

Musim, Nana Germanie

Working Paper

Social protection policies and fertility: How can social protection measures address the low fertility rate in Germany?

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SOCIAL POLICY IN DEMAND

A Working Paper Series

2024/04

Social protection policies and fertility: How can social protection measures address the low fertility rate in Germany?

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Abstract

There are about 30 low-fertility countries globally. Germany has been a low-fertility country for more than 50 years which is longer than any other country since the low-fertility trend in other countries only began ten or twenty years ago. Low-fertility rates have mainly negative consequences for various policy areas such as pension, health care, economy, labour market, culture, elections, and international relations (Bujard, 2015a, pp. 53f.).

Understanding the potential impact of social protection policies on fertility rates is crucial for policymakers who seek to address declining fertility rates by applying evidence-based strategies. By investigating the relationship between these two variables, valuable insights can be gained, informing the design and implementation of effective policies aimed at promoting higher fertility rates and ensuring sustainable demographic outcomes.

This research's objective is to identify how social protection measures address the low fertility rates in Germany. To do that, the outcomes of recent social protection measures in Germany related to the fertility rate will be assessed by generating empirical evidence. Consequently, conclusions will be drawn, and suggestions will be offered on how to improve fertility rates.

Keywords: Fertility rate; Demography, Socio-political challenges; Financial sustainability; National social protection systems

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List of abbreviations

GDP	Gross Domestic Product
OECD	Organisation for Economic Co-operation and Development

TFR

Total Fertility Rate

1. Introduction

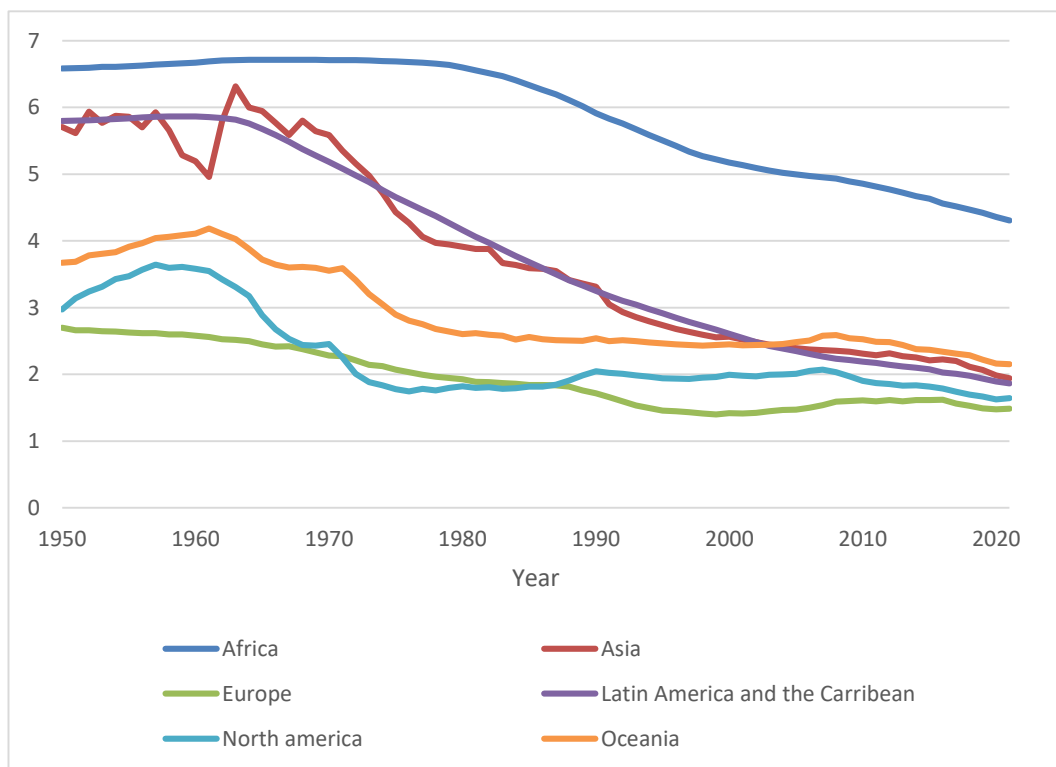
Social protection is a defined set of policies and measures that aim to protect people against poverty and vulnerability across the life cycle. It is mainly financed by contributions and tax payments of employers and employees. However, declining fertility rates and increased life expectancy result in a reduction in the size of the young population and a rise in the elderly population which increases the old-age dependency ratio. This increases the risk of poverty and loneliness in old age. Moreover, expenditure for pension, health care, long-term care, and disability benefits increase because there tends to be a higher prevalence of health issues among the elderly. For that reason, demographical challenges are a threat to the success and financial sustainability of social protection systems since they lead to deficits in financing and shortage of labour for the implementation and the delivery of social protection (ILO, 2021, pp. 18-24).

Germany is among the top 10 countries with the largest percentage of old age population (United Nations, 2019, p. 12). In 1995, the fertility rate in Germany was 1.25 and has increased to 1.58 in 2021 (Statistisches Bundesamt, 2023). The principal metrics for evaluating the Total Fertility Rate encompass the count of women capable of childbearing and the mean number of offspring per woman. This comprehensive indicator constitutes a hypothetical indicator, reflecting the projected number of children a woman would bear throughout her lifetime if her fertility conduct mirrored that of all females aged 15 to 49 during the assessed year (OECD, 2016, p. 14). In the absence of migration and unchanged mortality rates, a Total Fertility Rate of 2.1 children per woman ensures population stability, commonly known as the replacement fertility rate. This rate guarantees the replacement of each woman and her partner with an additional 0.1 children per woman to offset infant mortality (OECD, 2016, p. 14). The Total Fertility Rate does not provide information on how many children women have had or will have in their lifetime. Therefore, researchers often use the completed fertility rate which offers deeper insights because it tracks the final number of children per woman. However, this measure can only be determined once women have concluded their reproductive phase (BMFSFJ, 2019a, p. 19).

The relationship between social protection policies and fertility rates is complex since it is difficult to determine whether fluctuations in fertility rates are due to a specific event or would have nonetheless occurred in its absence. Nevertheless, this paper aims to identify social protection measures that can influence the fertility rate of a population (Nice et al., 2022, pp. 6f.).

In advanced economies with established social protection systems, a shift from reliance on kinship based social protection to the state as the main provider of social protection relieves children of the burden of providing pensions for their parents. This leads to individuals prioritising employment with social security contributions towards a retirement fund over child-rearing for securing their retirement income. Empowering women in education and the labour market, preventing child marriages and abuse, access to contraceptives, and the rising costs of raising children all contribute to women having fewer children. Additionally, providing healthcare and nutrition, which reduces neo-natal and infant mortality rates, also plays a role in the declining fertility trend (Nice et al., 2022, pp. 6-12; Figure 2).

Figure 1: Average number of children per woman between 1950 and 2021



Source: Author's own based on UNDESA (2022)

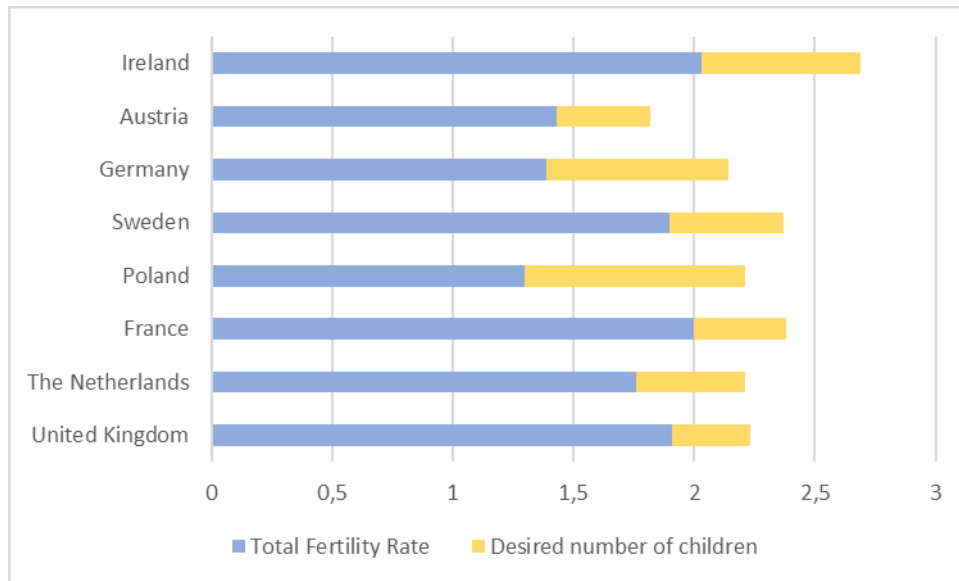
Social protection can however also increase the fertility rate in various ways. By promoting gender equality, women empowerment policies can be introduced to reduce the gender pay gap and incentivise men to take on a bigger role in childcare. Moreover, providing maternal and family benefits in cash and in kind can strengthen economic stability, support families in the upbringing of their children, and foster a family-friendly environment that incentivises the decision to have children. There are various measures that can se-

cure the income stream of parents: social assistance can prevent poverty and vulnerability, social insurance can prevent risks across the life cycle, labour market policies can offer parental leave, job security for pregnant women and at the same time promote work-life balance. Housing benefits and tax incentives can also reduce living costs of families with children (BMFSJ, 2012, pp. 44-48). All in all, it is evident that the variety of social protection measures can not only increase but also decrease the fertility rate.

1.1. Theoretical framework

The fertility rate in open economies is influenced by several factors. The factors that are positively associated with higher fertility rates in high-income countries are higher family spending relative to pension spending, sufficient supply of childcare services, a pronounced service sector, and the presence of a demographic influence from large ethnic minorities whose countries of origin have high fertility rates (Bujard, 2011, p. 24). In contrast to that, very low fertility rates indicate a significant difference between desired family size and actual number of children. This gap is typically greater for highly educated women, who often face challenges in balancing their career and family aspirations (Sobotka et al., 2019, p. 5). Family policies can only affect fertility rates by closing the gap between actual fertility rates and the number of desired children in the short-term (Sievert & Klingholz, 2009, p. 8).

Figure 2: Fertility rate and women's desired number of children in 2011



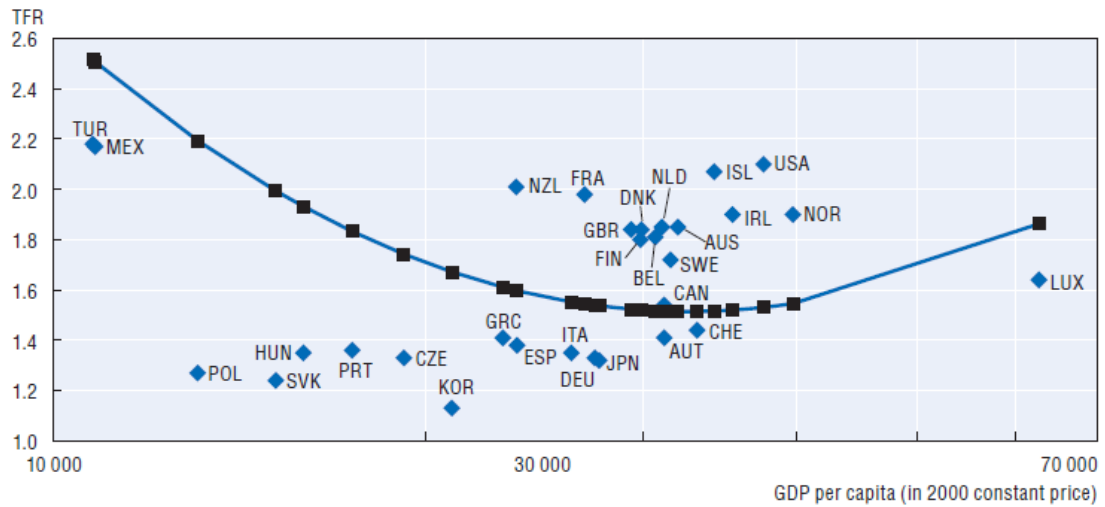
Source:

Author's own based on OECD Family Database (2011)

The term "demographic transition" refers to the process by which a society moves from high levels of fertility and mortality to lower levels, resulting in changes in the age structure of the population. This transition typically takes place over the course of one to two centuries for a given population (Nice et al, 2022, p. 10).

The demographic paradox refers to the fact that as societies become wealthier, people have more resources to have children and more individual freedoms that allow them to pursue their own goals and interests. However, this can lead to a decline in fertility rates as individuals may choose to prioritize their own pursuits over having children (Kröhnert et al., 2005, pp. 2f.). The theory of the demographic paradox can be applied to low- and middle-income countries but no longer to high-income countries. In fact, western European countries prove that the highest number of children are born in societies that best ensure gender equality (Steidle & Henkel, 2010, p. 12; Figure 3).

Figure 3: Total Fertility Rates and GDP per capita for 30 OECD countries in 2006

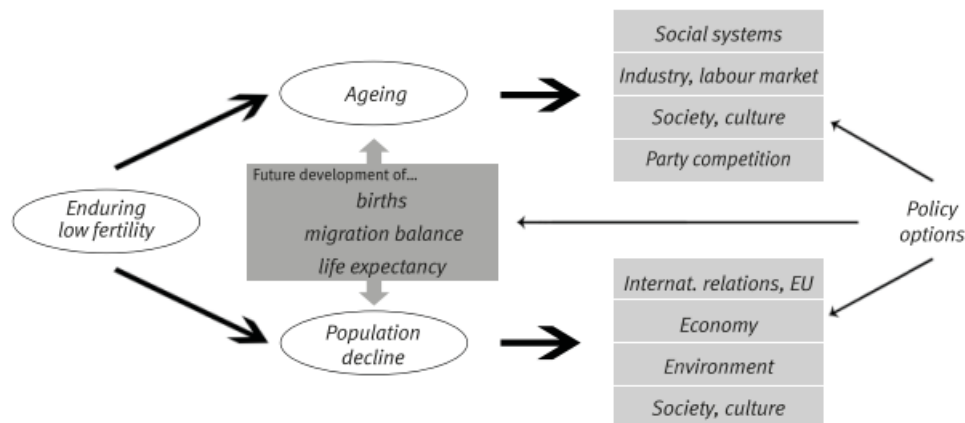


Source: Luci & Thévenon (2010, p. 21)

Social norms that impose a penalty on mothers who aspire to balance family and career responsibilities can contribute to both low female labour force participation and low fertility rates (Doepke et al., 2022, pp. 61f.). The more modern a society is and the greater the emancipation of women as well as of the whole society, the higher the fertility rates tend to be (Kröhnert et al., 2005, pp. 2f.) Countries with higher divorce rates tend to have higher fertility rates but this does not mean that instable relationships lead to more children. Rather, high divorce rates are an indicator of gender equality, as women can be financially independent of a male partner. Moreover, high divorce rates indicate that the society accepts working mothers, fathers' involvement in child-rearing and children born out of marriage (Kröhnert et al., 2005, pp. 4-15).

The aftermaths of declining fertility rates are severe in areas such as the sustainability of national social protection systems. While the consequences of population shrinkage are manageable, it leads to a decrease of influence and power in foreign politics (Figure 4). Consequences on other policy areas can be dealt with by adequate policy responses (Bujard, 2015a, p. 53). As migration can reduce population shrinkage but is unlikely to stop population ageing, the long-term goal for many countries will be to raise fertility rates. Especially smaller European countries seem to prefer to have higher fertility rates than high migration numbers to preserve their cultures (Bujard, 2015a, pp. 77-81).

Figure 4: Consequences of enduring low fertility



Source: Bu-

jard (2015b, p. 135)

Sustainable fertility rates and a good education system are crucial in ensuring the growth of a skilled young workforce, which in turn can lead to a successful economy. This has been demonstrated in countries like Ireland that succeeded to attract investments and regional development. Conversely, regions with fertility rates which are significantly below the replacement level are forced to focus their economic development on urban areas, leaving rural areas behind (Kröhnert et al., 2008, p. 37).

Generative behaviour is the decision to have children or not to have children. The decision to have children is ultimately a personal decision. It depends on the interplay between individual, societal, and political circumstances (BMFSFJ, 2012a, p. 15). The influence of specific family policy benefits and measures on fertility outcomes depends on the overall family policy framework implemented in a country. Factors such as the number, adequate design, and coordination of these measures, as well as the historical evolution of the existing range of family support, play a significant role (Bonin et al., 2014, p. 12). Strong financial incentives may have limited impact on individuals who have a weak or a generally low desire to have children during a specific period in their lives. On the other hand, individuals who already have a strong desire to have children may respond significantly to even small alleviations of financial or time constraints (Bonin et al., 2014, p. 17). Financial incentives alone cannot influence fertility rates; rather, a fundamental social transformation is needed, which takes a long time, and policymakers have little control over it (Klingholz, 2016, p. 7). It is therefore important for policy advisors to differentiate between individuals' preferences and constraints and identify groups of people who are responsive to incentives (Bonin et al., 2014, p. 17).

The effectiveness, legitimacy and long-term viability of family policy measures and benefits relies on sufficient awareness and widespread acceptance among the population (Bonin et al., 2014, pp. 13f.). Since the mid-1990s, there has been a noticeable increase in the allocation of resources towards benefits in kind, particularly for childcare services. Spending on cash transfers continues to be the primary and most significant form of family benefits and has remained stable in the last 20 years (Sobotka et al., 2019, p. 35). Even though there is no statistical evidence that cash transfers have any significant effect on fertility rates, they can address poverty and increase access to contraceptives and education. This can indirectly impact and may decrease fertility over time because education as well as obtaining time consuming job qualifications such as obtaining a university degree, decrease gender inequality, lead to delays in marriage and ultimately result in postponed births (UNICEF, 2017).

1.2. Empirical research

1.2.1. Demographic transition and fertility trends

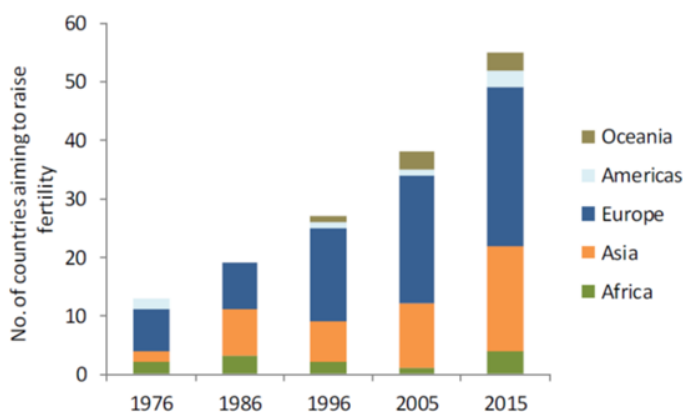
Falling or stagnating earnings and income for individuals who are starting their careers in highly developed countries make it more challenging to obtain the means necessary to start a family. Housing costs and shortages as well as job inflexibilities, a lack of job and income security have been a significant barrier to fertility plans for millennials, contributing to a reduction in desired family size (OECD, 2016, p. 14; Venis, 2022). Furthermore, rising divorce rates and declining marriage rates result in smaller families and more children growing up in single-parent households or reconstituted families (OECD, 2011b, pp. 1-5). Research highlights the importance of women's employment in shaping population dynamics. In countries like France and Germany, there has been a notable rise in fertility rates among women with higher levels of education. This indicates a departure from the traditional pattern where women's education was associated with lower fertility (Doepke et al., 2022, pp. 24-27).

In several countries such as Japan, South Korea, Spain, Greece, and many Eastern European countries, the fertility rate is even lower than the German fertility rate. However, their parent generations are larger, resulting in more children being born in proportion to the total population compared to Germany. For that reason, these countries will experience population ageing later than Germany (Sütterlin & Hoßmann, 2007, pp. 9f.).

The decline in population growth, which leads to each successive generation being smaller than the one before it, raises concerns regarding labour shortages, economic

and social stability. Japan serves as an example, facing a shrinking labour force, low fertility rates, low immigration rates, and rapid population ageing. This poses challenges for informal support networks as there are not enough caregivers for an increasing number of elderly individuals (Kröhnert et al., 2008, p. 25) Increasing workforce participation may not be sufficient to address the challenges posed by long-term ultra-low fertility rates, even for governments which are accepting immigrants or implementing radical social security and pension reforms. Consequently, attention is shifting towards policies to boost fertility rates and the number of countries pursuing family planning policies has increased over the years (Figure 5; Kröhnert et al., 2008, p. 25).

Figure 5: Number of countries whose governments declare that their goal is to raise fertility



Source: Sobotka et al., (2019, p. 8)

Demographic changes occur gradually, influenced by shifts in fertility and mortality rates. Despite rising fertility, Europe's low fertility rates will persist, leading to an aging population. Demographic projections, which account for existing populations, are reliable for 10 to 30 years, barring unforeseen events such as wars. (Kröhnert et al., 2008, p. 25). Crises lead to a short-term decline in fertility rates and referral of births. After crises, fertility rates tend to normalise again (Nice & Hinz, 2022). For instance, the Total Fertility Rate in Germany dropped from 1.58 to 1.46 from 2021 to 2022. Researchers suggest that this decline is a result of women postponing births due to the COVID-19 pandemic (Statistisches Bundesamt, 2023).

Countries that invested in family measures by expanding provision of public day care facilities and compatibility of work and career decades ago, nowadays have higher fertility rates than Germany (Kassner, 2009, p. 4). Scandinavian countries focus on supporting working parents with young children and give incentives for involvement of fathers in childcare. Countries such as the United Kingdom and the US mainly target low-income families with cash transfers. Continental European countries such as Germany,

Austria, France, and the Netherlands initially supported conservative family models and gender roles but are shifting towards a stronger promotion of women's employment and work-family balance (Sobotka et al., 2019, pp. 33f.).

France, a high-income country with a stable population, boasts family-friendly fiscal policies and quality childcare, which enhance work-life balance and boost fertility rates (Sievert & Klingholz, 2009, p. 17). In the 1970s, France implemented new family policies, including monetary incentives, flexible employment, and comprehensive childcare for children under three, resulting in a consistent surplus of births over deaths by an average of 230,000 annually. Conversely, Germany has faced a decline in births since 1972, with population growth primarily driven by migration despite efforts to improve family policies, which have not matched France's success in increasing fertility rates. Although women in Germany achieved high levels of educational attainment and increased female participation rates, they did not have sufficient governmental support to manage work and family formation. That is why Germany is in a fertility trap, which means that having few or no children has become a social norm that leads to permanently low fertility rates and accelerated demographic change. In Germany, declining fertility rates stem from a shrinking pool of women able to bear children annually, despite a constant fertility rate per woman. In contrast, France experiences a slight decrease in the cohort of childbearing women, but a rising fertility rate per woman (Sievert & Klingholz, 2009, pp. 3-9.).

The proportion of migrants in Germany and France's total population is similar. While first-generation immigrant women in both countries typically have more children than non-migrants, their overall impact on the total fertility rate is insignificant due to their small proportion within the population (Sievert & Klingholz, 2009, pp. 6f.) After World War II, French women postponed childbirth due to the unstable economy, but unlike in Germany, they later compensated by having children at an older age. As a result, cohort fertility rates for French women have remained constant, whereas they have decreased for German women. Currently, French women of all ages are having children at similar rates, contrasting with Germany where younger women have fewer children than older women (Sievert & Klingholz, 2009, p. 9). While France's population is still growing, it's expected to decline in the future due to population ageing. The different demographic developments of both countries are likely to result in France surpassing Germany's GDP in the future (Sievert & Klingholz, 2009, p. 12).

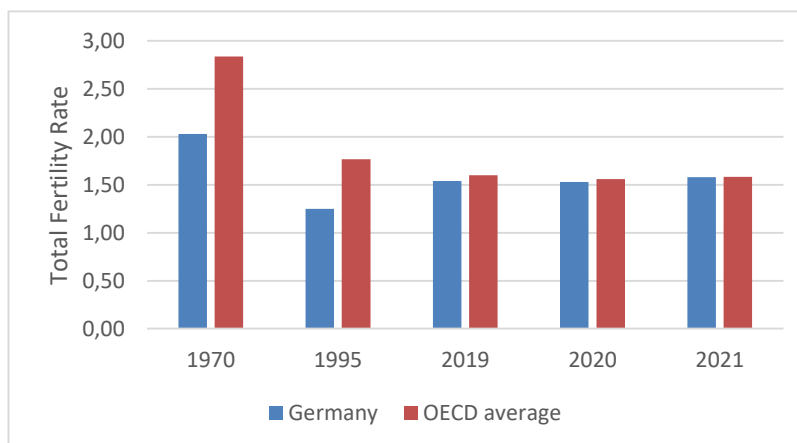
Due to population growth, people in France are moving into rural areas which facilitates investment into infrastructure in those areas. In contrast to that, in Germany there is a

growing trend of urbanisation. Depopulation in rural areas leads to the fact that it is too expensive for the government to invest into infrastructure such as schools, waste management, and cultural institutions (Sütterlin & Hoßmann, 2007, pp.10f.; Kröhnert et al., 2008, p. 25). Both countries will face challenges when it comes to financing their national social protection systems. In France, the current low employment rates of people between the age of 55 and 64 lead to deficits of the national pension scheme. Whereas in Germany, the old-age dependency ratio leads to underfunding in social insurance (Siefert & Klingholz, 2009, p. 17; OECD, 2011b, pp. 98f.).

1.2.2. Challenges and Opportunities in Germany's Demographic Landscape

In Germany, the fertility rate has been consistently low for about 40 years (Figure 6).

Figure 6: Total Fertility Rate in Germany compared to the OECD average



Source: Author's own based on

OECD Family Database (2023)

The approximately 160 marriage- and family-related benefits are costly, inefficient and lack a clear goal. In addition to that, some family policy instruments contradict each other and do not fit into a comprehensive demographic strategy (Kiziak et al., 2013, pp. 4-8). The German social insurance system is not demographic proof because the pension, health care and long-term care insurance carry significant financial burdens that will be shifted to future generations. The government must find a way to avoid overburdening the younger generations while guaranteeing at least basic income security for the elderly.

The 'baby boomer' generation born in the 1960s, constitutes the largest demographic group characterized by high levels of education and employment. This generation generates high domestic revenues and significantly contributes to Germany's prosperity. Their impending retirement will cause substantial gaps within the workforce that may decelerate economic growth (Kiziak et al., 2013, pp. 4-8). Mobilising full-time female

workers by investing into the expansion of all day childcare facilities to increase the female labour market participation rate, implementing family-friendly working conditions, and increasing migration numbers might be a way to increase productivity and secure the financial base for the social security system (BMF, 2020, pp. 1-10).

Germany is currently the economically strongest member within the European Union. This may change in 30 years because France and the UK will probably have a larger and younger population and thereby be more productive (Bujard, 2015, p. 66). Population shrinkages hold opportunities to reduce consumption of resources and pollution of natural environment. However, Germany's global population share of 1.1% suggests minimal impact on climate change (Bujard, 2015a, p. 75).

1.2.2. Family dynamics in Germany

1.2.2.1. Family structures, gender roles, norms and values

Even though young generations do not necessarily share traditional norms and values, the lack of adequate family measures often leads to the fact that after childbirth women have to cut back on their careers and try to manage work and childcare. This obliges the male partner to work full-time and be the main breadwinner (BMFSFJ, 2012b, pp. 88f.). However, women, on average possess higher levels of education than men and prioritise their careers over traditional housekeeping roles (Kiziak et al., 2013, pp. 9f.). For that reason, policies endorsing the male-breadwinner model are outdated (Kiziak et al., 2013, pp. 9f.).

Fatherhood is increasingly associated with growing expectations for increased involvement in family care responsibilities. Between 2007 and 2012, paternal leave uptake rose from 18% to 29%, driven by a desire for more family time. (BMFSFJ, 2015a, pp. 6-8). However, balancing provider and caregiver roles may create uncertainty among men, reducing their readiness for starting families (Bonin et al., 2014, pp. 65-67). If modern gender roles are not viable because it is difficult to balance life and family responsibilities or the male partner refuses to be involved in family tasks many women decide to remain childless (Kiziak et al., 2013, pp. 9f.). Hence, legal regulations such as the flexibility of parental leave and the promotion of company-supported and public childcare facilities can provide the necessary framework to support working parents (BMFSFJ, 2012c, p. 11; BMFSFJ, 2015b, p. 32).

Despite advancements in women's education and employment, there are still significant societal reservations regarding mothers' employment. A portion of mothers choose not to re-enter the workforce after giving birth, while those who do often opt for part-time employment. Among mothers with older children, only 19% are employed full-time compared to 72% of women without children (Bonin et al., 2014, pp. 65-67). While some mothers gradually increase their working hours as children grow, they often struggle to recover from career setbacks and face persistent wage gaps (Bonin et al., 2013, p. iii). Thus, promotion of equal pay would foster gender equity as well as transform sociocultural norms and gender roles (BMFSFJ, 2015a, pp. 6-8).

In Germany, many women delay childbirth until age 30 due to personal and career considerations, influenced by societal pressures to achieve milestones like financial stability and finding the right partner. However, women in Germany feel more self-conscious about late pregnancies compared to those in other countries. This, combined with prevailing social norms that promote the ideal age for family formation in the third decade of life, results in a relatively narrow timeframe. As a result, childlessness is often not a deliberate decision against parenthood but rather an outcome of postponing family formation in Germany (BMFSFJ, 2012a, p. 13; Bonin et al., 2014, p. 7-11; Wippermann & Wippermann, 2015, pp. 24-40). It is crucial for individuals desiring children to recognize that unhealthy habits like smoking and obesity can exacerbate infertility risks, and to be mindful that age impacts fertility for both men and women, which underlines the importance of not delaying conception (Sütterlin & Hoßmann, 2007, pp. 4f). In Germany, parenthood has become one value among many others. Since individuals seek fulfillment and satisfaction through various aspects of their lives beyond parenthood there has been a gradual decline in the societal pressure to have children, accompanied by a growing acceptance of a childfree lifestyle (Bonin et al., 2014, pp. 10-12).

The desire to have children and the number of children within a household is closely linked to household income (BMFSFJ, 2005, p. 9). On average, families with children face a financial disadvantage of around 500 euros per child per month, depending on family size. Child benefits provide compensation for approximately one-third of this disadvantage (Böhmer et al., 2008, pp. 11-20). Multi-child families incur greater fixed expenses due to requirements such as bigger apartments and cars. Mothers with multiple children find it more challenging to work due to increased family responsibilities (Böhmer et al., 2008, pp. 11-20). Despite completing professional training later than less educated women, highly educated women often become mothers relatively soon afterward.

Hence, a supportive work-life balance during education can boost fertility rates (Bonin et al., 2014, pp. 8f.).

Germans tend to think that having no children is more beneficial than having multiple children (BMFSFJ, 2015b, pp. 27-31). Hence, there are more households without children than households with children in Germany. Most families consist of a married couple with children, but this traditional family model is declining since divorce rates and the number of single households are increasing (Kiziak et al., 2013, pp. 10f.).

1.2.2.2. Overall family policy profile and its impact on fertility

The objectives of German family policy encompass various goals such as ensuring economic stability, promoting social inclusion for families, facilitating work-life balance, striving to increase the fertility rate and fulfil desired childbearing (Bonin et al., 2014, p. 138). The most influential factors influencing the fertility rate and female labour force participation are identified as child benefits and child tax allowances, parental leave benefits, the provision of childcare places that are not fully cost covering, and the income splitting policy for married couples (Bonin et al., 2014, pp. 141).

In 2007, a reform of the parental leave system was implemented which enables parents in Germany to stay at home after childbirth and not suffer from high income losses or lay-offs (BMFSFJ, 2015a, p. 10). By reforming the parental leave system, the government has taken steps to increase fathers' involvement in child-rearing by introducing a father quota analogue to the Swedish parental leave scheme. Additionally, the supply of publicly funded day care was improved, and mothers are given incentives to return to work after 1 year which prevents long career breaks that make families dependent on cash transfers. Evaluations of the parental allowance scheme have shown an increased income of families after childbirth and increased labour force participation of mothers with children at age two. Moreover, it has strengthened the participation of fathers in childcare in the first period after childbirth regardless of all income groups. This promotes equality between mothers and fathers in family and work (Wrohlich et al., 2012, p. 4; Spieß & Wrohlich, 2006, pp. 3f). Based on the Swedish model a speed premium is paid if a second child is born within 3 years (Duvander et al, 2005, p. 14). Studies show that extensions of parental leave schemes and premiums for the next births tend to foster subsequent births but delay the return to work of mothers (Spieß & Wrohlich, 2006, p. 7f.; BMFSFJ, 2019a, p. 11). Parental leave benefits and duration impact fertility rates, with the effect varying based on benefit provision and leave length. The influence of

parental allowance on fertility rates is particularly pronounced for higher-income households due to its nature as an income replacement benefit (Bonin et al., 2014, pp. 159-161).

Child benefits, such as child allowance or child tax credits, have a significant positive effect on fertility rates in Germany. The impact of these benefits goes beyond influencing the timing of births; they increase the total number of children per woman. In comparison to other OECD countries, Germany prioritises family support during childhood and allocates a higher proportion of public spending towards this area. This strong investment in family support measures has resulted in a relatively low child poverty rate in Germany, which is about 8.3%, compared to the OECD average of 12.7% (OECD, 2011a, p. 2). This suggests that when families receive financial assistance for childcare expenses and have better opportunities to balance work and family life, it further stimulates their inclination to have children (Bonin et al., 2014, pp. 198-201).

Since 1996 children are legally entitled to be placed in a day care centre. However, provision of childcare facilities for children under the age of three and places for afterschool care for older children are not comprehensive enough (Hoßmann et al., 2009, p. 2; Fagnani, 2002, p. 8). Furthermore, the opening hours of day care facilities and elementary schools are not tailored to working hours of mothers that work full-time (Fagnani, 2002, p. 8). The provision of non-cost-covering childcare services has a significant impact on fertility rates when considering a longer-term perspective. It leads to an 11% increase in the completed fertility rate among women aged 25 to 29 compared to a situation without government subsidies for childcare (Böhmer et al., 2014, p. 342).

By analysing Germany's family policy profile, it can be observed that historically, it has been aligned with the model of the male breadwinner and the non-working or part-time working mother. Although there have been efforts to promote maternal employment in recent years, a comprehensive and consistent reorientation of family policies has not been fully realized yet (Bonin et al., 2014, p. 13). Income splitting for married couples reinforces traditional gender roles, potentially deterring career-focused women from having children (Bonin et al., 2014, pp. 14f.).

In a society where more than 20 percent of the population remains childless, individuals who have no children benefit from the fact that others in society are responsible for the upbringing of the next generation. However, childless individuals, make higher social security contributions due to full-time employment and thereby contribute to the formal

education of the next generation. Nevertheless, the services provided by the entire society do not compensate for the value of parental care for the social security system (BMFSFJ, 2019b, pp. 16f.). In recent years, additional pension entitlements for child-rearing periods have been added to benefit families and improve old-age protections for mothers. However, compared to uninterrupted full-time employment, pension entitlements for child-rearing periods do not fully compensate for the loss of contribution-based pension entitlements resulting from a typical combination of career breaks and subsequent part-time employment (BMFSFJ, 2019b, p. 18; Werding, 2014, p. 44). Since 2005, statutory long-term care insurance has required childless individuals over the age of 23 to pay an additional contribution rate of 0.25 percentage points, as compensation for the 'generative' contributions made by those with children. However, this surcharge is minimal, and more effective measures are needed to address inequalities and the effects of intergenerational redistribution (BMFSFJ, 2019b, p. 32).

The social insurance coverage of non-working adults is closely linked to marriage. As for example married mothers have better social protection coverage than unmarried or divorced mothers because they are eligible to survivor's pension benefits of their deceased spouses (BMFSFJ, 2019b, pp. 24-27.). In the statutory health and long-term care insurance system, there is the option of family insurance, which also applies to childless couples. To create a balance with couples who have children, the contribution assessment ceiling for childless couples who use the option of family insurance could be adjusted within the current system (BMFSFJ, 2019b, pp. 24-28). Other measures that can influence fertility rates include the child-related components of unemployment benefit II, housing allowance, child supplement, and tax deductions for childcare costs. While these measures do affect female labour supply and fertility rates, their overall impact is generally modest. Among them, tax deductions for childcare costs tend to have a slightly more significant effect (Bonin et al., 2014, pp. 188-195).

The demographic situation in Germany compels to use every opportunity to increase the number of children. A study demonstrates that incorporating artificial insemination into family policies aimed at increasing the fertility rate is more cost-effective than conventional approaches such as increasing child benefits (Sütterlin & Hoßmann, 2007, p. 43). However, the removal of artificial insemination from the list of covered services and the introduction of a self-payment obligation for 50% of the costs associated with this procedure have made it unaffordable for many potential parents (Sütterlin & Hoßmann, 2007, pp. 41f.).

The following policy measures are part of the German national reform program (Table 1) These measures aim to address various challenges in family policy (BMWK, 2022, pp. 9-71).

Table 1: Upcoming Reforms

Upcoming Reforms	
• Housing:	• Investment in housing construction
• long-term care insurance:	• contributions for parents with multiple children will be reduced during the parenting phase until a child's 25th birthday. The reduction will be implemented gradually for each child, with lower contributions compared to the current rate. Once a child reaches the age of 25, the reduction will no longer apply. However, if all children have completed the parenting phase, the contribution for a single child will be applicable indefinitely, even after retirement.
• Further development of the Federal Parental Allowance and Parental Leave Act	<ul style="list-style-type: none"> • introducing a two-week paid leave for the partner after the birth of the child and increasing the number of days of child sick leave per child and parent to 15 days, or 30 days for single parents • Promotion of household-related services
• Childcare infrastructure:	<ul style="list-style-type: none"> • Introduction of the legal entitlement to full-time care for children from the age of six by January 1, 2026. • Expansion of full-time care for children under the age of six
• Labour market policies:	<ul style="list-style-type: none"> • Support for single parents and families to overcome individual and familial problems with the aim of integrating them into employment • Strengthening of joint parental responsibility and financial independence • Increasing labour force participation rates • Promotion of education and training • Improvement of working conditions
• Tax system:	• Further development of family taxation through adjustment of tax classes

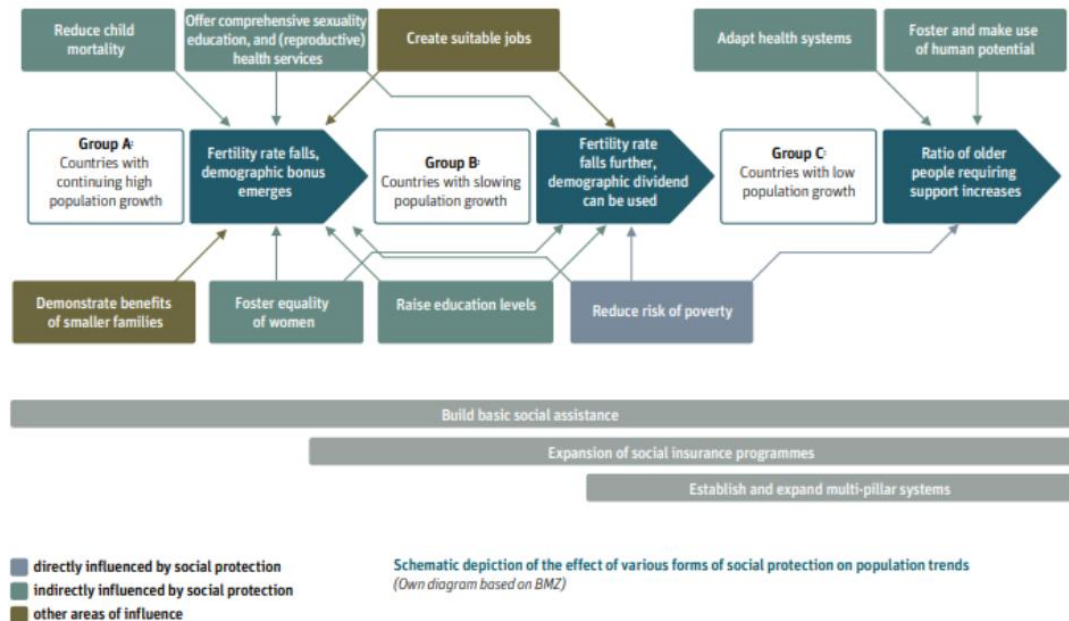
Own illustration based on BMWK (2022, pp. 9-71)

2. Research gaps

There is no historical precedent for how to revive the desire to have children after a prolonged period of low fertility rates and childlessness in a country (Sütterlin & Hoßmann, 2007, p. 4). For that reason, the permanent low-fertility trend is a new phenomenon since the consequences are still uncertain and need further research (Bujard, 2015a, pp. 77-81). Some scholars believe that a fertility decline to below-replacement levels is nearly unavoidable among developed nations. Despite the presence of extensive family policies, equitable gender dynamics, and stable economic conditions, more people voluntarily choose to remain child-free, resulting in sustained low fertility rates (Venis, 2022). Understanding how to design social protection policies to address low fertility rates is crucial for countries experiencing declining birth rates (Sütterlin & Hoßmann, 2007, p. 4). The ability of policy measures to influence generative behaviour is highly controversial and there are conflicting views among scholars on whether family-related policies can affect the fertility rate. Empirical studies that deal with the topic do

not provide clear results since it is difficult to determine the reasons for variations in fertility rates (BMFSFJ, 2008, p. 40; Sievert et al., 2017, pp. 85-88). Furthermore, family policies vary in different countries and other variables such as societal norms and values, individuals' willingness to have children and the financial situation also play a role which might bias the results (Figure 21).

Figure 7: Schematic depiction of the effect of various forms of social protection on population trends



Source: Nice et al. (2022, p. 30)

It is possible to explain global differences in fertility rates by using multiple regression analysis with various indicators related to the monetary, infrastructural, and temporal components of family policy. However, it is questionable which mix of family policies has the greatest effect on the fertility rate (Bujard, 2011, pp. 21-23). More systematic comparative research results are needed to assess if family policies are effective enough to address low fertility. Only a few studies have examined the relationship between public policies and fertility from a comparative standpoint. Cross-national demographic analyses of the effects of family policies on fertility are infrequently conducted and not being followed up, with most investigations relying on selected family-policy measures within individual countries. There are likely several reasons for this scarcity of data and longitudinal individual-level data would be needed. Family policies encompass a wide range of policies in various domains that are directly or indirectly related to family issues. Directly family-related policy domains are for example, family benefits, parental leave regulations and childcare infrastructure. Policy domains that are indirectly related to families

are for example labour market, health care and housing policies. When considered collectively, these policies may complement each other and form a coherent and comprehensive set of family policies. However, they may also be fragmented and lack a cohesive policy direction, or even contradict each other (Bonin et al., 2014).

The existing research on the effects of specific family policy measures on fertility outcomes yields mixed results. Some studies find that there is a correlation between cash transfers and the fertility rate and that it is highly significant while other results from other studies are insignificant or ambivalent (Bujard, 2011, p. 5). Due to the need for a longer observation period to accurately assess the effects on fertility, there is not enough available literature on the correlation between cash transfers and fertility rates yet. Few studies examine the isolated effects of child benefits on fertility rates, usually only general financial support for families is looked at in those studies (Boehmer et al., 2008, p. 27). Existing studies that examine the impact of cash transfers on fertility rates have predominantly focused on Sub-Saharan Africa and Latin America, with limited research available from other regions (UNICEF, 2017) There is much research on the effect of parental leave policies on the labour market but not much research has been done on the link between parental leave policies and fertility (Hoem et al, 2001, pp. 249-261 & Büttner & Lutz, 1990, pp. 539-555). Additionally, there is a need for further research to analyse the specific fertility effects of income splitting of spouses using microdata (Bonin et al., 2014, p. 14).

Measuring the fertility effects of family-related policies is a complex task that poses several challenges, including misconceptions about the underlying aims of policies, ethical issues, difficulties in accurately measuring the impact of policies, and data limitations. Besides, measuring the isolated effects of these policy measures is difficult within the broader context of interconnected policies in areas such as the labour market, social welfare, taxation, education, and family support. Additionally, the influence of values, norms, and attitudes on family decisions and behaviours adds another layer of complexity to the evaluation process. These factors make it challenging to determine the direct and immediate effects of individual family policy measures on fertility rates and family outcomes (Bonin et al., 2014, p. 15). It is difficult to determine if there is a direct causal relationship between family policies and reproductive behaviour. Frequent changes in policies can make it difficult to evaluate their effects, as it can lead to confusion and inconsistencies in data. Also, there is a time lag on policy outcomes (Bujard, 2011, p. 6). Besides, inadequate targeting can lead to exclusion of unmarried couples or other diverse family structures (Sobotka et al., 2019, p. 8). This can be attributed to the variations

in the time horizon, studied population groups, the fertility measures employed, the data sources, analytical approaches and methods used in different studies. As a result, only general observations about the potential effects of the examined policy measures can be made (Bonin et al., 2014, pp. 14f.; Bujard 2011, p. 4). To assess the gap in fertility rates between Germany and its neighbouring countries it is crucial to analyse the interaction between culture, state policies and female employment behaviour and compare how these results vary in different countries (Fagnani, 2002, p. 10).

The Total Fertility Rate often attracts public attention as it provides current data and allows for international comparisons. However, it fails to reveal changes in the fertility behaviour of specific cohorts of women and the impact of social and economic factors. Relying solely on temporal Total Fertility Rates to assess the effectiveness of policies can be problematic, because these rates can be influenced by changes in the timing of births and might not accurately portray long-term fertility trends (Sobotka et al., 2019, p. 8).

3. Methodology

This chapter reviews how recent social protection interventions aimed at benefiting women, parents, and children address the low fertility rate in Germany. It employs secondary data and literature, such as evaluation studies, surveys, official statistics, and policy documents, collected through desk research. Key research terms include social protection, demography, and fertility rate. These sources were accessed through libraries and databases. The selection criteria focused on relevance, credibility, and representativeness to ensure a comprehensive and balanced view.

In exploring the impact of social protection policies on fertility rates, the research design and approach employed in this study utilizes secondary data analysis. This method was chosen for its cost-effectiveness and time efficiency, relying on existing information from various reputable sources, including governmental agencies, organizations, and researchers. Primary data collection was deemed unnecessary since experts had already provided summaries and interpretations. Despite its accessibility, secondary data can carry biases and inaccuracies from the original interpretations of primary sources (Creswell & Creswell, 2018, pp. 102-142). The study also considered older data, which posed challenges regarding current validity but was deemed still relevant for understanding long-term social protection effects on fertility.

Given the complex nature of this research topic, interpretivism was used as a research philosophy to highlight the impacts that social, cultural, historical, economic, and political factors have on fertility. Moreover, an inductive research approach was used to generate theories from qualitative data and form conclusions on the research question. To gain a detailed, in depth understanding and find patterns in the outcomes of social protection on fertility rates, a qualitative content analysis was used. Qualitative content analysis by Mayring is an approach aimed at systematically analysing textual or visual material. Thereby content that is relevant to the research question is extracted to categorise and interpret the data. Additionally, recurring topics and concepts are labelled and grouped into themes. This method seeks to leverage the advantages inherent in quantitative analysis, including its adherence to structured rules and principles of verification, reliability, and validity (Mayring, 1991, pp. 209-213). Content analysis offers transparency, follows specific guidelines through five steps, and requires no participant cooperation. It is highly adaptable to diverse content and considers broader contextual factors for a comprehensive understanding. The disadvantages of content analysis include that the quality of content analysis hinges on the relevance, authenticity, credibility, and representativeness of the content. Speculation is common, and creating an entirely objective coding guide presents challenges. Ensuring reliability and validity necessitates rigorous coding procedures, inter-coder reliability checks, and transparent reporting of methods (Onwuegbuzie et al., 2012).

Following Mayring's approach to systematically analyse the collected data; the process began with identifying sources that provided robust foundations for examining family policy and demographic trends. Due to time constraints, the focus was on a qualitative examination, integrating relevant quantitative findings where feasible to explore relationships, such as between variables and the Total Fertility Rate. By drawing from multiple reputable sources, valuable insights were gained. Cross-referencing information from various sources helped establish a more reliable and accurate representation of the research topic since different studies corroborated and reinforced the main arguments. Between-source complementarity was used to gain additional insights, and clarification by synthesising information from different source types. The analysis utilised a summative approach, identifying and coding key concepts, themes, or patterns to condense information into manageable categories. To interpret the results the content was systematically categorised within a structured framework. Themes and patterns emerged from the data during the coding process. Recurring factors such as job security, flexible work arrangements, maternity leave, female labour force participation, the gender wage gap and

parenthood were coded and categorised into different themes. Ultimately five themes were established: work-life balance, gender equality, childcare infrastructure, generative behaviour, and policy recommendations and implications. Throughout the research process, transparency and consistency in coding guidelines and category application were maintained to ensure reliability and repeatability. To maintain objectivity in the data analysis process, interpretations and bias were minimised to ensure reliable and valid findings (Mayring, 1991, 209-213).

4. Research results and discussion

4.1. Work-life balance

In exploring the link between social protection measures and fertility rates in Germany, the qualitative content analysis highlights the intricate interplay of factors shaping work-life balance. From job security to flexible work arrangements and access to household services, various aspects influence family planning decisions. Social support networks and parental leave provisions also play significant roles, reflecting how individuals balance work and family responsibilities. Together, these factors offer a comprehensive view of how social protection impacts fertility rates.

4.1.1. Flexible work arrangements

Parents require flexible working hours and family-friendly work cultures to balance work and family responsibilities while maintaining successful careers and spending adequate time with their children. This entails providing alternate career paths, job qualifications, and support after parental leave, along with investing in digital technologies for remote work (BMFSFJ, 2012b, pp. 15f.). Addressing a low Total Fertility Rate requires a multi-dimensional approach. Childcare infrastructure for children under three and high public sector employment rates positively influence fertility rates due to job security and flexible work arrangements. Some studies state that maternity protection and part-time employment are insignificant on the fertility rate. Studies show that there are high income disparities between households with no children and households with one child if the woman works part-time, leading to financial challenges. To mitigate this, countries such as the United Kingdom and Ireland provide wage subsidies and part-time job qualifications to single parents to prevent them from falling into poverty (Kassner, 2009, p. 8).

4.1.2. Maternal leave and job security

Maternity leave entitles women to paid leave and job security. Nevertheless, research shows that mothers have lower career prospects once they take career breaks. In countries with a high public employment rate the fertility rate is generally high due to the nature of service-oriented professions and the availability of long-term career prospects, even in the event of family-related career breaks. Whereas the public employment rate and the Total Fertility Rate in Germany is low which indicates that women have to choose between career and motherhood (Bujard, 2011, p. 15).

4.1.3. Parental leave

Financial support, paid parental leave, and the availability of formal childcare influence the Total Fertility Rate because they reduce the financial burden of raising children. Parental leave is particularly among the well-educated associated with higher fertility because it enables parents to take a paid career break after childbirth which reduces the opportunity costs of having children. Qualitative evidence suggests that policies related to childcare provision, parental leave, and tax subsidies for parents have a significant influence on women's labour supply and fertility (Doepke et al., 2022, pp. 51-53). However, regression results show that the relationship between parental leave duration and fertility rate is insignificant. Some studies even find that long parental leave schemes and inflexible labour market policies have a negative impact on the Total Fertility Rate because too long career breaks negatively affect the household income and career prospects (Bujard, 2011, p. 17).

4.1.4. Family-related services

Higher public spending on family-related services in developed countries correlates strongly with higher fertility rates. In 2008 countries such as France and the Nordic states, where family service expenditures exceed 1.5% of GDP, had the highest fertility rates, ranging between 1.8 and 2.1. Conversely, in Germany and regions such as southern Europe, eastern Europe, and East Asia, where family service spending is half or less of that in the high-fertility-rate countries, fertility rates are very low, ranging between 1.2 and 1.4 (Bujard, 2011, p. 11). The government should subsidise these services because they support families, enhance gender equality and work-life balance (BMFSFJ, 2012b, pp. 13-19.). France for instance, substitutes family-related services such as childcare and cleaning services to create new jobs and thereby encourages families in mastering family tasks. These family support services are streamlined and managed by a national

agency, with companies often providing bonus payments to employees for accessing them. Poor households are provided with checks for these services by the government (Kassner, 2009, p. 7). In Germany, low awareness and quality of household services contribute to a low uptake rate. Given the demand from working mothers, the Federal Ministry for Family Affairs is developing a concept to enhance the supply, demand, and transparency of these services (BMFSFJ, 2012c, pp. 9f.).

4.1.5. Discussion- Work-life balance

Ensuring work-life balance for employees has been proven to benefit fertility because parents need time and financial stability for raising children. Parental and maternal leave provide parents with the means to take time off work for childcare. Mothers are often the primary caretaker of children in Germany but also want to pursue their careers. For that reason, social protection policies should address time policy and work-life balance to address the low fertility rate. Thereby, labour market policies can regulate working conditions to provide flexible work arrangements such as remote work and reduced working hours for parents with young children. Additionally, social protection measures can be introduced to promote job trainings and employment of mothers. Furthermore, investment and advocacy about household-related services can support parents in managing household work. This will reduce parents' daily strain because it facilitates the balance between work and family commitments.

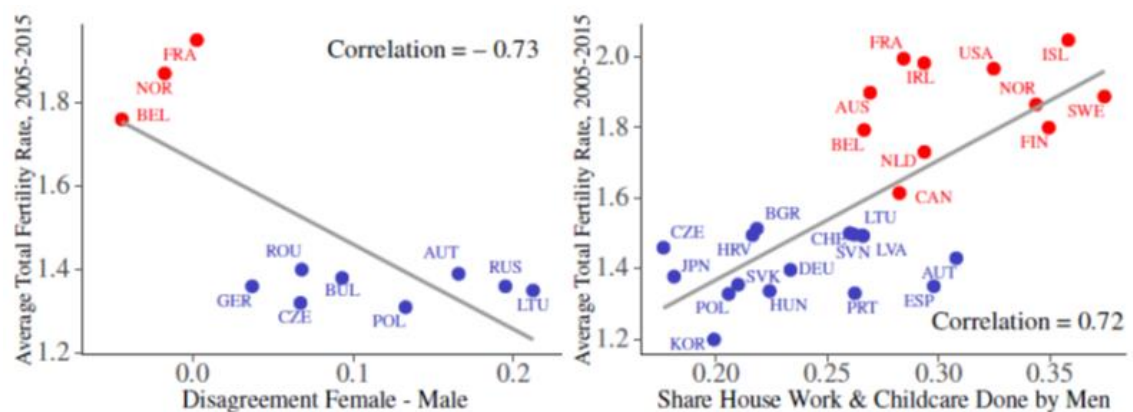
4.2. Gender Equality

In examining the link between social protection measures and fertility rates in Germany, the theme of gender equality emerges as pivotal. It encompasses various factors, including equal parental responsibilities, the gender wage gap, the single earner/dual earner model, paternal leave, traditional gender roles, and female labour force participation, all influencing fertility intentions.

In Scandinavian countries, achieving gender equality is a key objective, ensuring that individuals can pursue parenthood without encountering adverse effects on their employment status and overall quality of life. Notably, in Sweden, the income of women holds greater significance in influencing generative behaviour compared to that of their male partners. Consequently, policies are oriented towards supporting dual-earner households and promoting the labour force participation of mothers through the provision of comprehensive family benefits. Moreover, social protection benefits are allocated based on individual employment rather than family status, with the aim of sustaining the pre-

existing standard of living in case of career interruptions. This approach also facilitates greater uptake of paternal leave among fathers. (Steidle & Henkel, 2010, p. 16). Families with more involved fathers are likely to have more children than those with less paternal involvement (Figure 8; Steidle & Henkel, 2010, p. 16). In many countries, including Germany, women primarily shoulder childcare and household responsibilities. German mothers spend twice as much time on caregiving than fathers, leading to barriers for female participation in the labour market. (Kiziak et al., 2013, pp. 12-15).

Figure 8: Total Fertility Rates by disagreement and Men's share of housework



Source: Doepke et al. (2022, p. 32)

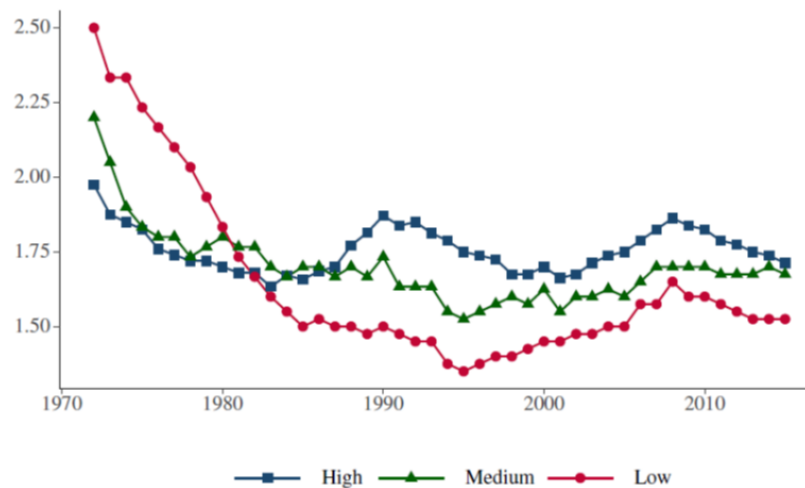
A study by Böhmer et al. (2014, pp. 230-239) highlights the impacts of parental benefits on disposable income for households with one child in Germany between 2005 and 2012. Compared to childless households, those with one child had higher disposable income if the woman worked fewer than 30 hours per week. If the woman worked more than 30 hours a week, she was ineligible for parental allowances, discouraging full-time employment for mothers in Germany.

Tax incentives for second earners reflect a country's support for the dual-earner or single-earner model. While there is no statistical correlation between this aspect of the tax system and fertility rates, Germany stands out internationally for its less favourable treatment of the dual-earner model in taxation. Unlike other countries that are neutral or provide tax incentives for second earners, encouraging female labour force participation (Bujard, 2011, p. 10). In France only lower income families receive the full parental benefit amount to incentivise parents to work full-time (BMFSFJ, 2015b, p. 8).

Cross-country comparisons show that countries with high rates of female labour market participation rates and high participation rates of fathers within the parental leave scheme have high fertility rates (Steidle & Henkel, 2010, p. 7; BMFSFJ, 2019a, p. 24). Policies

addressing barriers to women's labour market participation, such as insufficient support for second earners in families with children, are crucial. By doing so, societal gender roles can evolve, with mothers no longer pressured to stay at home and fathers not solely expected to be the family's main breadwinner (BMFSFJ, 2005, pp. 16-26).

Figure 9: Total Fertility Rate in countries with low, medium and high female labour force participation



Source: Doepke et al.

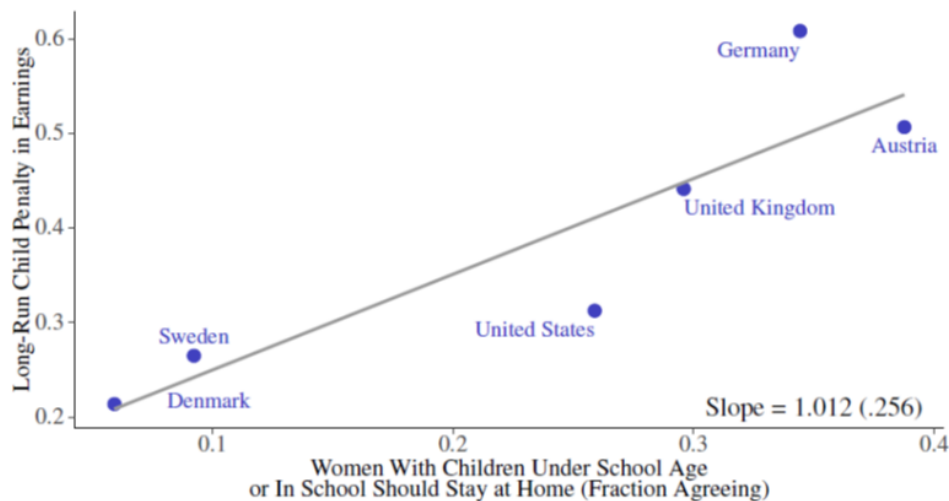
(2022, p. 25)

Research indicates that higher financial transfers increase the fertility rate but also decrease women's participation in the labour market (Bonin et al., 2014, p. 41). Conversely, transitioning to individual taxation has the opposite effect, decreasing the fertility rate while increasing women's labour supply. To achieve both goals, changes in transfer structures are necessary, including reducing monetary transfers and enhancing non-monetary transfers like publicly provided childcare services. Combining individual taxation with expanded childcare options can also be effective in achieving these objectives (Bonin et al., 2014, p. 41).

In Germany, there's a prevalent belief that children under three should be cared for by their mothers rather than in public day care facilities. Policies supporting working mothers could change societal attitudes towards them (Fagnani, 2002, p. 2-8). Germany's labour market participation rate for mothers with children under three is 58%, compared to Sweden's 82% (OECD, 2020). Scandinavian countries, with high labour market participation rates for mothers and high fertility rates, achieve this through universal provision of public-funded day care and comprehensive parental leave schemes, compensating for income losses and incentivising mothers to return to work (Spieß & Wrohlich, 2006, pp. 1f.). Germany's gender pay gap exceeds the OECD average, with women earning only 25% of median earnings compared to the 16% average (Kiziak et al., 2013, pp. 12-15).

The motherhood penalty reflects the decline in women's earnings relative to men's after childbirth, encompassing reduced labour market participation and slower earnings growth even when employed. It serves as a comprehensive measure of the career-related costs women face when having children in a specific country or context (Doepke et al., 2022, pp. 61f.).

Figure 10: Elicited gender norms and child penalties



Source: Kleven

et al., (2019, p. 6)

Germany's need to boost skilled labour necessitates increasing female labour market participation. Policies supporting both parents in balancing work and family life are crucial, as family policies shouldn't foster dependency among individuals capable of self-provision (Kiziak et al., 2013, pp. 12-15). Reintegrating mothers into full-time employment after years of childcare can be challenging. Hence, the government should introduce adequate measures to facilitate job training and reintegration (Kiziak et al., 2013, pp. 12-15).

4.2.1. Discussion- Gender Equality

Promoting gender equality is key to addressing Germany's low fertility rate. The current tax system favours the single earner-part-time earner model, where the female partner typically works part-time and handles most household chores. However, research shows that traditional gender roles contribute to low fertility rates, indicating the need for policy adaptation to promote female employment and enable mothers to balance work and family life effectively. Encouraging a more equitable division of labour between parents supports female labour force participation. Sustainable change in societal norms requires linking the promotion of women's careers with adequate family measures, such

as tax system reform, reducing the gender wage gap, enhancing childcare availability, and incentivising father involvement in family commitments.

4.3. Childcare infrastructure

The theme of childcare infrastructure examines how factors such as affordability, quality, and availability influence family planning decisions. Social protection measures play a vital role in shaping perceptions and practicalities of childcare access, impacting fertility choices.

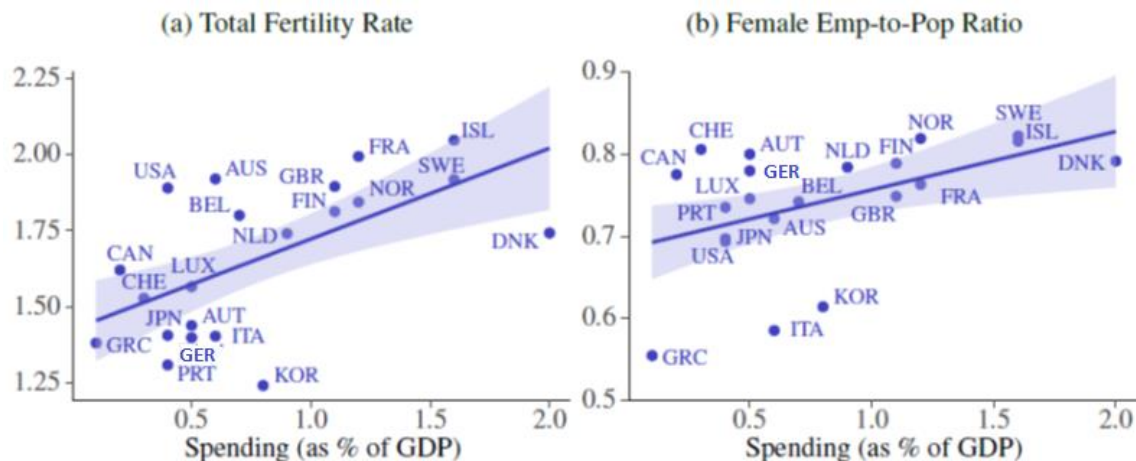
4.3.1. Affordability

Childcare in Germany is primarily managed by parents, relatives, or public/private day care services. However, childminder services are often only affordable for high-income families, leading to financial inequalities among households (OECD, 2011a, p. 3). These disparities impact generative behaviour and employment decisions, influenced by factors like gross wages, household characteristics, and net earnings computation. Consequently, diverse motivations for employment among parents arise, reflecting the varied trade-offs associated with staying out of work (Bonin et al., 2014, pp. 76f.).

In the OECD comparison, there was no significant relationship between average childcare fees relative to a country's wage level and the fertility rate. However, the analysis indicates that childcare availability has a much greater impact on families than costs (Bujard, 2011, p. 13).

The connection between government expenditure on early childhood education initiatives, often encompassing free or subsidized childcare, and both the Total Fertility Rate and the women's employment-to-population ratio is evident in the data (Figure 11). While some researchers find that expanding subsidized care would amplify maternal labour participation without necessarily increasing the fertility rate. Other researchers, that examined the expansion of public childcare in Germany in the past 20 years find that childcare reforms yielded a rise in both the fertility rate and women's employment (Doepke et al., 2022, p. 50).

Figure 11: Fertility and the Female-Employment-to-Population Ratio by early childhood education spending



Source: Doepke et al. (2022, p. 50)

4.3.2. Quality

Early intervention methods in childcare facilities benefit all children and promote equality, particularly for those from marginalized and poor households. To support these services, childcare staff should be highly qualified and receive ongoing job training. Additionally, investing in comprehensive and adequate childcare infrastructure promotes equality, drives economic growth, increases fertility rates, enhances the integration of migrant children, creates jobs in the family service sector, and facilitates full-time employment for both parents (BMFSFJ, 2012b, pp. 13-19).

When examining an extended timeframe, a substantial and positive correlation emerges between the rise in government expenditure on day-care facilities and the fertility rate. (Bujard, 2011, p. 8). An analysis of the rate of change illustrates a positive association between fertility rates and infrastructure policy over two decades. Countries with an increase in childcare spending of over \$155 experienced a rise in fertility rates between 1986 and 2006, while countries with minimal spending increases of less than \$100 have shown declining fertility rates (Bujard, 2011, p. 14).

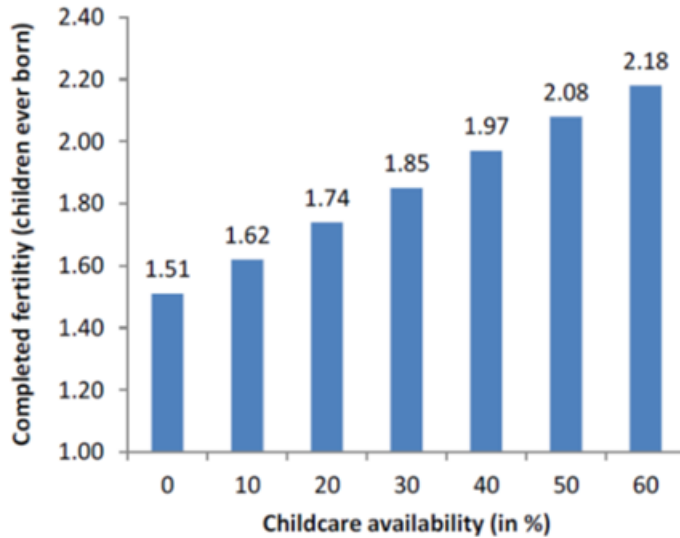
4.3.3. Availability

In Germany, most parents are not satisfied by the supply of day care possibilities. Especially the provision of day care for children below the age of three is insufficient. Kindergarten hours are often limited and not tailored to the working hours of parents, which makes fulltime employment for both parents difficult (Sobotka et al., 2019, p. 26).

A Norwegian study revealed that childcare availability for children under five positively affects the Completed Fertility Rate (Figure 12). This emphasizes that mothers receiving

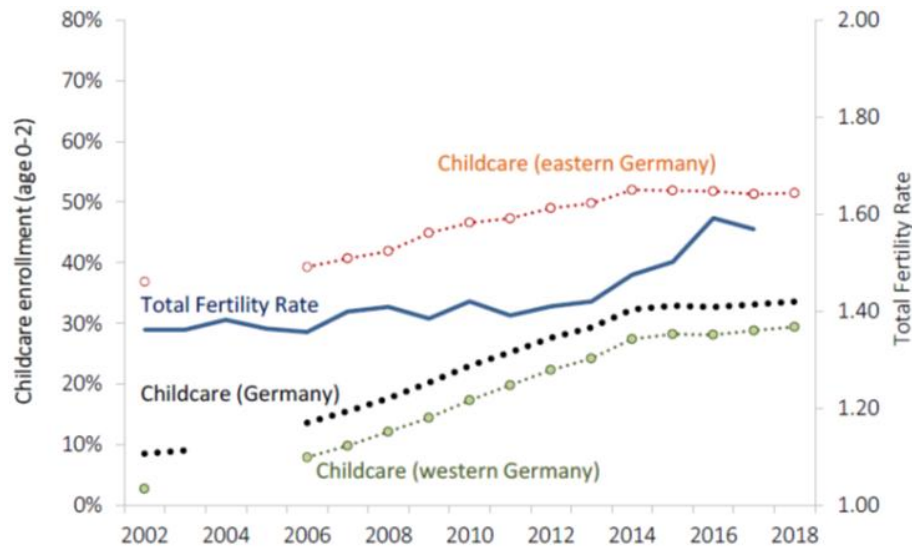
support from state and market-based childcare, along with social networks, tend to have more children (Figure 13). However, day care enrolment rates for children in Germany are below OECD averages, and out-of-school care coverage for primary school-aged children is below 10%. (OECD, 2011a, p. 3).

Figure 12: Simulated completed fertility by age 35 among women in Norway born in 1957-62 by level of childcare availability for children aged 0-5



Source: Sobotka et al. (2019, p. 40)

Figure 13: Public childcare coverage among children aged 0-2 and the Total Fertility Rate in Germany



Source: Sobotka et al. (2019, p. 76)

Regression results found that all countries with a childcare rate below 20% had very low fertility rates in 2007. Without childcare, the fertility rate was 1.33, with each 1% increase in childcare associated with a 0.01 increase in fertility. Therefore, the expected fertility

rate would be 1.93 ($1.33 + 0.60$) at a childcare rate of 60%, which is roughly the fertility rate of Iceland and Denmark. In Germany, the expected fertility rate in 2006 was 1.46 ($1.33 + 0.0113$) with a childcare rate of 13%, which is only slightly higher than the actual Total Fertility Rate of 1.38. With a coverage rate of 35%, which corresponds to the planned expansion in Germany for the coming years, the expected fertility rate would be 1.68 ($1.33 + 0.0135$) (Bujard, 2011, p. 13).

4.3.4. Discussion- Childcare Infrastructure

A comprehensive childcare infrastructure not only fosters labour force participation of mothers but also gender equality and increases Total Fertility Rates. The availability of childcare facilities improves work-life balance of parents since they can leave their children in a secure environment throughout the day. However, childcare services in Germany need to be improved. Policy measures that supply high quality public childcare facilities by investing into job trainings and better incentives for skilled labour in the childcare sector will address the low Total Fertility Rate (BMF, 2020, p. 59).

4.4. Generative behaviour

The theme generative behaviour explores how social policies intersect with individual choices in family planning, covering desires for children, birth timing, spacing, and the impact of childlessness. It highlights the role of policies in shaping parenthood decisions and the need for family-friendly environments.

4.4.1. Desire for children

In countries with low fertility rates, individuals generally desire to have around two children, but various personal and societal obstacles hinder them from achieving this goal (Venis, 2022). Germany's declining fertility rates are linked to a decrease in families with multiple children, highlighting the need for family policies that support such families (Bujard, 2011, p. 42). Furthermore, it is essential to explore factors that influence family size preferences and decisions. By providing support and addressing barriers related to family size, policymakers can create an environment that encourages and enables individuals to consider and realize the option of having more children, thus contributing to an increase in the overall fertility rate (Bonin et al., 2014, p. 136).

4.4.2. Parenthood delay

Uncertain events and worries about the future lead to decreased fertility rates. German parents typically seek secure employment and suitable living conditions before starting a family, often delaying childbirth due to lengthy job training periods. Additionally, marriage is often seen as a prerequisite for having children, further delaying births and narrowing the window for conception due to biological factors. (BMFSFJ, 2005, p. 8). To address these challenges, policymakers must take proactive measures to make parenthood more financially feasible. Therefore, family benefits need to be more adequate. Moreover, the supply of family support services as well as day care facilities and childminder services for children under the age of three need to be more universal and affordable to provide financial relief for families. Additionally, family education services and parent-child-programs need to be provided to strengthen partnerships and child-rearing competencies. This will also result in a change of societies perspective and normalise having children at an earlier stage of life (BMFSFJ, 2005, pp. 8-12).

Providing financial assistance to families has a positive impact on the Total Fertility Rate, although the effect is relatively modest (OECD, 2011b, p. 93). There is a positive correlation between monetary as well as non-monetary family benefits on fertility rates. Thereby not only lump-sum family benefits, but also income-dependent family benefits have positive effects (Böhmer et al., 2008, pp. 27f.) Financial transfers may encourage people to have children earlier, but they do not significantly influence the overall number of children a family will have if the benefit amount is low (OECD, 2011b, p. 93). There is a scientific consensus that child benefits have a positive effect on the fertility rate. A 25 % increase in the amount of child benefits is likely to increase the fertility rate by 0.07 percentage points. For that reason, countries with high amounts of child benefits, such as New Zealand and Australia, have higher fertility rates compared to countries with lower child benefit amounts, such as southern European and East Asian countries. Though, child benefit instruments differ in several other ways, such as tax elements, increased benefit levels for families with multiple children, or the age-related benefits levels (Bujard, 2011, p. 10). Paid parental leave affects the timing of births, meaning that it may encourage parents to have children sooner. However, its impact on fertility rates depends on the payment rates offered during the leave period. The presence of accessible and reliable childcare options is associated with higher fertility rates. Permanent and well-designed policies have a structural impact on the fertility rate because they provide stability and support for individuals in their family planning decisions (OECD, 2011b, p. 93). Additionally, creating an environment supportive of individuals opting for

parenthood later in life requires tailored resources, policies, and support systems to address their unique needs and challenges (Bonin et al., 2014, pp. 135f.).

4.4.3. Timing and spacing of births

Adequate policies can promote early and closely spaced births, and thereby increase the fertility rate. Therefore, countries such as France mainly provide incentives for families with at least two children to encourage parents to have more than one child (BMFSFJ, 2015b, p. 8). Accelerating the timing and spacing of births can decrease childlessness rates as well as average number family size. Social protection benefits such as parental allowance have been found to encourage parents to have more children, while subsidized childcare enhances work-family balance and reduces childlessness. Planning families at a younger age, reduces the risk of involuntary childlessness due to biological factors and allows for more opportunities for subsequent births. However, in recent decades, there has been a consistent trend of a higher average age at which individuals have their first child (Bonin et al., 2014, p. 136).

4.4.4. Childlessness

To boost the Total Fertility Rate, addressing the rising number of childless individuals is crucial. Scholars advocate for removing barriers to family formation through family policies, improving work-life balance, and facilitating earlier parenthood by aligning education with family responsibilities. By doing so, the aim is to overcome biological constraints and enable individuals to realize their desire for parenthood (Bonin et al., 2014, pp. 135f.). In Germany, the proportion of involuntary childlessness is higher among unmarried couples compared to married couples. Therefore, improving accessibility to fertility treatments and financial aid for singles and unmarried couples is essential. Scandinavian countries and Israel lead in the number of assisted reproductive treatments relative to their population size (Sütterlin & Hoßmann, 2007, p. 42).

Overall, there are positive effects of certain family policy measures in Germany, such as child benefit, child allowances, and parental allowance, in promoting the realization of existing desires to have children and reducing childlessness among women. However, social protection measures such as income splitting for married couples and the contribution-free insurance coverage in the statutory health insurance system have limited effects on fertility rates (Böhmer et al., 2014, pp. 344f.) Most other examined benefits, such as child-related portions of unemployment benefits, housing allowance, increased benefit level in unemployment benefits, child supplement, and reduced contribution rates for

social long-term care insurance, do not have a significant short-term impact on fertility rates (Böhmer et al., 2014, p. 349).

4.4.5. Family-friendly environment

The German society is used to few children and thereby less considerate and open for the needs of children. That is why there is a need for a societal change towards a fondness for children (BMFSFJ, 2005, p. 9). There needs to be a family-friendly infrastructure in Germany, including more playgrounds, safe traffic routes, affordable housing, and adequate family support services. Even restaurants need to be more child friendly. Day care facilities for children need more flexible operating hours and specialised early intervention programs for young children (BMFSFJ, 2005, p. 11).

The Family-Friendly-Infrastructure (FFI)-Ranking compares European countries based on fertility rates, female labour market participation rates, educational attainments of children, family poverty and gender equality. Germany ranks 6th in this index, indicating its relative performance in these areas. The ranking considers the number of family policies implemented, with higher scores indicating better support for families (Chzen, Gromada & Rees, 2019, pp.1-7). Cross-country analyses have shown that there is a strong correlation between supply of family-friendly infrastructure to female labour market participation, poverty reduction, gender equality and fertility rates. With recent improvements in Germany's family policies, these indicators are expected to improve in the future (Kassner, 2009, p. 10-12).

4.4.6. Discussion- Generative behaviour

Family formation in Germany is concentrated within a narrow timeframe that coincides with the pursuit of other significant life objectives, notably career establishment. By providing targeted financial support and improving infrastructure, it is possible to increase the fertility rate while also reducing child poverty. Accelerating timing and spacing of births reduces the age of mothers at first childbirth and promotes subsequent births. This can reduce the childlessness rate and increase the number of children per family, ultimately increasing the Total Fertility Rate. Policies can address generative behaviour by closing the gap between desired and actual number of children of individuals. Thereby, barriers that lead to parenthood delay need to be addressed and a family-friendly environment needs to be fostered. Furthermore, to provide effective support, it is essential to align financial assistance with families' daily expense patterns and consider the opportunity costs of the time devoted to raising a child.

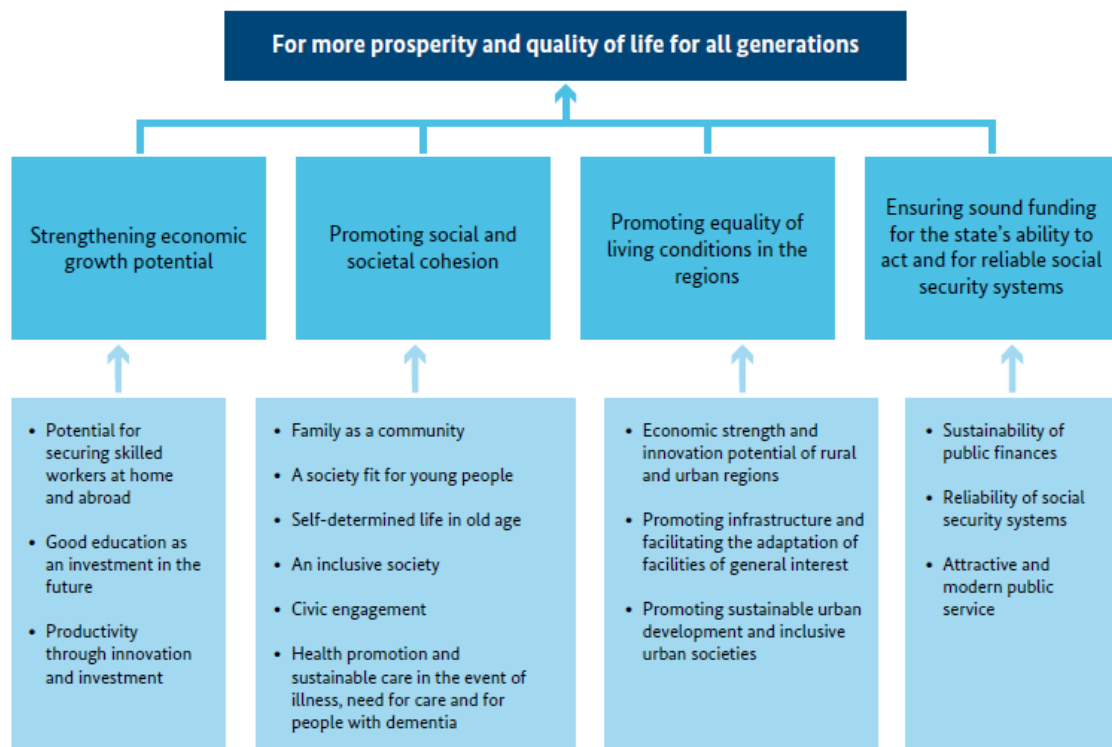
4.5. Policy recommendations and implications

By evaluating the effectiveness of policies, their scope and sufficiency, and the way they distribute societal resources, this theme provides insights into the dynamics that exert influence on fertility rates, offering a nuanced perspective on their broader implications for society.

4.5.1. Policy effectiveness

Family-related policies and benefits need to complement each other and must be both comprehensive and consistent to be effective. The outcome of family related measures on the fertility rate can take up to two decades to materialise. For the outcomes to be sustainable newly introduced measures should not be constantly changed by new legislatures (BMFSFJ, 2012a, p. 16). Ensuring coherence and consistency among family policy instruments is crucial. For instance, achieving coherence between a one-year parental leave benefit and adequate childcare services for infants, or achieving gender equality between father-specific leave provisions and a corresponding taxation of the second earner, requires careful coordination and planning (Bujard, 2011, p. 18). In addition to that, family measures should constantly be evaluated. Measures such as subsidized childcare and parental allowance are considered efficient in terms of their impact on fertility rates compared to their financial costs. On the other hand, measures like income splitting for married couples and free insurance coverage for spouses in statutory health and long-term care insurance are found to have limited effects on fertility rates, and are costly for public budgets (Bonin et al., 2014, pp. 202-209). Family-related policies should be embedded in the overall demographic strategy (Figure 14).

Figure 14: Demographic Strategy of the German Federal Government



Source: BMI (2021, p. 18)

4.5.2. Comprehensiveness & Adequacy

Various policy areas, such as housing, education, healthcare, employment, and labour market policies, have an impact on fertility rates (Table 2). Countries that have a coordinated and comprehensive approach across these policy domains, particularly in Scandinavia and France, tend to have higher fertility rates (Bonin et al., 2014, p. 13). A coherent set of family policies can improve combination of work and family tasks, gender equality and fertility rates. The overall family policy mix should increase the provision of publicly funded day care, flexibility of employment models, and improve taxation for families (Spieß & Wrohlich, 2006, p. 15). Successful family policies should address gender inequalities, provide subsidised or free access to childcare, maternal healthcare, child healthcare, paid parental leave, employment protections for mothers, and a social safety net. The government should respect individuals' preferred family sizes and consider immigration policies to achieve population objectives. If the government wants to encourage people to have children, it should make it more affordable by addressing the high costs associated with raising children. Since economic barriers and poverty influence

fertility rates, addressing these barriers and alleviating poverty can motivate higher fertility rates (Venis, 2022). It is important to assess if family benefits address society's needs and wants. Policies should be designed from the perspectives of families who will be affected by it and reflect cultural and ideological norms and values. Moreover, communication and resources should be used to inform citizens about the various measures available to them (Bonin et al., 2014, p. 13). Family policies should adapt to the evolving structure of families and the various economic and societal issues that arise (Sobotka et al., 2019, p. 6).

Table 2: Instruments and goals of family policy

	Child well-being		Parental well-being			Societal goals	
	Education and qualification	Health, safety and time	Avoiding poverty	Gender equality	Labour force participation	Fertility	Family norms
Pension claims parents			✓				✓
Child allowances			✓			✓	
Health security (free)		✓	✓				
Parental leave	✓	✓	✓	✓	✓	✓	✓
Paternity leave		✓		✓	✓		✓
Child care	✓	✓	✓	✓	✓	✓	✓
School hours: half day or full day	✓		✓	✓	✓	✓	✓
Regional infrastructure		✓					
Part-time work		✓		✓	✓	✓	
Job guarantee for mothers				✓	✓		✓
Divorce and alimony laws		✓	✓	✓	✓		✓
Taxation of second earner				✓	✓		✓
Special policy for third or fourth child			✓			✓	✓
Addressing	Children	Children	Parents and children	Parents	Parents and economy	Society	Society

Source: Bujard

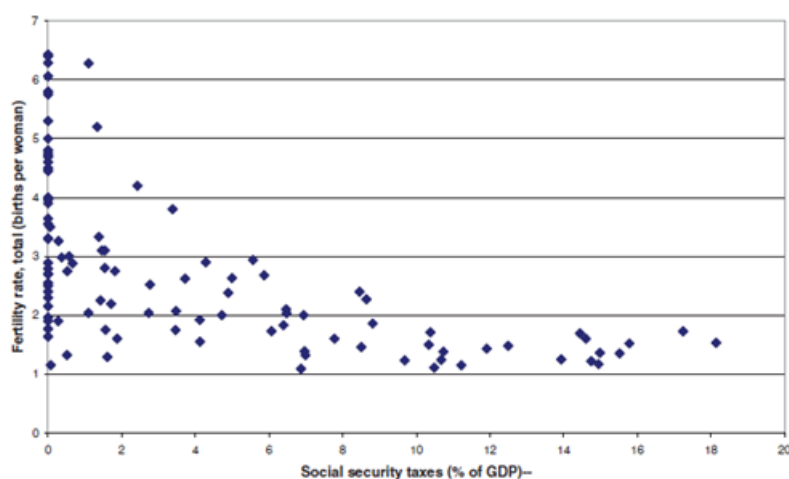
(2011, p. 38)

4.5.3. Redistribution of social resources

In Germany, the burden of caring for children is primarily borne by families, particularly mothers who often work in part-time and low-paid jobs. As a result, the German tax and social system redistributes from families with many children to those without children or with fewer children. Instead, the effort families put into caregiving should be more evenly distributed across society. This would enhance equity and provide compensation for caregivers (Kiziak et al., 2013, pp. 12-15). The total amount of family policy cash benefits

in a country as a percentage of its gross domestic product (GDP) is used as an overall indicator of family policy expenditures. Although a higher transfer ratio is generally associated with higher fertility rates in 2006, the relationship is not statistically significant (Bujard, 2011, p. 8). Furthermore, countries with higher social security taxes tend to have fewer children (Figure 15). However, countries with low social security taxes have a wide range in fertility rates (Boldrin et al., 2015, p. 270).

Figure 15: Cross-country correlation of social security taxes and Total Fertility Rate

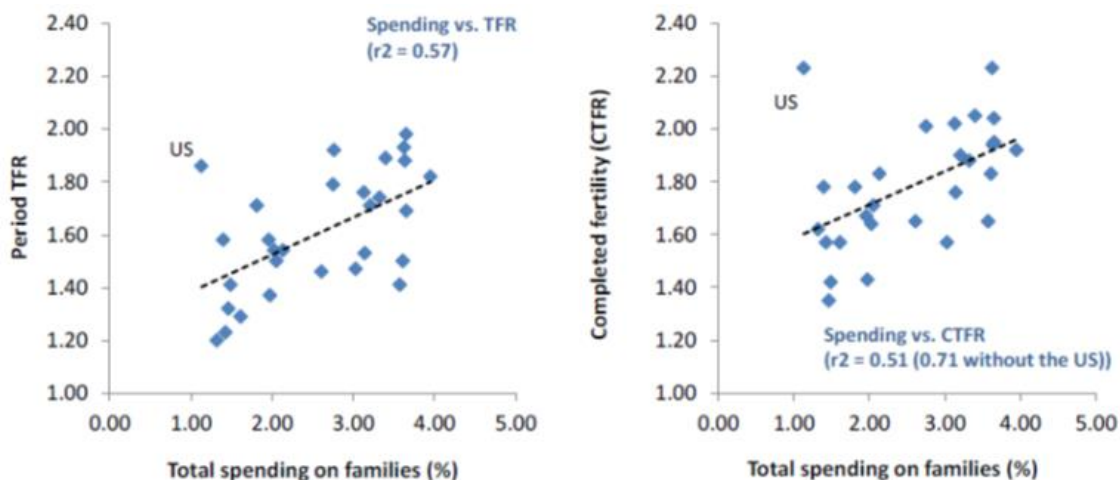


Source: Boldrin et al. (2015, p.

270)

The German social expenditures for children and families are among the highest in Europe. Nevertheless, Germany has comparatively low fertility rates. Most of the social welfare spending in Germany for children and families is directed towards transfer payments like child benefits and parental leave benefits. In a modern society, family measures should be designed more adequately to address low fertility rates. Therefore, additional funds should be allocated to family support services that facilitate employment for parents. This includes financing day care centres, kindergartens, childminders, or household help (Kröhnert et al., 2005, pp. 4-15).

Figure 16: Correlation between spending on family policies in 2013, Total Fertility Rate in 2014 and completed fertility rate among women born in 1976



Source: Sobotka et al. (2019, p. 36)

Access to retirement savings options inversely correlates with fertility rates, indicating a generational paradox (Boldrin et al., 2015, pp. 263f.). The generational coefficient reflects the importance of family policy in the welfare state model of a country by comparing all government expenditures on families to pension expenditures. There is a significantly positive correlation between the generational coefficient and the fertility rate. In 2008 Germany's public family spending amounted only to one-fifth of pension expenditure. This resulted in a fertility rate of 1.38. In contrast to that, Iceland is the only country where public family spending accounts exceeded pension expenditure. This resulted in a fertility rate of 2.14, slightly surpassing the replacement level of 2.1. Countries whose public family spending accounts amount to 80% of pension expenditure have fertility rates of 2.1 and 2.18. Countries with generational coefficients below 0.25 such as Germany and south European countries have fertility rates between 1.3 and 1.4. This depicts a generational paradox because countries that focus more on pension expenditure have low fertility rates which threatens the financial sustainability of the pension scheme and intergenerational contract system (Bujard, 2011, p. 8).

4.5.4. Discussion- Policy recommendations and implications

The research's insights further underscore the importance of comprehensive and consistent family policies. Acknowledging that the effects of family-related measures on fertility rates can take time to materialize, the research advocates for a sustained and coherent approach. This necessitates avoiding frequent policy changes by new legislatures, ensuring that family policies remain effective over the long term. While certain

measures such as subsidized childcare and parental allowance exhibit efficient impacts on fertility rates, others, such as income splitting for married couples and free insurance coverage, offer limited effects with substantial costs. This underscores the importance of carefully evaluating the efficiency of different policy instruments. The discussion extends beyond family-specific policies, recognizing that various policy areas—housing, education, healthcare, employment, and more—also exert influence on fertility rates. Harmonizing policies across these domains, as exemplified by Scandinavian and French approaches, emerges as a contributing factor to higher fertility rates. This theme highlights that effective social protection measures can not only impact fertility rates but also shape broader societal dynamics.

5. Conclusion and recommendations

Low fertility rates result in population ageing and shrinkage, posing challenges for national social protection systems, domestic revenues, various policy areas, and the society. Grasping the potential influence of social protection policies on fertility rates is of utmost importance for policymakers aiming to counter declining fertility trends through well-informed approaches. Since Germany stands out as a low fertility country because it has been dealing with low fertility rates for approximately 50 years, the purpose of this research was to identify how social protection policies can address the low Total Fertility Rate in Germany. However, measuring whether fertility rates are impacted by social protection reforms is challenging because changes in fertility behaviour cannot be definitively attributed to one cause.

The alignment of family and career aspirations significantly impacts fertility rates. Countries with harmonized family and career goals, supported by public childcare, father involvement in caregiving, cultural acceptance of maternal employment, and flexible job markets, tend to have higher fertility rates. Conversely, conflicts between career and family goals, coupled with gender inequalities, lead to decreased female labour force participation and declining fertility rates. German policies, once supportive of traditional family roles, now emphasize women's employment and work-life balance. An effective and comprehensive childcare infrastructure is crucial in enabling women to return to work sooner and preventing the devaluation of their qualifications.

Social protection measures can provide income support for families to help them meet their basic needs such as housing, food, and clothing. Therefore, public transfers such

as adequate child benefits and social assistance can lift families out of poverty. Subsidised childcare, access to education and healthcare relieve families of financial burdens and promote work-life balance for parents, well-being of families, and social equity. However, effective targeting, adequate design, cohesion, and consistency is crucial for the success of social protection policies and programs because it ensures that resources are allocated efficiently and that the intended outcomes are achieved.

It is crucial for individuals desiring parenthood not to delay their plans, as fertility challenges increase with age for both men and women. The significant childlessness rate is frequently attributed to unintended childlessness, often resulting from the gradual postponement of the first birth. The integration of both infrastructure and time-based policies can help facilitate the transition into parenthood for first-time parents. Since individuals are striving for self-fulfilment and happiness beyond parenthood, there has been a gradual reduction in the societal expectations regarding parenthood. This shift is accompanied by a growing recognition and tolerance of choosing a childfree lifestyle. This change in perspective is reflected in the declining number of households with children, the rising divorce rates, and the increasing prevalence of single-person households in Germany. Individuals exhibit a preference for either having two children or embracing a childless lifestyle, as indicated by figures of 2.1 desired number of children versus 1.46 births per woman. Difficulties in transitioning to a second child may arise from societal norms, financial challenges, parental separations, or delayed initial childbirth. The role of policy measures lies in fostering an environment that facilitates these individual preferences, rather than attempting to directly alter or influence them. By providing support and eliminating barriers for those who desire to become parents, the frequency of births can be promoted, and the childlessness rate can be reduced to elevate the Total Fertility Rate. Thereby, offering incentives for subsequent births, improving the family policy framework, and expanding eligibility beyond marital status are all vital for supporting prospective multi-child families. Moreover, it is crucial to enhance the recognition of childcare responsibilities within the social protection system.

Further research should develop comprehensive evaluation frameworks to assess the short-term and long-term impact of social protection policies on fertility rates. Conducting comprehensive longitudinal studies to analyse the long-term impacts of various social protection policies on fertility rates by tracking the fertility choices of individuals and couples over several years in response to policy changes would be vital for this purpose. Moreover, the effectiveness of different policy approaches should be evaluated across

countries to investigate why certain policies are more successful in specific cultural, economic, or demographic contexts. Thereby promoting collaborations between policymakers and researchers across countries would enhance policy design and implementation. Additionally, it would help shed light on how policies can be tailored to respect and align with cultural norms and values. Also, more qualitative analyses should be conducted to explore how factors like economic stability, work-life balance and gender equality influence generative behaviour. For that reason, the optimal benefit levels of financial transfers that are most effective to incentivise fertility should be assessed. In addition to that, data collection and analysis methods such as data analytics and modelling should be improved to monitor the effectiveness of policies in real-time as well as provide policy simulations. This would enable policymakers to adequately adapt policies to address declining fertility rates.

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