



SCHOOL OF
ECONOMICS AND
MANAGEMENT

Governing a Greying East Asia

– Fertility Decline and Policy Response:

A Case Study of Japan and South Korea –

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Abstract

Over the past few decades, Japan and South Korea have experienced unprecedented levels of population ageing brought about by the countries' persistent sub-replacement fertility rates. This fertility decline has to be addressed in order to ensure future social stability and economic growth. The primary purpose of this thesis is to determine the primary drivers behind these low fertility rates. The secondary purpose is to investigate the governmental responses to these factors. A key objective of the study is to test the applicability of the second demographic transition theory for the context of the two cases through the utilization of a mixed-methods approach. On the basis of the results of this research, it can be concluded that the second demographic transition theory is not fully applicable, and does not fully represent the key drivers behind the low fertility levels of Japan and South Korea. It was found that the work-family conflict plays an important part in understanding the underlying forces of low fertility in both cases. Finally, the thesis concludes that both governments have recognized the importance of raising the birth rates for the future of their economies, have begun to expand and prioritize family-support programs and are subsequently steadily moving away from their former productivist approach to social welfare.

Key words: population ageing, fertility decline, second demographic transition theory, work-family conflict

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List of Acronyms, Abbreviations and Statistical Symbols

CMR	crude marriage rate
FDT	first demographic transition
FLFP	female labour force participation
FW	family interference with work
GDP	gross domestic product
ILO	International Labour Organization
IPU	Inter-Parliamentary Union
ISSP	International Social Survey Programme
M	mean
MAM	mean age at marriage
MLFP	male labour force participation
MLHW	Japanese Ministry of Health, Labour and Welfare
MOHW	Korea's Ministry of Health and Welfare
n	sample size
NIC	Newly Industrialized Country
OECD	Organisation for Economic Co-operation and Development
PCASPP	Presidential Committee on Ageing Society and Population Policy
r	Pearson's correlation coefficient
SD	standard deviation
SDT	second demographic transition
TFR	total fertility rate
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
WEF	World Economic Forum
WF	work interference with family
WFC	work-family conflict

1. Introduction

Currently, the world is in the midst of undergoing an unparalleled global phenomenon of population ageing (Harper, 2016, p. 1; Parsons & Gilmour, 2018; Rowland, 2009, p. 37). This social and demographic transformation can be defined as the continuous “increase in the numbers of older people (conventionally those aged 65 and older) relative to the rest of the population” (Coleman, 2002, p. 583), entailing an increase in the overall median age. In 2017, it was projected that there were around 962 million people in the world aged 60 or above, thus amounting to 13% of the global population total (UNDESA, 2017, p. 11). This population change first began in Europe in the mid-18th century, then during the 20th century in Asia and Latin America, and is now beginning in Africa (Harper, 2016, p. 1). This demographic transition illustrates the process of falling mortality rates, as humans develop economically, followed by a drop in fertility rates. The resulting changes lead to the support ratio rising as the ratio of the dependent population to the working-age, productive population is increasing.

According to UNDESA (2020, p. 1):

Population ageing is a human success story, reflecting the advancement of public health, medicine, and economic and social development, and their contribution to the control of disease, prevention of injury, and reduction in the risk of premature death.

However, while population ageing should not be considered as a crisis per se, the profound global, social and economic implications (Uhlenberg, 2009, p. 4) it entails have to be recognized and addressed in order to ensure future social stability and economic growth (Ritchie & Roser, 2019).

Illustrated by Japan over the past decades is the fact that steadily falling fertility and mortality rates lead to dramatic changes in population structure (Harper, 2016, p. 61). As life expectancy increases, an increased number of people are claiming their pensions while fewer are supporting the economy in the workforce, thus burdening the security of the welfare state. Moreover, it has been found that demographic deficits brought about by decreased fertility rates give rise to labour market concerns and the fear of an economic slowdown (Harper, 2014, p. 588). At its core, population ageing threatens countries’ ability to “finance public

welfare programs at a time when the number and percentage of those who are economically active are declining” (Harper, 2014, p. 588).

1.1 Relevance

In the 20th century, changes in age structure were favourable for most East Asian¹ countries as the share of people in the working-age was highly concentrated in the population (Mason & Lee, 2011, p. 3). Nowadays, however, the share of the working-age population is declining as the share of the elderly population is rising. According to Pierson (2007, p. 213), this demographic change presents the most prominent out of the main three challenges to the modern welfare state.² In accordance, Heller (1997, p. 5) expands on this sentiment, writing that this demographic transition “will force many important adjustments in [East Asian] societies.” Caused by this demographic transition, many concerns have been raised about the possible “bankruptcy [of] publicly funded healthcare and pension systems, slower economic growth and possible decline, [...], the collapse of financial markets, and the burdening of future generations, to name a few” (Mason & Lee, 2011, p. 3). This is particularly the case for Japan – the country with the largest share of elderly people (aged 65 or above) in the population (World Bank, 2020a) – but also the flying geese that have previously stepped into its footsteps.

First developed by the Japanese economist Kaname Akamatsu, the flying geese paradigm describes the economic strategy of latecomer economies who enter into sectors in which they have a rising comparative advantage (Geda & Meskel, 2008, p. 253). They then import policy approaches and technology from a mature economy whose own comparative advantage is diminishing. In turn, the more developed economy invests in further advanced technology in order to generate its own comparative advantage once more (Geda & Meskel, 2008, p. 253). In short, this model describes the catching-up process of developing countries, the changing of their product cycle and their subsequent economic growth (Kwon, 2008; Vogt, 2013). In Akamatsu’s own words, the flying geese pattern describes:

¹ In this thesis, ‘East Asia’ is defined and utilized as a shorthand for the flying geese (Japan, South Korea, Hong Kong, Singapore, Thailand, Malaysia, Vietnam). Thus, it omits China, Macau, Mongolia and North Korea which are included in the geographical definition.

² In his book Pierson outlines three sets of challenges to the contemporary welfare state: the challenge of globalization, the challenge of demographic change (as mentioned above), and the challenge of ‘new social risks’. For further discussion, see Pierson (2007, pp. 201-231).

the development after the less-advanced country's economy enters into an international economic relationship with the advanced countries. [...] Wild geese fly in orderly ranks forming an inverse V, just as airplanes fly in formation. This flying pattern of a wild geese is metaphorically applied to the [...] three time-series curves each denoting import, domestic production, and export of the manufactured goods in less-advanced countries (Akamatsu, 1962, p. 11).

Modern versions of the paradigm have expanded beyond economic development explanations, but stay within the key sentiment: Less developed countries learn from and follow in the path of developed countries (Vogt, 2013). In the East Asian case, this describes Japan as the lead goose, followed by the first-tier geese, the former newly industrialized countries (NICs) South Korea, Taiwan, Singapore and Hong Kong, and the second-tier NICs Malaysia, Thailand and Indonesia (Kasahara, 2004).

While scholars have already directed much attention to the ageing populations of Western Europe, North America and Japan in particular, due to its extraordinary ageing trajectory from the past few decades, research on former newly industrialized, Asian countries, like South Korea, and their demographic challenges is lacking, in comparison. Moreover, while there are many inter-regional comparative analyses already available in academia that focus on contrasting the characteristics between East Asia and other parts of the world – mainly the Global North (Kwon, 1997; Park & Jung, 2009) – few studies are focused on intra-regional variations of ageing or fertility characteristics and East Asian policy approaches.

1.2 Aims and Research Questions

The overall aim of this thesis is to extend upon the analytical focus of economic demography by integrating intra-regional comparison into the larger debate of fertility and welfare in the age of rapid population ageing. To this end, it aims to utilize the cases of Japan and South Korea, as well as their respective policy responses to analyze the extent to which childbearing, as a way to alleviate the burden of an ageing population, is facilitated. Moreover, in this regard, the aim is to seek out the underlying dynamics of low fertility for the two countries. Penetrating the paper subliminally is the objective to illustrate the degree of population ageing the two countries are currently facing and to give insight into the

prospective challenges that they will be confronted within the following decades if sub-replacement fertility rates are not addressed shortly.

This thesis endeavours to contribute to this growing area of research on population ageing by exploring the forces behind low rates of fertility in the two cases. In that, it aims to test the applicability of the second demographic transition theory, which was developed for the European context, for the East Asian one. To fulfil this aim the first research question is posed: *What are the primary drivers behind low fertility in Japan and South Korea?*

Building upon the uncovered drivers, a secondary aim of this study is to investigate and compare the responses of both governments in regard to facilitating and incentivising childbearing. Thus, the second research question is posed: *How are the governments of Japan and Korea encouraging fertility?* The purpose of this question is not to provide a detailed account of the finance-political measures taken, but rather to give a broad overview of the administrations' approaches to this demographic challenge.

This thesis aims to contribute to the scholarly discourse on population ageing by exploring the applicability of the second demographic transition (SDT) theory for the context of Japan and South Korea. Moreover, it expands upon the theoretical model of the SDT by including the work-family conflict and situating it within the framework of population ageing. Therein, it aims to capture the key underlying dynamics of low fertility.

1.3 Outline of the Thesis

The following section outlines both the economic and demographic transformation of East Asia as well as Japan and South Korea, specifically, giving necessary context for the sections that follow. Section three reviews existing literature and theories of the field, focusing on demographic solutions of population ageing and the traditional East Asian approach to welfare. Section four presents the theoretical framework, which consists of the second demographic transition as well as the work-family conflict, that will guide the analysis. After that, the mixed-methods research approach and data utilized is presented. Following this, the analytical discussion is presented, answering both research questions. Lastly, the findings of the thesis are summarized in the concluding remarks section.

2. Background

This section provides a brief overview of the economic as well as demographic transformation of East Asia, with a particular focus on Japan and South Korea.

2.1 Economic Transformation of East Asia

The rise of first Japan and then the rest of the East Asian countries “to the status of industrial economies is remarkable perhaps above all for its speed and unexpectedness” (Francks et al., 1999, p. 3). Indeed, in the 1960s, the region was still considered to be poor while the GDP per capita and growth of Africa was actually higher than that of Asia (Mason, 2001, p. 6; Sundaram, 2019, p. 146). Although income was higher in Japan than in the other countries, its GDP per capita was, nonetheless, considerably below that of the United States and Europe (Mason, 2001, p. 6). Fast forward to the 21st century, the East Asian economies are some of the largest in the world with Japan even taking spot number three before Germany, behind the US and China (Bajpai, 2020). The impressive economic growth generated by the East Asian NICs (South Korea, Taiwan, Singapore and Hong Kong) and Japan since the 1960s, led many to seek out explanations and lessons from this unprecedented development experience (Kay, 2002). While specific strategies are still debated upon regarding their efficiency and necessity in producing the ‘miracle’, some stylized facts have been established that have garnered a general consensus in academia (Francks et al., 1999).

First, the East Asian governments have been credited widely with having played an essential role in the region's economic success story. By the means of authoritarian developmentalism, the states established a stable political regime and social unity – both recognized preconditions for economic growth (Ohno, 2002). Moreover, these developmental regimes were committed to economic growth and promoted “economic nationalism in pursuit of material prosperity” and “obsession with external competitiveness under industrialization and export orientation” (Ohno, 2002, p. 6). Secondly, recognized by Yamazawa (2002) as the primary mechanism of the region's rapid development, is its export-oriented catching-up approach to industrialization. In short, new products were introduced to the domestic market, the domestic manufacturing was developed to substitute the import and lastly, the export of the in-country produced goods was promoted (Yamazawa, 2002). As outlined above, this

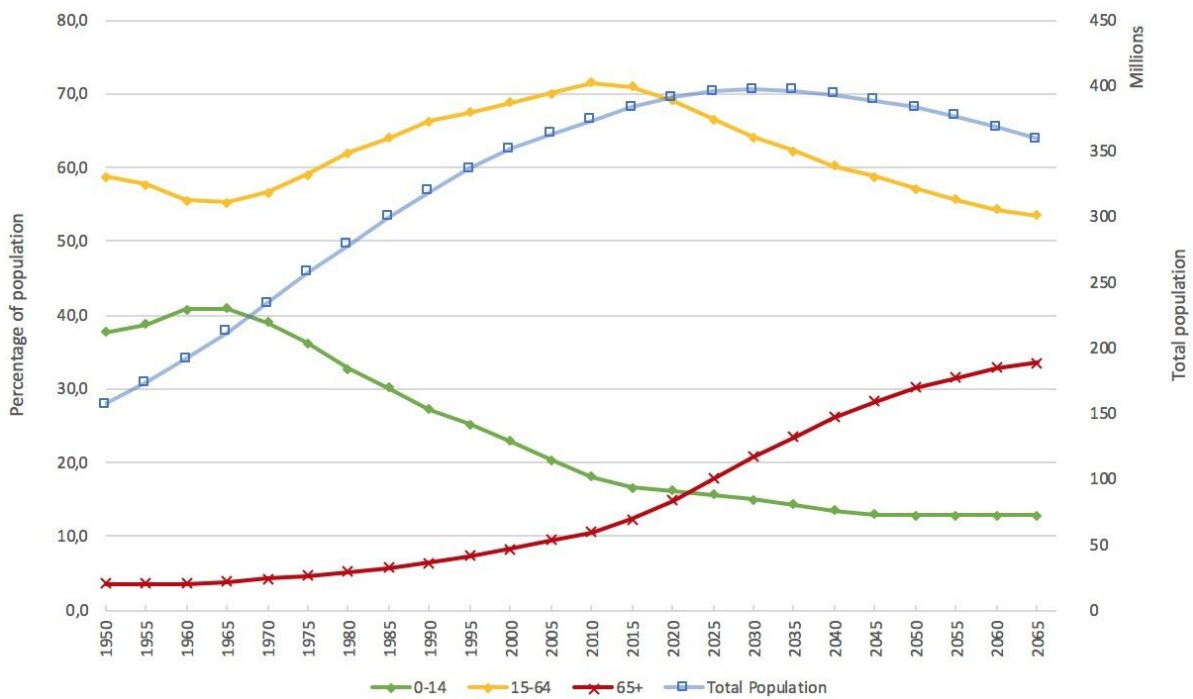
sequence of development was transferred from the early starter of Japan to the NICs to then the second-tier countries, giving every party a comparative advantage sequentially as they moved from labour-intensive industries to more capital-intensive/high-tech ones. Third, the well-educated labour force has been credited with having played a key part in the remarkable growth development of East Asia over the past decades, giving the region continuously a comparative advantage in regard to human capital (Francks et al., 1999; Ohno, 2002).

2.2 Demographic Transformation of East Asia

As of 2020, the region of East Asian, currently home to around 57,8 million elderly people (those aged 65 or above) (UNDESA, 2019a; 2019b), is the most rapidly ageing region of the world (Goodman & Harper, 2008, p. 9). Its elderly population is projected to increase to 120 million people by 2065, making up 34% of the region's population, and around 13,8% of the world's elderly population (UNDESA, 2019a; 2019b). As visualized in Figure 1, according to UN projections, in the East Asian region there will be more individuals aged 65 and over than there will be under 15 ones before the year 2025. Moreover, the population size is forecast to shrink, having its zenith in 2031 (see Figure 1).

As illustrated in Figure 1, in the mid-1970s, the share of the population in working-age began to increase drastically. In academic circles, this sharp rise in the proportion of people between the ages of 15 and 64 is referred to as the population/demographic momentum or the population gift (Mason, 2001, p. 9). It describes the phenomenon of the size of a population increasing even when fertility is already declining. This is due to a large number of women still entering into reproductive age. Thus, for multiple decades to come, an increased number of children continue to be born (Harper, 2016, p. 18).

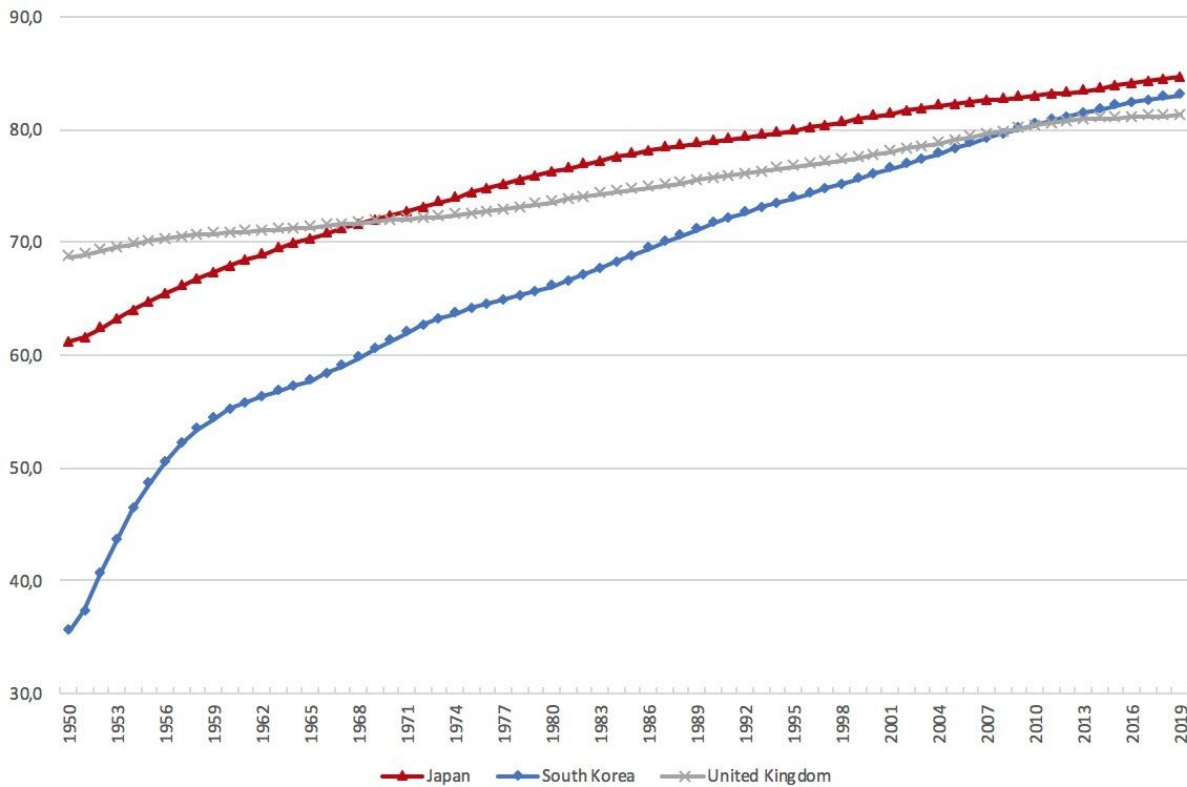
Figure 1: Population of East Asia by age group, 1950-2065



Source: UNDESA (2019a; 2019b)

With rising living standards – brought about by increased economic prosperity – health and mortality conditions were continuously improving across the region, causing a rapid population growth during the second half of the twentieth century (Mason, 2001, p. 8). Japan achieved to surpass the life expectancy (at birth) of the United Kingdom in the late 1960s and since then has continued to hold the title of the country with the highest life expectancy (Roser et al., 2019). As to be expected due to its economic development following that of Japan, South Korea’s life expectancy started to improve later, it did, however, achieve faster advancement than the UK and Japan. Correspondingly, in 2010, South Korea too achieved to surpass the UK’s life expectancy (South Korea: 80.4 years; UK: 80.3 years) (see Figure 2).

Figure 2: Life expectancy at birth, 1950-2019



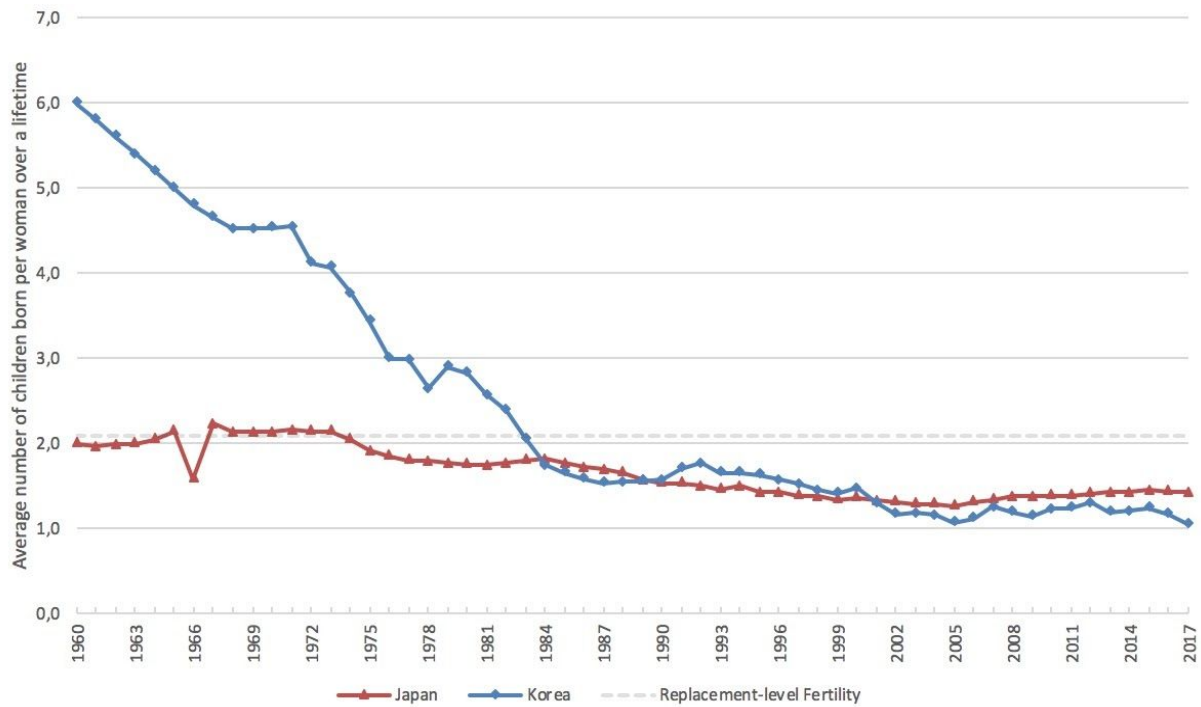
Source: Roser et al. (2019)

The issue of declining fertility rates and its relation to an ageing population was recognized as early as in the 1980s. However, the Japanese public did not take cognisance of the severity of the situation until 1990, when it was reported that Japan had reached a total fertility rate (TRF) of 1.57 (Schoppa, 2008, p. 468; Schoppa, 2020; OECD, 2019a). This rate was of significance as it marked the first time the fertility levels dropped beneath those of 1966 (see Figure 3), the year of the Chinese zodiac sign of the fire-horse (*hinoeuma*). Parents avoided giving birth to daughters during this year, as according to the superstition, women with this zodiac sign were said to “gnaw their husbands to death,” making them unattractive mates and candidates for marriage (Schoppa, 2008, p. 468).

While Japan’s long-lasting low fertility rate is rather remarkable, it is the speed at which South Korea’s TFR moved from a high birth rate to a sub-replacement rate, that is most striking in Figure 3. Within the span of 23 years, the average number of children born per woman dropped from 6,0 in 1960, to a sub-replacement level of 2,06 in 1983 (OECD, 2019a). According to Hwang (2009, p. 6), this dramatic decline in TFR was due to the implementation

of a national family planning programme in 1962. While Japan achieved to increase its TFR from its low of 1,26 in 2005 to 1,43 in 2017, South Korea's rate dropped to the unprecedented level of 1,08 in 2017 (OECD, 2019a). This makes South Korea the country with the lowest TFR of the OECD nations (OECD 2019a), as well as the one with the sixth-lowest TFR in the world (CIA, 2017).³

Figure 3: Total fertility rate, 1960-2017



Source: OECD (2019a)

Recently, South Korea transitioned after only 17 years from an ‘ageing society’ to an ‘aged society’ with projections estimating the country to be a ‘super-aged society’ by 2026 UN (2007, p. 13) (see Table 1).⁴ To date, this is the fastest transition in the world (Bang, 2018; Hwang, 2009, p. 72). Yang Dong-hui, the head of the census section at Statistics Korea highlights the direness of the situation, stating:

In the case of Japan, it took 24 years for the elderly population to increase from 7 percent in 1970 to 14 percent in 1994. Our population is ageing much more rapidly than other countries (Bang, 2018).

³ According to the CIA Factbook (2017), South Korea is placed 219th in terms of TFR, ahead of Puerto Rico, Taiwan, Hong Kong, Macau and Singapore.

⁴ According to the UN, the classification goes as follows: “a country is defined as “ageing” when the share of people aged 65+ is above 7 percent, “aged” when it is 14 percent or more, and “super-aged” when it exceeds 20 percent.” (IEG 2019).

The demographic development of both Japan and South Korea has been remarkable and unprecedented, for different reasons. While Japan was the first non-Western country to become an ageing society, South Korea is setting the record for becoming the fastest ageing society. The acceleration of the ageing between the two cases is in accordance with a finding of the UN (2007, p. 13), which states that “speed of population ageing will be faster in the developing countries than it has been in the developed countries.” In this context, South Korea assumes the form of the developing country, while Japan that of the developed country, once again highlighting and confirming the hierarchy of the flying geese paradigm.

Table 1: Speed of ageing in selected OECD countries

	Year in which share of elderly (aged 65 and over) made up/will make up:			Years elapsed	
	<i>Ageing society (7%)</i>	<i>Aged society (14%)</i>	<i>Super-aged society (20%)</i>	7% → 14%	14% → 20%
Japan	1970	1994	2006	24	12
South Korea	2000	2017	2026	17	8
Germany	1932	1972	2008	40	36
Sweden	1887	1972	2018	85	46
France	1863	1979	2018	115	39
UK	1929	1976	2021	47	45
USA	1942	2013	2028	71	15

Adapted from Hwang (2009), supplemented with data from World Bank (2020a)

3. Literature Review

The following section presents the previous research in the field of population ageing, fertility, and welfare, in order to position this thesis in a broader academic dialogue (Creswell, 2014, p. 73). The section begins with outlining prominent findings in the field of population ageing. Moreover, it provides an overview of two demographic solutions, fertility and immigration. This is followed by previous research on East Asia, its economic growth and its approach to welfare and social policy. The aim of the section is to present a broad overview of relevant solutions and theories which will inform the following theoretical framework and methodological approach.

3.1 Population Ageing

In academia, in the traditional view of population ageing, the elderly population is presented “as [...] a burden on society (in terms of both income and care needs)” (Kohli & Künemund, 2010, p. 146). In such, the discourse is based upon the assumption that an increasing median age – may that be caused by greater longevity or decreased fertility – generates:

a higher care demand from families and public services – at a time when the proportion of ‘producers’ (those in the labour force and those able to give care) is shrinking (Kohli & Künemund, 2010, p. 146).

Over thirty years ago, Birren and Bengtson (1988, p. ix) summed up the academic field of ageing as “data-rich but theory poor” and called “[t]he paucity of theory in social gerontology an embarrassment to academic students of gerontology. Since then major efforts have been made making this argument no longer applicable (Bass, 2007), however, “a challenge to link theoretical thinking with research remains” in the field (Connidis & Barnett, 2019, p. 11).

To what degree the worrisome predictions of an ageing population⁵ will become reality has been found to depend on multiple factors: (1) when people will move into retirement (Bengtsson & Scott, 2011; Bou-Habib, 2019); (2) when people will enter the workforce (Bengtsson & Scott, 2011); (3) what social networks will be available and who will be caring for the elderly (Kohli & Künemund, 2010); (4) the extent to which immigration will be

⁵ see section 1.1 above.

enabled (Vogt, 2013); (5) how productive the population is (Bengtsson & Scott, 2011); and, finally (6) to what extent fertility can be raised (Lee & Mason, 2014).

3.2 Demographic Solutions

The stable population theory developed in articles by Lotka (1907; 1922) and Sharpe and Lotka (1911), has been established as a useful analytical tool for establishing demographic causes of population ageing (Uhlenberg, 1992). The theory describes that a population, with fixed fertility and mortality rates, will eventually achieve an age-distribution equilibrium (Bengtsson & Scott, 2010, p. 11; Coale, 1977, p. 168; Uhlenberg, 1992). Thus, this theoretical model suggests that changes in age structure are determined by changes in mortality and fertility rates (Gavrilov & Heuveline, 2003, p. 33).

As noted by Lotka (1907) himself, this theory omits the influence of emigration and immigration. In recent decades the theory has been expanded upon to include these factors. Bengtsson & Scott (2010, p. 18) found that the impact of immigration on the population structure “is dependent upon the assumptions made regarding post-migration fertility.” Scholars who assumed that home-fertility rates persist when calculating the impact of immigration on age distribution, found that immigration does indeed have a substantial rejuvenating effect on the country’s population (Bou-Habib 2019; Jonsson & Rendall, 2004). Espenshade (1994), who investigated the same issue a decade prior with the assumption that immigrant-fertility adjusts to that of the native-born population (Bengtsson & Scott, 2010, p. 18; Jonsson & Rendall, 2004), found the effect of immigration to be negligible on the age-distribution. Therewith, these studies illustrate the polarized debate on immigration as a solution to population ageing, a point which will be discussed further below.

3.2.1 Fertility

While the issue of ageing has become widely discussed in academia, the factors which precipitate fertility decline continue to be debated. While Bongaarts (1984; 1994) asserts that it is the expanded access to contraceptive medication that affects fertility rates negatively, Pritchett (1994) argues that access and cost of contraceptives are not dominant drivers, but that fertility instead is primarily determined by the desire for children, thus the preferences of women themselves. Caldwell (1976) offers up the so-called ‘wealth flow theory’, which

describes the direction of wealth flow between generations changing from bottom-up (children to parents) to a top-down (parents to children) direction (Gubhaju, 2007). Thus, the value of children for parents is decreasing as a country is developing economically and job markets are evolving (Grant et al., 2004). This theory has, however, been found to be not applicable for the East Asian context, as fertility decline occurred without any apparent changes in extended kin relationships (Mason, 1997) due to its welfare regime scheme (see further discussion below). While the modern fertility change is still debated upon, a general consensus has emerged itself, which highlights economic, technological and medical advancements as the main drivers behind the first demographic transition⁶ (Bloom et al. 2003; Poot & Roskrugge 2020).

Even though increased life expectancy factors into population ageing, it is generally not deemed to be its main driver. Instead, scholars have found declining fertility rates to be the primary force behind population ageing (Bengtsson & Scott, 2010; Bloom et al., 2015). Over the past century, births per woman dropped significantly, as child mortality decreased continuously and effective birth control became increasingly widely available (Bloom et al., 2003; Poot & Roskrugge, 2020). In turn, this lowered fertility brings about smaller youth cohorts, “which creates an imbalance in the age structure” (Bloom et al., 2015, p. 80) and leads the share of the elderly to become progressively larger than that of the younger age groups. Thus, the predicament of an ageing population is not that people’s life expectancy is continuously increasing, but that the dependency ratio is increasing. This measurement describes the share of the non-productive population (children, adolescents and the elderly population) relative to the share of people in working age, alias the productive population.⁷

Dependency ratios have been found to have “obvious implications for economic growth” (Choudhry et al., 2016, p. 4825), engendering a large body of research to be dedicated to the topic (see Dao, 2012; Kögel, 2005; Lugauer, 2012; Nagarajan et al., 2016). A low age dependency is seen as a productive precondition for social stability and economic growth (Ritchie & Roser, 2019), while high dependency ratios have been found to be an obstacle for economic growth. Thus, countries with the former ratio are free to invest resources in

⁶ see Appendix A for overview of first demographic transition characteristics.

⁷ It should be noted that this measurement is accounting for those “likely” to be economically dependent. Oftentimes adolescents over the age of 15 continue to be dependent on their parents and the state, while the young-old (those aged 65-75) proceed to work, and still others retire while in working-age.

“technological progress, physical and human capital”, while countries with the latter need to direct their capital towards care for the dependent, ‘inactive’ people (Choudhry et al., 2016, p. 4825).

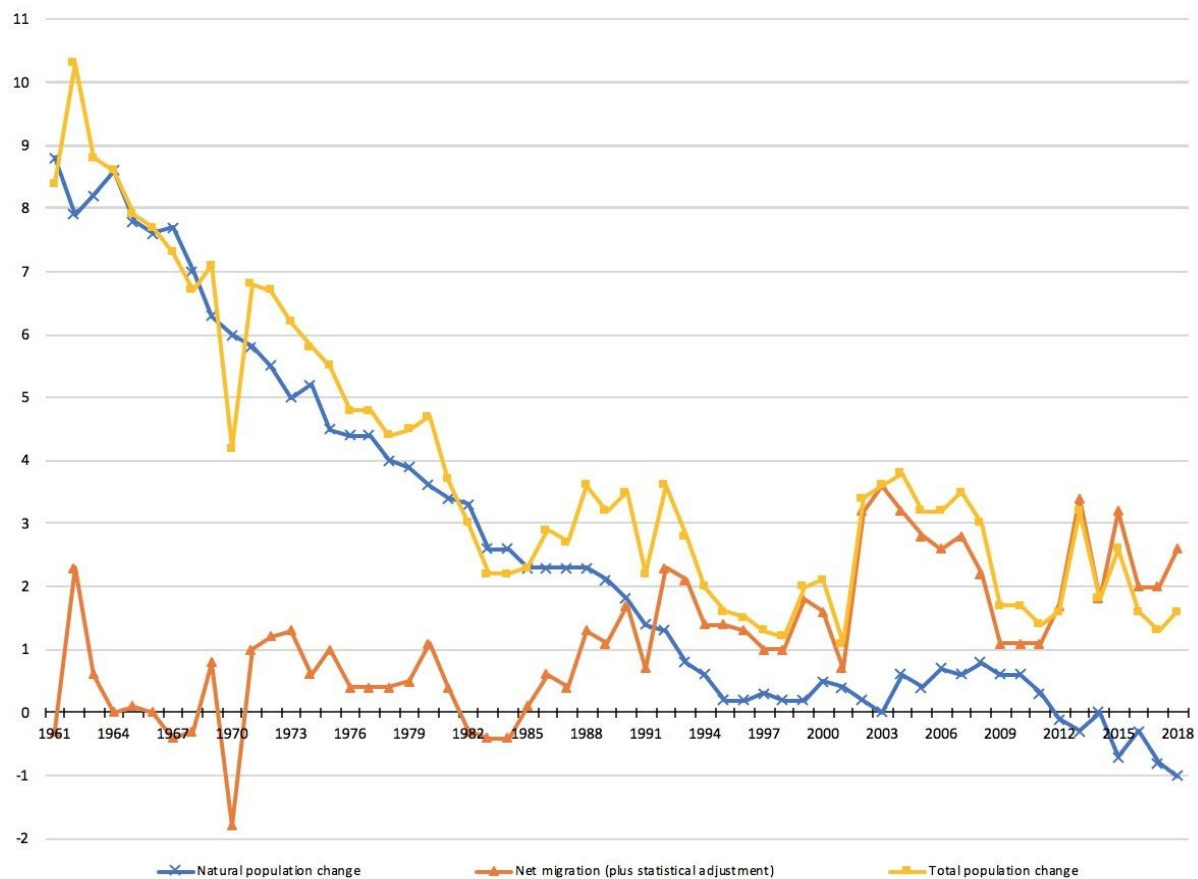
A paradox regarding raising fertility as a demographic solution to population ageing has established itself. According to Choudhry et al. (2016, p. 4825), “[c]hild dependency has a more adverse impact on economic growth than old age dependency.” The authors present the impact of lower fertility rates to be threefold: (1) it reduces the child component of the dependency ratio; (2) in turn, it reduces the financial burden on productive age groups, (3) and it enables more women to enter into the workforce force and become economically productive members of the population who add to the tax base (Bloom & Williamson, 1998). In other words, “a decline in child dependency leads to an increase in female economic participation” (Choudhry et al., 2016, p. 4825). Both raising fertility rates and increasing female workforce participation have been established as valid approaches in addressing the burden of an ageing population. While not mutually exclusive, institutions which are sensitive to both aims need to be set in place.

3.2.2 Immigration

While a consensus on the goal of alleviating the burden of the welfare state is nearing unanimity, scholars are frequently in disagreement about how this is to be achieved. In fact, immigration policy aimed at promoting population growth has become widely contested. One group is highlighting that mostly young people in childbearing years are amongst the migrants, thus, arguing that international migration will lower the overall median age of the population while increasing the productivity of the labour force and adding to the tax base (Holzmann, 1988, Niu, 2019a). The other group acknowledges that immigration of young, highly trained persons is effective and economically sound in theory, however, this would have to occur at “unprecedented, unsustainable and increasing levels of inflow” (Coleman, 2002, p. 583), entailing multilateral, disruptive consequences and thus deem this approach unreasonable (see Bengtsson & Scott, 2010; Blanchet, 1989; Coleman, 1992; Coppel et al. 2001; Feld, 2000; Holzmann & Hinz, 2005; Keely, 2009; McDonald & Kippen, 2001; Saczuk, 2003).

In 2001, due to a report by the UN Population Division, the concept of replacement immigration as a ‘solution’ to population ageing gained ground (UN, 2001). Works by IMF (2018) and Holzer (2020), support this thinking, arguing for the effectiveness of immigration for population growth and its capacity to alleviate the pressures population ageing places upon the health and welfare services. Adding to the argument, through historic data, Eurostat (2011, pp. 12-14) illustrates how migration flows can impact the size and age composition of the population (see Figure 4). Moreover, Dustmann et al. (2010) develop this pro-immigration argument further, not from the ageing population angle, but by applying an economic lens. They establish that immigrants’ net fiscal contributions are larger than those of natives’, thus making it financially reasonable to allow increased immigration. It should be noted, however, that this study is based exclusively on the UK – thus lacking external validity – with a focus on intra-continent migrants “who generally are younger and better educated” than the British natives (Dustmann et al., 2010, p. 3).

Figure 4: Crude population change by component, EU-27, 1961–2018 (per 1000 persons)



Source: Eurostat (2020)

As outlined above, on the other side of the spectrum, scholars have found immigration not to be a sufficient solution to prevent a long-term demographic decline (Bermingham, 2001; Camarota & Zeigler, 2019; Eurostat 2014). The infeasibility of a migration solution is highlighted in Coleman (2002) as he utilizes the publication of the UN report on replacement migration (UN, 2001) to make his argument. The report suggests a scenario in which 6.2 billion people – nearly the entirety of the current world population – would have to live in South Korea by 2050, in order to keep the ratio of workers (15 to 64-year-olds) to retirees (65 years or above) at the level of 1995. Bengtsson and Scott (2010) (in the case of Sweden) and McDonald (2006) (in the case of Australia) both deem the effects of intaking younger migrants and the effect of immigrant fertility on overall population ageing as rather limited, and thus not as suitable options for retarding ageing sufficiently. Finally, Fehr et al. (2004, p. 25-26) summarize the main sentiment of this school of thought, writing: “[...] every dollar, euro, or yen collected from new immigrants in taxes will be needed to provide them with public goods and social insurance benefits.” As outlined, immigration is not deemed to be a suitable solution to the demographic problem. Instead, this thesis will focus on increasing fertility as the key objective to alleviate population ageing.

3.3 East Asia and Economic Growth

The unprecedented economic transformation of East Asian countries has led many scholars to research its causes. As the developmental success was located in one region specifically, many were prompted to search for shared characteristics between the countries. While some focused on the effectiveness of state-led initiatives and export-oriented growth strategies (see Chang, 2003, pp. 48-51), as outlined above, others looked for a cultural commonality (Kwon, 2007). Works by Berger (1988, p. 7), MacFarquhar (1980), Tu (1990) developed the so-called post-Confucianism hypothesis, in which Confucian ethics are attributed with the successful economic performance. Kwon (2007) critiques this thinking, as it omits the role of social actors. Instead, he ascribes a greater significance to state efforts, thus placing himself on the more widely accepted developmental state explanation side of the debate. In their article for the Asian Development Bank, Lee et al. (2011) connect this rationale of the role of the state as an active developmental player with social policy, prescribing the latter with having had a great impact on the countries’ economic growth, writing: “The success of East Asian

economies in creating policy environments conducive to taking full advantage of their demographic dividends played a major role in the East Asian miracle” (Lee et al., 2011, p. 2).

3.4 East Asia and the Welfare State

In response to criticism received regarding *The Three Worlds of Welfare Capitalism*, Esping-Andersen made it a point to expand upon his previously Eurocentric perspective in subsequent publications (Esping-Andersen, 1996; 1997; Ku & Finer, 2007). He remarks that “it is virtually impossible to ... identify it [Japan] in the typology of regimes”⁸ (Esping-Andersen, 1997, p. 187), leading to an increased academic effort to dissect the East Asian welfare approach.

The policy orientation of East Asian welfare states has been characterized in a variety of ways such as authoritarian, family-centred and traditionalist – all indicating only a minimal role of the state in the provision of security and welfare for its population (Shi & Ku, 2009, p. 16). Moreover, the regime has been described variously as, for example, oikonomic,⁹ Confucian and a hybrid (of the previously established liberal and conservative model) – the most prominent interpretation being that of ‘productivist’ (Gough, 2004; Jones, 1990; Shi & Ku, 2009, p. 16). Holliday (2000) developed this productivist framework for the East Asian welfare experience as a fourth welfare capitalism regime, adding onto Esping-Andersen’s previous work. He utilized the developmental state theory and previous literature like Deyo (1992, pp. 289-290), which describes social policy in East Asia as “primarily driven by the requirements and outcomes of economic development policy.” Thus, highlighting East Asian welfare practices as policy tools for further economic growth (Kim, 2013). This ‘productivist welfare capitalism’ model differentiates itself from other advanced capitalist ones, as it is subordinate to “all aspects of state policy, including social policy, to economic/industrial objectives” (Holliday, 2000, p. 709) (see Table 2).

⁸ Therein, he is referring to the tripartite framework of liberal, conservative, and social democratic welfare models presented in his previous, widely cited work (Esping-Andersen, 1990).

⁹ ‘Oikonomic’ stems from the greek word oikos and refers to household economy and management (Jones, 1990).

Table 2: The Four Worlds of Welfare Capitalism

	<i>Social policy</i>	<i>Social rights</i>	<i>Stratification effects</i>	<i>Dominant welfare provider</i>
<i>Liberal</i>	Neither privileged nor subordinate	Minimal	Equality of poverty for minority; market-differentiated welfare for majority	Market
<i>Conservative</i>	Neither privileged nor subordinate	Quite extensive	Existing status differentials preserved	Family
<i>Social democratic</i>	Privileged	Extensive	Universal benefits graduated according to accustomed earnings	State
<i>Productivist</i>	Subordinate to economic policy	Minimal; extensions linked to productive activity	Reinforcement of productive elements	Family

Adopted from Holliday (2000, p. 709) with modifications based on Gencer (2017, p. 8) and Shi and Ku (2009, p. 17).

The framework of the current East Asian social security system was formulated in the 1960s and 1970s, and was based on key assumptions: (1) the dominant employment type will be full-time employment; (2) economic growth is increasing, (3) corporate welfare and benefits being substantial, (4) the dominant family formation being conjugal (especially with full-time housewives), (5) the solidity of kin connections (MLHW, n.d.). Since then, these three elements have seen great changes, leading scholars to question the sustainability of the productivist regime type. Family and kin networks being assigned ‘a key welfare function’ in East Asia as they shoulder the majority of financial and care responsibilities for their relatives that are ‘dependent’ (Lee & Imoto, 2018; Shi & Ku, 2009, p. 17), is being recognized as a deficiency. According to Uzuhashi (2009, p. 229), “families can no longer afford to give care services to their family members” as the size of families is shrinking and female workforce participation is rising. Gough (2004) relates this to the larger dynamics of globalisation and ageing, highlighting the regime's vulnerability and possible unsustainability, due to the ongoing demographic change of the region.

4. Theoretical Framework

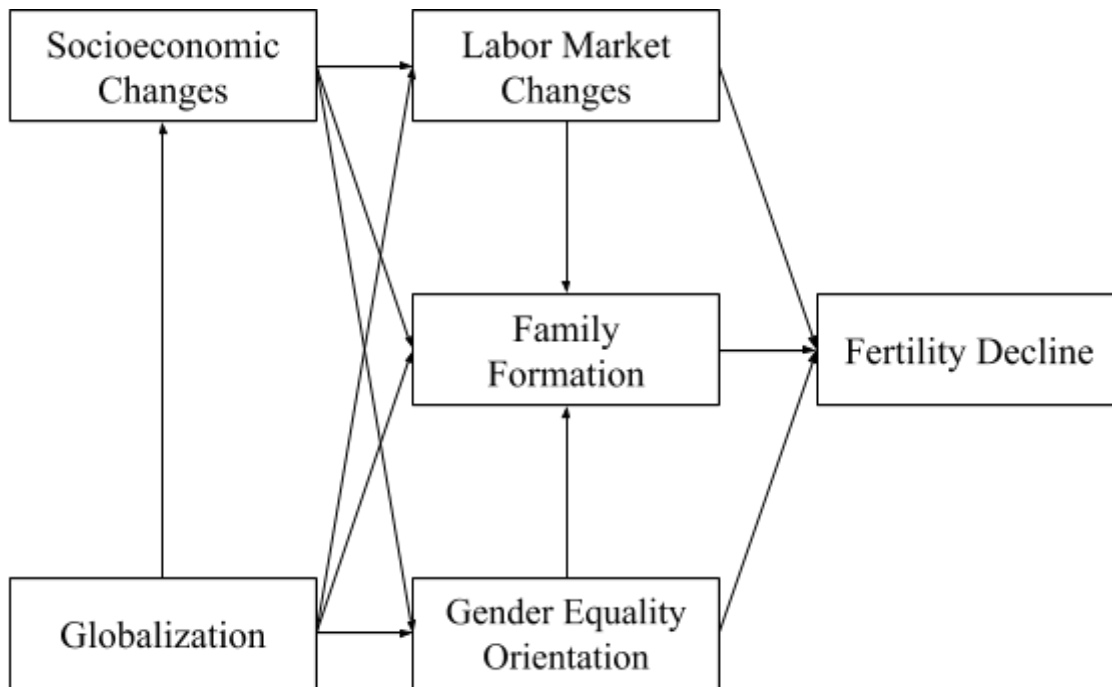
This section presents the theoretical framework, which guides the analysis. In order to understand the underlying forces that impact fertility decline, the ‘second demographic transition’ theory will be utilized and tested. The theory provides a valuable lens through which the variables will be analyzed. To understand underlying forces impacting women and couples in their decision to have children more concretely, the ‘work-family conflict’ theory will be added and a new model will be developed.

4.1 Second Demographic Transition

While the first demographic transition (FDT) assumes a stable population through continued replacement level fertility (about 2.1 children per woman), the second demographic transition (SDT) bases itself on the assumption that sub-replacement fertility levels will be sustained, thus, it describes a lack of equilibrium of fertility and mortality rates¹⁰ (Lesthaeghe, 2014). The SDT theory was formulated after the baby bust of the 1970s followed the baby boom of the 1960s, to accommodate for the fertility as well as societal changes occurring across Europe. Instead of presuming nuclear, traditional family structures, SDT is founded on the rise of alternative forms of partnership and living arrangements in combination with a disconnection between marriage and procreation, as well as the general postponement of marriage and parenthood (Lesthaeghe, 2014; van de Kaa, 1987). Correspondingly, the shift from FDT to SDT mirrors a change in attitudes: from altruistic to individualistic (van de Kaa, 1987). Thus, closely related to the concept of post-materialism by Inglehart (1990, p. 208) and the theory of changing needs by Maslow (1987, pp. 98-99), the SDT emphasizes that, as populations develop economically and education levels rise, an attention shift from survival to self-realization occurs, moving the individual focus from child-rearing to career pursuit (Lesthaeghe, 2014). Despite being considered Western-centric, the theory of the SDT “predicts that its characteristic demographic outcomes (sustained subreplacement [sic] fertility, growth of alternative living arrangements) are likely to emerge in non-Western societies”, like East Asia (Lesthaeghe, 2014), making it a suitable framework to be tested for the context of Japan and South Korea.

¹⁰ see Appendix for overview of characteristics related to FDT and SDT.

Figure 5: Causal mechanisms of the second demographic transition



Source: Adapted from Kim (2005)

Figure 5 presents a conceptual model of the causal mechanisms of SDT Kim (2005). One of the key factors included in the figure is socio-economic change. In short, this factor encapsulates the rise in economic well-being and the subsequent shift in societal culture, affecting the need to strive for self-fulfilment and thus, in turn, the labour market, family formation, and gender equality orientation. The other first-level mechanism featured is the broad concept of globalization. Globalization has been found to have influenced population dynamics indirectly through “economic restructuring, job opportunities, spread of medical technology, women’s status, value orientation, and other conditions that affect fertility, mortality and migration” (Kim, 2005, p. 11). Moreover, globalization encompassing free trade has also been credited with having facilitated financial as well as labour market deregulation, which in turn increased instability (Asian Financial Crisis 1997, Global Financial Crisis 2008) and affects labour market structures as well as fertility patterns.

The second-level factors that have a direct impact on fertility are labour market changes, family formation, and gender equality orientation. A key indicator of changes in the labour market is the increased participation of women in the workforce. This, in turn, affects family formation, as two-earner households are becoming increasingly more common (Shreffler et

al., 2010). Likewise, the increased emphasis on gender equality affects family formation, as it influences its “timing and magnitude” (Kim, 2005). In short, gender equality is achieved “when women and men have equal rights, life prospects, and opportunities, and the power to shape their own lives and contribute to society” (SIDA, 2016). In regard to SDT, it encases a rising symmetry in gender roles as well as greater female economic autonomy (Lesthaeghe, 2010). The element of the model titled family formation describes the shift from marriage toward cohabitation. It encapsulates the societal shift away from the conservative, nuclear family model towards alternative, diverse family formations with the focus on the adult couple and not their children (van de Kaa, 1987). Moreover, as alluded to above, family formation also refers to the postponement of marriage, a decrease in overall marriages and an increase in divorces (Kim, 2005).

4.2 Work-family Conflict

A main criticism of the SDT framework is its failure to include the work-family conflict (WFC) adequately (Mills & Blossfeld, 2013, p. 21). Thus, to achieve as comprehensive of an analysis of the determinants of fertility decline, the concept of work-conflict is added to the framework.

The work-family conflict describes

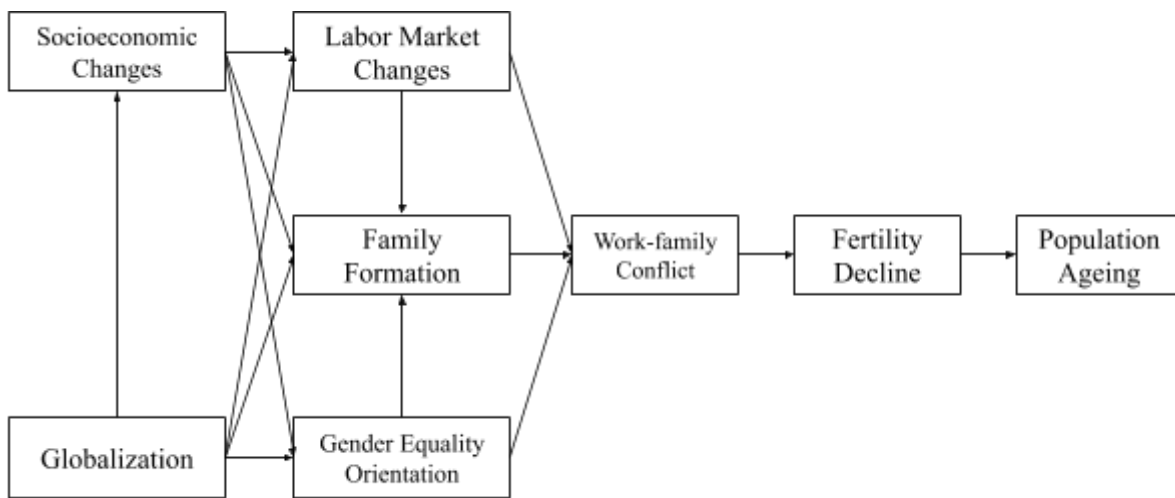
a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role (Greenhaus & Beutell, 1985, p. 77),

and vice versa. Until recently, the issue of work-family conflict was extraneous, as in the traditional family model (composed of a heterosexual married couple and their offspring) one person – usually the man – was providing, while the other – usually the woman – stayed at home organizing the household work and raising the children (Breyer & Bluemke, 2016). Thus, the spheres of work and family did not overlap. Today, as illustrated by SDT, this nuclear, conjugal type of household is becoming less and less dominant with many other types arising. Instead, it is increasingly being replaced by “two-earner families with simultaneous management of work and family roles” (Breyer & Bluemke, 2016). This can be challenging

and exhausting for both earners, but especially for women, as they are often still expected to be responsible for the majority – if not the entirety – of the household work, as gendered norms relating to the division of domestic chores and childrearing are still embedded in the fabric of society (Breyer & Bluemke, 2016; Crompton & Lyonette, 2006; Greenhaus & Beutell, 1985; van de Kaa, 1987).

To include this valuable concept into the SDT theory and to place the issue within the phenomenon of population ageing, the following model was developed:

Figure 6: The second demographic transition and work-family conflict within the context of population ageing



Based on the author's interpretation of SDT and WFC literature cited above.

It should be noted that just like in Figure 5, mortality decline is not included in this model. As established in the literature review above, mortality decline is not considered a main driver of population ageing, thus for the context of this thesis, the factor was omitted. As this thesis assumes Japan and South Korea to be advanced economies, the omission is furthermore supported, as according to Kim (2005), mortality rates are so low in advanced economies that they no longer play a major role in fertility reductions.

5. Methodology and Data

This section presents and motivates the approach, methods as well as data utilized in this thesis. An explanatory research design was conducted with a mixed-methods case study based on quantitative data and policy discourse literature. This section begins with outlining the research design, followed by a section on data collection and management, which includes a discussion on the value and shortcomings of the data sources. Then, the strategies utilized for data analysis are presented as well as the limitations of the research. Finally, limitations of the study will be reflected upon. To recapitulate, this paper aims to investigate the causes of low fertility rates in Japan and South Korea, the applicability of the second demographic transition (SDT) theory as well as how governmental responses interact with this phenomenon.

5.1 Research Design

An explanatory sequential mixed methods approach was applied to this comparative case study design. This approach lends itself to this thesis, as it is well suited for research areas that are “data-rich” (Birren & Bengston, 1988, p. ix) like this one (Creswell, 2014, p. 360). In the first, quantitative phase of the study, various data was collected to test the applicability of the second demographic transition theory for the East Asian context and to explore the main drivers of low levels of fertility in Japan and South Korea. The second, qualitative phase was conducted as a follow up to the quantitative results. In this follow-up, the findings from the first phase of the study were built upon to explore governmental responses in relation to the identified drivers (Creswell, 2014, p. 73).

According to Schafer and Ferraro (2009, pp. 33-34), “the social processes, economic experiences and physiological risks linked to human ageing are more thoroughly understood when explored in an international context.” Thus, a multiple-case/comparative case study approach was adopted to determine the factors that drive fertility decline, to evaluate the applicability of the SDT theory for the East Asian context as well as to gain a deeper understanding of governmental approaches to fertility. Moreover, the analysis of both Japan and South Korea is explored to offer more robust analytical conclusions that would have been otherwise rather limited in a single-case approach (Bryman, 2012, p. 74; Yin, 2009, pp. 59-61).

5.2 Case Selection

The cases of Japan and South Korea were chosen following an information-oriented selection (Flyvbjerg, 2007, p. 396). Both cases represent critical cases for the applicability of the SDT theory. They are the two countries of the East Asian miracle cohort that are most likely to be undergoing the ‘new’ transition. For Japan, this is due to the country being the leader of the flying geese flock and thus, its economic development and ageing process accelerating earliest. Moreover, Japan presents a critical case, as it is considered the most aged country, possibly implying it already underwent or is currently undergoing the SDT. South Korea is considered a critical case, due to its rapid decline in births per woman (see Figure 3). Even more than Japan, South Korea underwent an extreme transformation, both economically and socially in the second half of the twentieth century (e.g. it increased its life expectancy more rapidly than Japan, as well as moved faster from an ageing to an aged society than any other country thus far). Thus, if the SDT theory is found to not be applicable for the cases of Japan and/or South Korea, then it will – with high likelihood – not be applicable to the rest of the flying geese economies (Flyvbjerg, 2007, p. 396).

5.3 Data Collection and Management

This thesis relied primarily on secondary data to answer the research questions and fulfil the aims. Additionally, some primary sources, in the form of official governmental documents, were also utilized. For the first phase of the analysis, quantitative data from international organizations like the OECD, World Bank, and the IPU was utilized to analyze the various elements of the SDT theory. These databases form collections of national government statistics, converted into a common denominator, thus offering themselves up to comparison. Due to the language barrier, in the second phase, qualitative data was largely collected from newspaper articles and journals.

To analyze the gender equality orientation of Japan and South Korea, the World Economic Forum’s (WEF) Global Gender Gap Index was utilized, as it summarizes a broad spectrum of issues with its focus on four key dimensions: (1) Economic Participation and Opportunity, (2) Educational Attainment, (3) Health and Survival, (4) Political Empowerment. Moreover, it benchmarks the development of disparities between women and men, allowing “for effective

comparisons across and within regional peers”, ideal for this multiple-case study. (WEF, 2020, p. 8)

To examine the progress of the various values and attitudes connected with SDT over time, this thesis utilized the World Value Survey (WVS) throughout the analysis. The WVS is a well-suited source of data for the analysis, as it monitors:

cultural values, attitudes and beliefs towards gender, family, and religion ... social tolerance and trust; attitudes towards multilateral institutions; cultural differences and similarities between regions and societies. (WVS, n.d.)

Thus, it provides this thesis with extensive, longitudinal and relevant information on the possible shifts from collectivism to individualism as well as attitudes towards fertility through changing family formations and the evolving perception of gender norms. As this cross-country survey was conducted over a period of time, some indicators for Japan and South Korea were collected at different years. While this limits validity, the data points were nonetheless collected in, what WVS refers to as, the same ‘wave’. It should also be noted that answers referring to ‘don’t know’ and ‘no answer’ were excluded from the analysis that follows below, in order to seek out as definitive findings as possible. Unfortunately, the survey documentation of wave seven (2017-2020) will not be made public until July 2020. Thus, the latest available data points are around a decade old. In the case of various variables (e.g. respect and love for parents), the latest data stems even further back as their inclusion in the survey questionnaire stopped after certain waves.

Data from the 2012 International Social Survey Programme (ISSP) Family and Gender Roles module by the GESIS institute was utilized to examine the perceived degree of work-family conflict in Japan and South Korea. The survey focuses on a plethora of topics such as “women’s employment, marriage, children and financial support, household management and partnership, offering a wide and deep insight into possible factors affecting fertility” and offers 420 variables (ISSP Research Group, n.d.).

5.4 Data Analysis

To understand the drivers of the low fertility rates of Japan and South Korea and to test whether the SDT theory is applicable to the context of the two cases, the three second-level causal factors of the SDT model illustrated in Figure 5 and 6, were utilized to guide the analysis process. Furthermore, the work-family conflict, as well as the shift in values toward individualism, formed two additional indicators, as both dimensions are continuously highlighted in SDT literature. In short, labour market changes, family formation, gender equality orientation, work-family conflict as well as attitudes, formed the main five indicators investigated. To analyze:

- the labour market changes, the thesis examined female labour force participation over time.
- family formation as a factor impacting fertility decline, age at first marriage as well as crude marriage and divorce rates were examined.
- gender equality orientation, the thesis utilized the rate of female representation in national parliament as a substitute variable. Thus, it follows Ersson and Lane (2008, p. 440) who established that the greater the gender equality orientation of a country, the higher the rate of female representation in parliament (and vice versa). Furthermore, survey responses regarding female political leadership and the Gender Gap Index were analyzed.
- the perceived work-family conflict, ISSP survey questions regarding this phenomenon were evaluated.
- the change in attitudes and shift towards individualism, values and beliefs towards family and self were investigated.

In the first phase of analysis, recurrently, bivariate correlation analyses were used to evaluate the strength of the relationship between variables, while graphs were utilized to visualize and juxtapose the development of the two cases. Moreover, SPSS was utilized as an analytical tool to examine the ISSP survey data and to gather insight into the work-family conflict. In the second phase, press releases and newspaper articles were utilized to analyze key governmental responses.

5.5. Limitations

It should be noted that this thesis is subject to several limitations. Firstly, due to a clear language barrier, the thesis was restricted to studies exclusively published in English. In the second phase of the analysis, this restraint was mediated as much as possible through the utilization of Google Translate. However, newspaper and journal articles had to be utilized as substitution.

Secondly, the analysis of the family formation factor was particularly problematic. As outlined in the theoretical framework section, increased levels of cohabitation are a characteristic of the SDT, making it an ideal indicator to analyze. Unfortunately, neither Japan nor South Korea collect such data, preventing any further evaluation (OECD, 2016). Furthermore, initially, an objective was to analyze the increase in non-heterosexual relationships in the two countries, as a factor impacting traditional household formations. While the government of Japan collects demographic data on sexual orientation, South Korea does not have any representative surveys that focus on self-identification regarding gender or sexuality that could be utilized (OECD, 2019b). Thus, alternatively, the utilization of the cross-country, longitudinal “Justifiable: Homosexuality”¹¹ variable of the WVS was considered, in order to gain valuable insight into the tolerance levels within the societies regarding homosexuality. However, an issue of reliability arose in the analysis process regarding this variable for the case of South Korea for Wave 2 (1990-1994), as the distribution of responses appeared rather unlikely – not one response between 1-5 and 7-9 was registered. The World Values Survey Association Secretariat conceded to an error having occurred, writing: “Instead of using a 10-points scale, ... the team used only a 3-points scale (justifiable, not justifiable and hard to say)” (personal communication, 18 May 2020). Thus, making data for this variable and wave not reliable nor comparable. Hence, due to limited and unreliable data, the decision was made to omit sexuality as an indicator for family formation in this thesis.

¹¹ The code of this variable changed multiple times over the different waves (Wave 1: v197; Wave 2: v307; Wave 3: v197; Wave 4: v208; Wave 5: v202; Wave 6: v203).

6. Analytical Discussion

6.1 What are the primary drivers of low fertility in Japan and South Korea?

To answer this research question, the applicability of the second demographic transition theory will be tested for the context of Japan and South Korea. Accordingly, changes in the employment landscape, the family formation, gender equality, in attitudes and values as well as in work-family interferences are analyzed.

6.1.1 Labour Market Changes

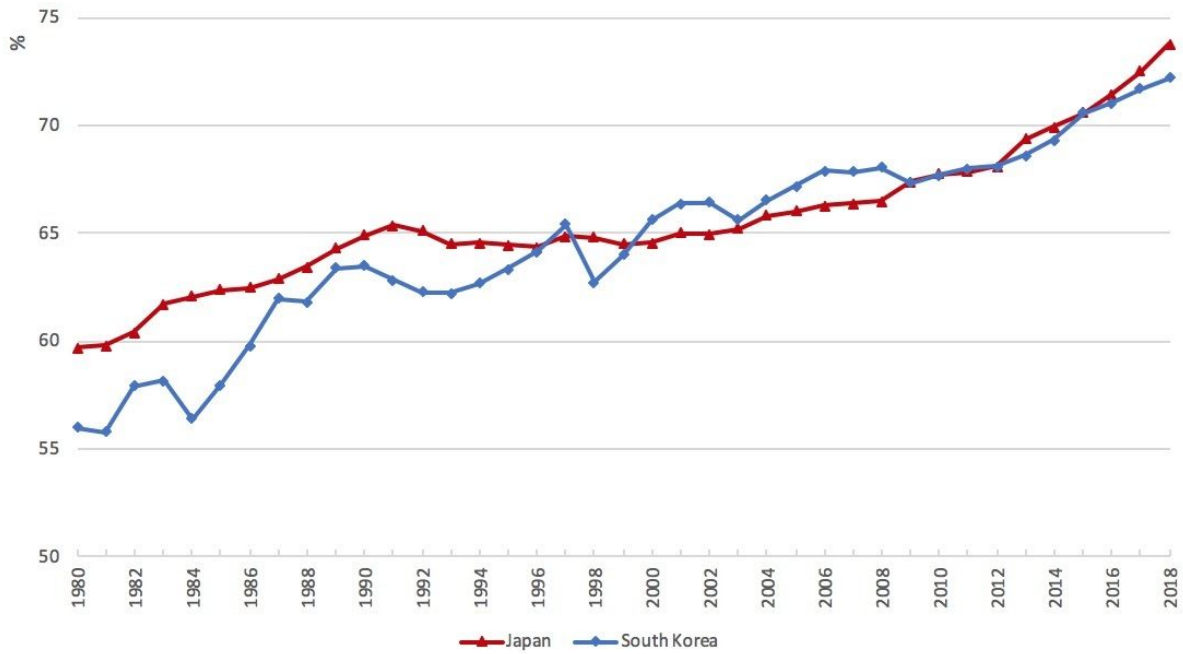
As previously established, adding and incentivizing women to enter and stay within the workforce decreases labour shortages, enables economic growth, and increases the tax base. Thus, it alleviates the burden of an ageing population on welfare (Guilford, 2014). It, however, has also been found to be linked with the postponement of childbearing and declining fertility rates (Lim, 2002) – the key driver behind population ageing. Figure 7 shows the development of the ratio of female to male labour force participation (MLFP) from 1980 to 2018. As illustrated, over the past few decades, both countries saw a steady increase in female labour force participation (FLFP). While in 1980 only 55,9 Korean women to every 100 Korean men participated in the economy's active workforce, in 2018 this increased to 72,1 women to 100 men. A similar development occurred in Japan, wherein 1980 only around 59,6 women participated in the workforce to every 100 men. In 2018, this increased to 73,7%. Moreover, it can be observed that despite having experienced stronger fluctuations in FLFP over the past four decades, South Korea caught up to Japan and closed the gap in their FLFP to MLFP considerably (see Figure 7 below).

When examining the relationship between female labour force participation and the total fertility rate (TFR) a negative bivariate correlation can be established. In the case of Japan, this negative correlation is moderate-to-high¹² as $r=-0,63$. For the case of South Korea, the strength of a linear relationship between the two variables is very high with $r=-0,86$. These negative correlations imply an increase in FLFP is associated with a decrease in fertility, as

¹² Hereinafter the interpretation of correlation coefficients follows the classification of Ravid (2015, p. 110).

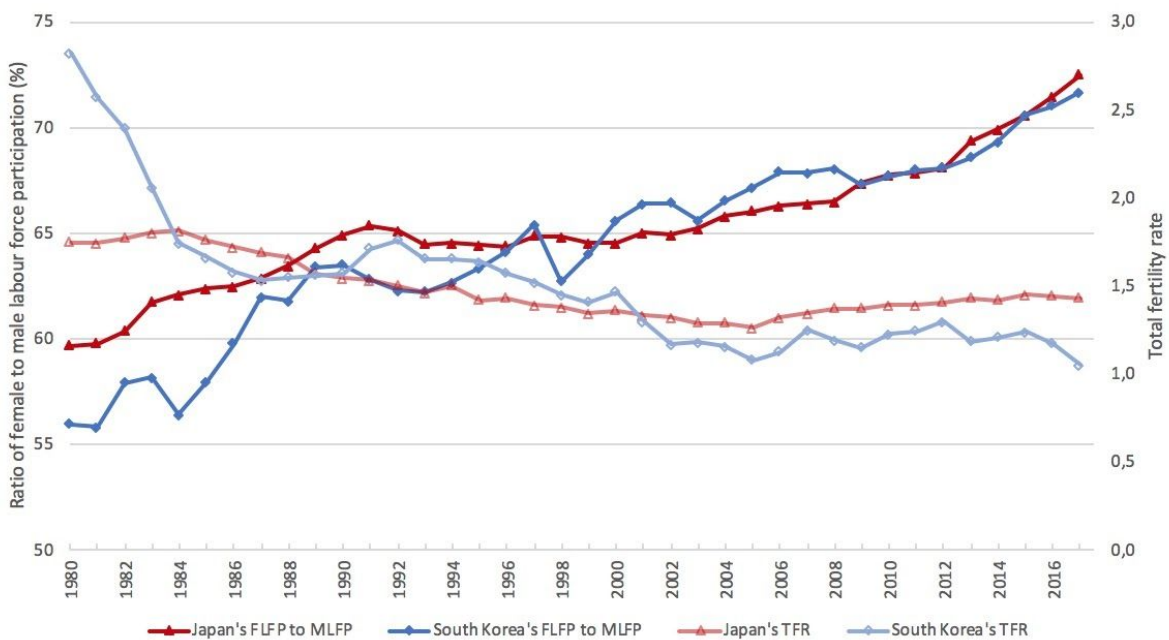
illustrated in Figure 8. These negative correlation findings concord with the SDT theory in regard to its claim that structural changes in the labour market, like increased FLFP, leads to a fertility decline.

Figure 7: Ratio of female to male labour force participation rate (%) (national estimate), 1980-2018



Source: World Bank (2020b)

Figure 8: Ratio of female to male labour force participation and total fertility rate, 1980-2017

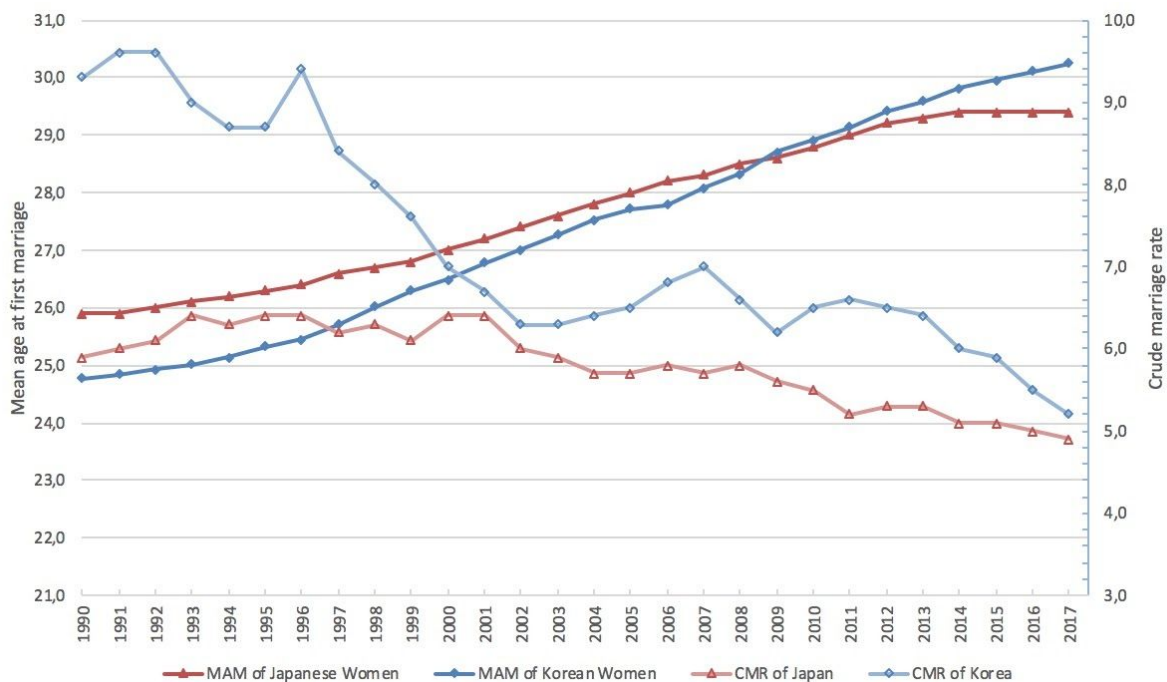


Source: World Bank (2020a) and OECD (2019a)

6.1.2 Family Formation

As with the first demographic transition, the second one is said to be brought about and accompanied by societal changes such as a shift in family formation. According to Kim (2005), this entails, amongst other things, the postponement of marriage, a decrease in overall marriages and an increase in divorces. While both cases sustained a significant decline in their crude marriage rate (CMR), South Korea experienced a dramatic drop in marriage rates over the past three decades. Marriages per 1000 people decreased by 44,1% from 9,3 marriages in 1990 to 5,2 marriages in 2017. Japan, on the other hand, saw far fewer marriages already in 1990, at a rate of around 5,9 marriages per 1000 people. Over the past few decades, Japan experienced light fluctuations in regard to its CMR, peaking multiples times at a rate of around 6,4 marriage (see Figure 9), before steadily declining to a CMR of 4,9 in 2017.

Figure 9: Mean age at first marriage (in years) and crude marriage rates (per 1000 people) of Japan and Korea, 1990-2017



Source: OECD (2019c)

When connecting mean age at marriage (MAM) with the data on fertility by the OECD (2019a), a very high negative correlation establishes itself for the case of South Korea ($r=-0,84$). This is not the case for Japan where the strength of the relationship of the two

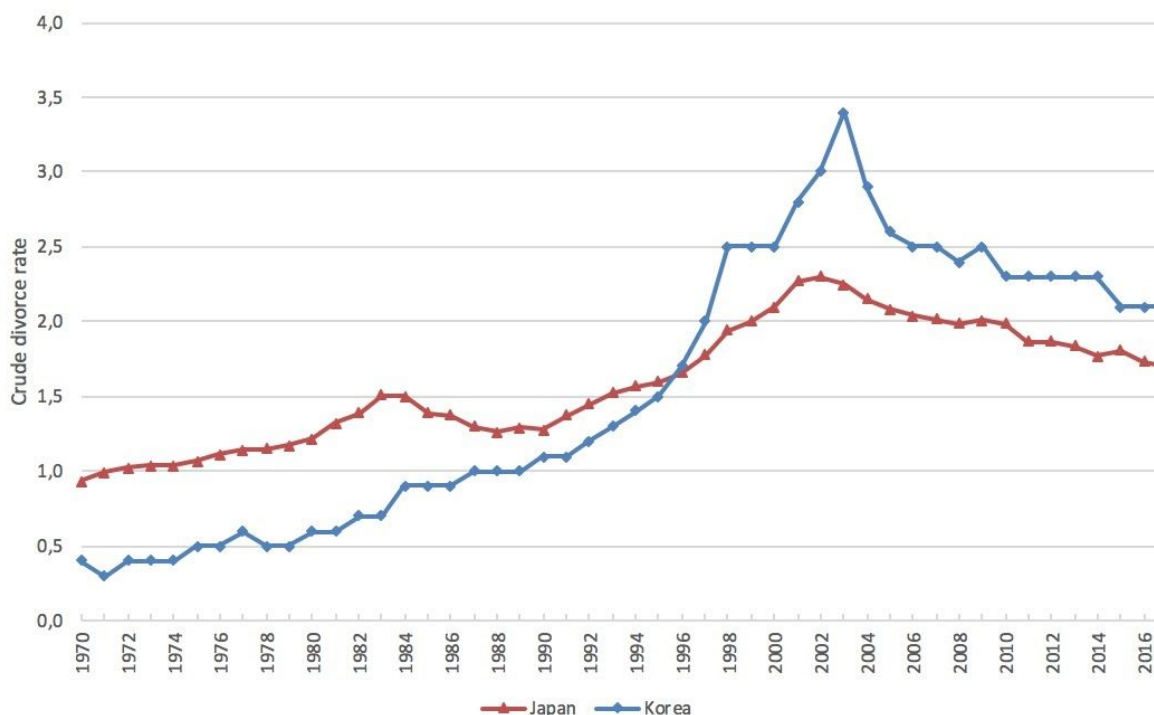
variables is rather low ($r=-0,28$). This trend continues when evaluating the degree of correlation between the crude marriage rate to that of fertility. While for the case of South Korea a very high correlation is found ($r=0,93$), for Japan the same relationship is found to be negative and close to, if not, negligible ($r=-0,02$). In other words, there appears to be a strong correlation in Korea between marriage and fertility, indicating that when married, couples are likely to procreate. In contrast, marriage and fertility appear to not be connected positively with each other in the case of Japan, indicating that marriage does not necessarily lead to parenthood. Moreover, it indicates that children born out of wedlock are more common in Japan than in South Korea, as confirmed by data from OECD (2016).¹³

When looking at the relationship of the MAM and the CMR, however, a very high negative correlation is found for both Japan and South Korea (Japan: $r=-0,89$; South Korea: $r=-0,9$), which indicates a clear shift in family formation for both South Korea and Japan. As illustrated in Figure 9, over time, fewer people are getting married while those that do get married do so at a later stage in life, implying a postponement of – and thus, a shift in – family formation.

Another indicator of the SDT theory in relation to the dynamics of family formation is the change in divorces over time. Since the 1990s, the divorce rates of both South Korea and Japan have increased significantly. As illustrated in Figure 10, for the case of South Korea, the crude divorce rate (CDR) more than tripled between 1990 (1,1 divorces per 1000 people) and 2003 (3,4 divorces per 1000 people) before declining to the rate of 2,1 divorces in 2017. In 1970, Japan's CDR was higher by 0,5 divorces than that of South Korea. As of 2017, this trend has reversed itself, with the CDR now being 0,4 divorces higher in South Korea than in Japan (1,7 per 1000 people). Correspondingly, while Japan's CDR is below that of the OECD average (CDR of 1,9), South Korea is placed above (ranked 12th in divorces within the organization – two positions below Sweden) (OECD, 2019c). This rise in divorces has been found to be connected with an increase in individualistic tendencies in society (Ogihara & Uchida, 2014).

¹³ In 2016, the share of births outside of marriage was 2,3% in Japan, whereas it was 1,9% in South Korea (OECD 2016).

Figure 10: Crude divorce rate (divorces per 1000 people), 1970-2017



Source: OECD (2019c)

As expected, when examining the relationship between the crude divorce rates and the fertility rates between 1990 and 2017 of the two cases, high and very high negative correlations can be found for South Korea and Japan, respectively (South Korea: $r=-0,779$; Japan: $r=-0,923$). This implies that an increase in divorce rates is associated with a decrease in fertility rates. Interesting to note is the fact that, although divorces appear to be more common in South Korea and its fertility rate is lower, the relationship between divorce and fertility decline is stronger in Japan.

In summary, this section shows that over the past few decades, the postponement of marriage, a decrease in marriage and increase in divorces have occurred across Japan and South Korea. These findings are in accordance with the characteristics of the SDT. While the indicators' relationship varies between the cases, a shift in family formation is, nonetheless, to be noted for both cases.

6.1.3 Gender Equality Orientation

According to Eastin and Prakash (2013), female parliamentary participation approximates gender equality in politics and women's status in society. This corresponds to Ersson and Lane (2008, p. 440) who argue that the higher the gender equality orientation of a country, the higher the share of women in the national parliament. In Japan, the share of women in parliament more than doubled from 1997 (4,6%) to 2020 (9,91%) (IPU, 2020a; 2020b). Albeit this is a significant and important development in terms of the status of women and gender equality for the country, it is a rather limited advancement when compared to South Korea. In South Korea, the share of women in parliament increased fivefold from 3% in 1997 to 17,29%, as of March 2020 (IPU, 2020a; 2020b). It should be noted, however, that even with this substantial increase, Japan and South Korea are still, far behind other industrialized countries in terms of female representation in parliament, and subsequently in gender equality orientation.

The WVS variable on whether men make better political leaders than women seemingly confirms this trend of gender equality being higher in South Korea than in Japan. Regarding the variable statement, the share of people 'disagreeing strongly' increased from 5% in 1996 to 14% in 2010 for South Korea, whereas it only increased by 3% – from 5% to 8% – for the case of Japan (Inglehart et al., 2014). On the other side, the share of people who agreed (no matter the degree) that men make better political leaders than women do, decreased significantly for both Japan (59% in 1995 to 43% in 2010) and South Korea (63% in 1996 to 45% in 2010) (Inglehart et al., 2014). Given that the share in female political representation, as well as the trust of society in women as leaders, has increased, a rising symmetry in gender roles – a key characteristic of the SDT according to Lesthaeghe (2010) – can be identified for both cases.

It should be noted, however, that both Japan and South Korea are amongst the lowest-ranked East Asian and Pacific countries in the Global Gender Gap Index of 2020. As of 2020, South Korea is on place 108 with a score of 0,672 (score ranges from 0-1), 13 ranks above Japan, which holds position 121 in the index with a score of 0,652. While South Korea has at least steadily increased its score and moved up seven ranks since 2018, Japan's score decreased by

0,010 leading to an eleven rank drop (WEF, 2020, p. 9). Thus, while efforts have been made in terms of gender equality, both Japan and South Korea are still far behind their Western counterparts in terms of gender equality.

6.1.4 Attitudes

As mentioned above, the SDT is said to be connected with a change in attitudes towards kin and self. In other words, individualism and self-realization become priority over altruism and family. According to Schmid (1984), this “individualism is the underlying cause of low fertility” (Schmid, 1984 cited in van de Kaa, 1987, p. 6). Moreover, this shift in attitudes has – in Europe – been found to be connected with the postponement of childbearing, the prioritization of self over parenthood, as well the choice for new household formations (Lesthaeghe, 2014).

To examine this shift, this thesis compares the answers collected by the World Value Survey (WVS) from wave two, four, and six, the decades of 1990-2010. For this thesis, the perceived importance of leisure time, as well as family, is utilized as an indicator for Japan and South Korea’s relationship towards individualism. As visualized in Table 3, the share of Japanese people considering leisure time ‘not very important’ and ‘not at all important’ nearly halved from 17,9% in 1990 to 9% in 2010, indicating a sharp increase in the society’s value for recreational activities and time. A similar increase in importance occurred in South Korea, as the share of responses indicating low levels of importance shrank from 20,4% in 1990 to 12% in 2001. It should be noted, that while in South Korea people appear to not value leisure time as very important, a majority of the respondents do, nonetheless, bestow considerable significance upon it, as can be seen in Table 3. Thus, simply put, a rise in importance of personal, recreational time can be noted for both cases, as the share in importance rose by 3,9% for Japanese respondents and 8,4% for Korean respondents.

Table 3: Importance of leisure time in life, 1990-2010

Important in life: leisure time	Japan			South Korea		
	1990	2000	2010	1990	2001	2010
<i>Very important</i>	24,4%	43,8%	43,6%	25,2%	23,8%	31,3%
<i>Rather important</i>	57,7%	47,6%	47,5%	54,4%	60%	56,7%
<i>Not very important</i>	16,1%	8,4%	8,5%	18,5%	13,5%	11,0%
<i>Not at all important</i>	1,8%	0,2%	0,5%	1,9%	1,8%	1,0%
Number of respondents	981	1.314	2.374	1.241	1.200	1.181

Source: Inglehart et al. (2014)

In both Japan and South Korea, family has – and continues to be – valued very highly (see Figure 4). In South Korea, while family is still valued very highly, the share of respondents considering family a ‘very important’ part in their life decreased slightly from 92,9% in 1990 to 91,5% in 2010, with more people indicating ‘rather important’ instead. In Japan, on the other hand, the share of people valuing family as very important in their life even increased from 78,4% in 1990 to 92,3% in 2010.

This strong familial connection of Japan and South Korea supports Mason (1997), who claimed that East Asia differentiates itself from its Western counterparts as its fertility decline was not accompanied by considerable changes in overall family ties. This continuation of strong familial values is underlined by the larger share of respondents who agreed to statement A (“Regardless of what the qualities and faults of one's parents are, one must always love and respect them”) over statement B (“One does not have the duty to respect and love parents who have not earned it by their behaviour and attitudes”). Indeed, in both cases, the share of people who opted to ‘always respect’ over ‘respect if earned’ increased by 2% over the past decades. In the case of South Korea, the share rose from 90% in 1982 to 92% in

2001. In Japan, the share of respondents agreeing to statement A has been considerably lower for decades, however, nonetheless, it increased from 70% in 1981 to 72% in 2000. (Inglehart et al., 2014)

Table 4: Importance of family in life, 1990-2010

Important in life: family	Japan			South Korea		
	1990	2000	2010	1990	2001	2010
<i>Very important</i>	78,4%	92,7%	92,3%	92,9%	89,6%	91,5%
<i>Rather important</i>	20,0%	6,5%	6,9%	6,2%	10,0%	7,7%
<i>Not very important</i>	1,3%	0,7	0,6%	0,7%	0,4	0,5%
<i>Not at all important</i>	0,3%	0,1%	0,2%	0,2%	-	0,3%
Number of respondents	998	1.341	2.404	1.248	1.200	1.129

Source: Inglehart et al. (2014)

While self-actualization might have increased over the past few decades, this was not accompanied by a value shift away from family. These continued, strong family relations, outlined above, indicate that no considerable weakening of social cohesion and community ties has occurred yet, making the SDT theory inconsistent regarding this indicator for the context of Japan and South Korea.

6.1.5 Work-family Conflict

According to Boling (2008), the East Asian work culture, which consists of demanding, long work hours, drives the region's low fertility rate. This business culture makes it difficult for women to rise to high-ranking leadership positions, as they are responsible for the bulk – if not the entirety – of household work, like child-care duties and the provision of care for elderly family members, as established above (see Table 2) (Singleton, 2000; Yamaguchi,

2015). Moreover, it disincentives marriage and fertility for many, as the career opportunity costs are too high (Boling, 2008).

Table 5 illustrates the perceived work-family conflict of Japan and South Korea in comparison to all the countries included in the 2012 ISPP survey. While the statement items one and two constitute the ‘work interference with family’ (WF) facet of the conflict, items three and four form that of family with work (FW). As can be seen, Japan’s mean score exceeds that of South Korea and that of all countries combined in all items, indicating an above-average level of work-family conflict for the country. South Korea's work-family conflict appears to be matching that of the total average to a greater extent, matching the mean score of item one and having very similar ratings for the other three items. Overall, the impact of work on family appears to be larger than that of family on work, as the mean is lowest in both WF items across all countries, thus indicating a higher frequency of interference. This confirms Boling’s (2008) findings, which credits work culture for interfering with family planning.

Table 5: Mean and standard deviation of the work-family conflict items for Japan and South Korea and across all countries (total)

		Japan		South Korea		Total	
	Item	M	SD	M	SD	M	SD
WF	<i>1. I have come home from work too tired to do the chores which need to be done</i>	2,76	1,180	2,57	1,126	2,57	1,076
	<i>2. It has been difficult for me to fulfil my family responsibilities because of the amount of time I spent on my job</i>	3,00	1,135	2,88	1,085	2,93	1,056
FW	<i>3. I have arrived at work tired to function well because of the household work I had done</i>	3,73	0,644	3,42	0,878	3,48	0,857
	<i>4. I have found it difficult to concentrate at work because of my family responsibilities</i>	3,74	0,655	3,48	0,787	3,45	0,842

Note: WF = work interference with family; FW = family interference with work; 1 = “several times a week” to 4 = “never”; n = 647 (Japan); n = 809 (South Korea); n = 34.702 (total/all countries)

Source: ISSP Research Group (2016)

As mentioned above, this work-family conflict is challenging for both husbands and wives. However, with an increasing number of women entering the workforce (as illustrated in Figure 7), an increased WFC has been found for the female population, as housework continues to be primarily considered a female responsibility (Man, 2014, p. 150). According to the OECD, men in Japan and South Korea spend the least amount of time doing unpaid work.¹⁴ Japan ranks lowest amongst the 29 economies with an average of 41 minutes spent on unpaid household work (OECD, 2020b). In South Korea, men spend the second-lowest time on unpaid work, with eight minutes more (49 minutes) than Japan. In comparison, the OECD average of time spent by men on unpaid activities for the household is at around 140 minutes – around two to three times more than in Japan and South Korea (OECD, 2020b).

6.2 How are the governments of Japan and Korea encouraging fertility?

Population ageing, and concerns regarding declining fertility, are not newly observed phenomena. Around 75 years ago, Myrdal (1945, p. vi) foreshadowed a “crisis of reproduction” for Sweden and emphasized how social policies are the key to easing the burden of raising children for families (Boling, 1998). Fast forward to the present, both Japan and South Korea are increasingly implementing social policies with the aim to alleviate and facilitate child-rearing.

The Japanese government started to respond to its low fertility rate in the early 1990s – nearly 20 years after it had experienced continuous sub-replacement fertility levels – with the expansion of family policies and programs, ranging from childcare services and parental leave schemes to monetary assistance like child allowances (UNDESA, 2015). In 2015, the Japanese Prime Minister Shinzo Abe pledged to increase the governments’ efforts, stating

I want to confront the demographic problem head on and place particular emphasis on policies that will contribute ... to raise the birthrate to 1,8 per woman from 1,42 currently (Castro-Vazquez, 2017, p. 3).

¹⁴ This includes housework, child and elderly care, shopping, volunteering, and other unpaid work activities.

Research suggests that paternal leave affects fertility positively, given that, if fathers take time off from work and take on more child-care responsibilities, mothers' work burden at home and overall WFC will be eased (Duvander et al., 2020). Subsequently, this leads to an increase in female employment and the incentive for more children in the long-run (Duvander et al., 2020; Pinsker, 2020). Out of all OECD economies, Japan and South Korea offer the most generous father's leave entitlements, at 52 weeks (OECD, 2019d). However, only few of the entitled men actually take advantage of them due to fear of reprehension or retaliation (Guilford, 2014). In 2018, while just 17,8% of male workers used their paternity leave in South Korea (The Korea Herald, 2019), a mere 6,16% of entitled fathers took the leave in Japan (MLHW, 2019). In Japan, men taking time off for their family is rare and stigmatized to the degree that Kensuke Miyazaki, a member of the Japanese parliament, made headlines when he announced he would take two out of the 52 available weeks off (Hollingsworth, 2020; Ma, 2020). For 2020, in order to normalize fathers taking leave and in hope to thus increase prospective fertility rates, the Japanese government raised the paternal leave target to 13% (Siripala, 2020).

Moreover, in 2010, as an ongoing effort to increase female workforce participation (to support the economy), while also increasing the birth rate (to oppose population shrinking and ageing), the Japanese government launched the *Ikumen* ('hunky dads')¹⁵ campaign, as a way to fight the stigma around child-caring fathers (Niu, 2019b). Amongst other initiatives, the promotion of an ikumen mascot, short films, and Mr. Ikumen speech contests made the term ikumen catch on in mainstream culture and "generated a social movement whereby men are able to become proactively involved in childcare" (Vassallo, 2017, p. 39). In 2014, this marketing campaign was expanded upon to make work culture more family-friendly through the introduction of a new management style called *IkuBoss*.¹⁶ Some of Japan's biggest corporations – like Asahi Life, Mitsubishi, Sony, Suntory, and Toyota – have signed on to join the IkuBoss Corporate Alliance, pledging to encourage parental leave and facilitate more flexible working hours (Mitsubishi UFJ Financial Group, 2018; Nui, 2019b).

¹⁵ *Ikumen* derives from the word *ikuji* (childcare) and *ikemen* (hunk) (Robson, 2018).

¹⁶ *IkuBoss* refers to "a manager at any level who produces results for the company by supporting their team in achieving work-life balance, while also setting a good example by enjoying their own work and personal life. Everyone can become an IkuBoss regardless of gender" (Mitsubishi UFJ Financial Group, 2018, p. 3).

As previously mentioned, South Korea implemented its first population policy in 1962, which introduced family planning measures, believing that curbing fertility was a necessary precondition for economic growth. In 1996, as an unbalanced sex ratio, selective abortions, and the financial pressure of an elderly population were increasing, the government discontinued the distribution of free contraceptives and abandoned its anti-natalist policy. In 2004, also after nearly 20 years of sub-replacement fertility levels, the government established the Presidential Committee on Ageing Society and Population Policy (PCASPP), which, since then, has been tasked with the development of pro-natalist policies and alleviating the burden of an ageing population. (Cho, 2011)

Similar to Japan, South Korea announced that it aims to promote fertility through people-centred policies (MOHW, n.d.). The administration highlights that its primary goal is to create a society in which fertility is associated with happiness,¹⁷ stating:

The goal is being translated into action, with the government taking larger responsibility for the childbearing process and parenthood, while improving housing and job conditions and promoting a healthy work-life balance. (MOHW, n.d.)

In order to achieve this, the PCASPP has itself set four key tasks to undertake: (1) reducing the financial burdens of childbirth and rearing; (2) securing more time for parents to spend with their children; (3) developing a sophisticated and safe childcare system; and (4) creating an inclusive family culture (PCASPP, n.d).

Increasing the presence of the state in the child-rearing through such approaches is antithetical to the traditional understanding of the East Asian welfare state, which, previously has been centred around family and kin as the main providers of social support. It appears as though Japan and South Korea are slowly developing their welfare model away from predominantly ‘productivist’ towards a more social one that guarantees more privileged social policies (see Table 2) and greater social entitlements, for example, in the form of family-support programs.

¹⁷ According to Glass et al. (2016), social policies which aim to reduce WFC are associated with higher levels of happiness.

The expansion of Japan's and South Korea's social welfare with the aim to alleviate families is also reflected in their increased public spending on family programs since the 1990s (see Appendix B). Spending on family-support programs such as early childhood education and care, maternity and parental leave, and family allowances more than tripled in Japan from 0,4% of its GDP in 1990 to 1,3% in 2015. In South Korea it increased 12-fold from 0,1% of GDP in 1995 to 1,2% in 2015, indicating the rather moderate size of its family welfare provisions previous to the mid-1990s. (OECD, 2020a)

In summary, both governments of Japan and South Korea have recognized the importance of fertility rates for the future of their economy and aim to reverse the trend of ageing and population decline through various initiatives. Thus far, for both countries, a key approach to incentivize fertility has been focused on WFC alleviation. On the one hand, this is aimed to be achieved through the de-stigmatization of paternal leave and child-rearing, and on the other hand through the expansion of family-support programs. In turn, a shift from the traditional, productivist welfare regime towards a more one can be noted.

7. Concluding Remarks

Over the past decades, both Japan and South Korea have seen an economic as well as demographic transformation. As life expectancy rose, fertility rates declined and the populations began to age at an increased rate, setting new records. Since the mid-1970s and 1980s, Japan and South Korea have been experiencing consistent sub-replacement fertility rates, causing a rise in concerns of many scholars and policymakers. This led to the question of what drives these persistently low fertility rates to be raised.

According to the second demographic transition theory, increased levels of female labour force participation, a decline in marriages, an increase in divorces, greater gender equality, as well as an attention shift from community and family to self, are all key determinants of low fertility. As a strong familial connection has persisted thus far, the latter indicator was found not to be applicable for Japan and South Korea. Moreover, following the analysis, it has become clear that the key determinants of low fertility in Japan and South Korea are not fully represented by the second demographic transition theory alone. The work-family conflict theory plays a key role in understanding the underlying dynamics of low fertility for the two cases. As they are not mutually exclusive, the WFC adds to the SDT theory an essential dimension of the East Asian work culture, gender inequality of unpaid work, and the subsequent disincentive for procreation, for the context of Japan and South Korea.

The governments of Japan and South Korea are responding to these drivers by shifting increased financial focus towards social programs for family support. Furthermore, the utilization of parental leave programs, which has been found to alleviate WFC, has become a priority of both administrations. While it is too early to predict whether these interventions and initiatives will make a profound impact on Japan's and South Korea's population ageing trend, they are, nevertheless, a step in the right direction, towards sustainability.

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Appendices

Appendix A: Overview of demographic and societal characteristics related to the first and second demographic transitions

First demographic transition	Second demographic transition
<i>Marriage</i>	
Rise in proportions marrying, declining age at first marriage	Fall in proportions married, rise in age at first marriage
Low or reduced cohabitation	Rise in cohabitation (pre- and post-marital)
Low divorce	Rise in divorce, earlier divorce
High remarriage	Decline in remarriage following both divorce and widowhood
<i>Fertility</i>	
Decline in marital fertility via reductions at older ages, lowering mean ages at childbearing	Further decline in fertility via postponement, increasing mean age at first parenthood, structural sub-replacement fertility
Deficient contraception, parity failures	Efficient contraception (exceptions in specific social groups)
Declining illegitimate fertility, but not necessarily among teenage women	Rising extramarital fertility due to parenthood within cohabitation
Low definitive childlessness among married couples	Rising definitive childlessness in unions
<i>Societal background</i>	
Preoccupations with basic material needs: income, work conditions, housing, health, schooling, social security; solidarity is prime value	Rise of higher-order needs: individual autonomy, self-actualization, expressive work and socialization values, grassroots democracy, recognition by others; tolerance is prime value
Rising memberships in political, civic and community-oriented networks; strengthening of social cohesion	Disengagement from civic and community-oriented networks, social capital shifts to expressive and affective types; weakening of social cohesion
Strong normative regulation by Church and State; first secularization wave, dominance of political and social factions (“pillars”)	Retreat of the state, second secularization wave, sexual revolution, refusal of authority, waning influence of political factions (“pillars”)
Segregated gender roles, familistic policies, embourgeoisement, promotion of breadwinner family model	Rising symmetry in gender roles, female economic autonomy
Ordered life-course transitions, prudent marriage, and dominance of a single model of the family	Flexible life-course organization, multiple lifestyles, open future

Reproduced from Lesthaeghe (2010)

Appendix B: Total spending on social and family programs as a percentage of GDP:

Japan, South Korea, and selected other OECD countries, 1990-2015

	1990		1995		2000		2005		2010		2015	
	S	F	S	F	S	F	S	F	S	F	S	F
<i>Japan</i>	10,5	0,4	12,8	0,5	14,8	0,6	16,4	0,8	20,1	1,2	20,6	1,3
<i>South Korea</i>	2,7	-	3,1	0,1	4,4	0,1	5,9	0,2	7,5	0,7	9,0	1,2
<i>France</i>	21,9	2,4	25,7	2,6	24,6	3,0	25,8	2,9	28,1	2,9	29,1	2,9
<i>Germany</i>	19,6	1,8	23,1	2,1	23,4	2,0	24,2	2,0	23,7	2,2	22,7	2,2
<i>Sweden</i>	23,2	4,0	27,0	3,6	24,0	2,8	24,1	3,2	22,9	3,4	22,8	3,5
<i>UK</i>	13,1	1,8	14,7	2,0	13,8	2,4	15,4	2,9	18,4	4,0	18,1	3,5
<i>USA</i>	12,7	0,5	14,5	0,6	13,5	0,8	14,9	0,7	18,7	0,7	18,2	0,6
<i>OECD average</i>	14,9	1,5	16,3	1,7	15,6	1,8	16,3	1,9	18,4	2,2	17,0	2,0

Note: The category “S” stands for social and includes public spending for old age, survivors’ benefits, active labor market programs, family policies, health, unemployment, and housing; the category “F” stands for “family” and includes the subset of expenditures related to family policies such as childcare and family allowances.

Source: OECD (2020a)