-earner couples as children arrive. Overall, this model allows both men and women to engage on the labour market, encouraged by small gender wage and gender employment gaps. The gender imbalance in uptake of part-time work is one area where the labour market in Norway can be improved from the perspective of the 'co-provider' family model. One way is to encourage a better sharing of (part-time) parental leave entitlements (Chapter 3), another is to encourage more fathers to join mothers in the short-term take-up of part-time work following the arrival of children in the household. Another avenue for action is to work towards more full-time work among mothers in the longer term as children grow up.

Norway has also come a long way in promoting a more equal balance of unpaid work in the household, with one of smallest time-use gender gaps. Sharing responsibility in what is perceived as a fair way has been shown to be an important consideration when couples make decisions about family formation. While mothers still find it a bit harder than fathers to combine family and paid work, it seems that Norway's policy focus on supporting 'co-carer' families is working.

Being in work and managing to combine it with family responsibilities in an effective way are important matters for family formation considerations, but it has also been shown that the security of one's job and income can be just as important. Norway's labour market policies are working in this regard. Unemployment is low, even among the youngest workers, and the vast majority of Norwegian workers are provided with job security, fair contracts and reskilling opportunities. Although Norway will continue to work towards ensuring that some disadvantaged groups get into good jobs, such minor tweaking will most likely not result in any changes to the fertility rate at the aggregate level.

The results from cross-national regressions of within-country changes in labour market outcomes on fertility in specific a country over the period 2002-2018 mainly suggest that increases in female and male employment are positively associated with increases in the fertility rate and decreases in the average age of mothers at the birth of their child. This suggests that across the OECD on average the male breadwinner model is no longer as pervasive as over most of the 20th century as women's employment is now an important factor contributing to fertility.

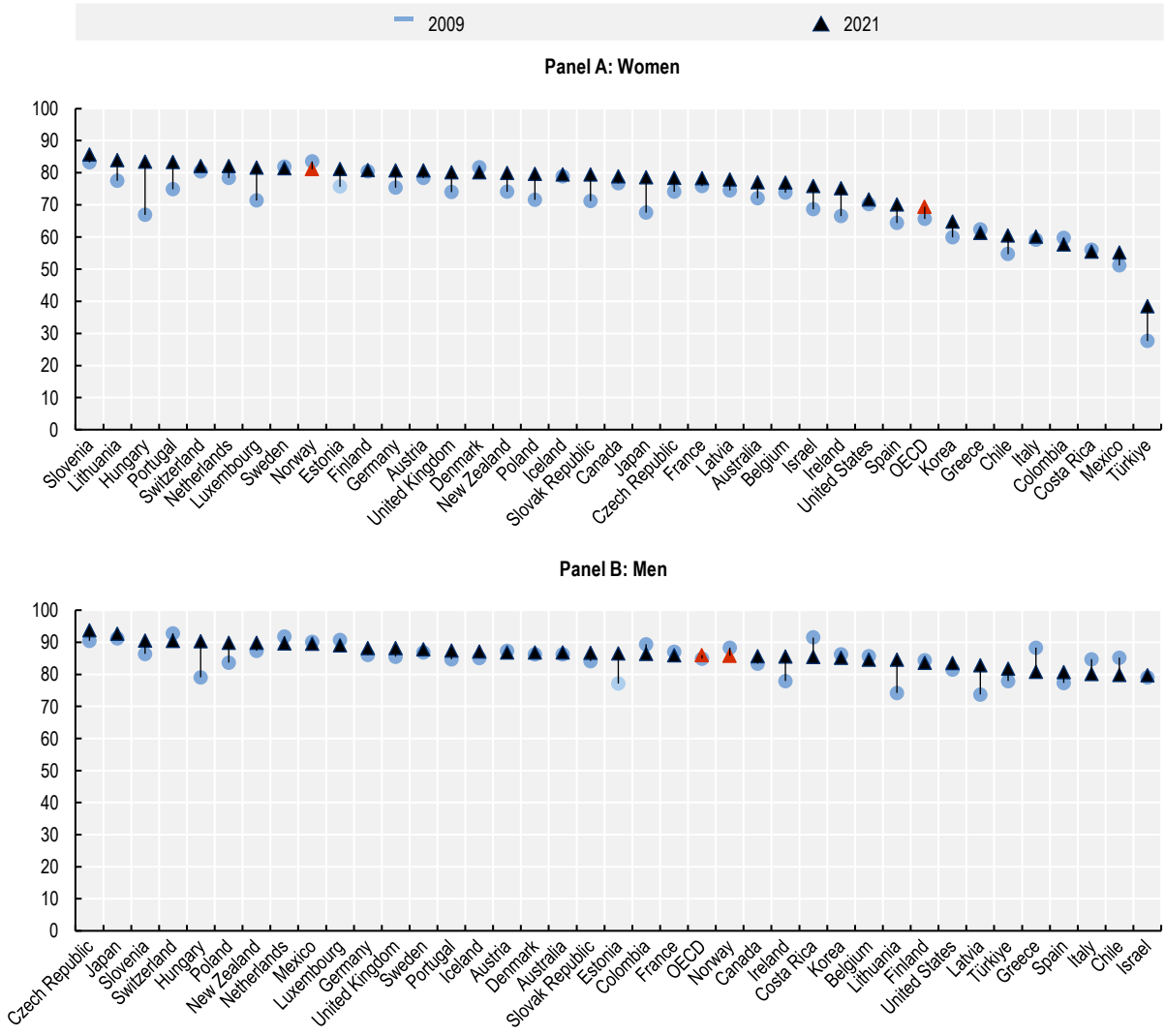
4.2. Most parents are in full-time work in Norway

4.2.1. Employment rates are high in Norway

Relatively large proportions of people are employed in Norway compared to the OECD average, and this is especially true for women. In 2021, 81% of women were in employment in Norway, compared to 69% across the OECD (Figure 4.1.). Among men, 86% were employed in Norway, which is in line with the average across the OECD. Despite the high current employment by international standards, there has been a slight fall in employment over time in Norway. Meanwhile, employment rates were stable or increased across many OECD countries.

Figure 4.1. Employment increased across the OECD over the past decade, but not in Norway

Employment to population ratio, age 25-54, 2009 and 2021

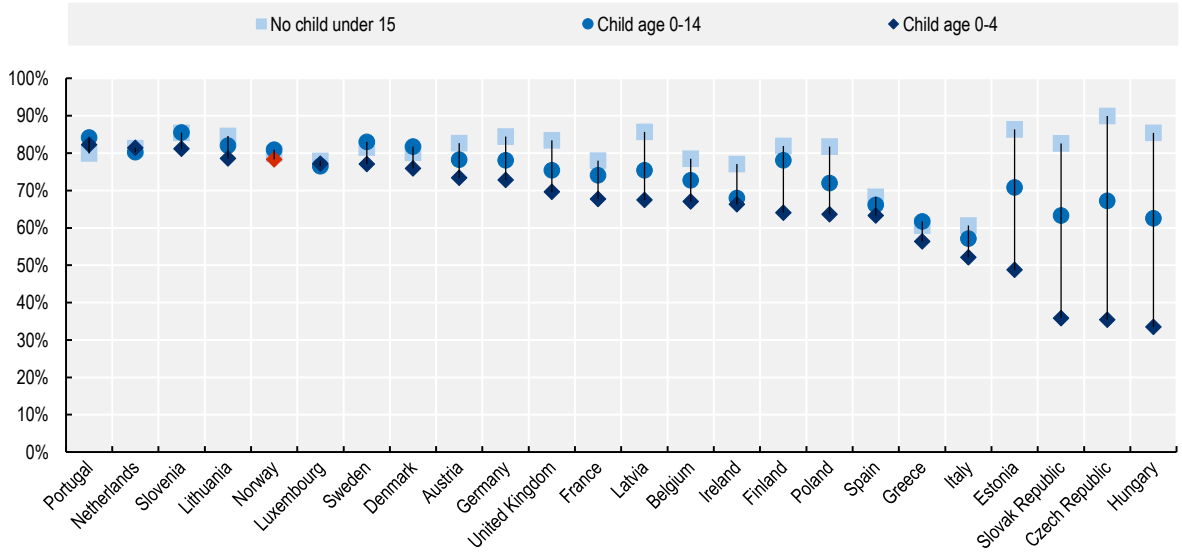


Source: OECD Employment Database.

High employment rates extend to women who become mothers, in contrast with many other OECD countries. The employment rate was 80% for women aged 25-54 without children under 15 in 2020, and only slightly lower, at 78%, among mothers whose youngest child is less than five years old (Figure 4.2.). Employment rates are back up to 81% for mothers whose youngest child is under 15 years old. The pattern with only slightly lower employment rates among women with young children is similar in Denmark and Sweden. At the opposite end of the spectrum, women with children have significantly lower employment rates than women without children in countries like the Czech Republic and Hungary.

Figure 4.2. Women in Norway remain in employment after children come along

Female employment rates, women with and without young children in the household, age 25-54, 2020 or latest year



Note: Data refer to 2019 for the UK.
Source: OECD Family Database Indicator LMF1.2

The high employment rates among mothers have been helped by changes in how families care for children. Previous OECD research has found that the proportion of people who are out of work in order to care for family in Norway has shrunk by 11ppts between 2002 and 2017 (Fernandez et al., 2020[4]). Over the course of the 2000s, there were considerable changes to childcare and family policies to help couples combine work and children (Chapter 3). The effect of these policy changes on behaviour was likely strengthened by changes in attitudes towards childcare. Between 2002 and 2010 there was a shift from thinking on the best form of daytime care for pre-school aged children from *childcare services in combination with home care* to *childcare services only* (Ellingsaeter, Kitterod and Lyngstad, 2017[5]).

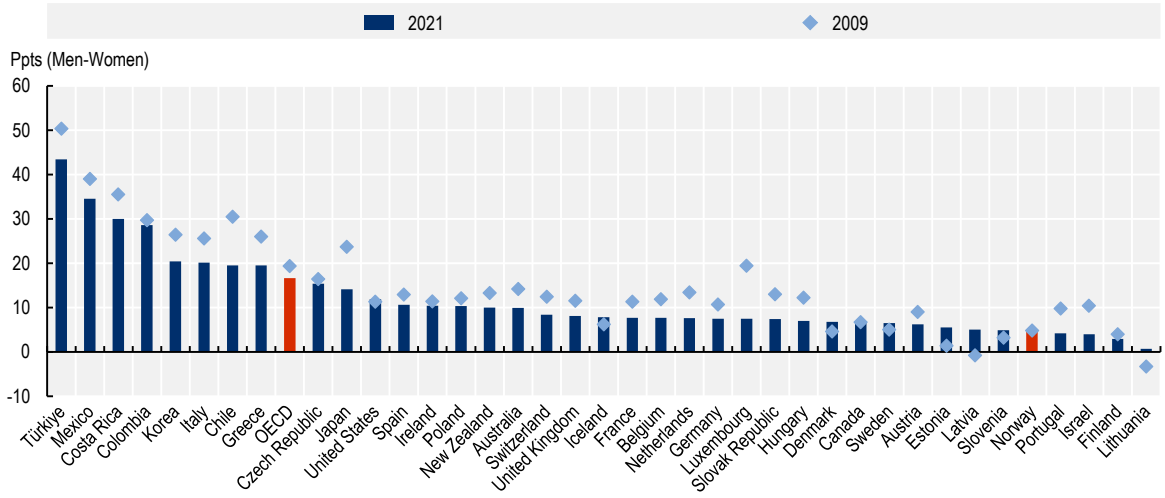
4.2.2. Families are increasingly co-providing in Norway

As policies and norms in support for gender equality develop (Chapter 5), the ability of families to ensure that both parents remain in the labour market as children come along has become even more important. Norway has made efforts to keep up with changing gender norms and reduce motherhood penalties through their focus on co-provision and co-caring within families (Ellingsæter, 2017[6]). Policy reform away from the traditional male breadwinner model started in the 1970s, with Norway moving towards creating a more gender-equal and woman-friendly welfare state, that focuses on women as co-providers in the labour market. The long-standing focus on enabling women to enter the labour market has brought success: the

employment gap in Norway is among the smallest in the OECD. In 2021, only 4.7 ppts more men than women were employed in Norway, and this gap has been largely stable since 2009 (Figure 4.3.). The employment gap in Norway in 2021 was somewhat larger than the gap of 2.9 ppts in its Nordic neighbour Finland. It is substantially lower than the OECD-wide gap at 16.6 ppts Figure 4.3..

Figure 4.3. The gender employment gap in Norway is among the smallest in the OECD

Gender gap in employment-to-population ratios, ages 25-54, 2009 and 2021



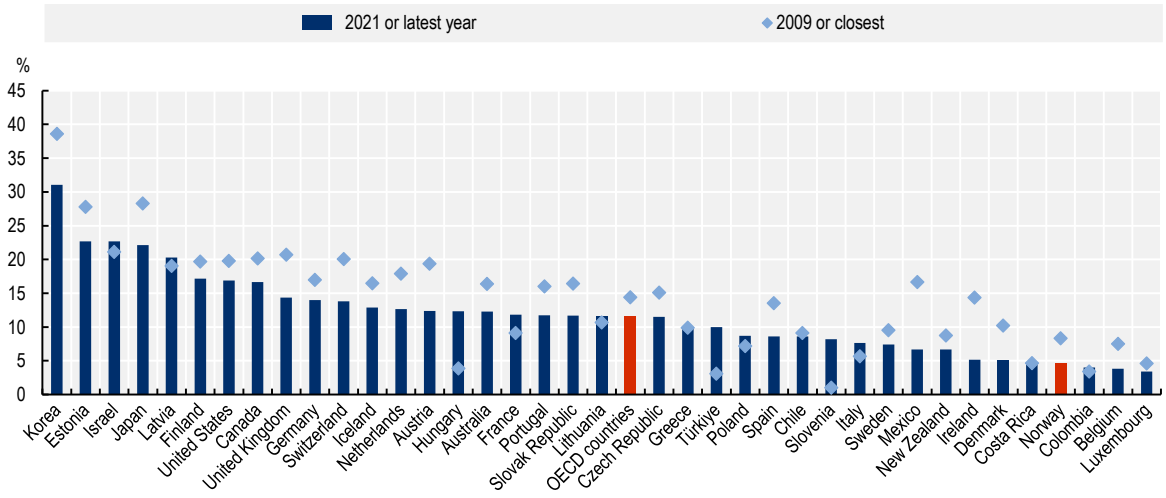
Source: OECD Family Database Indicator LMF1.6

The objective of ensuring gender equal treatment on the job also involves working to shrink the gender pay gap. With a gender wage gap at median earnings of full-time workers of just under 5%, Norway ranked fourth in the OECD in 2021 (Figure 4.4.). This is comparable to the pay gap of just above 5% in Denmark and is substantially lower than the OECD average at just under 12%. It is also lower than in some other Nordic countries, including Finland (17%) and Iceland (13%). Norway has made good progress toward more equal pay since 2009, with the gender earnings gap falling by 3.7 ppts from around 8%. This fall was slightly larger than that across the OECD at 2.7 ppts. A low and shrinking wage gap is a good sign that Norway is not becoming complacent on its way towards a co-provider welfare state. Previous OECD research has found that smaller pay gaps overall also translate into comparably small within-family pay gaps – albeit somewhat larger than in countries like Sweden and Denmark (OECD, 2017[7]). When pay is more balanced, individuals will be encouraged to contribute in equal measure to hours spent in paid work.

As the norm to have dual-income families becomes stronger, it might be increasingly relevant to factor in parenthood penalties when making decisions to have a(nother) child. In Norway, survey evidence shows that a larger proportion of women than men who do not yet have children report to expect negative impacts on their career and work hours if they were to have a child (Cools and Strøm, 2020[8]). Women who have already had a child are less likely to think this way, however. The proportion of women without children who expect negative effects on their career is greater than the proportion of women with children who believe they have experienced negative effect from their existing children. There are a few possible explanations for this. For example, women who know that they will face parenthood penalties might be more likely to self-select into not having children than women who work in jobs where these penalties are smaller or less common. It is also possible that women who are more interested in their career are more likely to notice negative labour market effects and see them as problematic, compared to those who are more relaxed about their careers.

Figure 4.4. Gender wage gaps in Norway are relatively small and decreasing

Gender wage gap at median gross earnings, 2009 or closest and 2020 or latest



Note: Instead of 2009, data refers to 2010 for Estonia, France, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Slovenia, Spain, Switzerland, and Türkiye; 2011 for Costa Rica. Instead of 2021, data refer to 2020 for Australia, Austria, Chile, Greece, Hungary, Poland, Portugal, Sweden, and Switzerland; to 2019 for Belgium, Colombia, Denmark, Finland, Germany, Italy, and Ireland; 2018 for Costa Rica, Estonia, France, Iceland, Israel, Latvia, Lithuania, the Netherlands, Slovenia, Spain, and Türkiye; 2014 for Luxembourg.
Source: OECD Employment Database.

It will be important that Norway continue its work to limit parenthood penalties if families without children choose to postpone having children to a later stage in their careers, or not have any at all, in part because they expect to see negative career effects. Studies have shown that the motherhood wage penalties are smaller in Norway than in many other OECD countries. For example, comparing different European sub-regions, Cukrowska-Torzewska and Matysiak (2020[9]) found in their meta-analysis that the motherhood wage gap is smallest in the Nordic countries, Belgium and France. Relatively small gaps were also observed in Southern Europe. The gap was largest in Central and Eastern European (CEE) countries, followed by Anglo-Saxon countries. While motherhood wage penalties are smaller in Norway than in other countries, they are still palpable for individuals. Estimates of the size of wage penalties in Norway differ depending on model specifications. For example, Cools and Strøm (2016[10]) found that in the 1-5 years after having a first child, wage penalties to motherhood range from a 1.2 % wage reduction for women with lower secondary education to 4.9% for women with the highest level of education. They also show that the wage penalties are largest for mothers working full time and in the private sector, and that wage penalties increase as children age (Cools and Strøm, 2016[10]).

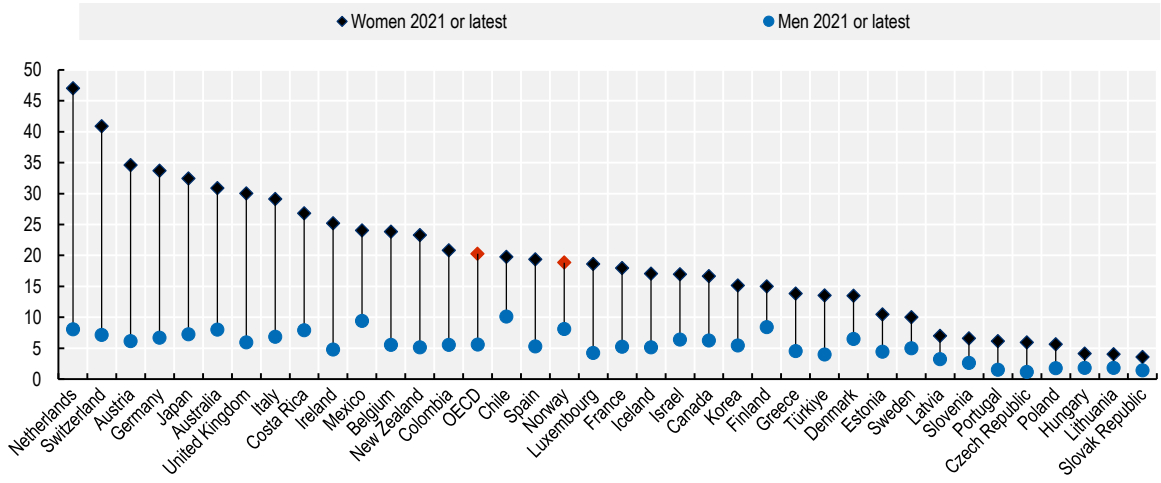
Up to a certain point, higher-earning women, or women who expect to experience wage growth, will experience greater monetary losses than lower-earning women if they have a child (Kornstad and Rønsen, 2017[11]). This study found an “U-shape” relationship in that an increase in wages is associated with a decreased chance of having a child up to a threshold wage level, after which an increase in wages lead to an increased chance of having a first child. The estimated typical wage for women is below that of the threshold wage, which suggests that a majority of women will face a situation where an increase in wages will be associated with a decreased likelihood of a first birth. Kornstad and Rønsen (2017[11]) also concluded that the U-shape is more pronounced for younger cohorts (born in the 1970s) than older cohorts (born in the late 1950s), suggesting that women today are more sensitive to wage changes than women were in the past.

4.2.3. Encourage a more gender equal take-up of part-time work

Even though the relationship between part-time work and fertility is context-dependent, in large part, motherhood penalties are driven by mothers leaving work for parental leave in the shorter term and taking up part-time work in the longer run after children arrive (Markussen and Strøm, 2022[12]). The proportion of women working part time in Norway is in line with average proportions across the OECD, but considerably greater than proportions in other Nordic countries (Figure 4.5.). In 2021, the proportion of employed women in part-time jobs was similar in Norway (19%) to that in the OECD (20%), but higher than the rate in Iceland (17%), Finland (15%), Denmark (13%) and Sweden (10%). For women, the proportion in part-time jobs has decreased by 4.0 ppts between 2009 and 2021 in Norway, whereas the corresponding proportion of men increased by 2.5 ppts. This increase is a greater than in nearly all other OECD countries, except for Finland (nearly 4 ppts increase) and Chile (almost 5 ppts).

Figure 4.5. More women work part-time in Norway than among its Nordic neighbours

Incidence of part-time employment, ages 25-54, by gender, 2021



Note: Part-time employment is based on a common 30-usual-hour cut-off in the main job. Data refer to 2020 for the UK and 2019 for Australia.
Source: OECD Employment Database.

In addition to the long-standing goal of building a co-provider family model (Ellingsæter and Steen-Jensen, 2019[13]), it is possible that some Norwegian families also could benefit from a relaxation of the full-time norm, on a temporary basis for men and fathers (OECD, 2017[7]). Reliance on gendered part-time work around the time children are young is associated with higher motherhood career penalties as well as gender inequalities in the time available to spend with children. Norway's current labour market policy focuses on limiting the negative economic aspects of part-time work while encouraging the norm of full-time work, but nevertheless making concessions to parents who want to spend more time with their families (Ellingsæter and Steen-Jensen, 2019[13]). As men increasingly want to play a central role in their children's lives, there may be more scope for families with young children to better share the take-up of part-time work between parents and reduce the part-time work penalty on women (Jensen, 2016[14]). This could be especially relevant for the private sector where the fatherhood penalty (albeit smaller than the motherhood penalty) is larger than in the public sector (Cools and Strøm, 2016[10]).

It is good that employees in Norway with young children have the right to request part-time work or a reduction in their working hours with employers only able to refuse to comply on serious business grounds. Furthermore, it is important that the Labour Environment Act stipulates that lower hourly wage for part-time

workers is discriminatory and must not exist since this in theory should limit wage penalties that arise directly from part-time work (Danbolt, 2016[1]).

Another avenue for action is to ensure that jobs across all sectors can be offered as full-time positions too. For instance, the use of part-time contracts is widespread across the female-dominated healthcare sector and while unions have already called for stricter legislation and demanded that all workers who would like full-time positions should be offered them, little has happened as of yet (Eurofound, 2011[15]; Ellingsæter and Steen-Jensen, 2019[13]). Social partners play an important role in Norway's labour market institutions (Box 4.1).

Box 4.1. Tripartite labour market institutions

In Norway, trade unions and employer organisations are key players when it comes to negotiating wage and conditions of work contracts. In this collective bargaining, the role of the state is limited to facilitating negotiations (providing statistics and relevant information ahead of negotiations) and providing a legal framework for resolving disputes of interest (the Labour Disputes Act). The main organisations are the NHO (employers' organisation) and LO (labour organisation) and their affiliated sectoral organisations. In additions to these, there are a number of other employers' and workers' organisations. Wages may be negotiated either at the central level, the sectoral level or at the local level (NHO, 2022[16]).

Unions and collective bargaining can play a role in ensuring that there are stable jobs across sectors and levels of seniority, and especially that labour rights keep up with needs in changing workplaces and labour markets. In 2017, 69% of workers in Norway were covered by collective bargaining agreements, which was higher than the OECD average at 32%, but lower than the numbers in Sweden (88%) and Finland (89%) (OECD, 2022[17]). While workers covered by unions may experience more work security than those not covered by them, Norway is slightly different from other Nordic countries with a high union coverage in that many of the rights negotiated by unions have passed into law (Arbeids- og inkluderingsdepartementet, 2022[18]).

4.2.4. Keep using information-based tools to shrink parenthood career penalties

Uncertainties about the size and factors playing into the gender pay gap could also induce parents to postpone the decision to have children. If parents assume that their career will stall a little while children are young, career-focused prospective parents will likely try to get some promotions out of the way in their 20s and 30s, before settling in a role they would be happy with for a while. The Norwegian Government might be able to do more to share information about the nature of pay gaps and how to avoid them. Pay audits can be one tool through which companies can gather information on the gender balance across different functions in firms, and any possible changes that happen over time, as emphasised by *Arbeidsforskningsinstituttet* (The Work Research Institute) (Solberg, Wathne and Madslien, 2016[19]).

An equal pay auditing system is the most comprehensive government strategy for using wage transparency to address gender wage gaps and it is good that Norway already has a pay auditing system in place. In Norway, all public organisations and all private firms that ordinarily employ more than 50 people have to publish and share with the public the pay differentials between men and women every two years. As information gathered through audits in Norway is shared publicly in documents such as annual reports, individuals can use it when they make decisions about their career and fertility. Norway could expand the requirements to indicate parenthood penalties by letting employers report wages of parents at a given period after returning from parental leave. This is not an entirely novel approach: in France, employers are bound to publish the proportion of women who received a raise in the year after they returned after parental leave to evaluate whether employers comply with their legal obligation to ensure mothers' wages catch up with their peers' wages (OECD, 2021[20]; OECD, forthcoming[21]).

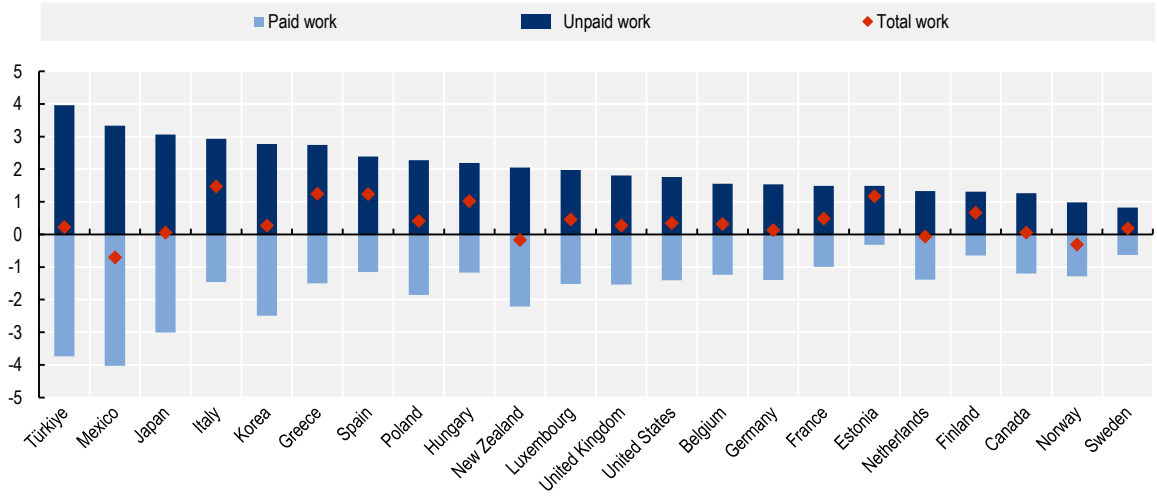
Although using pay auditing to understand wage gaps is not yet widespread (nine OECD countries currently use them in some form), there have been some early learning lessons that will be useful to consider. First, this should not simply be a measure for larger firms but can also apply to smaller firms. There are ways to offset the administrative burden that (primarily smaller) firms face, such as using online calculators or providing financial support to firms that are not able to finance the burden themselves. High employer, employee and public awareness is also important as this can foster social pressure to complete the audits (OECD, 2021[20]). It is also good that results are publicly released in Norway. This is in line with the practice in the United Kingdom, which means that a 'naming and shaming' can contribute both to completion of the audit and to exerting social pressure to offer fair wages and promotions.

4.3. Families are more "co-caring" in Norway than elsewhere

Norway is ahead of the curve compared to other OECD countries when it comes to time spent co-caring in the household, with a relatively small gender gap in hours spent in unpaid work, but young Norwegian families might still be expecting more equality. Women spend about one hour (59 minutes) more than men do each day doing unpaid work in the household in Norway (Figure 4.6.). This is a little more than the gap in unpaid work time in Sweden (49 minutes). In Norway, these gender gaps have narrowed substantially over recent decades, which may be related to the decreasing popularity of the cash-for-care benefit and higher maternal labour market involvement overall (Kitterød and Rønsen, 2017[22]). Continuing to work for co-caring family units by enabling families to achieve a better gender balance in the home seems especially relevant in Norway.

Figure 4.6. Gender differences in hours spent in unpaid work are among the smallest in Norway

Difference between men and women in hours spent in paid, unpaid and total work per day, latest year available



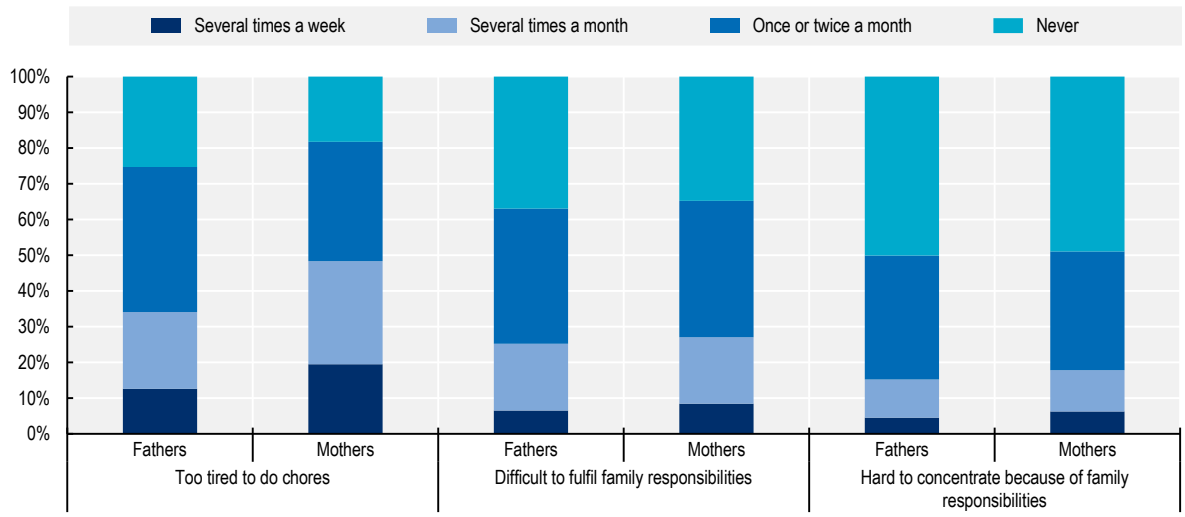
Note: Time spent in unpaid work includes routine housework; shopping; care for household members; childcare; adult care; care for non-household members; volunteering; travel related to household activities; other unpaid activities. For more information on the exact categories used for each country and a detailed breakdown by sub-activity, see the OECD Time Use Database. Data refer to 2019 for the United States; to 2016 for Japan and the Netherlands; to 2015 for Canada, Türkiye and the United Kingdom; to 2014 for Italy, Korea and Mexico; to 2013 for Belgium, Germany, Greece, Luxembourg, and Poland; to 2011 for Norway; and to 2010 for Estonia, Finland, France, Hungary, New Zealand, Spain, and Sweden.
Source: OECD Time Use Database.

There may be large discrepancies in how much time different men spend with their families. For instance, previous research shows that fathers are more likely to share unpaid work in the household more equally with their female partners if they earn less than their spouse, do not hold traditionally masculine jobs (such as managing positions or blue-collar work), have the available time and – more importantly – have a female spouse who is not available in the afternoon and evening (Fernandez-Lozano, 2019[23]).

Mothers of young children aged 0-5 seem to struggle a bit more than fathers in combining paid and unpaid work. For example, while 13% of respondent fathers report feeling too tired to do chores at home at several instances per week, 19% of respondent mothers report feeling so. The differences between fathers and mothers is notably smaller when it comes to judging it difficult to fulfill their family responsibilities (6% for fathers and 8% for mothers) as well as finding it hard to concentrate because of family responsibilities several times a week (4% of fathers and 6% of mothers) (these figures exclude respondents choosing to not respond or answering "don't know") (Figure 4.7.) (GGS, 2020[24]). In general, however, the Norwegian welfare state seems to enable a good work-life balance for mothers, even for those pursuing high-commitment careers (Seierstad and Kirton, 2015[25]).

Figure 4.7. Mothers find it a bit harder than fathers to combine work and family life

Proportion of respondents, fathers and mothers aged 25-44 reporting that they have at least one child under 6 years old living in their household, Norway, 2020



Notes: GGS data were obtained from the Generations and Gender Programme Data Archive and collected through the Survey on Family and Work by Statistics Norway, with contributions from Lars Dommermuth and Trude Lappegård. More information about model survey instruments can be found at: United Nations Economic Commission for Europe (2005). Generations & Gender Programme: Survey Instruments. New York and Geneva: United Nations. Data excludes respondents choosing not to respond or choosing the option "Don't know".
Source: GGS 2020 Generations and Gender Survey 2020 Norway Wave 1

4.3.1. Further encourage the equal co-carer family model

Adults who are happy in their relationships may be more likely to want to have a(nother) child with their partner and be less worried about a potential rupture and the prospect of splitting up the family. One important aspect of relationship satisfaction and the inclination to have a(nother) child is the idea of equal gender roles. It has been found that a more unequal sharing of unpaid housework is associated with a decreased chance of both first and subsequent births in Norway (Dommermuth, Hohmann-Marriott and Lappegård, 2017[26]).

Some of Norway's households are using external help in the form of care and non-care household service workers that reduce the burden of unpaid care and housework at home. Of the respondents to the GGS in 2020, for example, 7% of respondents report regularly paying someone to do housework, whereas 10% of parents of young children do so (GGS, 2020[24]). Such domestic help services have grown across the OECD over recent decades and resulted in comprehensive policy packages in some countries that incentivise formal employment under affordable prices (OECD, 2021[27]) Norway provides a small income tax exemption for household services, such as cleaning and other household tasks. As such, Norwegian households can pay service workers tax-free for these tasks for NOK 6,000 per person per year (USD 607), and up to NOK 60,000 (USD 6,069) per person per year they are also exempted from employer's national insurance contributions.

While these tax and social security contribution exemptions can help some households afford domestic help, the level of support in other countries is more comprehensive. For example, Belgium provides households with social vouchers (Titres services/Dienstencheque) that can be bought for a very low price and entitles households to pay for services in and around their house. Sweden provides a tax credit (RUT-avdrag) that reduces service prices by 50% up to a high ceiling of SEK 75,000 (USD 8,740) per year. Both of these instruments are widely used in the population and have increased the possibility to engage in paid work by reducing the unpaid work burden, particularly for women (OECD, 2021[27]).

4.4. Most Norwegians have secure jobs

Exposure to labour market insecurity can negatively affect the intention to have a child. Higher unemployment in the economy increases risks of becoming unemployed and makes it more difficult to find "re-employment" in case of job loss (Cools and Strøm, 2020[8]). Kristensen (2019[28]) found that the likelihood of having a child is lower in areas of Norway where unemployment is higher. Evidence also suggests that couples remember spells of joblessness in the past: repeated spells of joblessness for both partners are associated with lower likelihood that women intend to have a(nother) child (Busetta, Mendola and Vignoli, 2019[29]).

While the labour market works well for the majority of people in Norway, some groups face elevated risks of labour market insecurity. These notably include the lower-educated youth, and in particular young men. These insecurities are not sufficient to have triggered and sustained the fall in births over the course of the 2010s, and addressing these issues is unlikely to result in a return to high fertility rates. Nonetheless, it may support some people in further enabling them to make the decisions they want to regarding family formation.

4.4.1. The risk of (long-term) unemployment has increased slightly, but this is unlikely to affect overall fertility rates

Norway is in a relatively strong labour market position compared to most other OECD countries. The unemployment rate among 25- to 54-year-olds was low in 2020 at 4.1% for men and 3.6% for women (the OECD average was 6.2% for men and 6.8% for women). However, it had almost doubled since 2007 when the overall unemployment rate stood at 2.5%. Out of those who are unemployed, the proportion of long-term unemployed people has also increased since the early 2000s, peaking in 2017 at 37.0% for men and at 28.7% the year before for women (Figure 4.8.). The share of long-term unemployment out of total unemployment has been a little higher in Norway than in the OECD since 2017.

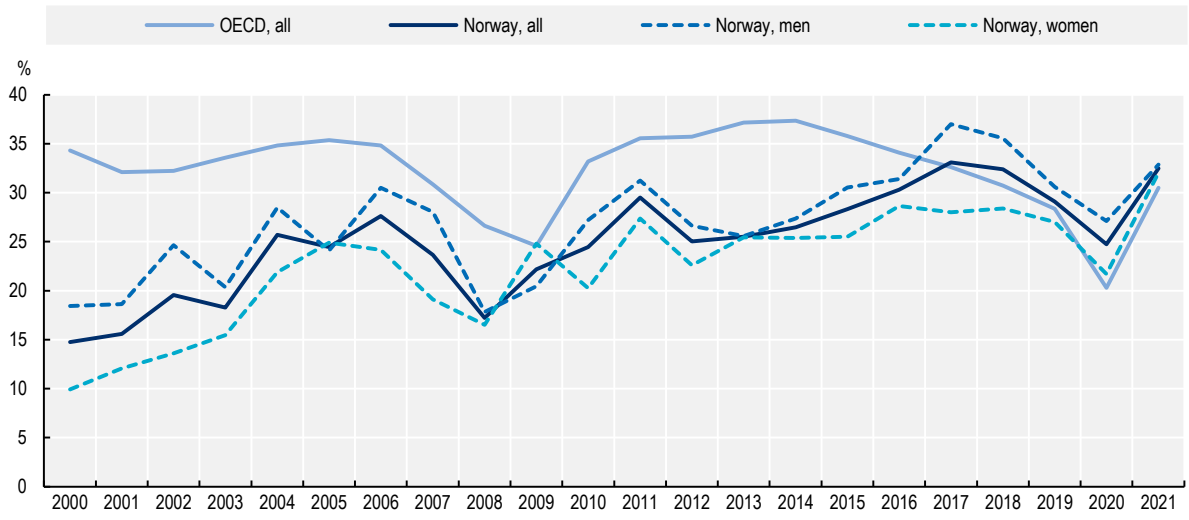
Young people not in employment, education or training (NEET) tend to be a group facing particular disadvantages, but this is unlikely to constitute a considerable issue for family formation. Because in Norway, this group is smaller than on average across the OECD: in 2021 9.3% of 20- to 24-year-olds were

NEET in Norway, which is lower than the share across the OECD (16.8%). The proportion has been relatively stable over the 2010s (OECD, 2022[30]).

As unemployment remains comparatively low, increases in the incidence of long-term unemployment or the shares of young people who are NEET are unlikely to have been a substantial driver behind the fertility declines. Nevertheless, as explained in more detail below and in Chapter 5, the subjective belief of being able to bear a potential job loss is an important determinant of fertility intentions.

Figure 4.8. The incidence of long-term unemployment is higher in Norway than across the OECD

Share of unemployment that has lasted over one year, ages 25-54, Norway and OECD average, 2000-2021



Source: OECD Employment Database.

Financial security prior to having children might be a particular concern among people with lower levels of education in an insecure labour market position earning, as the cost of children being raised at a desired standard of living may be perceived as too high (Lappegård, 2020[31]). Although the decline in first births was similar across educational levels in Norway after the 2008-09 financial crisis up until 2015, the proportion of women without children increased among low-educated women and it remained stable among high-educated women since then (Comolli et al., 2021[32]). Similar trends can be seen in the UK (Ermisch, 2022[33]). By now, the proportion of women who do not have children is greatest among the least educated women in Norway, and the same is true for men (Jalovaara et al., 2018[34]). In fact, lower-educated men in Norway are disproportionately missing out on fatherhood (Box 4.2). Norway is not alone in showing signs of a trend reversal: Denmark and Sweden also display similar patterns. In any case, as the share of women and men with lower levels of education has been steadily decreasing, this is not likely to have been a substantial factor for overall fertility levels.

4.4.2. Temporary contracts are not widespread, even among the young

It is not only being employed that is important before having children, but also the stability of that employment contract. Since employment and typical wages are relatively high in Norway compared to the OECD, achieving financial stability is a realistic outcome for many people, but it might take some time owing to, for instance, temporary contracts, trial periods and initial periods of part-time work among young adults, and particularly recent graduates. Previous research shows that the probability of having a first child rises faster in the years after a woman or her partner obtains a permanent contract, compared to the years before (Cools and Strøm, 2018[35]). A network meta-analysis of European studies on uncertain labour

market outcomes and fertility also finds that temporary contracts are especially detrimental for women's likelihood to have a child, whereas the impact is slightly smaller on men's chances (Alderotti, Vignoli and Matysiak, 2019[36]). Economic conditions therefore mostly affect young couples who can expect to achieve better financial stability in future and postpone the decision to start a family (Dommermuth and Lappegård, 2017[37]).

Box 4.2. Some lower-educated men are losing out on partnerships and children

Some men risk losing out on family life, since more men than women remain childless, a phenomenon most common among lower-educated than higher-educated men. Chapter 2 showed that by the age of 50, almost 23% of men remain childless, compared to just over 14% of 45-year-old women. A large part of what is driving the higher childlessness among men compared to women is related to there being more men than women in fertile cohorts in Norway (Kravdal, 2021[38]). Similar patterns emerge when considering social class and income levels: better-off men and women are increasingly more likely to find stable partners and have children compared to women and men who are worse off (Maksimovic et al., 2021[39]; Doepke et al., 2022[40]; Miettinena and Jalovaarab, 2020[41]).

The highest level of men's childlessness is recorded among those with lower levels of education. First, lower-educated men have a lower likelihood compared to higher-educated men to form a union and stay in it (Jalovaara et al., 2018[34]; Jensen, 2016[14]). Second, low fertility in low-educated men can also be a sign of particular insecurities that they face, including marginalisation on the labour market. Men also tend to have longer periods out of economic activity (figure 2.A2.1 in OECD (2018[42]). Third, when lower-educated men do find a partner, it is likely that she has a similar level of education and/or income as he does, which means that job insecurities compound within families (Lappegård, 2020[31]).

Changes in patterns of partnering are also linked with gender quality and expectations from partnerships. It has been argued that the result from the intersection between income levels and gender equality is taking new shape (Doepke et al., 2022[40]) (Chapter 5). In the past, women were inclined to 'marry up' to ensure that they found a partner that would provide financial stability while the women focused more on taking care of the home and the children. However, with improved gender balance in the labour market, shrinking wage gaps and a more equal division of unpaid housework, women and men are both increasingly looking for partners who have a good earnings potential and values that match their own (Doepke et al., 2022[40]). In this scenario, both lower-income women and men risk losing out of finding a partner they are content with, which matches observed patterns of partnership formation among younger cohorts (Doepke et al., 2022[40]).

Overall, job quality tends to be better in Norway than elsewhere in much of the OECD, even if it is a little lower for younger workers. Indeed, Norway scores at 2.85 on the OECD labour market insecurity index, considerably lower than Denmark (4.47) and Sweden (4.39) (OECD, 2022[43]). The young are slightly more prone to be in the more insecure temporary contracts than older adults in Norway. Out of total dependent employment, 9.3% worked on temporary contracts in 2021 in Norway, compared to 11.8% across the OECD. What is perhaps more noteworthy is that the figure in Norway is also lower than in other Nordic countries, especially in Finland (16.6%), Sweden (15.2%), but also to a lesser degree in Denmark (10.8%) and Iceland (12.5%). For 15-24-year-olds, the proportion of workers in temporary employment is a little higher in Norway (30.4%) than across the OECD (25.0%), even if not as high as in Sweden (52.9%). These proportions have only increased a little for 15- to 24-year-olds between 2009 and 2021 and have been stable for all ages in Norway (OECD, 2022[44]). Across the OECD, proportions of employees in both age groups have been stable between 2009 and 2021, but they have increased significantly in a few countries, including Belgium, Italy and the Netherlands (OECD, 2022[44]). The gender gap is slightly larger in Norway than the OECD (the share of female employment in temporary work is 3 ppts greater than the share of

male employment in temporary work in Norway– compared to 0.7 ppts in the OECD). Even though it is likely to be an important factor in the individual decision of having children, the impact of the share of temporary contracts at a country-level on the country's fertility will not be significant.

4.4.3. Keep supporting people into good jobs

It is good that more work is being conducted to understand more about the impact of financial and labour market insecurities on decisions to start a family (University of Oslo, 2022[45]), but Norway's labour market is already well-functioning. There are some minor improvements that can be made, and these mainly involve continuing to work in areas Norway is already working with, such as continue to balance paid and unpaid work more evenly between parents, getting the (long-term) unemployed into work, and ensuring that work contract are secure enough for (young) workers. Addressing minor weaknesses in the labour market might enable some people to form families, but this is unlikely to have any major impact on the aggregate level given the small proportions of people that are affected by labour market insecurities.

Norway can keep exploiting the tightness of its labour market to provide get those who are currently out of work into good and secure jobs. Norway is already making sure that there are viable pathways from temporary contracts into employment, especially for adults who recently moved from education into the labour market and are seeking to find a foothold. It is good to see that the most precarious form of flexible contracts, zero-hours contracts, were forbidden by law in 2019, and the use of other temporary contracts to hire workers flexibly are highly regulated (The Norwegian Labour Inspection Authority, 2022[46]; LOVDATA, 2022[47]).

It is also important that Norway keeps up its focus on ensuring that lower-educated men and women do not fall further behind in an ever-evolving labour market and that they receive support where needed to retain opportunities to upskill and reskill. Engagement in adult education for upskilling and reskilling is high in Norway.[1] Data from the Survey of Adult Skills (PIAAC) indicate that Norway has the highest proportion of adults who report having participated in job-related formal or informal training in the previous year (over 55%), which was similar to countries like Denmark, Finland, New Zealand and Sweden. This was higher than the OECD average (40%) (OECD, 2021[48]). It is also good that only relatively few people are disengaged from learning in Norway. Only 36% of adults do not participate in adult learning and report being unwilling to participate in the learning opportunities that are currently available to them in Norway, compared to 50% across the OECD (OECD, 2021[48]).

4.5. Evidence on the link between labour markets and fertility

4.5.1. A positive link between economic security and fertility

A long tradition of demographic, sociological and economic research finds evidence that higher observed economic certainty – both at the macro and micro level – contributes to families to have (more) children (Boca, Pasqua and Pronzato, 2005[49]; Busetta, Mendola and Vignoli, 2019[29]; Coskun and Dalgic, 2020[50]; Seierstad and Kirton, 2015[25]). On the macro side, high national employment, extensive income support systems and generous family policies are seen to promote fertility. On the micro side, a stable income, working a sufficient number of hours, access to benefits and childcare also support high fertility rates. Well-functioning labour markets are a large component of achieving secure economic conditions that support family formation.

Having an (additional) child is a long-term commitment that requires financial resources, time and other opportunity costs from both parents (Vignoli, Tocchioni and Mattei, 2020[51]; Cools and Strøm, 2020[8]). Once made, it is a decision difficult to reverse. If families are less sure that they will be in a good position to give up these resources, they tend to delay the decision to have an (additional) child until prospects are better (Vignoli et al., 2021[52]; Alderotti, Vignoli and Matysiak, 2019[36]). In Norway, a large part of feeling

financially settled is having a stable job (Cools and Strøm, 2020[8]). This is understandable in a country where the norm of full-time, permanent employment contracts is strong. A job offers financial sustainability and can instil confidence about the future, which is important for the decision and the timing to have a child.

It is not always enough to have obtained a job, however, as many people also want to establish a sense of stability and focus on their early careers (Alakärppä et al., 2022[53]). Spending some years in work before having children also means that young adults can benefit from the (usually) fast wage increases in their 20s and early 30s. Higher wages for both male and female partners in a couple have been linked to a higher likelihood to have a first child across education levels in Norway, although this link between higher wages and likelihood of a first child has only appeared for recent cohorts among women (Cools and Strøm, 2018[35]).

Dommermuth and Lappegård (2017[37]) found that the three factors that offer the best explanation for the decline in first births since 2010 are economic activity, employment status and the employment rate in the community (municipality). Their results suggested that being out of work reduces the likelihood of having a first child, while the acceleration of the decline in third births was associated with the employment rate in the community. For younger women, the most important driver of reducing the likelihood to have a first child is to be in education. They also find that having longer work experience is more important for women aged under 33 than older women. The effect of women's income on first births has a j-shape, whereby women with higher incomes experience a higher likelihood to have a first child compared to those with very low incomes, and that this chance increases as income increases. Nonetheless, as pointed out by Comolli et al. (2021[32]) and discussed in more detail in Chapters 1 and 2, the decline and persistency of the low birth rates in the 2010s, cannot be fully explained by the relatively small economic downturn related to the financial crisis of 2008-09.

4.5.2. A cross-national analysis suggests a key role for female employment

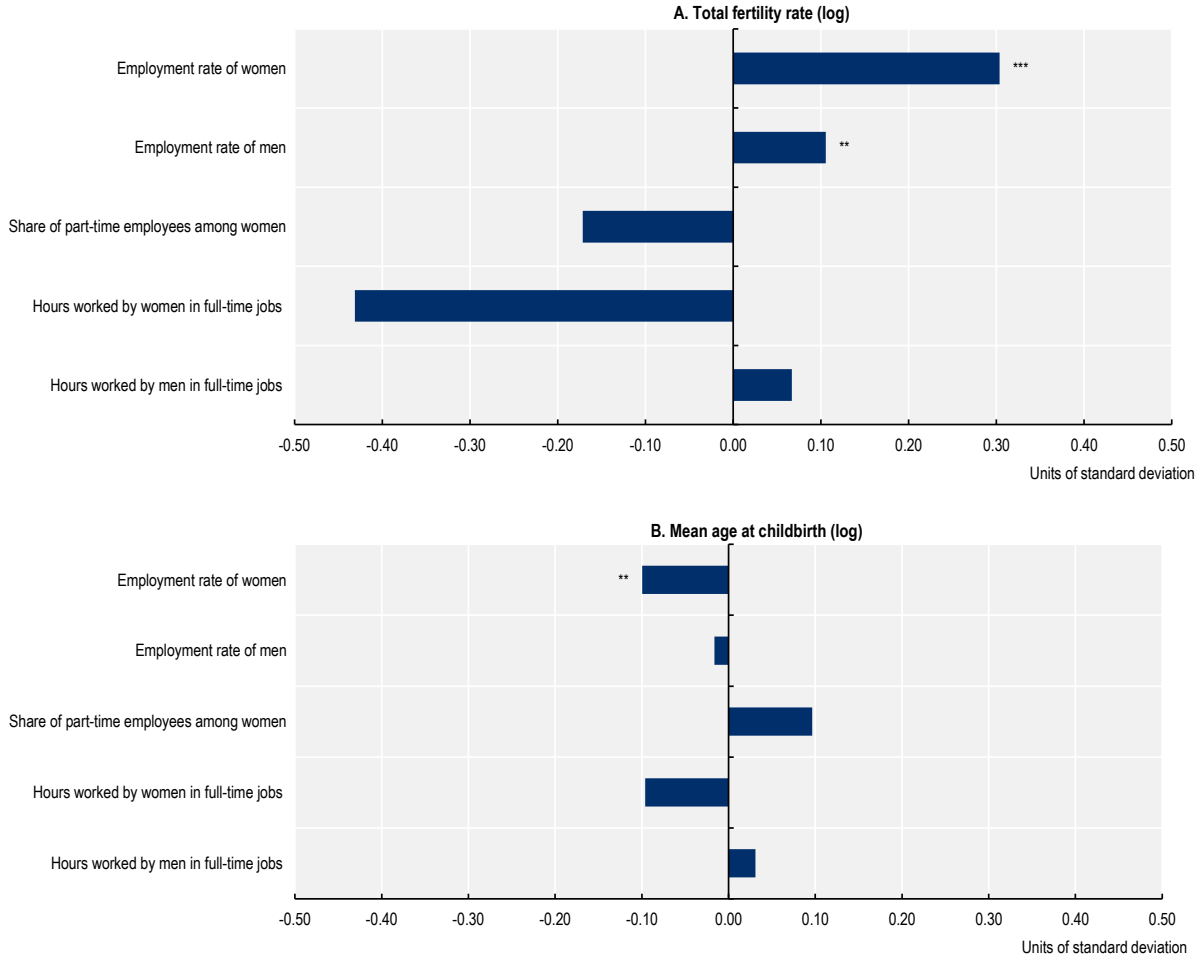
Labour markets and fertility choices are tightly linked as childbearing determines human capital accumulation, labour force participation, and occupational choice. At the same time, labour market conditions, such as the number of hours worked, can affect families' decision of having children. This section presents the results of an OECD-wide regression that estimates the within-country over-time association between labour market outcomes and fertility rates as well as the mean age of mothers at childbirth (Figure 4.9.). As in other chapters of this report, the resulting coefficients should be interpreted as an association between labour market outcomes in a specific country and its respective fertility outcomes. The results do *not* provide evidence of a causal relationship between labour markets and fertility, but nonetheless provide insights on which policies may be more likely to affect birth rates than others. Based on data availability, all regressions refer to the period 2002-2018. A more detailed methodology is available in Annex 1.B.

As laid out above, economic considerations can have a significant impact on fertility decisions, affecting whether couples can afford to have a(nother) child. The labour market status of women as well as of their partners – both of which are significant determinants of their household's financial security – can therefore be critical for the decision to be a parent. Indeed, Figure 4.9. shows that increases in employment rates of women are positively associated with increases in fertility and decreases in their mean age at childbirth - along similar, but slightly weaker, effects of male employment on TFRs. These findings are consistent with the fact that countries with higher female employment rates are also among the countries with higher fertility rates (Oshio, 2019[54]), as well as with positive effects on household budgets. However, women who are employed typically also face higher opportunity costs of childbirth as parenthood generally comes with a substantial leave of absence from the workplace. However, as discussed in Chapter 3, more or less comprehensive family policy frameworks have evolved along increasing female labour market participation

in most OECD countries, and today substantially reduce the opportunity costs of childbirth, even though negative effects on earnings and career progression remain (see e.g. Kleven et al. (2019[55])).

Figure 4.9. Women's' employment plays a key role in timing and number of births

Estimated association between labour market and fertility outcomes, 2002-2018



Note: The figure shows standardised regression coefficients that capture effects of within-country over-time variation between labour market outcomes and log-transformed fertility outcomes. Estimates are based on a two-way fixed-effects regression, with year and country fixed-effects as well as linear time trends for each country. All independent variables are lagged by one year to avoid reverse causality. The regression also controls for family policy characteristics (Chapter 3), log GDP per capita and squared log GDP per capita as well as the average years of schooling for men and women.

The model is estimated over the period 2002-2018 using country-level data from Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, the United Kingdom and the United States. Missing values for average years of schooling and ECEC enrolment rates are handled through multiple imputation, using five iterations of predictive mean matching (van Buuren (2018[56])).

The standard errors are heteroskedasticity- and panel-corrected. ***, ** and * represent significance at 1%, 5% and 10% level, respectively. Since the regression coefficients are standardized, their magnitude is measured in units of standard deviation of the dependent variable. Detail on the methodology is available in Chapter 1, Annex 1.B. and Fluchtmann, van Veen and Adema (2023), *forthcoming*.

Source: OECD calculations based on data from the OECD Family Database, the OECD Employment Database, the OECD Social Expenditure Database, the OECD National Accounts, the UNESCO UIS Database and the UN World Population Prospects.

Working hours can have an important bearing on the timing and number of births. Indeed, the international literature corroborates the finding and there are several papers that found a negative link between worked hours and fertility choices for the United States (Maralani and Stabler, 2018[57]; Liu and Hynes, 2012[58]), Italy and the Netherlands (Mills et al., 2008[59]), Italy and Spain (Cooke, 2009[60]). Excessively long working hours may even affect reproductive health itself (see e.g. Ahn et al. (2021[61]) and Gaskins et al. (2015[62])). The OECD-wide regression identifies no significant relationship between either working hours of women or men in full-time contracts (30 hours or more per week) and fertility rates (Figure 4.9), even though the estimated coefficient is rather large. Similarly, there is no discernible effect of the incidence of part-time employment among women on fertility outcomes.

There are a number of other labour market factors that may have an effect on fertility outcomes, but which are not covered in the current regression model (e.g., for a lack of sufficient data, overfitting or potential multicollinearity). For example, higher wages for women may have a positive effect on fertility as it increases financial security, much like employment rates of women itself (see e.g. Berninger (2013[63]) and Hart (2015[64])). Self-employment among women may have negative effects on fertility, mainly because self-employed workers (i.e., small retail, cleaning services) are more likely to face more income uncertainty and may be unable to take advantage of family leave as payroll workers (Adserà, 2004[65]). Moreover, since employers often sub-contract services to self-employed workers to reduce costs, those workers do not necessarily have more working time flexibility to take care of their children. Temporary employment can reduce women's likelihood to have children, while for men it is particularly unemployment that has adverse effects on fertility (Alderotti et al. (2021[66])).

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Note

[1] Norway's good performance on adult education comes from a history of investment. In 2015-2016, the Government stated the aim of developing "a knowledge society where adults that have problems in getting a permanent connection to working life get access to education that gives the skills that working life needs" (Eurydice, 2022[69]; Kunnskapsdepartementet, 2016[70]). Previous aims of working proactively with tailoring skills to reorganised labour market, focusing on inclusivity and lower-skilled and marginalised individuals, should be key in future work as well (Ministry of Education and Research, 2017[67]). It will be important that Norway does not become complacent and continues to attempt to reach those who are currently unwilling to take on learning opportunities that are available and ensure that existing training is well tailored to fulfil labour market needs now and in the near future. Norway could consider continuing updating its National Strategy for Skills Policy for the coming years. Norway designed the Strategy for Skills Policy between 2017 and 2021, jointly between relevant Government Ministries, the Sami Government, social partners and the voluntary sector, to better coordinate skills policy at the local, regional and national level, as the first country to implement the OECD Skills Strategy. It is important to give new governance structures enough time to settle, and to ensure that cooperation, made more efficient where possible, and involve the social partners (OECD, 2020[68]).

5 How perceptions, norms, and attitudes can affect family formation in Norway

Jonas Fluchtmann and Maja Gustafsson

Since there is little evidence that family policy or observed economic outcomes offer clear explanations for the decline in birth rates in the 2010s, researchers have started to consider other factors that may have played a role. There is some evidence that perceptions about the current economic situation in households and in the world can have some impact on fertility choices. Equally, norms and attitudes have shifted from being pro-family to being more in favour of fulfilling personal potential on a wider scale and this can have had a role in dampening young adults' desire to have children. The exact role of subjective factors such as perceptions, norms, and attitudes is notoriously hard to measure quantitatively. Nevertheless, recent country-specific and comparative studies have started mapping how subjective factors may have played a role in the fall in births in many OECD countries since the financial crisis. This chapter discusses the role that perceptions, norms, and attitudes may play in family formation and outlines some of the recent findings in this research.

5.1. Introduction and main findings

The falls in fertility rates across many OECD countries – including Norway – since the early 2010s have put yet again into question the prevailing demographic theory that strong economic indicators support high fertility rates. Falls in fertility cannot be clearly linked with key changes in family policy (Chapter 3), nor with increased labour market insecurity (Chapter 4).

Research has therefore started to look further afield for reasons behind the decline in fertility. Attempts to explain the fall in birth rates have taken different approaches, drawing on policy-oriented, economic and cultural explanations but no single theory to explain this trend has yet emerged (Dommermuth and Lappegård, 2017[1]; Dommermuth and Lappegård, 2016[2]; Duvander, Lappegard and Johansson, 2020[3]; Hellstrand et al., 2021[4]; Guetto, Bazzani and Vignoli, 2020[5]; Buh, 2021[6]; Comolli et al., 2020[7]). Investigations into whether compositional changes in the population of women, including changes in the shares of women in good health and with a migrant background have not been able to explain falls in fertility either (Box 5.1).

Box 5.1. Compositional changes cannot explain falls in fertility

Compositional changes in the group of women who are able to have children do not explain the falls in fertility since the early 2010s. Neither changes in health nor migration seem to have driven any significant portion of the decline (Hart and Kravdal, 2020[8]). There is little difference in fertility between those in good and bad health, as measured using indicators based on sickness absence and long-term dependency (Hart and Kravdal, 2020[8]). Both women who have been on sick leave or received long-term benefits and those who are not, have experienced a decline in births since 2009. However, the decline in fertility after 2009 has been strongest for women who have not been on sick leave or received long-term benefits, i.e. those who can be assumed to be the healthiest (Syse, Dommermuth and Hart, 2020[9]). With regards to immigration to Norway, numbers have been stable during the 2000s so changes in migration flows will have had no more than a minor impact (Statistisk sentralbyrå, 2022[10]). While the long-term trend is that fertility has fallen among migrants, the trend is neither recent or large enough to have much explanatory power in the fertility decline since 2010. The fertility rate of migrants coming to Norway has fallen slightly or remained stable compared to what it was a decade ago and the reason behind this seems to lie in falling fertility rate in origin countries rather than any form of integration once settled in Norway (Tønnessen, 2022[11]).

An emerging body of demographic research has instead focused on changes in perceptions, norms and life goals. This strand of research puts the emphasis not on actual insecurities and events, but instead on *perceived* insecurities, agency and resilience. It is argued that perceptions of insecurities, imagined futures and shared narratives are just as – or even more – important as actual insecurities when it comes to people's fertility intentions (Vignoli et al., 2021[12]; Vignoli et al., 2021[12]; Beckert, 2014[13]; Gatta et al., 2021[14]; Hofmann and Hohmeyer, 2013[15]; Hart and Kravdal, 2020[8]; Comolli et al., 2020[7]). This strand of research posits that the decision to have a(nother) child does not only hinge on the actual state of the economy or personal finances, but more on people's perception of how things are going. Young couples judge their prospects by taking account of a wider range of insecurities compared to what previous generations did. With the rise of social media and a shift towards more interconnectivity, the effects of global events – such as financial crises, economic downturns, violent conflicts, and wars – have become ever closer and more accessible. Even as actual economic outcomes are strong in Norway, people can *perceive* that their situation is insecure.

In addition to economic perceptions, societal attitudes regarding the costs and benefits of family formation are changing. In accordance with the theory of the second demographic transition – which predicts sub-replacement fertility and increased diversity of family constellations (Zaidi and Morgan, 2017[16]) – younger adults seem to attach an increased value to concepts such as individualism and self-realisation – i.e. according to Maslow (1943[17]), the highest form of psychological development, where individual potential is fully realised (Gatta et al., 2021[14]; Hellstrand, Nisén and Myrskylä, 2022[18]). This puts into question previously established norms around the importance of careers, optimal family size, ideal timing of birth, and gender roles in couples. Recent shifts in attitudes concerning risk and family life might thus be just as important – or even more important – as the underlying changes in living standards and economic unpredictability.

The exact role of subjective factors such as perceptions, norms and attitudes are notoriously hard to measure quantitatively. This is especially true for cross-country quantitative analysis – such as the one undertaken in this report – since perceptions are enormously context-dependent. Nonetheless, some recent country specific and comparative studies have started mapping how subjective factors can have played a role in the fall in births in many OECD countries since the financial crisis. This chapter explains some of the recent trends seen in this research.

5.1.1. Main findings

The family policy environment and the state of the economy are not the sole predictors of the intentions for fertility decisions. The perceptions and norms of young couples regarding the importance of family formation, as well as expectations of economic security, are important.

The perceptions of the uncertainties people face seem to have worsened more than the actual level of uncertainties. Compared to before the financial crisis of 2008-09, the perception of labour market insecurities has become more important in explaining fertility rates, even though such insecurities in themselves have not increased substantially. There is also evidence that in part this is related to the increased pace at which information is shared through (social) media, and the financial crisis being the first economic crisis that was reported live in detail and speed across the world.

Changes in norms around the value of family life have worked in tandem with other changes in attitudes. While young people in Norway see starting a family as a natural step, the matter of choosing good timing has gained importance over the long term, not least due to the increasing practice of intensive parenting for both partners. While women historically have had to consider life changes due to the responsibility that is placed on them through children, this is a newer phenomenon for men. It is perhaps unsurprising that young adults feel the need to take some time to navigate these new practices and norms before finding a balance between work, life, and partnerships that they are happy with.

It is hard to predict whether fertility will increase or decrease as couples find their footing in terms of life goal priorities and their roles in couples. Going forward, Norway can continuously evaluate developments in this area.

5.2. Growing evidence for a “subjective turn” in fertility decisions

Although actual economic circumstances are strong in Norway, this does not necessarily mean that individuals feel that they are. Perceived insecurity within families, volatility of macro-indicators and the spread of international news can have a major impact on people’s intentions to have children. This “subjective turn” in couples’ decision-making around family formation is a relatively new area of research and more quantitative and qualitative investigations are required to map its potential impact.

5.2.1. Perception of own situation can be more important than actual outcomes

The perception, and anticipation, of insecurity at the level of the family or individual situation can be important in influencing fertility decisions (Vignoli et al., 2021[12]). Research from Finland shows that perceived uncertain life situations – including dimensions such as the perceived financial situation, own or spouse's unfinished studies, housing size and perceived challenges to combine work and childcare – are the strongest factors behind a decision to postpone having a(nother) child (Savelieva, Jokela and Rotkirch, 2022[19]). The study also showed that women with higher levels of education were more likely to state factors directly related to life situations as reasons for postponement, compared with women with lower educational attainment. Another study took advantage of an unemployment benefit reform in Germany ("Hartz 4") to construct a natural experiment. The reform was highly debated and meant that individuals faced higher demands to prove job search efforts and reduced income security in case of unemployment. In the study period, the share of women reporting economic worries increased considerably and Hofmann and Hohmeyer (2013[15]) found that among women who were very worried about their economic situation had relatively low fertility, while there was no significant difference in fertility between women who were somewhat worried and those who were not worried at all.

It is intuitive that the effects of labour market and other insecurities are not the same for everyone but can differ based on contextual factors such as country, region, socio-economic background, gender, education level, risk tolerance and social support networks (Alderotti, Vignoli and Matysiak, 2019[20]). Gatta et al. (2021[14]) found that the perception of one's ability to handle a future job loss or economic mishap is more powerful as a predictor of fertility than actual economic stability of that person. For instance, research covering 22 countries using European Social Survey data found that insecure work situations become more relevant for fertility decisions if coupled with low overall subjective well-being. When well-being is high, aspects of insecure job situations make little difference. The relevance of the combined insecure job situation and low subjective well-being was stronger for men than for women, and especially relevant for people over the age of 28 (Vignoli, Mencarini and Alderotti, 2020[21]).

There is evidence to suggest that men and women in Norway have changed the way they consider their own economic situation after the financial crisis 2008-09. In fact, people seem to ascribe greater value to being in a stable job during the 2010s than before. Dommermuth and Lappegård (2017[1]) found that being in work has become more important to women since 2010. It has also become more important to have more work experience before having a first child, and this is especially so for women aged 26-32 compared to younger women. This suggests that women value having a stronger foothold in the labour market more today than 10 years ago. Research from Finland supports these findings and also found stronger negative relationships between insecure jobs and negative fertility intentions after the financial crisis than before it (Vignoli, Mencarini and Alderotti, 2020[21]). Similarly, in a factor analysis of declared reasons for not having children from Finland, respondents were concerned with traditional factors of uncertainty, including weak financial positions, insufficent support from society, too small living spaces (Rotkirch, 2020[22]), despite strong observed outcomes in these areas.

5.2.2. A perception of macro-level insecurities prevails despite good performance

Historically, economic downturns tend to negatively affect births, and this trend can be observed, for instance, during the 1900s recessions in Norway and elsewhere (Comolli et al., 2020[7]). Recessions and economic instability tend to particularly affect first births among younger adults since they have the biological advantage to postpone childbearing until the economic and labour-market outlook has improved (Andersson, 2000[23]). In this sense, the timing of the fall in fertility rates – and the concentration among young women – suggests a link with the financial crisis in 2008-09.

However, the low birth rates through the 2010s have been more persistent than any actual economic consequences of the crisis in Norway. The TFR fell substantially in Norway even though the Norwegian economy was relatively shielded from the crisis (a trend also seen in other countries not deeply affected

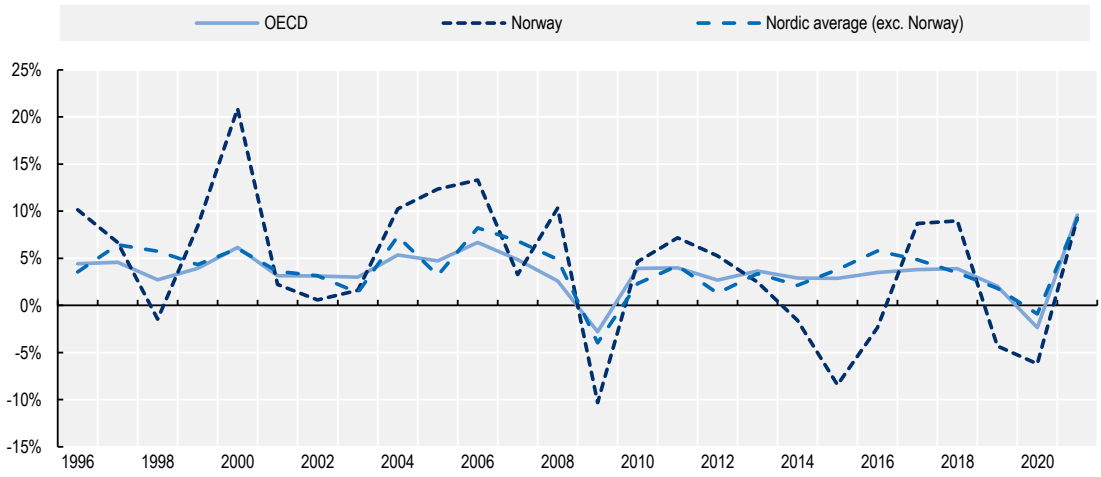
by the 2008-09 crisis), with only a shallow recession and a subsequent quick recovery (OECD, 2010[24]; Comolli et al., 2020[7]). Norway also performed well on macro-level indicators of economic health in the years immediately following the 2008-09 financial crisis, including recovery in GDP, employment, and real wages (OECD, 2014[25]). Unemployment rose only a little compared to countries like Iceland and Finland during the crisis (Comolli et al., 2020[7]), and economic growth was spurred on by high and increasing oil prices between 2000 and 2014 (Nordbø and Stensland, 2015[26]).

There is a perception that insecurities are still present

The actual impact of the financial crisis on the Norwegian economy may have been comparatively light and short-lived, but the *perception* of macro-level volatility and unpredictability has prevailed throughout the 2010s. For instance, in 2018 when economic growth peaked (Figure 5.1.), just 68% described the economic situation over the previous six months in Norway as "very good" or "good" (Ipsos, 2019[27]). Despite its strong performance in terms of labour markets and social security, respondents were most likely to name "unemployment" and "poverty and inequality" as the more concerning problems in Norway in 2018, with 33% of respondents reporting these categories (Ipsos, 2022[28]). These worries are reflected in the consumer confidence index by the industry organisation *Finans Norge*, which had a pre-financial crisis peak in Q1 2007 and since then has been volatile and low, reaching a low point in Q1 of 2016 (Figure 5.2).

Figure 5.1. Norway's GDP growth has fluctuated more than in other Nordic countries since 2009

Year-on-year growth in GDP per capita, US dollars, selected countries, 1996-2021

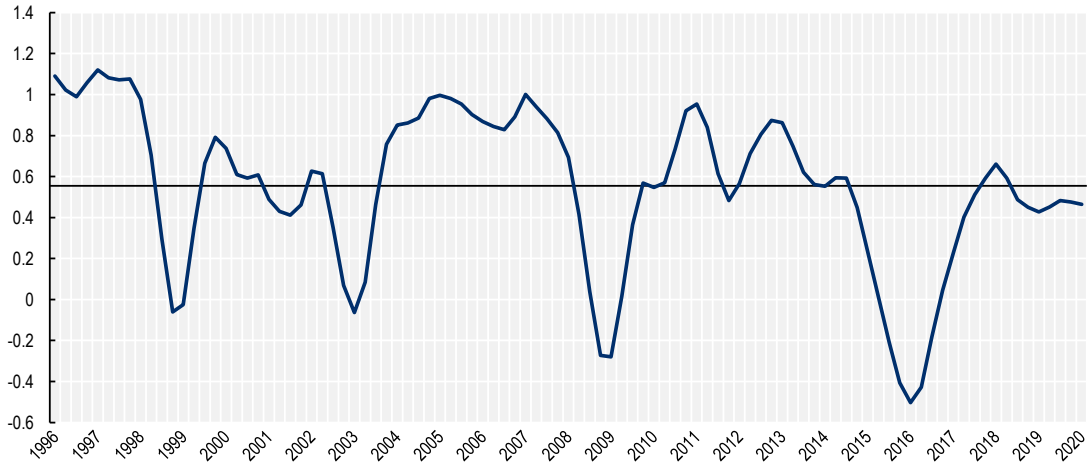


Note: Nordic average excluding Norway refers to the simple average across Denmark, Finland, Iceland and Sweden.
Source: Aggregate National Accounts, SNA 2008 (or SNA 1993): Gross domestic product.

The observed oil price fluctuations could have contributed to a feeling of insecurity that did not completely reflect the strong economic outcomes that Norway exhibited. Even though the brent crude price fell steeply between 2012 and 2016 (almost halving in 2015 alone), and then again in 2018, economic growth – albeit more volatile than in the other Nordic countries – was overall strong and less volatile than might have been expected (Knudsen, 2016[29]) (Figure 5.1). Throughout the 2010s, Norway remained one of the richest countries in terms of GDP per capita across the OECD. As such, actual macroeconomic fallouts from the 2008-09 crisis cannot explain the sudden and persistent fall in births that occurred from 2010 and onwards.

Figure 5.2. There has been a lack of confidence among Norwegian consumers during the 2010s

Consumer Confidence Index (indexed 1 = Q1 2007) (quarterly), Norway, Q1 1996 – Q1 2020



Notes: Axis line presents the average value over the period. The index is calculated as the difference between the percentage of optimistic and pessimistic responses for each of five questions about respondent confidence in the household economic situation and the country, and whether it is a good time to make major purchases for the household, subsequently divided by five. The index is seasonally adjusted and indexed to the local peak in Q1 1997. The x-axis is set at the average during the observed period.
Source: Consumer Confidence Index 2020, Finans Norge.

The value people placed on the broad economic situation grew over this time: while the employment rate in their community (municipality) barely had any impact on birth rates before 2010, it became a significant factor with a negative effect on birthrates after 2010 (Dommermuth and Lappegård, 2017[1]). Abrupt changes, including oil price and GDP volatility in the economic outlook (Figure 5.1) can contribute to negative and lasting impressions of instability. Few think that the situation is improving: close to a quarter of 30-39 year-olds (23%) reported thinking that the economic situation will be a little or a lot worse in Norway in a year's time while just 46% thought the situation would be a little or a lot better (Ipsos, 2022[28]).

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Importing a feeling of insecurity from abroad

Norway could have inadvertently imported some of the uncertain sentiments that abounded in Europe and elsewhere despite the relatively strong economy at home. Media news reporting filters, evaluates and simplifies complex information, and this is becoming a key factor in an increasingly globalised world. The perception of economic strength or weakness is strongly rooted in the public narratives conveyed through the media (Vignoli et al., 2020[30]; Vignoli et al., 2021[12]). Evidence from Sweden shows that different dimensions of perceived global uncertainties can matter as much as – or even more than – actual economic uncertainties for couples' family formation intentions (Guetto, Bazzani and Vignoli, 2020[5]).

Trends of rapid globalisation and online reporting and the role of social media in news dissemination have sped up the way news and narratives are shared. Sensationalist reporting, aimed to capture the attention of an online audience, encourages the sharing of pessimistic and dramatic images of a stagnant, underperforming continent. Broad-based negative narratives during the 2010s go beyond the financial crisis and include xenophobic responses to the refugee crisis in 2015, Euroscepticism and the rise of populism, all of which contribute to spreading a feeling of uncertainty and unpredictability (Kreyenfeld, Andersson and Pailhé, 2012[31]; Joris, Puustinen and d'Haenens, 2018[32]; Comolli et al., 2020[7]; Vignoli et al., 2020[30]). A contributing factor of the role of media on perception could be the "echo chamber" effect of social media, where ones' own beliefs and narratives are reconfirmed rather than challenged, even if they are factually wrong (Cinelli et al., 2021[33]). The negative impact of media reporting can be seen in the Reuters Institute Digital News Report. The proportion of respondents who say that they actively avoid the news has increased in recent years, and two of the most common reasons are that they bring down one's mood and that they wear one out (Newman, 2022[34]).

5.3. Changing costs-and-benefits equation of having children

When young people value achieving life goals – such as self-realisation, travelling and studying – which in some ways compete with traditional life goals of settling down and starting a family, the psychosocial costs and benefits of having children can become more important in young people's minds. This suggests that an evaluation of changes in perceptions, values and norms can be useful to better understand why fertility has fallen. While the quantitative analysis in this report cannot identify a clear role of attitudes and norms, this section outlines some of the emerging literature on this topic. More qualitative and quantitative analysis of the roles of attitudes and norms is needed to gain a deeper understanding of the roles these subjective factors can play in family formation decisions.

5.3.1. Family versus self-realisation

Most births are intentional (although unintentional births still happen) and more couples intend to have – and do have – fewer children. As such, the cost-benefit calculation of having children is different today than in the past. While this calculation is constantly evolving, there is a long tradition in demographic research of trying to understand which advantages and disadvantages men and women consider when they make decisions about family formation, and often these centre around financial costs and health aspects (Langdridge, Sheeran and Connolly, 2005[35]; Park, 2005[36]; Mynarska and Rytel, 2022[37]; Cools and Strøm, 2020[38]; Lebano and Jamieson, 2020[39]).

The social norm in Norway is to have children at some point in life (Archetti, 2020[40]), and family is at the top of many people's mind when it comes to what brings well-being. Just over 12% of men and nearly 24% of women responding to a recent survey feel pressure from society in general to have a(nother) child (Cools and Strøm, 2020[38]). When asked what gives people meaning in life, the top choice in the 2021 Global Attitudes Survey was family and children, with 38% of respondents giving this response (Silver et al., 2021[41]). Many feel that raising children is a rewarding experience that benefits them throughout their lives.

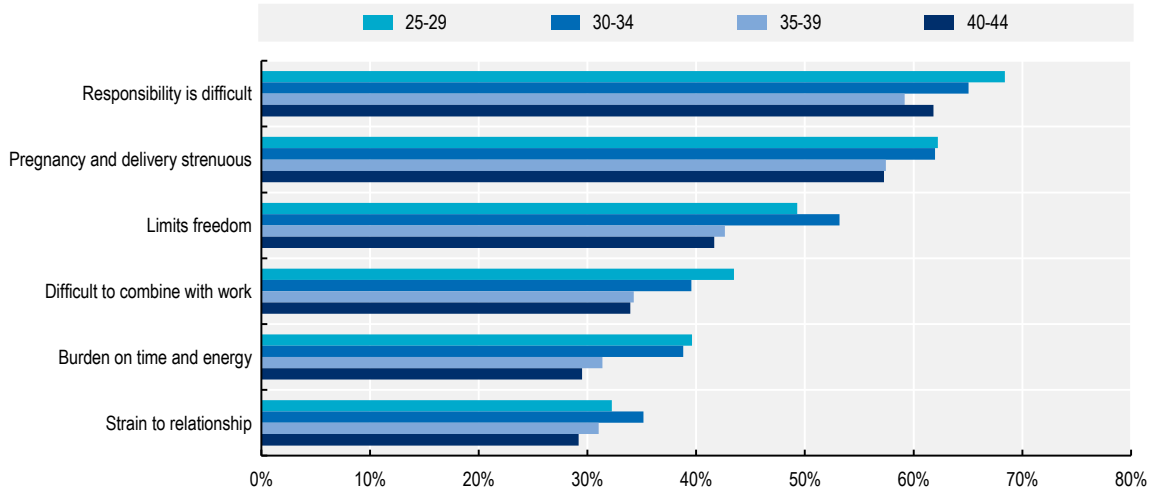
Indeed, when considering both parents and non-parents aged 25-44, a large majority (88%) of in Norway say that an important or very important reason to them personally for having children (regardless of whether they currently are parents or not) is that a child brings lifelong happiness (not including respondents who choose the option "don't know" or choose not to respond). These figures are broadly similar across gender and age groups (GGS, 2020[42]).

At the same time, it is becoming increasingly acceptable not to have children and researchers in Finland observe the rise of a new "childfree ideal" (Rotkirch, 2020[22]); research from the US also finds increasing numbers of young adults who do not want to have any children (Guzzo, 2022[43]). Reasons for delaying or choosing not to have children include not wanting to give up the current lifestyle (Alakärppä et al., 2022[44]; Rotkirch, 2020[22]). Life goals other than family and children have gained importance in recent years (Ellingsæter, 2017[45]; Hart and Kravdal, 2020[8]). This means that people tend to postpone or even renounce having children in order to pursue other life goals that they value, including career advancement and self-realisation activities (Savelieva, Jokela and Rotkirch, 2022[19]; Rotkirch, 2020[22]). As documented by Rotkirch (2020[22]), having children – rather than not having children – is described as a "sacrifice" by many young people today.

The decision whether or not to have a(nother) child is also linked to concerns about negative mental and physical health outcomes. While not detracting from the rewarding experience that many people derive from having children, it is important to recognise that having children can come with additional pressures in terms of mental and physical health. Experienced and perceived health-related issues with giving birth or caring for children can be important too (Hayford et al., 2016[46]). For instance, Figure 5.3 shows that the physical difficulties of pregnancy and giving birth is one of the reasons most often referred to as an important reason to not have a(nother) child.

Figure 5.3. Daunting responsibility is most commonly reported as an important reason to not have (more) children

Proportion of respondents age 25-44 stating that each reason is a "fairly important" or "very important" reason to not have (more) children, by age group, Norway, 2020



Note: GGS data were obtained from the Generations and Gender Programme Data Archive and collected through the Survey on Family and Work by Statistics Norway, with contributions from Lars Dommermuth and Trude Lappegård. More information about model survey instruments can be found at: United Nations Economic Commission for Europe (2005). Generations & Gender Programme: Survey Instruments. New York and Geneva: United Nations. Data do not include respondents choosing the options "Don't know" or choose not to answer. Respondents include parents and non-parents.
Source: GGS 2020 Generations and Gender Survey2020 Norway Wave 1.

There are some differences between how men and women approach the idea of having children. Research from Germany finds that women exhibit some of the stronger feelings of disadvantage around having children and retain a sort of "veto" power against having a child. By comparison, they observe stronger feelings of advantage around having children for men (Stein, Willen and Pavetic, 2014[47]). Fears and worries around parenthood have also been shown to be stronger for women than men – perhaps in part because they typically bear a greater responsibility for children in a family, and in part due to non-financial costs that mainly impact women (Mynarska and Rytel, 2022[37]).

Health issues around pregnancy, delivery and childcare are also disproportionately likely to affect women. In Norway, it has been shown that important burdens associated with having children include sleep deprivation, pregnancy and delivery, and worries about the potentially adverse consequences for older siblings have also been listed as reasons for not having another child (Cools and Strøm, 2020[38]). One study reviewing 36 international studies finds that as many as 25% of mothers giving birth to a healthy baby at-term are expected to suffer from childbirth PTSD at a clinical level due to a very stressful birth experience (Dekel, Stuebe and Dishy, 2017[48]). Mental health also tends to worsen, especially due to increased time pressures when caring for children, and these symptoms last over time. For fathers, the first child has little negative impact on mental health, but the second child is more important (Ruppanner, Perales and Baxter, 2019[49]).

Although poor mental or physical health in relation with pregnancies and childbirth has not increased significantly in recent years (Tesli et al., 2016[50]), it can play a part in couples' decision to form families. If people have started talking more about health-related issues, or been increasingly able to gather information, it is possible that they become more hesitant toward having children. Health-related issues might also become more important if there is a greater hesitancy around having children overall. For instance, those who are concerned about negative aspects of childbirth and childrearing are more likely to remain childless. Evidence from Poland suggests that perceived negative aspects such as time commitment and energy requirements can indeed be important factors weighing against the decision to have children (Mynarska and Rytel, 2022[37]).

The Second Demographic Transition theory has emerged as a central theory to explain changes in family formation over the course of the 2000s and 2010s (Sobotka, 2008[51]). It holds that as societies reach a certain level of economic advancement, non-materialist values such as self-fulfilment become more important to people. It predicts that the family ideal weakens as a result of a greater focus on individual autonomy, choice and self-realisation. In this sense, having children and investing time and resources in raising them according to the high standards required by society (see below) can be seen as competing with alternative life goals. The focus on self-realisation also means that there is a greater emphasis placed on the quality of relationships, which in turn can lead to a postponement of partnership and a greater likelihood of leaving a partnership that is no longer satisfactory (Hellstrand, Nisén and Myrskylä, 2022[18]; Lesthaeghe, 2014[52]; Sobotka, 2008[51]).

5.3.2. Pressures of parenting

Greater hesitation around whether and more careful consideration of when children should arrive mean that people's perception of what they need to have achieved, and what conditions need to be fulfilled, before having children becomes increasingly important (Ciganda, Lorenti and Dommermuth, 2021[53]; ESHRE Capri Workshop Group, 2018[54]; Bearak et al., 2020[55]; Hart and Kravdal, 2020[8]). Thinking about balancing the costs and benefits of having children – both financial and non-financial – becomes more poignant when norms around good parenting become increasingly demanding. Parents tend to put in a lot of time in childcare in Norway, ascribing to a normative framework of intensive parenting rather than letting them grow up without much intervention. In fact, between 2000 and 2010, the time men and women spend on family care increased from 39 minutes to 54 minutes for men and 1 hour and 12 minutes to 1 hour and 19 minutes for women (SSB, 2022[56]). In Norway, the norm of intensive parenting is held among parents across education levels, while in other countries this tends to be common among parents with higher education only (Ellingsæter, Kitterød and Hansen, 2022[57]).

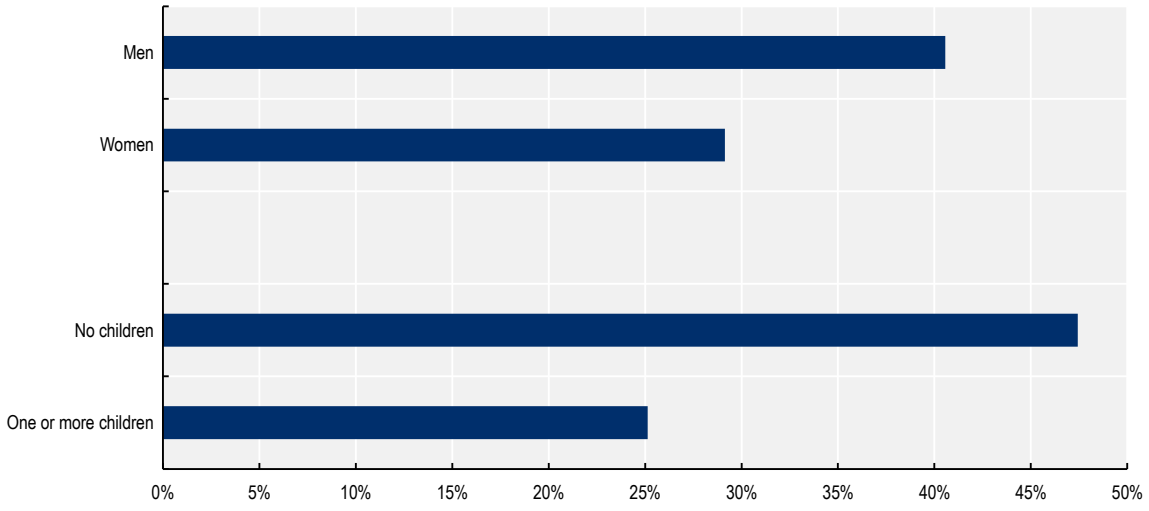
Norway is not alone in exhibiting strong normative requirements of parents to invest considerable time and effort in their children. Parents in Korea face a strong culture of "helicopter parenting" or "over-parenting", that require parents – and particularly mothers – to micromanage their children's days in order to maximise their chances in an increasingly competitive education environment. This "helicopter parenting" culture was found to inhibit parents' emotional and financial abilities to have children, as well as children's ability to develop autonomy, independence, and happiness (OECD, 2019[58]).

A fear of not being able to live up to the ideal of intensive parenting is an important reason for postponing or avoiding family formation. Qualitative evidence from Europe finds that one important reason why some women in their early thirties choose to postpone having children is that they do not find themselves able to live up to the ideal of motherhood and intensive parenting (Lebano and Jamieson, 2020[39]; Rotkirch, 2020[22]). Similar effects are also seen in the United States where the economic investment required can be larger than in many European countries which offer more extensive public supports (Guzzo, 2022[43]). Indeed, the difficult responsibility of having and raising children is most frequently reported as an important reason for not having children (with 64% of 25-44 year-olds respondents reporting this (parents and non-parents, excluding those choosing not to respond or answering "don't know"), out of the reasons evaluated in the 2020 Generations and Gender Survey in Norway (GGS, 2020[42]). Reporting that the difficulty of responsibility is an important reason is most common among 25-29 year-olds (68%), followed by 30-34 year-olds (65%) (Figure 5.3).

Intensive parenting norms suggesting that children deserve extensive emotional, time and financial investment by both their fathers and mothers are widespread in Norway (Ellingsæter and Kitterød, forthcoming[59]; Ellingsæter, Kitterød and Hansen, 2022[57]). The shared responsibility between men and women is reflected in the fact that the policy focus in Norway has moved on from creating a woman-friendly welfare state toward building a father-friendly welfare state that centres on enabling fathers to be co-carers in the household on par with mothers (Ellingsæter, 2017[45]). This follows a normative change; a good father is no longer simply a breadwinner, but he also needs to have emotional attachment and spend time with his children. With the expansion of earmarked parental leave policies for fathers (see Chapter 3), Cool and Strøm (2014[60]) found that fathers in Norway experience a small (relative to mothers) fatherhood wage penalty, especially fathers who work full-time in the private sector. Evidence from the GGS survey suggests that couples are still getting used to changing norms of gendered responsibilities in the household: while only 29% of women aged 25 to 44 state that children being a burden on time and energy is an important reason not to have children, 41% of men age 25 to 44 report that this is an important reason (Figure 5.4).

Figure 5.4. More men than women are concerned that children are a burden to time and energy

Proportion of respondents age 25-44 stating that children being a "burden on time and energy" is a "fairly important" or "very important" reason to not have children, by sex and whether children are present in household, Norway, 2020



Note: GGS data were obtained from the Generations and Gender Programme Data Archive and collected through the Survey on Family and Work by Statistics Norway, with contributions from Lars Dommermuth and Trude Lappegård. More information about model survey instruments can be found at: United Nations Economic Commission for Europe (2005). Generations & Gender Programme: Survey Instruments. New York and Geneva: United Nations. Data do not include respondents choosing the options "Don't know" or choose not to answer. Respondents include parents and non-parents.
Source: GGS 2020 Generations and Gender Survey2020 Norway Wave 1.

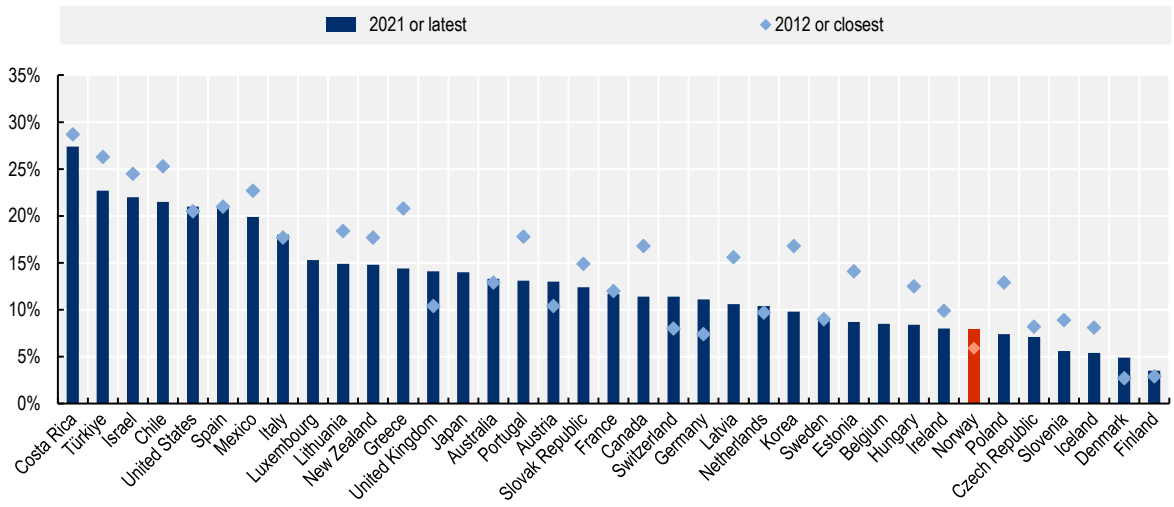
People are concerned even though children in Norway are comparably well off

People feel the pressure of parenthood despite the current high levels of child well-being observed in Norway relative to many other OECD countries. A relatively low proportion of Norwegian children lived in households at risk of poverty (7.9%) in 2019 (Figure 5.5). While the proportion increased from 5.9% between 2012 and 2019, Norway remains at the lower end of the scale across the OECD and child poverty is still lower than its neighbour Sweden (8.9%). It is slightly higher than its neighbours Finland (3.5%) and Denmark (4.9%). Similarly, children in Norway are among the least likely to be space poor in their home. Just 7% of children lived in overcrowded accommodation in Norway in 2020, compared to 26% across European countries (EU 27) and 23% in Sweden, 12% in Denmark and 9% in Finland (Figure 5.6).

People's worries are not simply about the short-term economic climate, but they also worry about the prospects of their children's generation. When people worry about the prospects of future generations, they will be less inclined to have (more) children. In 2020, 58% of 25-44 year-old respondents report feeling very worried or somewhat worried about future generations' prospects, with slightly more women (60%) than men (56%) reporting so (figures exclude those who choose not to respond and those responding "don't know" (Figure 5.7).

Figure 5.5. Children are less likely to live in households at risk of poverty in Norway than in many of its neighbouring countries

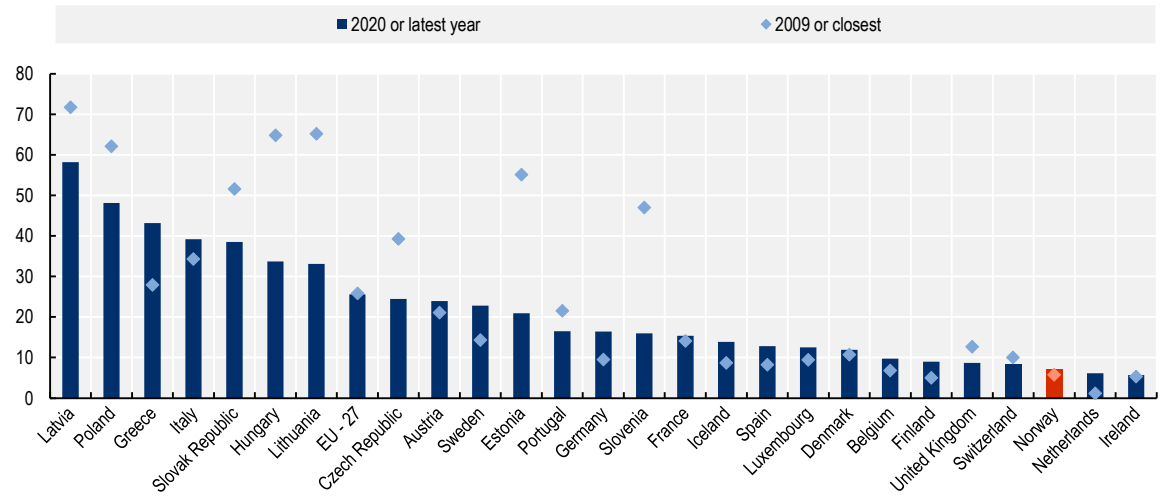
Proportion of children age 0-17 in poverty, 2012 or closest and 2021 or latest year



Notes: Data refer to poverty rates after transfers and taxes. The methodology is using the new income definition after 2012.Instead of 2021, data refer to 2020 for Korea, Latvia, Mexico, New Zealand, and Sweden; to 2019 for Austria, Belgium, Canada, the Czech Republic, Estonia, France, Greece, Hungary, Israel, Lithuania, Luxembourg, the Netherlands, Norway, Portugal, the Slovak Republic, Slovenia, Spain, Switzerland, the United Kingdom, the United States; to 2018 for Australia, Denmark, Finland, Germany, Ireland, Italy, Japan, Poland, Türkiye; 2017 for Chile and Iceland. Instead of 2012, data refer to 2011 for Chile and 2013 for Estonia, Sweden, the United states. Data for 2012 is missing for Belgium, Japan, and Luxembourg.
Source: OECD Income Distribution Database.

Figure 5.6. Children in Norway are among the least space-poor in the Europe

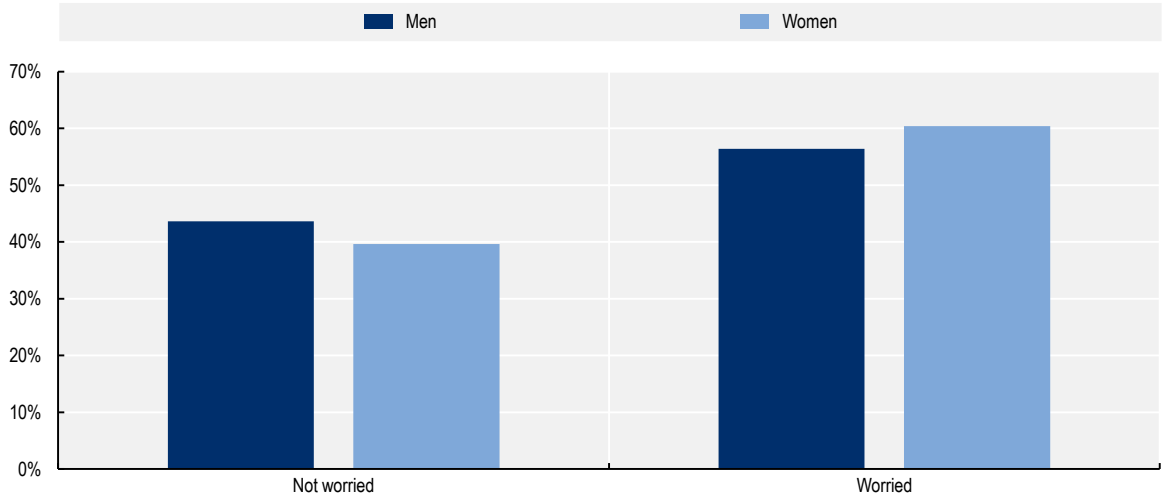
Proportion of children age 0-17 living in overcrowded households, 2009 (or closest) and 2020 (or latest year)



Note: Instead of 2020 data refer to 2018 for Iceland and the United Kingdom. Instead of 2009, data refer to 2010 for EU – 27.
Source: Overcrowding rate by age group [TESSI171], EU-SILC Survey, Eurostat. https://www.oecd.org/housing/data/affordable-housing-database/housing-conditions.htm

Figure 5.7. Many respondents report feeling worried about future generations

Proportion of respondents who report feeling worried and not worried about future generations' prospects, age 25-44, Norway, 2020



Note: GGS data were obtained from the Generations and Gender Programme Data Archive and collected through the Survey on Family and Work by Statistics Norway, with contributions from Lars Dommermuth and Trude Lappegård. More information about model survey instruments can be found at: United Nations Economic Commission for Europe (2005). Generations & Gender Programme: Survey Instruments. New York and Geneva: United Nations. Data do not include respondents choosing the options "Don't know" or choose not to answer.
Source: GGS 2020 Generations and Gender Survey2020 Norway Wave 1.

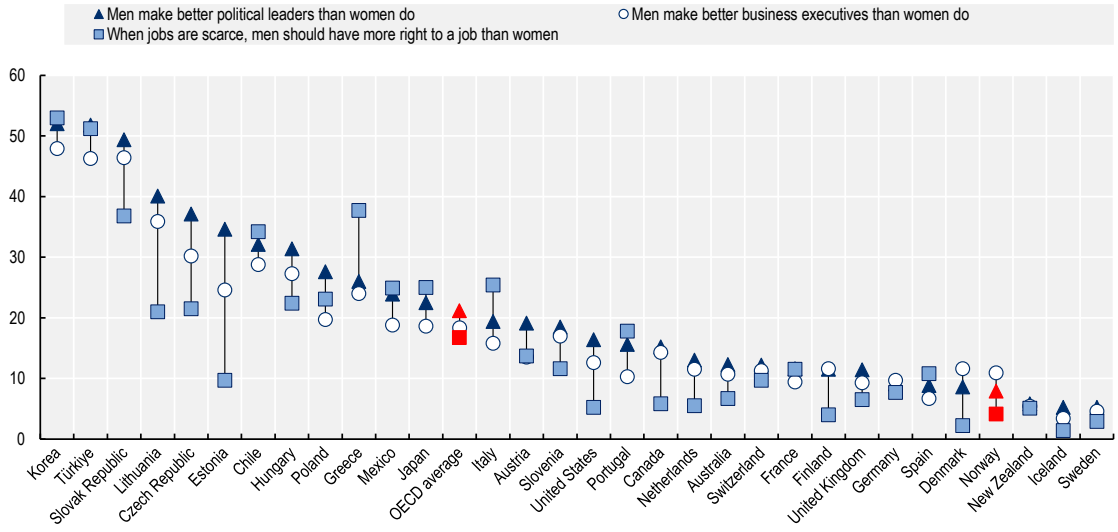
5.3.3. Potentially competing with gender equality priorities

There is an ongoing debate about the potential link between gender equality and fertility. The responsibility of taking care of children is daunting for many people of childbearing age, and this puts additional pressures on the roles and responsibilities of prospective fathers and mothers. As men and women are increasingly acting as parents on an equal basis, the decision to have children increasingly hinges on both parties feeling ready to take on this responsibility. Research suggests that actual and perceived fairness are important parts of the puzzle when trying to understand fertility decisions among young couples (Neyer, Lappegård and Vignoli, 2013[61]; Kolk, 2019[62]; Lappegård, 2020[63]), and Norwegians tend to support gender equal norms and partnerships (Kitterød and Teigen, 2021[64]). However, increasing gender equality could also be seen as one of the sources of falling fertility, in part due to changing gender roles in couples and new patterns of negotiations and decision making (Vignoli et al., 2020[65]).

Norway is known to be one of the countries with the highest equality between men and women in the OECD and worldwide – reaching top levels across a range of gender equality measures in education, employment and governance (OECD, 2022[66]; 2018[67]; 2017[68]). Indicators of gender-equal norms that are measured and compared cross-country include the belief that men and women make equally good political leaders and business executives, and that they have equal rights to jobs when work is scarce (Figure 5.8). In Norway, 8% of people believe that men make better political leaders than women do, compared with the much higher figure of 21% across the OECD. While this is one of the lowest proportions in the OECD, it is still higher than that in New Zealand, Iceland, and Sweden. A slightly higher proportion of people in Norway believe that men make better business executives than women (11%). While still lower than the OECD average (18%), the figure in Norway is higher than that in countries such as New Zealand and Iceland.

Figure 5.8. Norwegians believe men and women are equally capable of running the country

Proportion of respondents agreeing with traditional gender views, 2017 – 2020



Note: Data refer to 2020 for Canada, 2019 for Japan and New Zealand, 2018 for Australia, Chile, Mexico, Korea and Türkiye, as well as 2017 for all European countries and the United States.
Source: European Values Study and World Values Survey (EVS/WVS, 2021[69])

Men are increasingly central to parenting in Norway

The norm that all men and women are equal and should have equal rights and opportunities is widespread across population sub-groups in Norway. Support for gender equality has been growing steadily over time. Although more women support gender equal ideals, egalitarian values are growing increasingly widespread among men as well. Similarly, while support for gender equality still tends to be more widespread among younger and higher-educated groups, differences between these populations are increasingly being wiped out (Kitterød and Teigen, 2021[64]). One sign that gender equality has come a long way in Norway is that the debate is not solely about how to elevate women's voices, but there is also an active debate around including male voices in areas they are not typically prevalent. For instance, the organisation *Reform centre* lobbies for men's inclusion in gender equality debates (Box 5.2).

Since two parties need to be ready to invest financially, socially, and emotionally in intensive parenting when a child comes along it may be difficult to get the timing right (Jensen, 2016[70]). New norms of self-realisation, gender equality, combined with intensive parenting, suggests that both parents, at the same time, need to be in a good social, emotional, and financial position in their lives and careers. The commitment to think about timing and involvement is a newer phenomenon for prospective fathers than prospective mothers. In fact, it has been suggested that increased demands on time and emotional commitment from fathers has been one of the key factors in delaying or avoiding having children (Jensen, 2013[71]; Frances Goldscheider, 2015[72]). This fits with recent survey evidence in Norway that shows that male partners tend to be the ones who argue against having a(nother) child (Cools and Strøm, 2020[38]). Qualitative work finds that male childless respondents also emphasise that they want to be sure of the relationship, have financial aspects in place, and be in a position that allows them to "be there". These new, high ideals about what is expected from parents (and fathers in particular), and beliefs that starting a family will change their lives completely makes participants hesitant toward having children (Cools and Strøm, 2020[38]).

Box 5.2. A changing role for men in gender equality debates

Starting as a crisis and counselling hotline for men in 2002, the Norwegian *Reform – resource centre* for men has developed into a politically independent foundation and a central player in including men in the strives towards more gender equality. The main aims of *Reform* are to ensure that men are included in the work towards a more gender-equal society and to shed light onto the struggles men face themselves by including male perspectives in the Norwegian debate on gender equality.

Reform also assists men in a difficult life situations by running a range of support services – such as a crisis hotline and specialised psychotherapy for men – and actively disseminates knowledge about the challenges and needs of Norwegian men and boys through publications, seminars and workshops as well as maintaining a strong presence in traditional and social media. The foundation promotes active fatherhood, violence prevention, better physical and mental health, and more equal norms around masculinity. It also works in close co-operation with different government agencies by reviewing government policy proposals from a male perspective on gender equality.

Source: Reform - resource centre for men, https://reform.no/.

A qualitative study in Norway finds some differences by social class in men's attitudes to having children. Middle-class men tend to experience pressure from their social networks to have stable relationships and children, and express worries that everything must be in place. Working-class men, by contrast, are more likely to be single, or in casual relationships, where children are not a focal point. Working-class men also tend to have a more relaxed attitude than middle-class men to planning for a child and express that child are simply something that happen at some point (Jensen, 2016[70]). A postponement in first births reflect the fact that young adults are taking some time to find new ways of navigating life goals, careers, self-realisation, partnerships, and gender equality.

Monitor and evaluate the effects of increased gender mainstreaming

Norway has a comprehensive gender and family policy environment that actively encourages equality between men and women at home, at work, and in public life. Existing evidence suggests that there is public support for this: Norwegians are supportive of egalitarian sharing of household responsibilities and sympathetic to government intervention to increase gender equality (Jakobsson and Kotsadam, 2010[73]). Together with its Nordic neighbours, it aims to mainstream gender equality across the full range of public policies. This has been an official policy goal of Norway since the adoption of the first *Gender Equality Act* in 1978, which aimed "to promote equality and in particular the position of women" by mandating "all public authorities shall facilitate for gender equality in all areas of responsibility". In practice, such gender mainstreaming efforts are not always successful. Progressive norms should be reflected in future policy, comprehensive gender budgeting and assessment of policy consequences for gender equality (Holst and Teigen, 2021[74]).

As discussed in previous chapters, family and labour market policy in Norway have been designed with the explicit purpose of encouraging men and women to engage in equal measure in the labour market and household. This will have the effect to reduce the financial and personal costs for women to have children since they are not expected to give up their job and wage to care for children, and they are not explicitly allowing families to encourage full-time employment of both partners in a family. By extension, such policies can also contribute to a more even gender balance of household and of care work (Neyer, Lappegård and Vignoli, 2013[61]).

Supporting progressive gender norms through gender mainstreaming and budgeting will be a policy aim in its own right in Norway, and it is possible that this entails secondary pressures on fertility rates. While men and women will enjoy more evenly distributed rights and opportunities, it is possible that changing norms make family and work life more complicated to navigate for young couples. It might also be the case that young adult will establish a new set of norms and gender roles that involve mothers and fathers more equally in the home. It is conceivable that after a period of adjustment, young adults will choose to have children and fertility might increase. Norway would do well to consider monitoring any links between gender equality and fertility as couples take some time to negotiate new norms.

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6 The economic and social impact of low fertility in Norway

Jonas Fluchtmann

As most other OECD countries, Norway's population is rapidly ageing. With an increasing share of the population reaching pension age as well as more and more requiring long-term care, the country will face substantial demographic challenges over the coming decades. Whether different trajectories of future fertility rates will have a noticeable influence on these pressures is not necessarily clear from the outset. Using the OECD Long-Term Growth Model, this chapter projects demographic, economic, fiscal, and social outcomes under different fertility scenarios in Norway and selected other OECD countries until 2060.

6.1. Introduction and main findings

Across many OECD countries, the demographic trends over recent decades have led to high degrees of population ageing. While in 2020 about 18% of the population on average in OECD countries were aged 65 years or above, only 13% were so in 2000 and 11% in 1980. This is both a result of a continued increase in life-expectancy across most OECD countries, as well as a direct consequence of the fall in the fertility rates that many OECD countries have experienced since the second half of the 20th century (OECD, 2017[1]).

A continued ageing of societies will have substantial implications for economic growth, productivity and the sustainability of public finances. While fewer people will enter the workforce, an increasing share of the population will reach retirement age and leave the labour market. All else equal, this would put countries on a path of limited productive capacity and economic growth. At the same time, demographic changes towards an ever-older society critically raise fiscal pressures as government expenditure increases under potentially decreasing public revenue when the workforces shrink and productive capacity stalls (Rouzet et al., 2019[2]; Crowe et al., 2022[3]).

Continued declines in fertility would clearly increase such pressures over the mid- to long-run, yet it is not clear whether a stabilisation of fertility rates – or even a rebounding to previously seen levels – would be sufficient to lead to demographic, economic and fiscal sustainability in the future. To answer this question, this chapter looks at different scenarios on the development of fertility rates in Norway and other selected countries and analyses how different fertility rates could affect the demographic development in the years to come. Using the OECD Long-Term Growth Model (Guillemette and Turner, 2018[4]), the chapter further projects the economic and fiscal consequences of such different fertility trajectories.

The effects of future fertility rates on the economic and fiscal future of Norway have previously been examined by the Norwegian Ministry of Finance (2021[5]) and Statistics Norway (2019[6]), finding initially slightly decreased fiscal pressure under lower fertility scenarios, but overall reduced room for fiscal manoeuvre irrespective of future fertility rates. This implies that when aiming to sustain growth, public finances and societal well-being, aiming for higher fertility rates may not be the right approach. Instead, more focus should be put on supporting Norwegians to have the numbers of children they wish to have, as well as prolonging working lives, increasing long-term investment in private pension savings and steering a growing share of the workforce into long-term care profession while improving productivity in all sectors of the economy – including long-term care and health services (Goldin, 2022[7]; Skirbekk, 2022[8]; Gietel-Basten, Rotkirch and Sobotka, 2022[9]; Ministry of Health and Welfare, 2023[10]). The following sections add an international view, putting projections for Norway in the context of fertility developments in Norway's neighbours and selected other OECD countries.

6.1.1. Main findings

While Norway is expected to age substantially at baseline, a lower-than-expected fertility rate – converging to 0.5 below baseline TFR – would increase such pressures. The population share of the elderly (65+) is expected to increase from 18% to 26% between 2020 and 2060. Under a low fertility scenario, this could even increase to 29%, while high fertility – converging to 0.5 above baseline TFR – would limit the size of the elderly population to 24%. The growing share of the elderly population means that relatively fewer individuals of working age will support them. Between 2020 and 2060, the old-age dependency ratio is set to increase from 27% to 44% at baseline in Norway, which is the second largest relative increase projected across the considered countries (after Iceland).

For all fertility scenarios, the size of the Norwegian labour force is set to increase between 2020 and 2060, just as in Iceland and Sweden. However, while the baseline scenario projects a 10% increase between 2020 and 2060, low fertility may limit such increases to 1%. In Denmark, Finland, France and Germany, low fertility could reduce the size of the labour force by 10-20% by 2060.

By reducing the population base that shares economic output, lower than baseline fertility in Norway would increase average annual potential GDP per capita growth between 2020 and 2060 by 0.09 percentage points relative to baseline. Similar dynamics can be observed for all considered countries. Beyond the projection horizon of this chapter, low fertility is nevertheless projected to have negative implications for average annual potential GDP per capita growth.

While these findings need to be considered with caution, Norwegian public primary expenditure – government spending excluding any interest payments – is set to increase by about 6 percentage points of GDP in 2060 relative to 2019, irrespective of the fertility scenario. A lower (higher) than baseline fertility rate would, however, increase (decrease) the relative expenditure on health and retirement among all public spending. Despite the government Pension Fund Global financing a substantial portion of public expenditure, Norway will in all likelihood lose its previous room for fiscal manoeuvre as oil revenues are projected to decrease in the future while the pension fund is forecasted to grow slower than the mainland economy. Norwegian projections suggest that different fertility rates would not change this noticeably. To respond to future economic, fiscal pressures, Norway could therefore shift the focus away from raising fertility rates and instead ease future pressure on the pension systems by prolonging working lives, boosting economic productivity and actively encouraging increased long-term investment in private pensions.

Stylised projections suggest that an ageing Norwegian society will require that the long-term care (LTC) workforce is 110% larger than what is projected for 2060. Even when factoring in productivity increases in the LTC sector, the required increase would be around at 69%. Higher fertility rates would somewhat reduce these pressures as more individuals would flow into the labour force over time – and enter LTC professions – but this would not be sufficient to avert a looming LTC crisis in the future. The rising demand for long-term care could be met by steering a growing share of the workforce into LTC profession – particularly boys – while critically improving productivity in the LTC sector through a better use of the available health and care workforce and an increased use of technology and digital solutions. Targeted migration programmes could further support the mitigation of future shortfalls in the LTC workforce.

6.2. Three scenarios on future fertility dynamics

The following sections of this chapter look to the future and aim to project how different scenarios in the dynamics of the future fertility rate in Norway and selected OECD countries may affect economic and social outcomes by the year of 2060. This chapter considers a baseline scenario, which represents the expected development of the total fertility rate (TFR) along with a high and a low fertility scenario that illustrate the links between fertility and economic and social outcomes in a stylised way. All baseline and scenario projections are presented for Norway as well as other selected OECD members, based on relevance and data availability. This includes Norway's Nordic neighbours Denmark, Finland, Iceland and Sweden, as well as Germany – which faces particularly high pressures related to population ageing – and France – which has been able to keep their fertility rates comparatively high. Projections for the United States are presented as well to add a non-European context to the exercise.

The demographic projections under different fertility scenarios itself require projections not only on fertility rates by age group, but also on the underlying sex- and age-disaggregated projections of mortality rates and net migration to fully model future demographic dynamics. Such projections are, for example, readily available in the Eurostat 2019 Population Projections (Eurostat, 2020[11]) and the United States 2017 National Population Projections (U.S. Census Bureau, 2017[12]). Other long-term population projections, such as the UN 2022 World Prospects (UN DESA, 2022[13]) or the Norway's 2022 National Population Projections (Thomas and Tømmerås, 2022[14]), do not provide age- and sex-disaggregated net migration projections. Therefore, all projections in this chapter take the Eurostat 2019 Population Projections and the United States 2017 National Population Projections as the baseline for population development until

2060 and adjust estimates following a range of scenarios about future fertility dynamics (Box 6.1). As population projections are only illustrative and heavily dependent on the underlying assumptions, all outcomes must be treated with caution. They also cannot account for how current and future generations will react to the economic and social insecurity generated by the long-term consequences of the COVID-19 pandemic, the cost-of-living crisis, Russia's war of aggression on Ukraine and the threat of irreversible climate change.

The projections on economic outcomes presented in this chapter follow the economic and fiscal frameworks of the OECD Long-Term Growth Model as well as the OECD in-house labour force participation projections (Guillemette and Turner, 2018[4]; 2021[15]; Cavalleri and Guillemette, 2017[16]). This allows to project economic outcomes based on different scenarios on the fertility rate in selected countries, including potential economic output and employment. Among other channels, the fiscal framework of the long-term model simulates primary expenditure, including public health, long-term care and pension spending, relative to GDP. This allows to project government spending under varying fertility trajectories. A detailed methodology that underlies the projections is available in Annex 6.A.

Despite their illustrative usefulness, such projections have clear limitations. For example, the OECD's Long-Term Growth Model outputs economic production as *potential* GDP per capita, which refers to economic output at full employment of all members of the labour force. In addition, the model is unable to project public revenue for Norway, as the influence of the Norwegian Government Pension Fund Global (GPFG) – sometimes also referred to as Norway's Sovereign Wealth Fund – cannot be accurately reflected in the OECD Long-Term Growth Model. In terms of public expenditure, any non-health and non-pension related expenditure has no allocation made for different levels of spending by age, so changes in the expenditure on family benefits and services for children may be underestimated. As such the estimated effects of fertility rates on public spending may not be modelled fully accurately. A more detailed discussion on the limitations can be found in Annex 6.A.

While the population projections in all scenarios are built on the Eurostat baseline scenario or the US Population Projections main series, the specific alternative scenarios considered in this exercise integrate the high- and low fertility scenario following a similar methodology to the one used on the UN 2022 World Population Prospects (UN DESA, 2022[13]), while keeping the other baseline dynamics of the Eurostat and US projections (e.g. migration and deaths by age groups). The reason for this is the lack of sufficient age-specific fertility rates under both high and low scenarios in the Eurostat and US population projections. In each case, the divergence from the Eurostat and US fertility rates starts in 2023. It then projects TFRs that either converge to 0.5 above or below the TFR in the baseline scenario. Over the initial years of the projections, TFRs are assumed to converge slowly up- or downward to this level, following similar convergence as in the UN 2022 World Population Prospects. The precise scenarios are the following:

- *Baseline*: age-specific fertility rates follow the baseline scenario of the Eurostat 2019 and US 2017 Population Projections. Eurostat TFR projections are based on a continuation of recent fertility trends as well as a long-term convergence towards a TFR of 1.83 by 2 100 (i.e. the UN's World Population Prospects 2019 maximum TFR for 2 100 among all countries included in the Eurostat projections). This projects an assumed slow rebounding of fertility through a long-term catching up of postponed births (Eurostat, 2020[11]). US Census Bureau TFR projections assume that by 2 100, the age-specific TFRs of all ethnic and racial population groups in the country converge to the average age-specific fertility rates of the US-born Caucasian population for the years 2004 to 2015 (U.S. Census Bureau, 2017[12]).
- *High fertility*: for each country, age-specific fertility rates under the baseline scenario are adjusted upward so that the TFR increases by 0.25 between 2024 and 2026, by 0.40 between 2027 and 2031, and by 0.5 from 2032 to 2060.

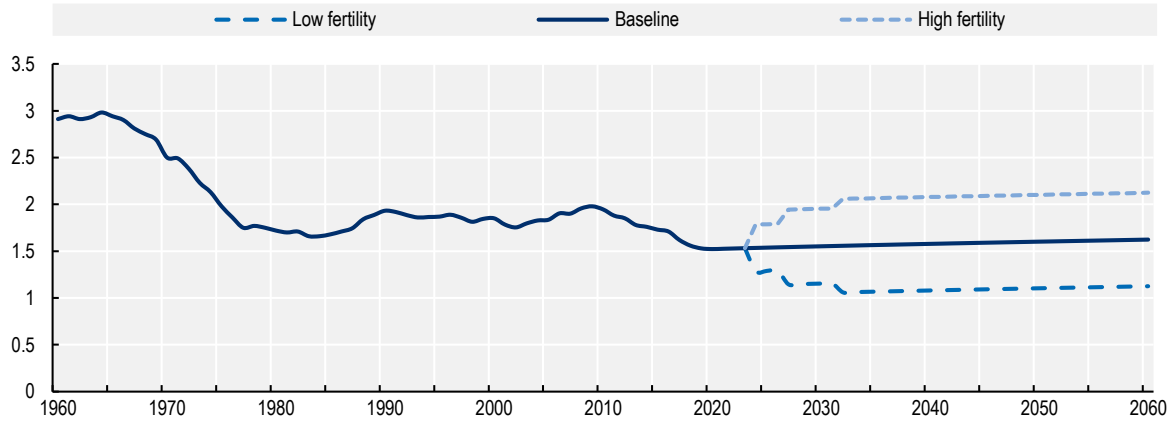
- *Low fertility*: for each country, age-specific fertility rates under the baseline scenario are adjusted downward so that the TFR decreases by 0.25 between 2024 and 2026, by 0.40 between 2027 and 2031, and by 0.5 from 2032 to 2060.

Such alternative scenarios are by no means likely future fertility trajectories, and they may even represent more extreme outcomes. At the same time, for some countries – notably Finland, Iceland and Norway – declines in the historical fertility rates between 2009 and 2020 come reasonably close to the 0.5 drop in the low fertility scenario. Especially the low fertility scenario may represent an additional fertility decline similar to previous trends. In any case, the assumed clear divergence from baseline trajectories of fertility rates in the alternative scenarios serve as illustrative 'what-if projections' that showcase the impact markedly lower- or higher than baseline fertility could have on demographic-, economic- and social outcome measures.

Figure 6.1 plots the dynamics in the total fertility rate (TFR) under the three different scenarios, along with historical TFRs since 1960 for perspective (see Annex Figure 6.B.1 for countries other than Norway). For Norway, Eurostat projects marginal increases in the TFR from 1.52 in 2020 to 1.62 in 2060, the level previously attained in 2017. Under the low fertility scenario, the Norwegian TFR would fall initially to 1.06 by 2032, which is comparable to the fall in fertility observed between 2009 and 2020 or 1965 and 1977. After this initial decrease, the TFR in the low fertility scenario would follow a parallel trend to the slowly increasing baseline TFR, reaching a level of 1.12 in 2060. The high fertility scenario would see an initially steep increase in the TFR to 2.06 in 2035, the level last attained in 1974, before reaching a TFR 2.12 in 2060. The dynamics of the TFR scenarios for the other considered countries have similar divergence from the baseline fertility projections, though some falls of the TFRs under a low scenario are reaching a particularly low level (e.g. temporarily below a TFR of 1 in Finland). As all the scenarios, including the baseline, are highly stylised, there is a lot less volatility in the projections than what was visible in the past. Indeed, past fertility rates may have continuously reacted to changes in business cycles, global events or other factors, which cannot be accounted for in future projections.

Figure 6.1. Fertility scenarios induce a rebounding or further decrease in the TFR

Annual total fertility rate 1960-2060, different fertility scenarios



Note: The baseline scenario refers to baseline fertility rates in the Eurostat population projections, which converge to a TFR of 1.62 by 2060 for Norway. "Low fertility" refers to fertility rates that converge to a TFR 0.5 below baseline. "High fertility" refers to fertility rates that converge to a TFR 0.5 above baseline.
Source: OECD Family Database and OECD calculations based on Eurostat Population Projections 2019.

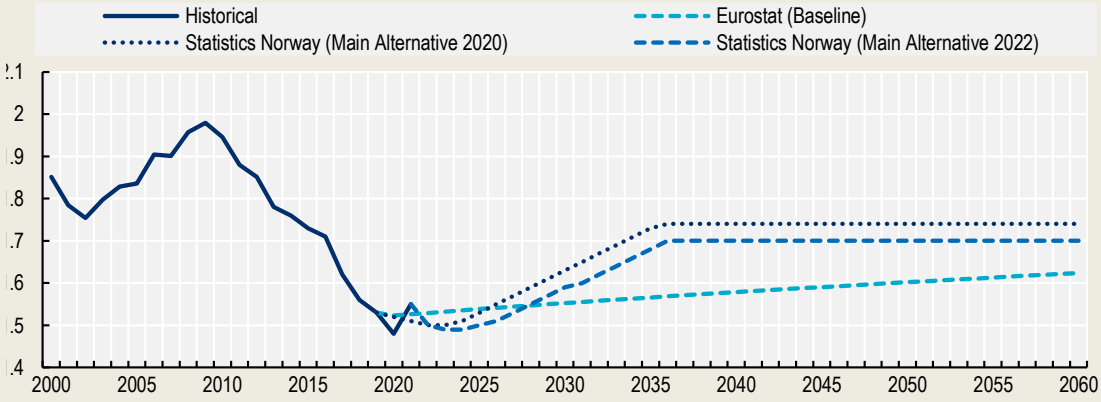
Box 6.1. Population projections, their components, and underlying assumptions

Demographic projections are built upon a range of assumptions over factors that directly influence the size of the population over time. This generally includes the future dynamics of fertility and mortality rates as well as the in- and outflow of individuals through migration, all disaggregated by age groups and sex. As such, all outcomes of such projection exercises are highly dependent on assumptions and therefore must be seen as illustrative only and interpreted with caution.

The population projections this chapter is built on are mainly based on demographic forecasts of Eurostat, enriched with fertility scenarios from the United Nations, rather than population projections prepared by national statistical institutes (NSIs), such as Statistics Norway. The projections for each presented country follow a common methodology and allow to compare the demographic development of countries. For the Eurostat projections in particular, convergence of socio-economic differentials between countries is one of the central assumptions, and age-specific fertility, mortality and migration rates are converging over the long-term. In the case of fertility, for example, this means that the total fertility rates (TFRs) are converging to the maximum TFR among EEA countries that UN's World Population Prospects 2019 project in 2 100, namely a TFR of 1.83. Any differences in fertility rates between the countries are modelled to be fading out in the very long term.

Figure 6.2. Projected fertility rates differ between Eurostat and Statistics Norway

TFRs under the baseline or main alternative scenario, Eurostat and Statistics Norway, 2000-60



Source: Eurostat Population Projections 2019, Statistics Norway National Population Projections 2020 and Statistics Norway National Population Projections 2022.

Based on different approaches and assumptions that Eurostat and other institutes may take, some of these projections may differ from each other. For example, for Norway, the baseline population projections of Eurostat assume a notably higher net migration and mortality rate than Statistics Norway does in their own projections from 2020 and 2022. In addition, Statistics Norway assumes a much faster and higher rebounding of fertility (Figure 6.2).

Prior to the 2020 population projection, Statistics Norway often substantially underestimated net migration rates, while moderately overestimating the fertility development. This may have spurred upward adjustments of migration rates in recent projections, which thus exceed projections of Eurostat. The accuracy of the 2020 population projection for 2020 and 2021 is hard to gauge due to the effect of the COVID-19 pandemic on all of the demographic inputs. With 6.1 million, however, Statistics Norway projects a population for 2060 that is noticeably smaller than what is projected by Eurostat (6.54 million).

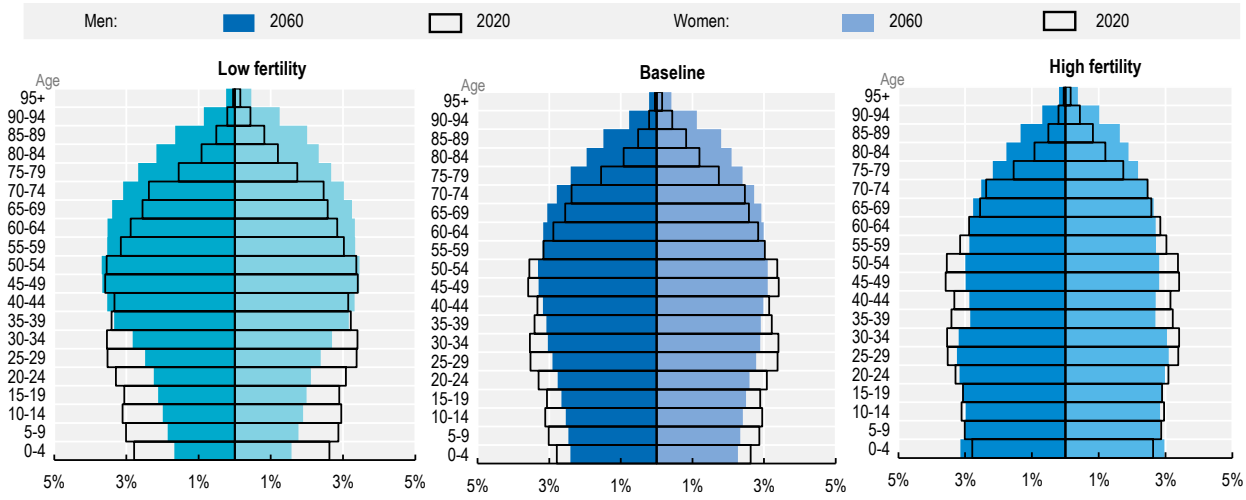
Source: Eurostat (2020[11]), United Nations (2019[17]), Syse, Thomas and Gleditsch (2020[18]), Gleditsch, Rogne and Thomas (2021[19]), Thomas and Tømmerås (2022[14]).

6.3. Demographics: Ageing independent of fertility rates

The potential impact fertility rates on economic and social outcomes are manifold, but the most direct effects are present in demographic outcomes. Intuitively, a low fertility scenario, for example, would decrease the number of births relative to the baseline projections. This would have several direct implications from the year after fertility falls below baseline and change the demographic structure of a country over time. For Norway, even the baseline fertility scenario projects notable demographic changes as the population gradually ages (Figure 6.3). Compared to 2020, Norway's population in 2060 will consist of a substantially larger share of elderly (aged 65 or above), increasing from 18% to about 26% of the total population. At the same time, the population of the young (below the age of 15) will decrease slightly from 17% to 14%, while the working age population (aged 15-64) is projected to decrease from 65% to 59% by 2060.

Figure 6.3. The demographic structure of Norway is highly dependent on fertility rates

Projected population structure (2020, 2060), share of total population (men on the left-hand side of each panel, women on the right-hand side), different fertility scenarios



Note: See note to Figure 6.2. for a definition of the different fertility scenarios. Other countries in Annex 6.B.
Source: OECD calculations based on Eurostat Population Projections 2019.

The demographic structure in 2060 is sensitive to different scenarios on fertility rates. Under the low fertility scenario, the share of the young would thin out stronger than under the baseline projections, falling to 11% of the entire Norwegian population with a trend that would likely exacerbate this development further beyond 2060. At the same time, the elderly population would represent 29% of the Norwegian population, while the working age population would be marginally larger than under the baseline projection in 2060 (60%). General ageing of the Norwegian population could be halted under the high fertility scenario, which would slightly increase the population of the young to 18% and limit the increase of the elderly population by 2060 to 24%. With 59%, the working age population would make up a similar part of the total Norwegian population as under the baseline scenario.

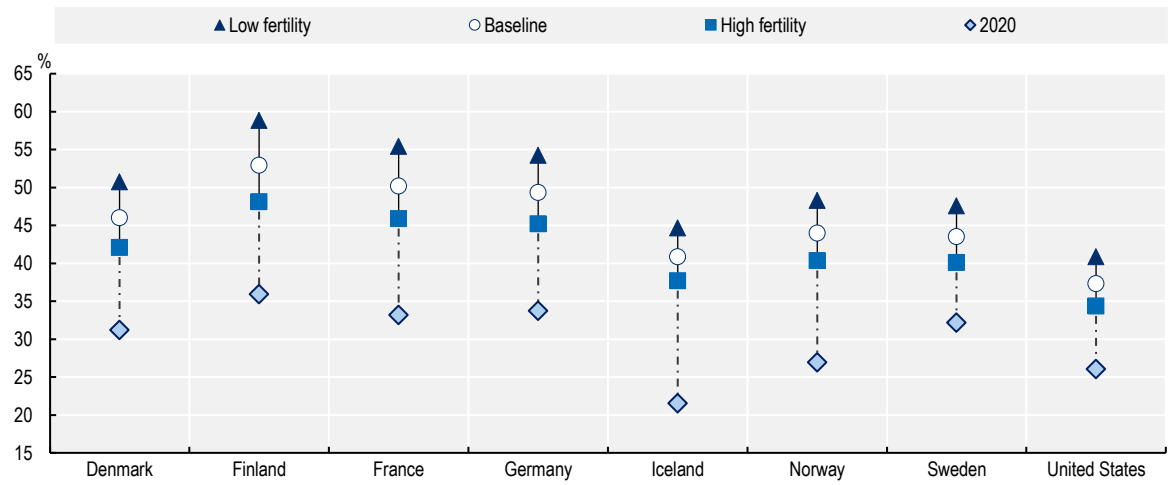
Most of the other considered countries would see very similar dynamics to Norway, though mostly with slightly slower population ageing (Annex Figure 6.B.2). However, Iceland stands out with a particularly strong increase in the elderly population at baseline between 2020 and 2060 (+10%), as it is a relatively "young" population at present. Even under the high fertility scenario it would not be able to avert these trends as the share of the elderly population would still increase by 8%, while the share of the young would

remain roughly stable. Should Iceland face a low fertility path, it may even expect an increase of 13% in the share of the elderly population. Nevertheless, with one of the lowest median ages across the OECD, Iceland may still be better equipped to handle such pressures of population ageing than many other countries (OECD, 2019[20]). Indeed, even with the strongest increase in the share of the elderly population, it would still remain the youngest country of those considered in this report.

A growing share of the elderly population, with a simultaneous decrease in the share of the working age population, as observed for all considered countries and across all scenarios, will mean that in relative terms, fewer working individuals will have to support more and more people beyond retirement age. Norway will also experience this future, but likely to a lesser extent. The *old-age dependency ratio* (i.e. the ratio between the elderly and working age populations) shows that in 2020, there were about 27 elderly individuals per 100 persons of working-wage in Norway (Figure 6.4). Between 2020 and 2060, Norway's old-age dependency ratio is set to increase to 44% at baseline, which is the second largest relative increase projected across the considered countries. Going from 22% to 41% between 2020 and 2060, only Iceland is expected to see a bigger increase. However, both Iceland and Norway still have relatively low old-age dependency ratios at the onset of the 2020s, and therefore won't reach the same levels as in Finland, France and Germany, where approximately 50 elderly individuals per 100 persons of working-age or more are projected by 2060.

Figure 6.4. The working-age population will have to support a growing elderly population

Old-age dependency ratio, number of persons aged 65+ per 100 persons of working age (15-64), different fertility scenarios



Note: See note to Figure 6.2. for a definition of the different fertility scenarios. The old-age to working-age demographic ratio is defined as the number of individuals aged 65 and over per 100 people of working age defined as those at ages 20 to 64.
Source: OECD calculations based on Eurostat Population Projections 2019 and United States 2017 National Population Projections.

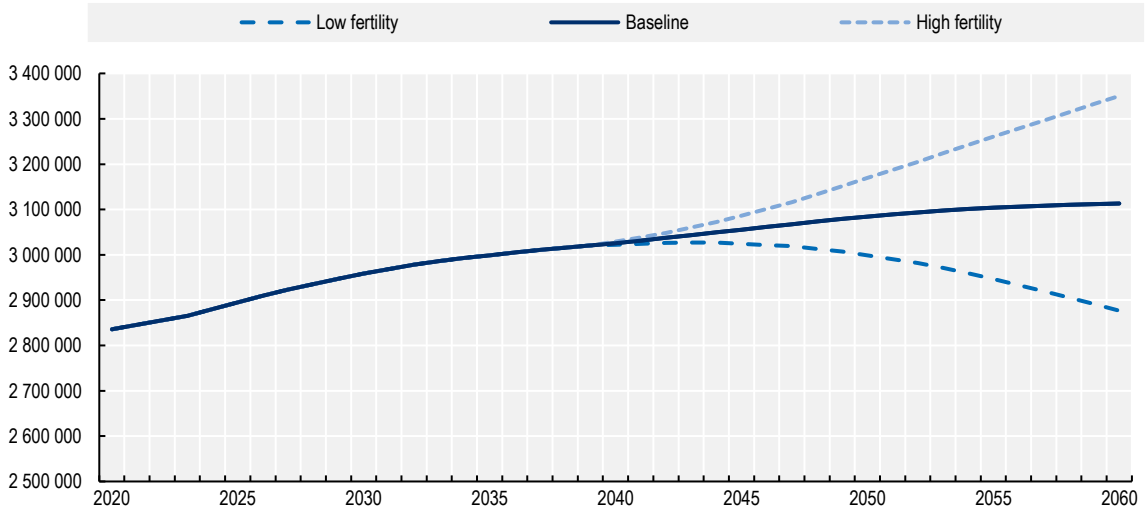
As expected, based on the demographic development under the different scenarios discussed above, lower than baseline fertility rates would further increase demographic pressures by 2060. However, Norway would only have to expect a small difference in the ratio of elderly per 100 persons of working age under the baseline (44 persons) and low fertility scenarios (48 persons). At the same time, the country could benefit notable from high fertility rates, which could push the old-age dependency ratio just under 40 senior citizens per 100 individuals of working age. All else equal, all these scenarios will not only result in a growing public spending on retirement incomes, but overall health expenditures may substantially rise as well (OECD, 2016[21]). The fiscal pressure caused by the general population ageing will be discussed in Section 5.5 below.

6.4. Labour force and output: Sharing the output with a smaller population

All else equal, fertility induced changes in population dynamics and the demographic structure of a country will also affect the inflow of people into the labour force. For example, should a lower fertility scenario lead to fewer births, then the number of individuals entering the labour force would be reduced relative to baseline once children come of age. This means that from 15 years after the scenarios diverge, the size of the labour force would diverge under different assumptions on fertility as well. Indeed, when considering the development of the Norwegian labour force, it remains stable up until the late 2030s, while it starts to diverge under the two alternative fertility scenarios afterwards (Figure 6.5). Like the overall dynamics of the working-age population, the high fertility scenario would have a large effect on the aggregate labour force, growing 18% by 2060 relative to 2020, compared to 10% under the baseline projection. However, even the low fertility scenario still projects a slight 1% increase of the labour force relative to 2020 (Figure 6.6).

Figure 6.5. Norway's labour force is set to increase, even under low fertility

Annual headcount labour force aged 15-74, 2020 to 2060, different fertility scenarios



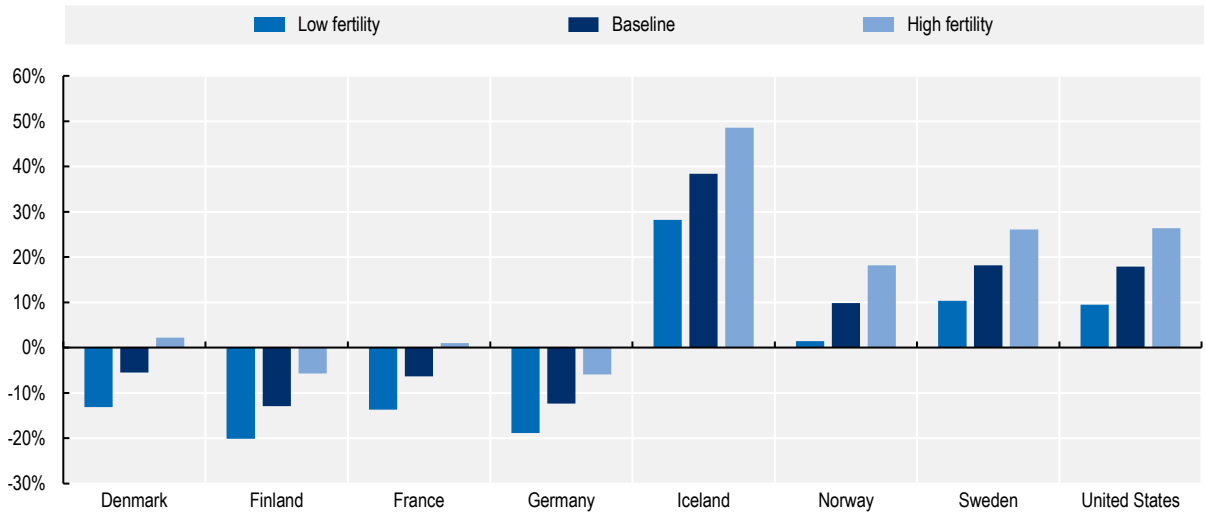
Note: See note to Figure 6.2. for a definition of the different fertility scenarios. Other countries in Annex 6.B.
Source: OECD calculations based on OECD in-house labour force projections, Eurostat Historical Population Projections 2019 and United States 2017 National Population Projections.

Similar to Norway, Iceland and Sweden are also expected to see continuous growth in their headcount labour force, while those in Denmark, Finland, France and Germany are set to decrease by 2060 (Annex Figure 6.B.3). However, even under a low fertility scenario, Iceland, which is by far the youngest country considered in this chapter, is projected to see higher growth in the labour force than in Norway under the high fertility scenarios (Figure 6.6). At the same time, Denmark and France would be able to avert their projected decline in the labour force with high fertility, though this would only reach 2020 levels by the mid-2050s. Thus, any positive divergence from the baseline fertility path would only pay off well into the future. However, the positive growth dividend beyond 2060 might potentially be large.

As the only factors contributing to potential economic output in the OECD Long-Term Growth model are capital, productivity, and potential employment (see more in Annex 6.B) – and while the latter is the only one that is directly affected by differences in fertility rates – it is only the size of the labour force that will induce changes in the total production under the different fertility scenarios. Aggregate production, i.e. the potential gross domestic product (potential GDP), would be stable for at least 15 years while the labour force remains unchanged before fertility would have any effects. However, given changes in the size of the population that are effective right from the start of the divergence in fertility rates, economic output would be shared by a different population base. For example, in a lower fertility scenario, potential GDP would initially stay stable, while the size of the population starts to negatively diverge from the baseline projection. This would initially lead to increased GDP per capita. However, over time fewer would enter the labour force, which would slowly reduce aggregate output and eventually negatively impact GDP per capita as well.

Figure 6.6. High fertility can reverse labour force declines in Denmark and France

Changes in headcount labour force aged 15-74, 2060 relative to 2020, different fertility scenarios

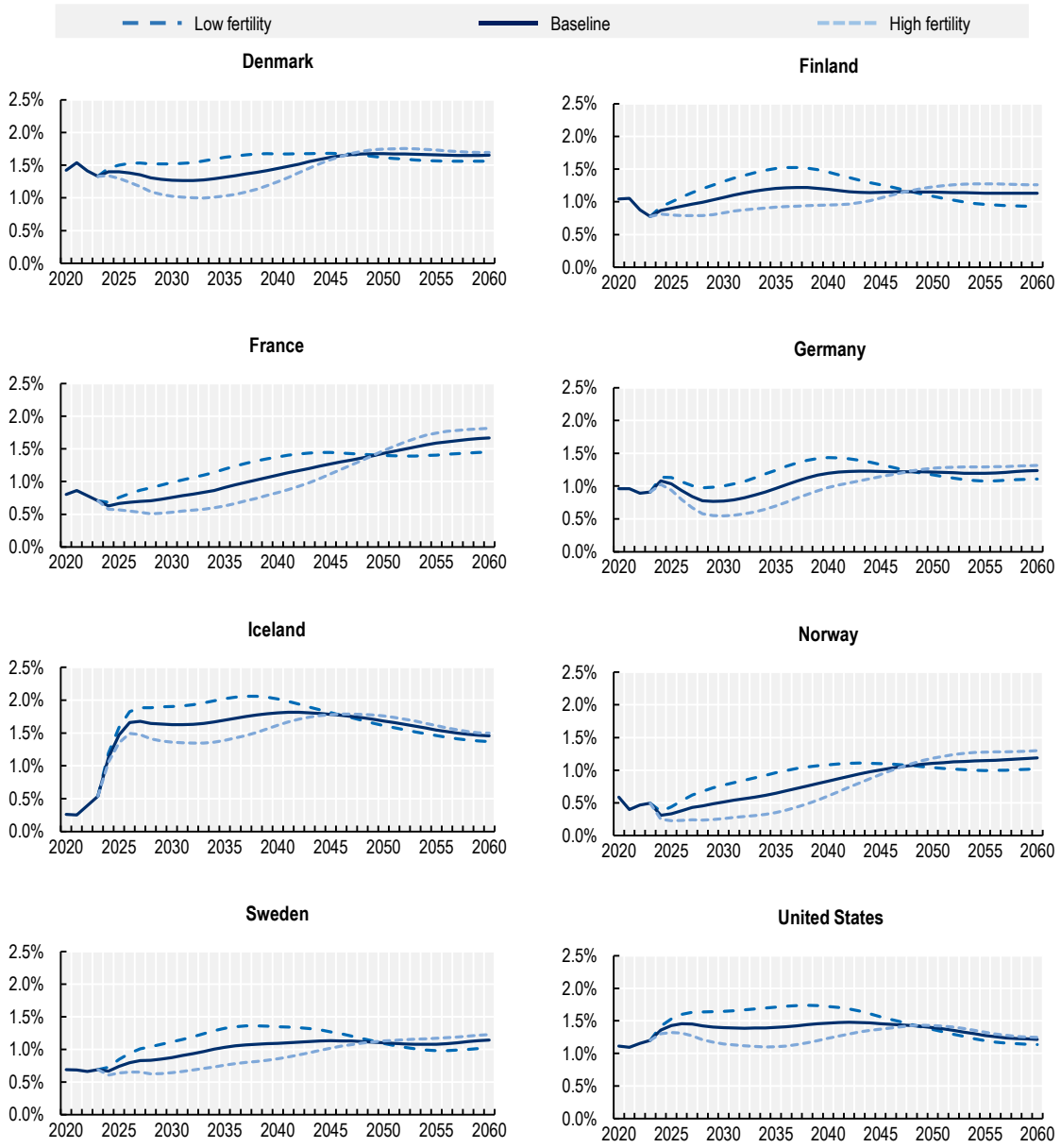


Note: See note to Figure 6.2. for a definition of the different fertility scenarios.
Source: OECD calculations based on OECD in-house labour force projections, Eurostat Historical Population Projections 2019 and United States 2017 National Population Projections.

Indeed, all countries that are considered in this chapter exhibit an initial positive effect on potential GDP per capita growth under the low fertility scenario relative to the baseline projection, as economic output is shared among fewer people overall (Figure 6.7). Reaching the late 2040s however, all countries cross over from a positive effect on potential GDP per capita growth under low fertility, to a lower annual growth in GDP per capita than under the baseline projection. In some countries, the difference between annual per capita growth in potential GDP per capita under low and baseline fertility is rather small beyond the cross-over points, such as in Denmark, Iceland, Norway, Sweden, and the United States. For other countries, specifically France and Finland, this difference is somewhat larger, slowly eroding the positive annual per capita growth effects of low fertility over time. It is complicated to pinpoint the exact reasons for different effects for different countries, as the per capita growth projections are formed by a variety of input factors – such as the dynamics in demographic structures, labour force participation rates for men and women as well as across different ages, and productivity projections (see more in Annex 6.A).

Figure 6.7. Higher fertility has a positive effect on potential GDP per capita growth only after 2045

Average annual rate of growth in potential GDP per capita over the period 2020-60, different fertility scenarios, percentage



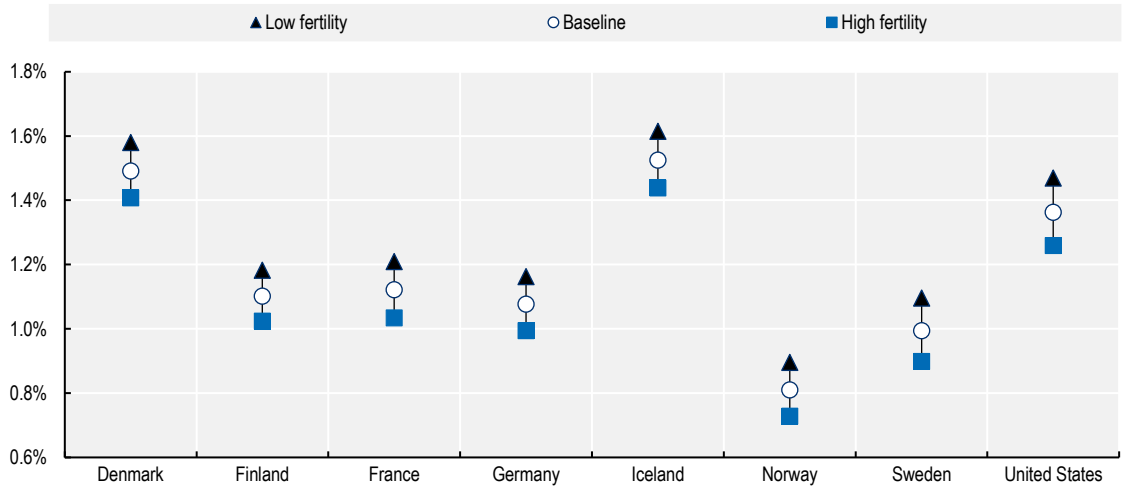
Note: See note to Figure 6.2. for a definition of the different fertility scenarios.
Source: OECD calculations based on Eurostat Historical Population Projections 2019, United States 2017 National Population Projections and the OECD Long-Term Growth Model.

In most of the countries, the initial boost to annual per capita growth in potential GDP was comparatively large however, so it the aggregate effect of low fertility on per capita growth until 2060 is still positive for all (Figure 6.8). Above the average annual growth rate of 0.81% in potential GDP per capita under the baseline projection, Norway would, for example, see an average of additional 0.09 percentage points of annual potential GDP per capita growth under the low fertility scenario – an effect of the same size that could be expected when fully closing the gender gap in labour force participation by 2060 (see OECD

(2022[22])). The largest effects, an average of additional 0.10 or more percentage points of annual growth in potential GDP per capita under low fertility could be expected in Sweden and the United States (Figure 6.8). Higher fertility, on the other hand, would reduce average annual GDP per capita growth by 2060, for most countries even stronger than low fertility increased growth. In the case of Norway, for example, average annual growth would shrink by 0.08 percentage points.

Figure 6.8. Until 2060, lower fertility has a positive effect on average annual per capita growth

Average annual rate of growth in potential GDP per capita over the period 2020-60, different fertility scenarios, percent



Note: See note to Figure 6.2. for a definition of the different fertility scenarios.
Source: OECD calculations based on Eurostat Historical Population Projections 2019, United States 2017 National Population Projections and the OECD Long-Term Growth Model.

6.5. Fiscal outcomes: Less room for fiscal manoeuvre through the GPFG

The nature of the fiscal outcomes is highly dependent of the demographic structure of a country. For example, an increasing share of the elderly among the overall population will result in a growing expenditure on retirement income, while overall health expenditures may rise as well as they substantially increase with age (OECD, 2016[21]). If the working-age population shrinks at the same time, while other factors remain the same, public revenue would decrease as the population paying income tax shrinks with the size of the labour force. As such, ageing populations will in all likelihood face an increased fiscal burden over the coming decades, for example requiring adjustments in the national pensions system and the Tax-Benefit system as a whole to remain fiscally sustainable (Guillemette and Turner, 2021[15]).

6.5.1. Government expenditure

Given the importance of fertility rates for population ageing (see above), they are an important factor for public primary expenditure – government spending excluding any interest payments – both in the short- and long-term. While not immediately affecting expenditure on pension and health, changes in fertility rates will have particular impact on other primary government expenditure, such as spending on early childhood education and care (ECEC), the school system as well as family benefits and allowances. A lower fertility rate should initially induce lower public expenditure as fewer children are born and eventually enter the

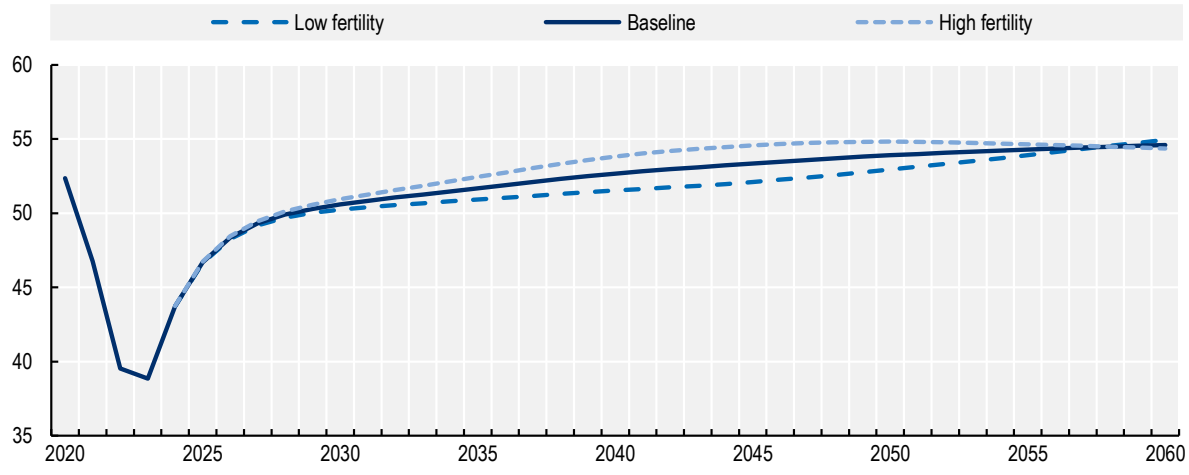
school system, impacting spending both in absolute and relative terms while the elderly population remains stable.

With the long time between birth and pension entry, any change in fertility rates would not have a direct effect on absolute pension spending over a projection horizon ending in 2060. However, despite the absence of immediate direct effects, there are indirect effects on the relative share of total pension expenditure. As such, decreases in the young population would mean that, in relative terms, the share of pension spending among the total public expenditure increases. Once a lower fertility rate would lead to decreases in the labour force relative to baseline, aggregate economic output would also fall, further increasing pension expenditure expressed as a share of GDP. At the same time, an older population would have to direct more of the total public expenditure to health and long-term care in relative terms.

Indeed, as shown in Figure 6.9 for Norway and Annex Figure 6.B.4 for other countries, government primary expenditure is set to increase irrespective of the fertility scenarios (except for the United States, which nevertheless has continuous expenditure growth beyond 2022). However, lower fertility rates would initially decrease overall primary government expenditure relative to the baseline, as the size of the population shrinks, while higher fertility rates would increase public spending. The magnitude of this effect is relatively similar across countries for all fertility scenarios. As the effect of other primary revenue is underestimated, however, it is almost certain that the downward pressure on primary revenue through fertility would be stronger than projected, as expenditure in ECEC and the school system is substantial. Like the underestimation of the negative effects of low fertility on primary expenditure, the true increase of spending under high fertility will likely be larger.

Figure 6.9. Low fertility will keep primary expenditure below baseline until the late 2050s

Primary government expenditure as a share of GDP over the period 2019-60, different fertility scenarios, percentage



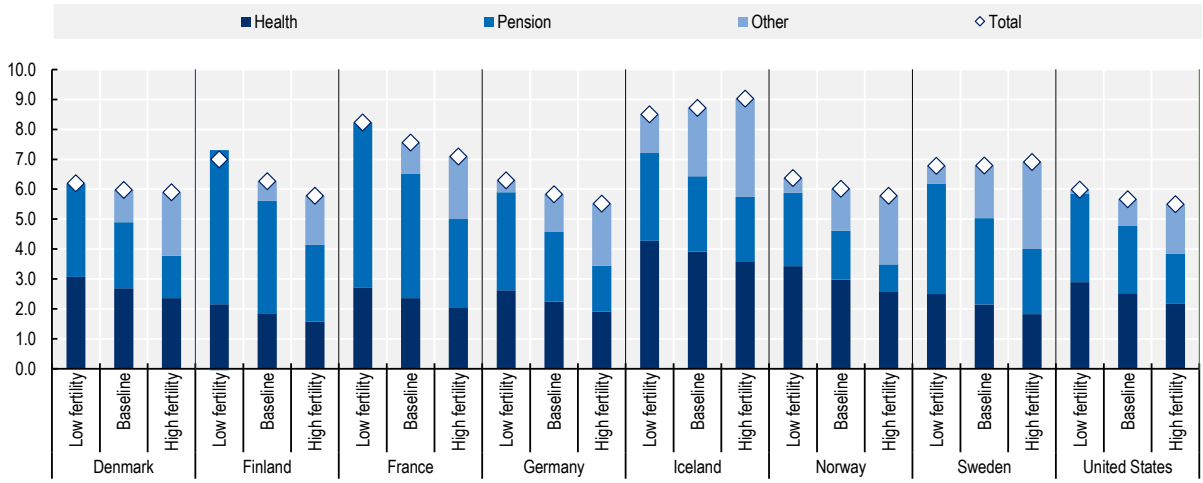
Note: See note to Figure 6.2. for a definition of the different fertility scenarios. Primary expenditure is defined as government spending on pensions, health, long-term care and other categories(e.g. including family transfers and in-kind services), excluding any expenditure on interest payments. Other countries in Annex 6.B.
Source: OECD calculations based on Eurostat Historical Population Projections 2019 and the OECD Long-Term Growth Model.

Much of these effects of higher and lower fertility rates would slowly reverse from the early 2040 onwards, converging close to baseline level expenditure by the late 2050s. However, while the difference in total public expenditure in 2060 between all three scenarios in Denmark, Iceland and Sweden is marginal at best, lower fertility would increase public expenditure from this point onwards in Finland, France, Germany, Norway, and the United States. Even though the projection horizon does not allow to assess the dynamics under the different scenarios beyond 2060, the presented trends over the late 2050s could exacerbate expenditure increases driven by low fertility beyond 2060.

Irrespective of the convergence of total primary public expenditure under different fertility scenarios for Norway, the drivers of these changes are not the same under the different projections (Figure 6.10). Most changes in total primary expenditure between 2019 and 2060, which is projected to rise by 6.0 percentage points relative to GDP under the baseline scenarios, can be attributed to changes in health spending (+3.0 percentage points). However, the low fertility scenario, which would only see slightly larger overall expenditure (+6.4 percentage points), would lead to a somewhat stronger increase in health spending (+3.4 percentage points) as well as a notable increase in pension spending (+2.4 percentage points), while other primary expenditure would marginally increase (+0.5 percentage points). Higher fertility rates would only slightly dampen the increase in overall expenditure to 5.8 percentage points.

Figure 6.10. In most countries, fertility has limited impact on overall primary expenditure by 2060

Change in primary government expenditure by different components as a share of GDP, percentage points, 2060 relative to 2019



Note: See note to Figure 6.2. for a definition of the different fertility scenarios. Primary expenditure is defined as government spending on pensions, health, long-term care and other categories (e.g. including family transfers and in-kind services), excluding any expenditure on interest payments. The figure compares primary public expenditure in 2060 to 2019, in contrast to 2020 as most other figures. The reason for this is the substantial expenditure on fiscal relief packages over the course of the COVID-19 pandemic, which increased public expenditure substantially, most notably for the United States. While other countries, for example and Denmark and Germany, provided large guarantees and loans, such items do not add to primary expenditure, unlike direct additional spending as in the United States (IMF Fiscal Affairs Department, 2021[23]). Note that the "*Other*" category of public expenditure assumes that governments will seek to provide a constant level of non-health/non-pension per capita spending in real terms over time. No allocation is made here for different levels of spending by age. As a result, the change in this category is likely underestimated. See more in Guillemette and Turner (2021[15]; 2017[24]) and Annex 6.A.
Source: OECD calculations based on Eurostat Historical Population Projections 2019, United States 2017 National Population Projections and the OECD Long-Term Growth Model.

Other countries see generally comparable changes in the different sub-components of primary public expenditure (Figure 6.10). However, for Denmark and Sweden, the projections under different fertility rates do not lead to noticeable changes in overall expenditure. Here, the lower increases in pension and health expenditure under higher fertility rates, for example, exactly offset the higher increases in other primary expenditure (e.g. family benefits and expenditure on ECEC and education). In Finland and France, increases are particularly strong on pension expenditures under low fertility, raising by more than 5.0 percentage points relative to GDP. Iceland is the only country in which lower fertility would lead to noticeably lower increases in public expenditure (-0.2 percentage points relative to baseline), even though it has by far the strongest increase at baseline (8.7 percentage points). Much of this comes through increases in heath expenditure, which raises by 3.6-4.3 percentage points across the different scenarios.

6.5.2. Government revenue

There is good reason to assume that primary government revenue is on a clear and long-term downward trend. For several years, growth in tax revenues has been noticeably decreasing, in part as a result of expensive incentive schemes to steer the population towards more environmental sustainability, such as wide-scale tax and toll exemptions for the purchase of zero-emission and hybrid cars, in contrast to the heavy taxation of those running solely on fuel (see e.g. Eskeland and Yan (2021[25])). In 2022, revenue from car related taxation is estimated to be about half of what it was just 15 years ago, falling by about NOK 40 billion (USD 4.04 billion) or about 6% of total tax revenue. Even though some vehicle taxes and tolls are set to being re-introduced, particularly for hybrid cars, this is unlikely to fill the fiscal gap created by wide-spread adoption of zero- and low-emission cars. Slowing productivity and labour force growth have also contributed to the expectation of a growing fiscal gap (Norwegian Ministry of Finance, 2021[5]; OECD, 2022[26]).

At the same time, Norway has been heavily reliant on the Government Pension Fund Global (GPFG) as an important element of the fiscal framework (Box 6.2). Since its creation in the early 1990s, it has aimed for an intergenerationally fair use of petroleum revenues and potentially allows to offset some of the negative fiscal effects of population ageing by curtailing the need for increased tax revenue or spending cuts compared other countries considered in this chapter (OECD, 2021[27]). Norway is therefore in a fortunate position where it can run substantial *"non-oil"* fiscal deficits that are cushioned by the regular withdrawal of the expected annual returns of the GPFG. However, decreasing oil revenues could substantially reduce the fiscal space created by the GPFG in the future and thus require more efficient public spending as Norway's ratio of public expenditure to GDP is also among the highest in the OECD (OECD, 2022[26]). Importantly, revenues from the GPFG are not included in the Norwegian Government's primary revenue as they purely consist of interest and investment income. As such, they do not enter primary balance calculations, even though they are generally used to cover the structural *"non-oil"* deficit.

With projected declines in the GPFG as well as it susceptibility to global macroeconomic risks, the relative contribution of the GFPG to financing government spending will likely decline in the future. Indeed, the overall value of the GFPG is projected to grow more slowly in the future than over past decades as petroleum revenues are on a declining trend (Norwegian Ministry of Finance, 2021[5]; OECD, 2022[26]). The Norwegian non-oil economy will thus eventually grow faster than the fund itself. In terms of the funds value relative to Norwegian GDP, it is initially projected to increase somewhat, reaching a height of almost 380% of GDP in 2030, but it is projected to be about 270% of GDP in 2060. While this alone will reduce the fiscal space offered by the GPFG, the value of the fund is also highly sensitive to unpredictable macroeconomic developments (Box 6.2 and Figure 6.11).

The Norwegian Ministry of Finance expects that, without substantial reform, the average annual growth in tax revenue is set to fall from NOK 18 billion (USD 1.82 billion) between 2011 and 2019 to NOK 10 billion (USD 1.01 billion) between 2023 and 2030 (Figure 6.12). The Norwegian Ministry of Finance projects that the overall returns from taxation and GPFG withdrawal will be just enough to cover the expenses on the national insurance and pension system, eradicating the fiscal space for other prioritised policy initiatives that have been common over recent decades (Norwegian Ministry of Finance, 2021[5]).

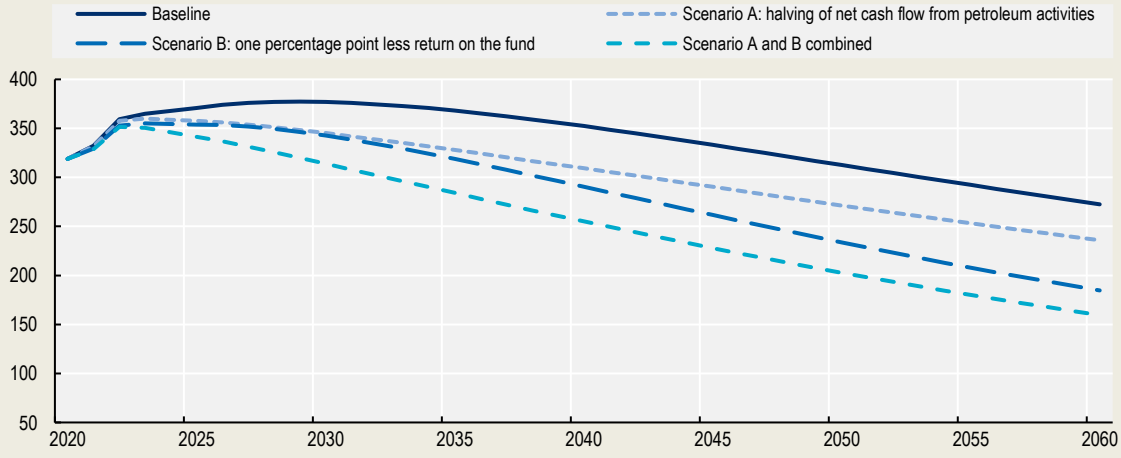
Box 6.2. The Norwegian Government Pension Fund Global

With revenues from offshore petroleum production, Norway has accumulated substantial financial assets in the *Government Pension Fund Global* (GPFG) – sometimes also referred to as Norway's Sovereign Wealth Fund – based on the net cash flow and financial transactions from the petroleum sector as well as the regular returns on the fund's assets. The fund, managed by *Norges Bank Investment Management*, has a value equivalent to around 3.5 times annual GDP. Foreign assets make up the entirety of its investments – about 70% equities with the remainder in bonds and property – which help offset the currency appreciation arising from petroleum exports.

Under the Norwegian fiscal framework, withdrawal of the expected real return from the fund, currently set at 3% of the funds volume, covers the cyclically adjusted non-oil deficit (the "*structural non-oil deficit*"), at-present in the order of 10% of GDP. The framework implies an intergenerationally fair use of oil wealth because withdrawal of expected returns does not deplete the fund over time. Nevertheless, business cycle considerations are given significant emphasis which can lead the actual takeout rate to deviate from the expected real return both from one year to the next and over several years.

Figure 6.11. The fiscal sustainability of the GPFG is threatened by macroeconomic risks

Value of the Norwegian Government Pension Fund Global as percentage of GDP



Note: See OECD (2022[26]) for detailed information.
Source: OECD (2022[26]), based on calculations drawing on data from the Norwegian Ministry of Finance.

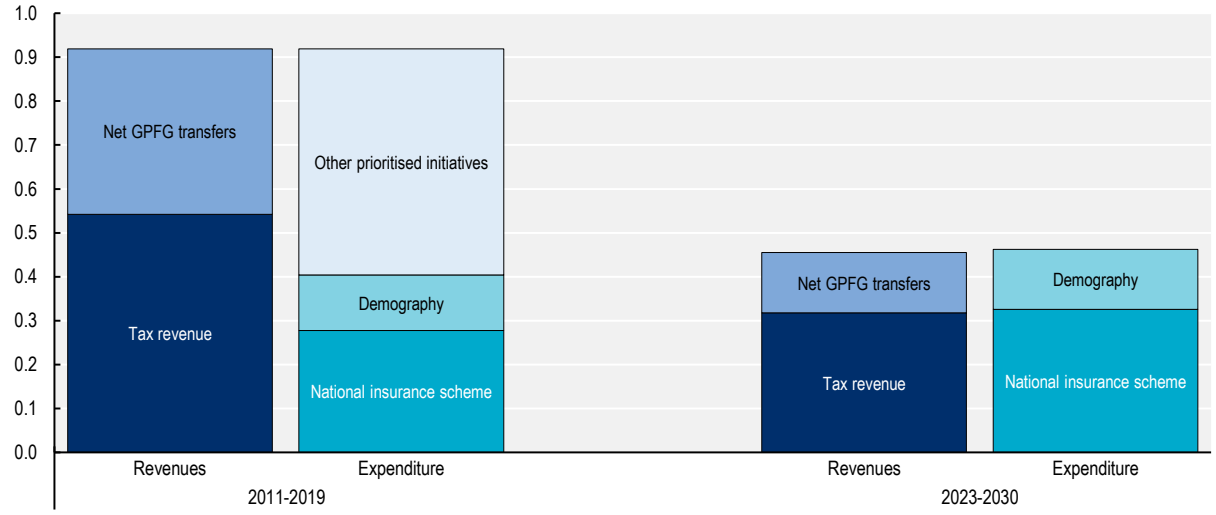
The GPFG is highly sensitive to global macroeconomic developments, such as a changing oil and gas revenues as well as the volatility in the returns on its assets. Even though the surge in oil and gas prices following the Russia's war of aggression on Ukraine will increase the revenue flow to the fund temporarily, this is unlikely to be a permanent effect as many countries scramble to scale up alternatives to their current reliance on oil and gas in industry and private consumption.

Source: OECD (2022[26]), Norwegian Ministry of Finance (2021[5]), Norges Bank (2022[28]).

However, a continuation of recent downward trends in fertility could slightly ease the pressure on the Norwegian primary balance, at least over a mid-term horizon. Projections by the Norwegian Ministry of Finance (2021[5]) and Statistics Norway (2019[6]) show that lower than baseline fertility rates, for example, would decrease the fiscal gap in the future (these projections use Statistics Norway's own population and fertility projections). Lower than baseline fertility would initially reduce the primary deficit by more than 6 percent in the early 2040s, before increasing it by about 2 percent towards the end of the 21st century. Overall, fertility seems to be less important for the Norwegian fiscal framework than external macroeconomic factors.

Figure 6.12. Scope for new spending will diminish in the future

Average annual increase in revenue or spending, percentage of 2021 mainland GDP



Note: "Demography" is an estimate of the increasing healthcare costs due to population ageing. "National Insurance Scheme" mainly reflects increasing costs in pensions and disability benefits. The NOK values in the calculations are re-based to 2021 and therefore 2021 mainland GDP is the denominator.
Source: OECD (2022[26]) based on Ministry of Finance and OECD calculations.

As such, fiscal pressure may mount, generally independent of future fertility rates. Instead of aiming for higher fertility rates to avert economic and social pressures, prolonging working lives, increasing long-term investment in private pension savings and improving productivity might thus be more effective. Fewer births than in previous decades are therefore not necessarily a serious fiscal and economic concern, as long as Norway prepares for the future and keeps its population well informed about necessary adjustment in previous policies.

6.6. Long-term care: Fewer children means fewer care workers

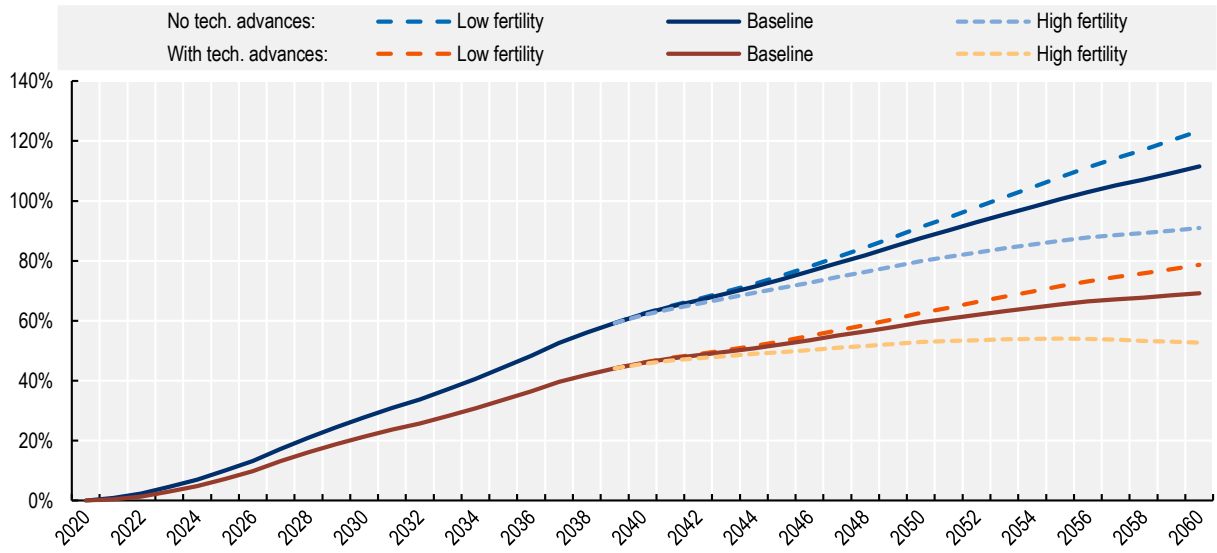
In addition to rising expenditure on health services, an ageing society is likely to experience an increased demand for long-term care (LTC) services for the elderly. It is likely that general trends of increasing life expectancy will coincide with increases in healthy life expectancy (Foreman et al., 2018[29]), but at the same time, more and more senior citizens suffer from multiple chronic conditions that require specialised and intensive care, while comparatively low-pay and ever more stressful jobs limit retention in the LTC workforce (OECD, 2020[30]). The question of how the demand and supply of LTC services will evolve in the future is thus impossible to answer with any degree of certainty.

This section analyses the demand and supply of long-term care services in Norway, based on the demographic developments under the three fertility scenarios introduced earlier in this chapter. While fertility trajectories do not have any direct effects on the number of senior citizens that may need long-term care services in the distant future, fertility will critically shape the size of the labour force in the decades to come (see above) and may thus be a factor in ensuring adequate care provision for future generations of elderly. By keeping the ratio between care workers and LTC users as well as the share of LTC workers among the labour force constant – and also accounting for increases in (healthy) life expectancy – these projections provide simple illustrative scenario on the gap between LTC demand and supply by 2060 (a more comprehensive approach on modelling future LTC demand and supply is taken in OECD (Forthcoming[31])). A detailed methodology is available in Annex 6.A.

With an increasing population of elderly, and in the absence of technological advances, Norway would need noticeably more LTC workers in the future, a trend that would worsen continuously over the projection horizon. In 2060, Norway would need approximately 266 400 LTC workers that would care for 391 700 senior citizens with support needs. While this would require an increase in the LTC workforce of about 135%, the baseline fertility scenario projects a mere 10% increase to 126 000 LTC workers by 2060. The substantial growth in the elderly population and the modest increase in the Norwegian labour force would therefore lead to a substantial mismatch between the size of the projected LTC workforce and how many LTC workers are needed to provide a continuum of today's quality of care – with the required LTC workforce being more than twice as large as the one that is projected (Figure 6.13).

Figure 6.13. Norway may face a looming LTC crisis, irrespective of fertility rates

Relative gap between required and projected LTC workforce between 2020 and 2060, with and without productivity increases in the LTC sector, different fertility scenarios



Note: See note to Figure 6.2. for a definition of the different fertility scenarios. The calculations assume that the ratio between LTC workers and elderly LTC users remains unchanged between 2019 and 2060, while the same share of the overall workforce is employed in the LTC sector in both years. Productivity increases are assumed to reduce the ratio between LTC workers and elderly in 2060, based on similar approach as in OECD (2020[30]). See more in Annex 6.A.
Source: OECD calculations based on Eurostat Historical Population Projections 2019, Statistics Norway (2022[32]) and OECD (2021[33]; 2020[30]).

While changes in fertility won't influence the demand for long-term care over the projection horizon, it will directly influence the supply of LTC workers through its effects on the size of the labour force. Lower than baseline fertility, for example, will not only decrease the ratio of the working age population to the elderly, but it will also reduce the number of LTC workers. Higher fertility rates may be able to dampen the effects of a looming LTC crisis in the future, but as their effects on the size of the labour force only materialise with a delay, they would only change the LTC care gap from around 2045 onward. However, even under higher fertility rates, such LTC care gaps would not substantially diminish, only dropping to a relative gap of 91% in 2060 (Figure 6.13).

However, it may be reasonable to expect some sort of productivity increase in the LTC sector over the coming decades – for example through assistive robots and other technologies – which would mean that each worker could care for more people without compromising quality. The Norwegian *Helsepersonellkommisjonen* (Health Personnel Commission) also emphasises the increased use of technology and digital solutions (see also Savage (2022[34])) and the need for a better use of the available health and care workforce and, rather than aiming for an increase of the workforce, to avert a looming LTC crisis (Ministry of Health and Welfare, 2023[10]). In 2019, Norway had one of the highest ratios between the elderly and the LTC workforce (see OECD (2021[33])), thus there may be scope for reduction in this ratio.

The projections Figure 6.13 provide an additional scenario that factor in productivity increases, following OECD (2020[30]) (see more in Annex 6.A). Even when assuming a reasonable boost to the productivity of the health and care sector – which typically exhibits slower productivity growth than the aggregate economy – the gap in the LTC workforce would remain large. In this case, Norway would still require 69% more LTC workers than projected by 2060. Should productivity increases alone avert a looming LTC crisis (see Ministry of Health and Welfare (2023[10])), it would require a more substantial reduction in the ratio between LTC workers and users. For example, in the stylised model developed here, this would require a reduction from 68 to about 32 LTC workers per 100 LTC users at baseline by 2060 – a necessary productivity increase of more than 50%, and thus substantially stronger than any productivity boost expected for the aggregate Norwegian economy. Even under the higher fertility scenario, Norway would have to increase productivity in the LTC sector by 47% (to 36 LTC workers per 100 LTC users in 2060). Such efforts would likely also result in a reduced quality of elderly care and thus may be highly undesirable for the country.

Based on the stylised results of the projection exercise, boosting fertility rates and productivity increases alone does not seem to be fully effective in reducing future LTC gaps. While productivity increases in the LTC and health sector are necessary, they alone are unlikely to avert a substantial gap in the demand and supply of LTC. In addition to promoting healthier lives, a better utilisation of the available health and care workforce and general productivity increases, Norway could aim for an expansion of the LTC workforce by steering more into training and education related to geriatric care – including boys and men, who hold less than 10% of jobs in the LTC sector in Norway (OECD, 2020[30]) – or specific migration channels to recruit foreign LTC workers, in order to avert a looming LTC crisis in the future.

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Annex 6.A. Methodology

Population and growth projections

This annex provides detail on the methods and data used in this chapter. The projection exercises are based on Eurostat population projections as well as economic and fiscal forecasts based on the OECD Long-Term Model. The latter projects economic and fiscal outcomes until 2060, following a range of inputs on productivity, employment, and population development (Guillemette and Turner, 2018[4]; 2021[15]). Production of these estimates themselves takes place in two stages. First, estimates of population dynamics are produced under different fertility scenarios and mapped to dynamics in the size of the labour force using the OECD in-house dynamic age-cohort model that, under baseline conditions, projects future labour participation by gender and five-year age-group using current rates of labour market entry and exit.

Second, estimates of public primary expenditure (i.e. government spending excluding any interest payments), potential GDP per capita and annual growth of the potential GDP per capita under each scenario are produced by combining the labour force and population forecasts with the long-term growth model presented by the OECD in the OECD Economic Outlook No. 109 (see Guillemette and Turner (2021[15]) for detail). The models estimate potential GDP and fiscal outcomes based on a range of long-term growth determinants and their long-term dynamics within the given country as well as on convergence patterns between countries across the projection period. All model inputs are detailed in Annex Table 6.A.1.

The potential economic output (Y) in year t in the model is based on a simple Cobb-Douglas production function with constant returns to scale featuring physical capital (K), trend potential employment (N) as production factors, plus trend labour efficiency (E):

$$Y_t = (\mathrm{E_t} * \mathrm{N_t})^{\alpha} K_t^{1-\alpha}$$

Equation 1

Where α denotes the labour share and is fixed at 0.67. The capital and trend labour efficiency components are determined within the OECD Long-Term Model, where the latter converges to an assumed exogenous rate of global technological progress in the long-run (1.5 percent per annum) while the capital-to-output ratio stabilises in the steady-state. As such, it generally grows at the same rate as aggregate trend employment and average trend labour efficiency (see more in Guillemette and Turner (2018[4]) and Guillemette, De Mauro and Turner (2018[35])). Trend potential employment itself is obtained using the labour force participation rate forecasts of the OECD in-house labour force projection model:

$$N_t = \sum_g \sum_a P_{t,a,g} * LFP_{t,a,g}$$

Equation 2

Where $P_{t,g,a}$ and $LFP_{t,g,a}$ are the projected population and labour force participation rates for age a and gender g. Throughout the calculations of the baseline model and the scenarios, working age is defined as 15 to 74. The labour force is computed using aggregated population figures by gender, specifically over sex-specific 5-year age groups. The evolution of the population itself is modelled as:

$$P_{t,a,g} = \begin{cases} M_{t,a,g} + \left(1 - D_{t-1,a,g}\right) * \sum_a P_{t-1,a,g=f} * FR_{t-1,a} \text{ if } a = 0 \\ M_{t,a,g} + \left(1 - D_{t-1,a-1,g}\right) * P_{t-1,a-1,g} \text{ if } a > 0 \end{cases}$$

Equation 3

Where $D_{t,a}$ is the mortality rate and $M_{t,a,g}$ the net migration in year t for age a and gender g. For $\mathrm{a} = 0$, new births are accounted for through the aggregate number of births for mothers at each age that survive until the end of the year, based on the age-specific fertility rate $FR_{t-1,a}$ in the previous year and the total number of women in the age-specific population $P_{t-1,a,g=f}$, also in the previous year. In each of the scenarios presented in this chapter, population dynamics are adjusted solely through differences in age-specific fertility rates. Therefore, mortality and migration rates do not change at all.

Annex Table 6.A.1. Summary of data series used in growth projections

Input	Detail	Main source
Physical capital (K)	Determined within the Long-Term Model	OECD Long-Term Model
Trend labour efficiency (E)	Taken as exogenous from OECD Long-Term Model.	OECD Long-Term Model
Labour force participation rates (LFP)	Projection of future labour participation by gender and five-year age group using current rates of labour market entry and exit.	OECD Long-Term Employment Projections
Population (P), based on age-specific: • Mortality rates (D) • Net migration (M) • Fertility rates (FR)	Age-specific mortality, net migration and fertility rates from Eurostat (baseline) / US Census Bureau (main series).	Eurostat Population Projections 2019, the United States 2017 National Population Projection

Fiscal projections

The long-term projections for public spending on pensions, health and long-term care are similarly determined within the OECD Long-Term Model. Forecasts for public pension spending depend on the ratio of retirees to workers and projected evolution of benefit ratios. It thus reflects population ageing, dynamics in the labour force and the evolution of statutory retirement ages. Projections on health and long-term care expenditure, are calibrated based on historical dynamics sourced from the OECD Health Expenditure and Financing Database. The projected growth in health and long-term care expenditure uses as input growth in GDP per capita, the population share of the elderly and the excess of healthcare price inflation over general inflation. The latter component is dependent on projected labour productivity growth to account for links between slowing productivity growth and costs pressures as well as the impact of technological change on healthcare costs (see Guillemette (2019[36]) for more information).

There are some notable limitations to using the OECD Long-Term Growth Model for this exercise. For example, the outputs of the OECD's Long-Term Growth Model include economic production as *potential* economic output (potential GDP per capita), which refers to an economy at full employment of all members of the labour force. All model estimates are mechanical only and assume that any changes in fertility rates do not interact with factors outside of the model or have any indirect effects. This is especially important for employment and working hours of men and women in childbearing age, as the model does not assume any changes in employment or working time in scenarios with more or fewer births relative to baseline. That means that even with fewer births in a low fertility scenario, the model will not lead to higher employment and working time in childbearing age and may therefore underestimate the total labour input, especially of (potential) mothers.

For Norway only, substantial annual revenue from offshore oil and gas production as well as the volume and the returns to the Norwegian Government Pension Fund Global (GPFG), complicate any realistic projection of future fiscal revenues in the projections of the OECD Long-Term Growth Model. For other countries, the model assumes that government financial assets – which in the case of Norway do include the GPFG – remain constant as a share of GDP over the projection period. While this is generally in line with historical trends for most countries, for Norway it would assume that the GPFG stops growing, while Norwegian modelling expects it to decline (Guillemette and Turner, 2021[15]). For this reason, the OECD

Long-Term Growth Model in its current form cannot produce reliable projections of asset and revenue dynamics for Norway. As such, this chapter is limited to an analysis of the expenditure side when considering the effects of fertility on fiscal sustainability.

Public expenditure projections on health, long-term care and pensions rely either on coefficients estimated from historical data (health and long-term care) or on stylised assumptions (pension), which account for differential spending across the age distribution. However, other public spending, including family transfers and in-kind services, is based on the assumption that governments will seek to provide a constant level of non-health/non-pension spending per capita in real terms over time, with prices for government services evolving with the wages in the rest of the economy. There is no allocation made for different levels of spending by age, so the effects of fertility rates on public spending on family benefits in cash or in kind may not be modelled fully accurate (Guillemette and Turner, 2021[15]; 2017[24]). In fact, when public health and pension expenditure is removed from historical per capita age spending profiles, the remainder of the spending is disproportionally directed towards children and young adults (Chłon-Dominczak et al., 2019[37]). As a result, the effects of fertility rates that diverge from the baseline projections will somewhat underestimate the actual effect that should be expected – which would be positive or negative depending on the specific scenario. It is therefore necessary to treat the effects on other public spending with caution.

Long term care demand and supply projections

The long-term care demand and supply are projected in a simple and illustrative setting built on a number of basic assumptions. First, it is assumed that countries would ideally want to keep the ratio between LTC workers and LTC-users constant in order to provide the same level of care as today. In effect, this acts as an upper bound on demand for care workers. or Norway, the required data on LTC workers and users is readily available and can be obtained through *OECD Health at a Glance 2021* (OECD, 2021[33]). In 2019, there were 12.4 LTC workers per 100 senior citizens in Norway, a total LTC workforce of about 113 400. At the same time, there was a total of 165 200 elderly Norwegians that resided in care institutions or used home help and nursing. Taken together, this means that there were about 68 LTC workers for every 100 elderly LTC users. At the same time, the projections assume that half of all additional years of life expectancy are spent in good health, without the demand for LTC – similar to assumptions made by the European Commission (European Commission, 2021[38]). Statistics on the number of LTC users by age group – which is important to factor in the effects of increases in healthy life expectancy – are published by Statistics Norway (2022[32]).

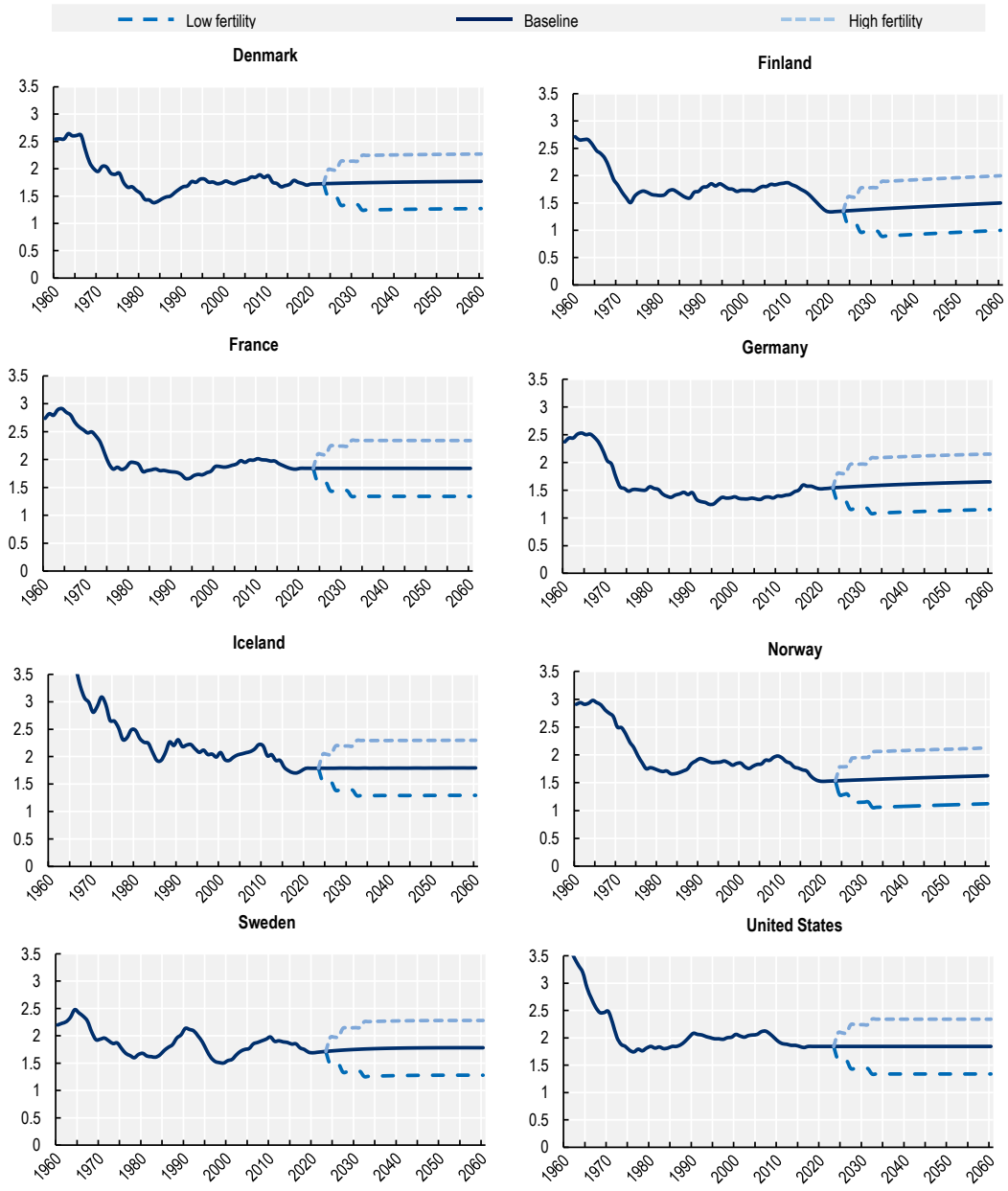
In terms of projections on the LTC workforce, it is assumed that the share of LTC workers among the total labour force – which is sensitive to different fertility trajectories – remains unchanged in 2060. In 2019, the share of LTC workers of the labour force was slightly above 4%. The projections also factor in a scenario on productivity increases, which reduce demand for LTC workers by 20% in 2060 – about half of the productivity increases in the aggregate Norwegian economy projected in the OECD Long-Term Growth Model (see e.g. Guillemette et al., (2017[39])).

A wider discussion on the future of care services, including a projection/simulation exercise, is undertaken by the OECD in "*Beyond Applause: Improving work conditions and social recognition in the long-term care sector given ageing societies*" (OECD, Forthcoming[31]).This project highlights labour market imbalances in the long-term care (LTC) sector, assess their links with job quality and the quality of care in the LTC sector, and suggests ways to improve working conditions and raise social recognition in the sector.

Annex 6.B. Additional figures

Annex Figure 6.B.1. Fertility scenarios for selected countries

Annual total fertility rate 1960-2060, different fertility scenarios

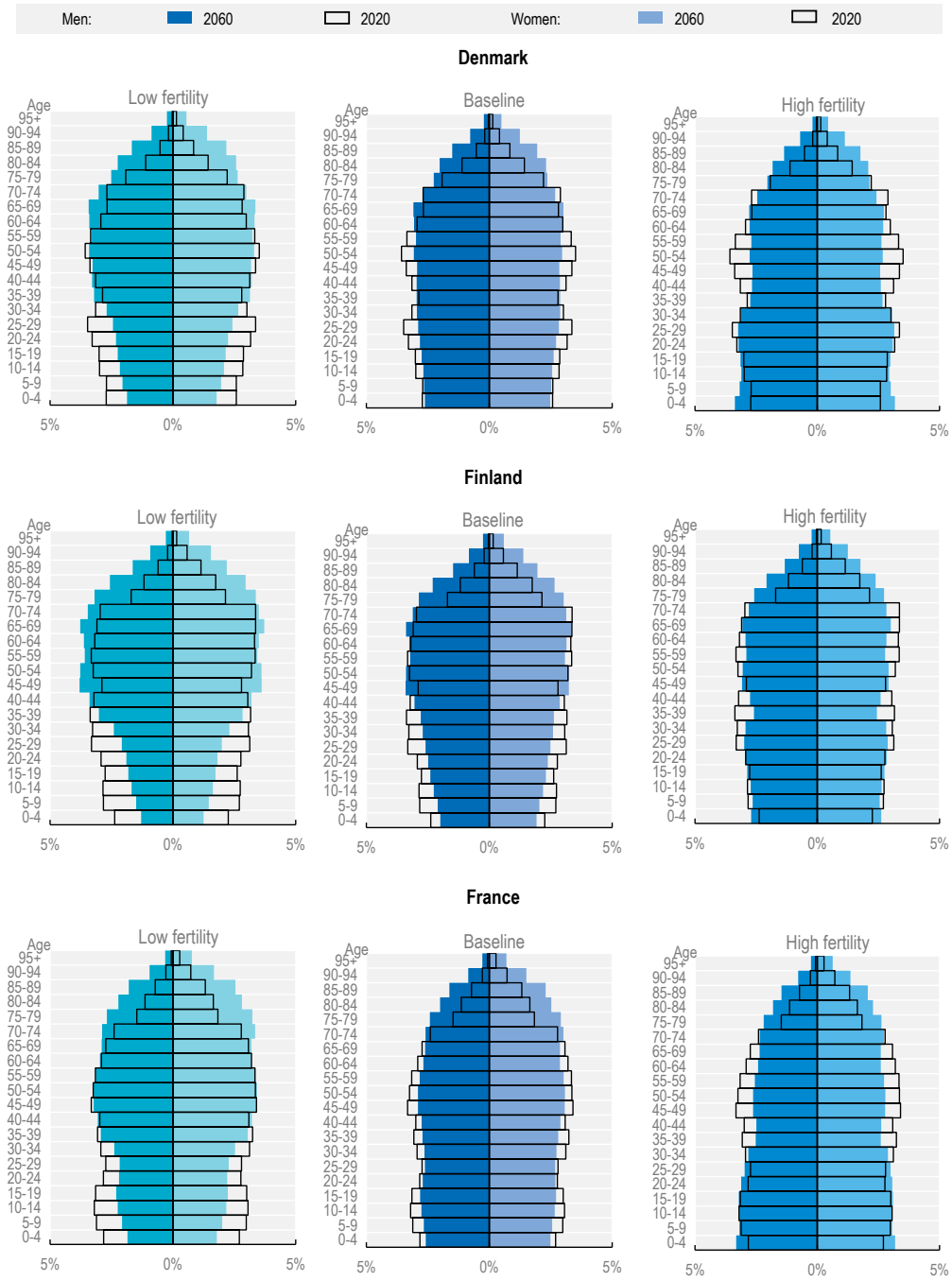


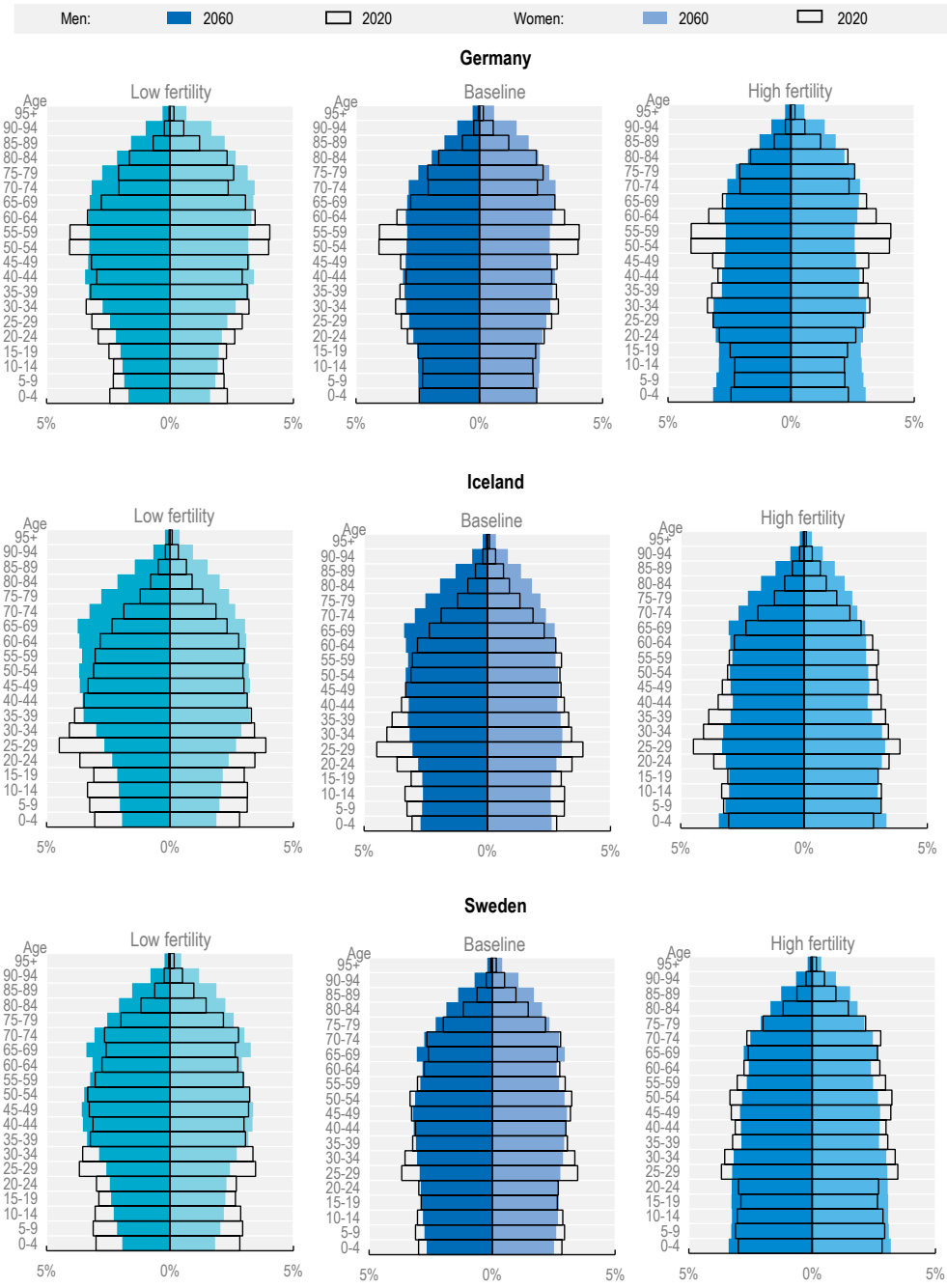
Note: The baseline scenario refers to baseline fertility rates in the Eurostat population projections, which converge to a TFR of 1.62 by 2060 for Norway. "Low fertility" refers to fertility rates that converge to a TFR 0.5 below baseline. "High fertility" refers to fertility rates that converge to a TFR 0.5 above baseline.

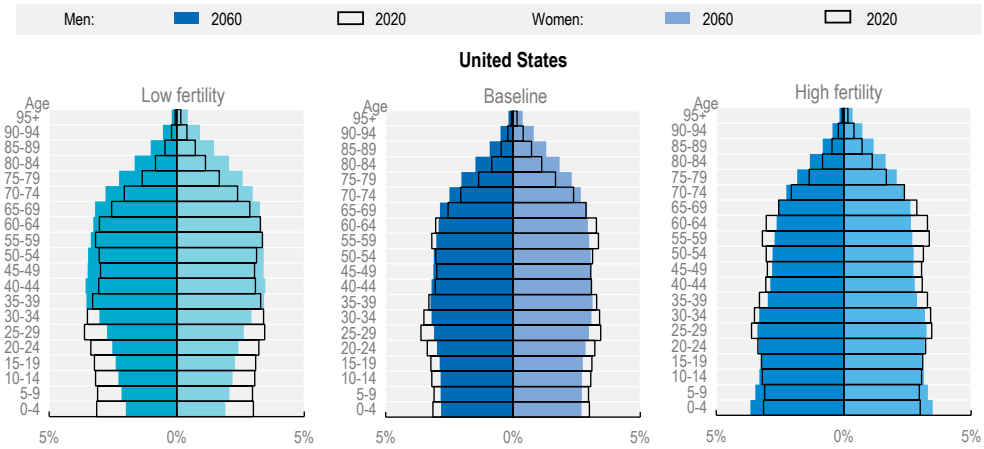
Source: OECD Family Database and OECD calculations based on Eurostat Population Projections 2019 and United States 2017 National Population Projections.

Annex Figure 6.B.2. Projected population structure of selected countries

Projected population structure (2020, 2060), share of total population (men on the left-hand side of each panel, women on the right-hand side), different fertility scenarios



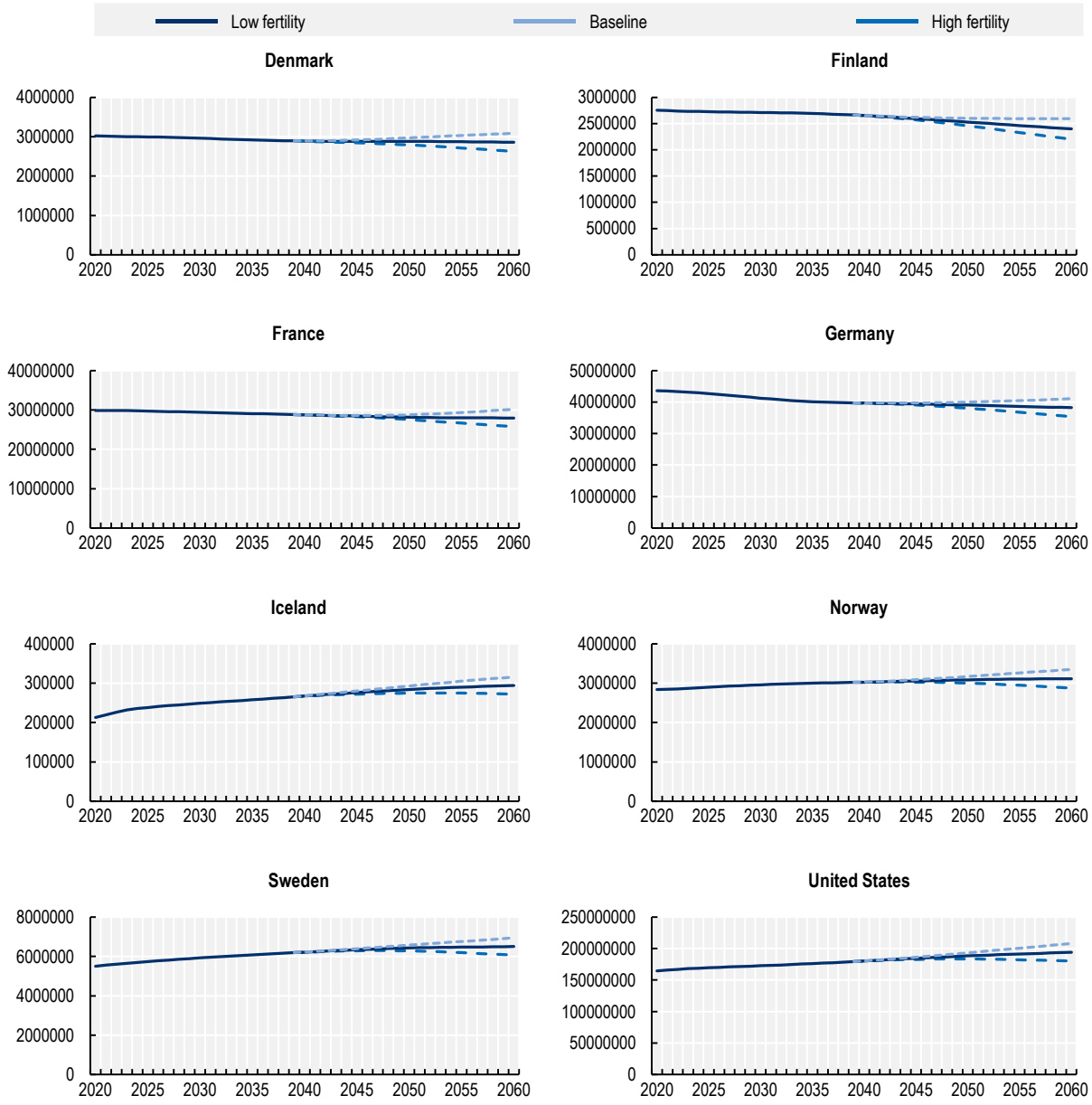

Men:
2060
2020
Women:
2060
2020
Germany
Low fertility
Baseline
High fertility
Iceland
Low fertility
Baseline
High fertility
Sweden
Low fertility
Baseline
High fertility
Age
95+
90-94
85-89
80-84
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
5%
0%
5%



Note: See note to Annex Figure 6.B.1 for a definition of the different fertility scenarios.
Source: OECD calculations based on Eurostat Population Projections 2019 and United States 2017 National Population Projections.

Annex Figure 6.B.3. Labour force projection for selected countries

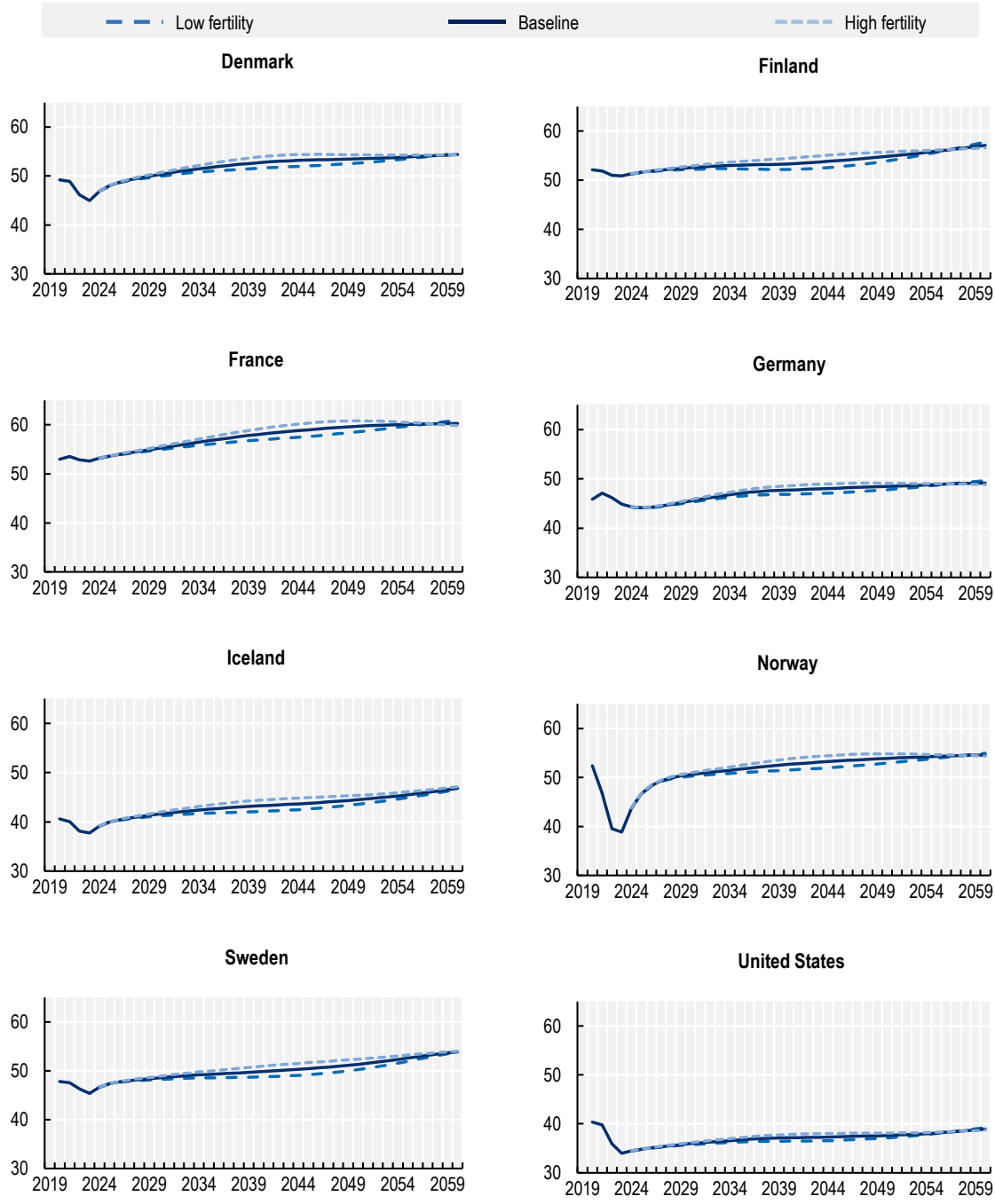
Annual headcount labour force, 1960-2060, different fertility scenarios



Note: See note to Annex Figure 6.B.1 for a definition of the different fertility scenarios.
Source: OECD calculations based on OECD in-house labour force projections, Eurostat Historical Population Projections 2019 and United States 2017 National Population Projections.

Annex Figure 6.B.4. Primary expenditure for selected countries

Primary government expenditure as a share of GDP over the period 2019-60, different fertility scenarios, percentage



Note: See note to Annex Figure 6.B.1 for a definition of the different fertility scenarios. Primary expenditure is defined as government spending on pensions, health, long-term care and other categories (e.g. including family transfers and in-kind services), excluding any expenditure on interest payments.

Source: OECD calculations based on Eurostat Historical Population Projections 2019, United States 2017 National Population Projections and the OECD Long-Term Growth Model.

Exploring Norway's Fertility, Work, and Family Policy Trends

Like other Nordic countries Norway has been investing heavily in family policy to enable combining work and family life. Nevertheless, between 2009 and 2022 the Total Fertility Rate (TFR) in Norway dropped from 2 children to 1.4 children per woman. What is happening, and why? Can Norwegian parents still reconcile work and family commitments? What role do demographic trends play for the future of the Norwegian society? Should we worry? These are some of the questions that this study addresses. It illustrates various aspects of fertility trends, as well as changes in the Norwegian labour market as well as in Norway's comprehensive system of public family support. The study also looks at social attitudes and how these might be affecting family formation and fertility trends. The final chapter projects demographic, economic, fiscal and social outcomes under different fertility trend scenarios.

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