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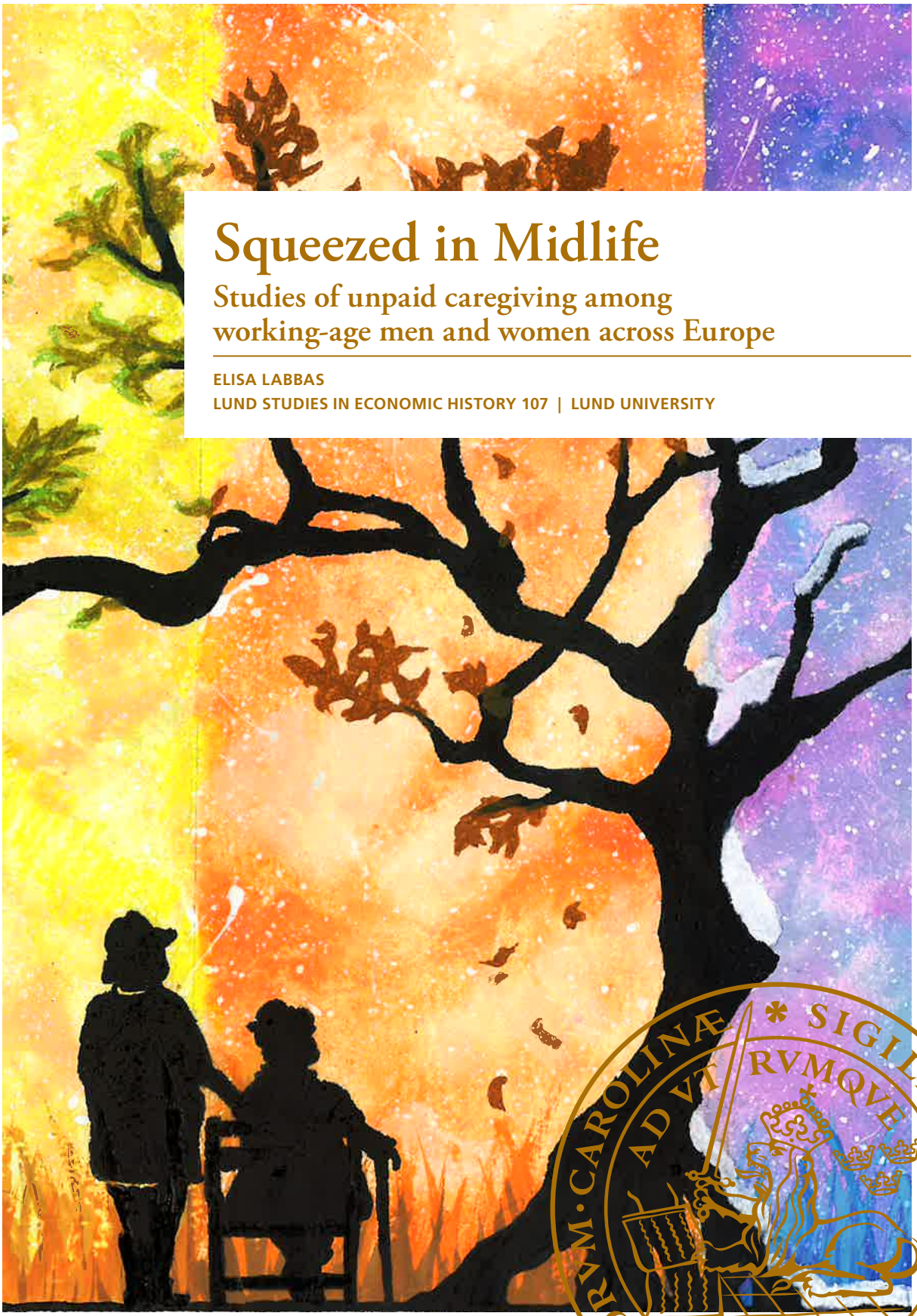

Squeezed in Midlife

Studies of unpaid caregiving among working-age men and women across Europe

ELISA LABBAS

LUND STUDIES IN ECONOMIC HISTORY 107 | LUND UNIVERSITY

Squeezed in Midlife

STUDIES OF UNPAID CAREGIVING AMONG WORKING-AGE MEN AND WOMEN ACROSS EUROPE

Population ageing means that increasingly many are faced with the dual demands of paid work while providing unpaid care to older family members. Caregiving requires time and energy, with implications for paid work and well-being. The challenges faced by individuals add up and therefore also impact national economies. This dissertation provides insights into the implications of unpaid caregiving for working-age men and women across Europe in the 21st century. Consisting of four studies, it adopts a comparative perspective on European welfare regimes and gender, as women provide most care.

The first study provides an overview of how care for older people is organized between the family and the welfare state across Europe. It draws on macro-level indicators that reflect different contexts with implications for unpaid caregiving. Although many European countries can be characterized as dual-earner societies, few provide public support for addressing older people's care needs so that family members are alleviated from the bulk of care responsibilities. Such support is high primarily in the Nordic countries and lowest in Southern and Eastern Europe.

Three studies draw on micro-level data to examine three different caregiver outcomes among men and women aged 50 to 64: labour supply, psychological well-being, and sickness absence. They address a gap in the literature that lacks a systematic focus on older working-age individuals. The trade-offs between caring for independently living parents and labour supply appear limited. Nevertheless, gender differences in labour supply and caregiving emerge particularly in Continental and Southern Europe. Results also show that caregiving relates to worse psychological well-being, especially among women in Southern Europe who care for a parent in their own household but also in Nordic countries despite a lower care load. This suggests that caregiver well-being depends on context. Lastly, caregivers have a higher risk of sickness absence, even when care intensity is low. Caregiver absenteeism is more common in countries with higher at-home care coverage and a lower gender gap in employment. This suggests that combining paid work and unpaid caregiving may be straining and raises questions about the adequacy of at-home care services.

As unpaid care for parents does not crowd out older working-age men's and women's labour supply, policymakers seeking to increase the labour supply of mid-life women should address gender differences earlier in the life course. The implications for well-being and sickness absence call for an ambitious vision for supporting unpaid caregivers. It is of key importance that care policy reforms consider the family members of older people in need of care, especially if more women are to participate and stay in the labour force.

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Elisa Labbas

LUND
UNIVERSITY

DOCTORAL DISSERTATION

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Squeezed in Midlife: Studies of unpaid caregiving among working-age men and women across Europe

Abstract

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Key words

Unpaid caregiving, care for older people, labour supply, psychological well-being, sickness absence, double burden, welfare states, gender, Europe, SHARE

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List of papers

I. Labbas, E. (2022). Whose responsibility? Organization of care for older people across five European welfare regimes. *Unpublished manuscript.*

II. Labbas, E. and Stanfors, M. (2022). Unpaid care for parents and labour supply among older working-age men and women across Europe. *Unpublished manuscript.*

III. Labbas, E. and Stanfors, M. (2022). Unpaid care for parents, coresidence, and psychological well-being among older working-age men and women across Europe. *Submitted.*

IV. Labbas, E. (2022). Double burden later in life: Unpaid care for parents and sickness absence among older working-age men and women across Europe. *Unpublished manuscript.*

Introduction

Motivation and aim

Across the globe, medical advances and knowledge about health behaviours have allowed remarkable improvements in life expectancy. Although the developments are largely positive, population ageing raises a new set of challenges for policymakers to tackle as the shares of the population in advanced ages are growing. As many men and women as possible are needed to participate in the labour market to widen the tax base that supports national economies. Alongside employment, increasingly many working-age people provide regular assistance to older (65+) family members and relatives who no longer get by in their daily lives without support. A new balance of paid work and unpaid care is thus forming across Europe and beyond, with implications for both individuals and societies.

Assistance from family, relatives, and friends – henceforth "unpaid caregiving" – is the backbone of Long-Term Care (LTC) systems globally. It encompasses any regular, long-term assistance with (instrumental) activities of daily life that is provided based on an emotional relationship, without pay and usually without formal training. The majority of unpaid caregivers are women (Verbakel et al., 2017), and the challenges around combining paid work and unpaid care, therefore, have distinctly gendered implications. Nevertheless, men share eldercare to a greater extent than childcare, and their contributions are becoming more important (Bettio & Verashchagina, 2012; European Commission & Social Protection Committee, 2021). The implications of growing care needs depend on the national context. Namely, countries differ in ideals about how care should be organized between the family and formal LTC providers, which means that families of older people in need of care face different degrees of responsibility in ensuring that care needs are met.

Despite creating enormous economic value, unpaid care remains largely unrecognized and undervalued in decision-making. Caring for a loved one is frequently considered a natural part of life and brings fulfilment and other

positive feelings. Yet, there are opportunity costs and other potential unwelcome consequences involved if the demands of the situation exceed the caregiver's capacity (Van Houtven et al., 2019). Regular caregiving takes time and therefore involves a trade-off with other activities, most importantly paid work. Furthermore, caring for a loved one can lead to negative well-being outcomes depending on the circumstances. Particularly women and those with limited options for outsourcing care to formal providers are at risk of facing unmanageable demands. That greater attention is paid to caregivers is important not only for individuals' finances and well-being but also for the economic sustainability of ageing nations.

The share of people surviving into (very) old age and needing LTC is unprecedented, but the lack of recognition and support for care is age-old. For as long as opportunities for gainful employment have existed outside the domestic sphere, care provision and other routine household work have been a necessary consideration for women interested in taking part in the labour force. The issue of how to combine employment and family responsibilities remains universally topical, but working-age men and women across Europe operate under different contextual frameworks that provide incentives but also set constraints on the set of options available for the individual.

Across Europe, welfare states have modified the conditions for taking care of dependents and women's opportunities for gainful employment for decades, albeit the focus has been on children rather than older people. For example, Sweden as well as other Nordic countries have been considered frontrunners regarding egalitarian laws and policies, having pursued gender equality and minimizing individual men's and women's dependence on the family through public policies since the 1960s. Elsewhere in Europe, ideas and praxis regarding women's roles and the organization of care vary widely. While the focus of support measures is on childbearing and rearing, they have consequences for earnings and employment that carry on to later life (Muller et al., 2020). Despite differences in the level of support, rapid population ageing, reforms to care policy, and continued increases in the labour force participation of women are taking place across Europe, and the challenges that individual countries face are in many respects shared by others.

Against this backdrop, this dissertation contributes to our understanding of what the new balance of employment and unpaid caregiving means for working-age men and women across Europe. The studies focus on comparing patterns and outcomes across gender and national contexts in the first two decades of the 21st century. Rather than examining change over time, the patterns emerging during this period are viewed against long-run historical

developments in population mean age and women's labour market advances. It addresses an important gap in the caregiving literature, which is abundant but has thus far lacked systematic focus on working-age people – the labour force that forms the very foundation of the economies of modern welfare states. The focus of this dissertation is on the highly policy-relevant group of mid-life[1] men and women who fall in between the demands of increased labour force participation and extended working lives and taking care of the older generation, whose care needs are impossible to meet by formal LTC alone.

Before moving forward, it is necessary to clarify what the term "unpaid caregiving" means. Taking care of family, friends, or neighbours who have limitations in activities of daily life is an integral part of human relationships. From an economic perspective, it can be conceptualized as a form of unpaid work as well as non-professionally provided LTC[2]. Henceforth, the terms "care for older people" and "eldercare" are used interchangeably to denote LTC to people over the age of 65. Unpaid, or non-market work consists of activities performed for maintaining the welfare of oneself and one's family, who most often live together but can also live in separate households (which is often the case with one's parents). Traditionally, household activities have been unrecognized and undervalued because of the lack of money involved but were recognized as work at the International Conference of Labour Statisticians in 2013 (Umberto Cattaneo & Addati, 2018: 40).[3]

Unpaid caregivers engage in tasks similar to those performed by professionals, such as help with activities related to independent living (Instrumental Activities of Daily Living, IADLs) and/or self-care activities (Activities of Daily Living, ADLs). Examples of the former are preparing meals, managing money, shopping for groceries or personal items, performing light or heavy

[1] The term 'midlife' is typically used to refer to ages between 45 and 65. In this dissertation, men and women falling into this age category are referred using this term but also as "mature" or "older working-age men and women".

[2] The European Union (EU) Social Protection Committee defines LTC as "a range of services and assistance for people who, as a result of mental and/or physical frailty and/or disability over an extended period of time, depend on help with daily living activities and/or are in need of some permanent nursing care" (European Commission & Social Protection Committee, 2021).

[3] The terms "unpaid care" and "informal care" are often used interchangeably in the literature, but this dissertation centres around "unpaid caregiving" only. Technically, "informal care" can be used to denote market-based care by persons who are undeclared in social security and work outside the context of formal employment regulations. While many Europeans use paid informal care services, those are outside the scope of this dissertation.

housework, and using the telephone, while the latter can consist of bathing, dressing, eating, getting in and out of bed or a chair, moving around, using the toilet, and controlling bladder and bowel functions. Unpaid and professional care can be both complements and substitutes, and usually exist in parallel to meet the care recipient's needs. In addition to taking care of practical responsibilities, caregivers frequently provide emotional and other forms of psychosocial support.

The four research papers included in this dissertation examine two overarching research questions that are relevant to current policymaking. First, what are the ongoing trade-offs and consequences related to unpaid caregiving to elderly parents among mid-life men and women? Focusing on this particular caregiver-recipient configuration is motivated by parents being the largest group to whom people aged 50 and over give care (Colombo et al., 2011: 90). In midlife, people (and their spouses) are also less likely to suffer from age-related conditions or to have young children at home, both factors that potentially limit labour force participation. Second, how does the welfare state context relate to caregiver outcomes among mid-life men and women, who constitute an important part of the labour force? Ageing will continue to impact European countries in the coming decades, irrespective of the type of LTC system they have in place. This research question is motivated by the promise that empirical comparisons may prove useful in identifying structural conditions that support successfully accommodating caregiving into daily routines in midlife.

The first paper focuses on the national context for unpaid caregiving. Countries differ in ideals about how care for dependents should be organized between the family and the welfare state. Scholars have developed theoretical frameworks for identifying patterns in state support for care and its implications for gender relations, but the policy environment has been changing rapidly in response to ageing. Therefore, the paper presents an overview of support for older people across European welfare regimes. It attempts to answer these questions: Is it possible to identify country clusters based on familialism and defamilialization in support of older people? To what extent do such clusters overlap with gender equality in participation in paid work? How should we interpret current patterns against previous welfare state literature?

Regular caregiving takes time and involves a trade-off with other activities of daily life, most importantly paid work. Research has thus far focused on those who provide highly intensive care, while less is known about those who give care on a more sporadic base (often the case with employed persons). The

second paper aims to answer the following questions: What trade-offs exist between paid work and unpaid caregiving among men and women, and how do these vary by caregiving intensity? Moreover, how does caregiver labour supply vary across country contexts?

The third paper addresses questions about caregiving and psychological well-being. Although caring for a loved one can bring fulfilment and other positive feelings, it can also come with adverse consequences depending on the circumstances. An important aspect of how caregivers experience the situation is, besides how much time is spent on giving care, whether the caregiver and the care recipient share a living space, i.e. coresidence. Care tends to be more intensive when given within the household, and such an arrangement can lead to feelings of never being off duty. Given that the prevalence of intergenerational coresidence varies across European countries, the paper examines whether coresidence explains country differences in caregiver well-being. More specifically, the paper answers the following questions: How do unpaid caregiving to elderly parents and caregiving intensity relate to psychological well-being? To what extent does coresidence with elderly parent(s) explain a potential welfare regime gradient in caregiver well-being?

More subtle and temporary effects may also exist, although this does not mean they are unimportant. The fourth paper examines sickness absence from work as a short-term consequence of unpaid caregiving. Again, it is important to take into account the country context since it influences caregiver stress but also determines the conditions for and costs of absenteeism. The paper addresses these questions: How is unpaid caregiving to elderly parents and its intensity related to sickness absence? Furthermore, how does caregiver absenteeism relate to country-level differences in formal care coverage and gender gaps in employment and hours worked?

Context

Population ageing and new economic challenges

Europe is "turning increasingly grey" in the coming decades, more so than other continents. The age structure of the population is expected to change with the share of older people increasing, driven by trends in life expectancy, fertility, and migration (European Commission, 2021). The large cohorts born in the 1950s and 1960s are reaching the age of 65 and add to the old-age population at present and over the upcoming decade. Furthermore, gains in life expectancy are expected to continue. Across developed countries, life expectancy both at birth and at age 65 has been increasing in the long run. In 2018, life expectancy at birth was in the EU 77 years for men and 83 for women, while the remaining life expectancy at age 65 was 18 for men and 22 for women (the figures have dropped somewhat since then following the Covid-19 pandemic).

It is projected that the Member States whereby life expectancy is the lowest will catch up to the rest, including gains past age 65. Much of the change in age structure is driven by increases in the share of the population aged 80 and over, which is projected to increase from 6 % in 2019 to 13 % in 2070. Second, fertility rates remain below natural replacement rates. Third, net migration inflows to the EU are not enough to counter the ageing process. Although trends across countries are somewhat heterogeneous, with several countries predominantly in Southern and Eastern Europe experiencing much sharper ageing compared to the rest, the ageing trend applies across Europe (Figure 1).

Population ageing is the result of great advances in human health. Historically, life expectancy was short, and infectious and other diseases made life miserable. That people live longer today is the result of long-run historical processes having taken place in the course of the 19th and 20th centuries, such as dramatically reduced child mortality and the development of modern medicine. While these positive trends now allow many to live well into old age, economically advanced nations have in the 21st century reached a point where ageing creates a new set of challenges for policymakers to tackle. The effects from ageing cannot be offset by the number of children being born or immigration (European Commission, 2021), and are felt in every segment of

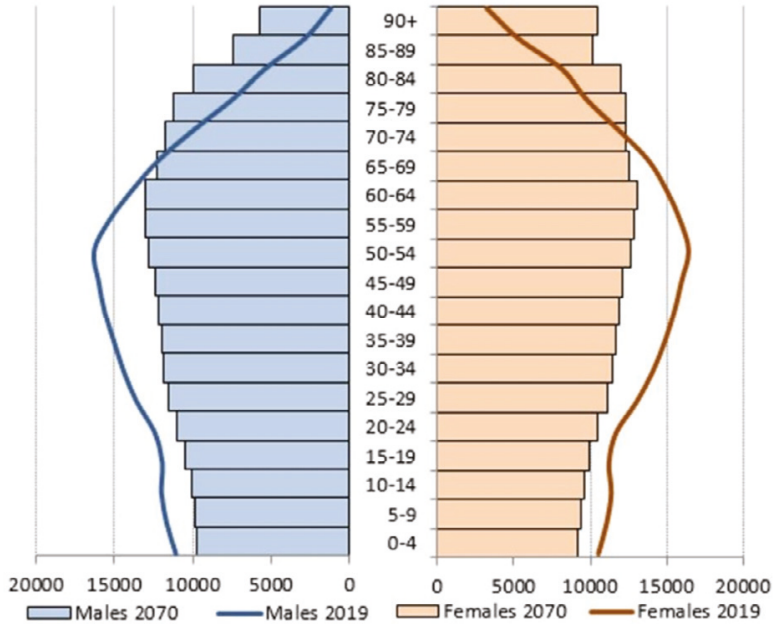

Figure 1. Population by age group and gender (thousands) in the European Union.
Source: European Commission (2021).

society. Since it will not be possible to erase the cost of ageing, societies have to decide on the just way of distributing that cost.

The upward shift in population mean age has implications for the share of people who depend on help and care from others in their daily lives. Although medical advances have allowed marginal increases in life expectancy at old age, postponing or decreasing the onset of disability has proved to be more difficult. Dependency, meaning the inability to perform ADL and IADLs, is not inevitable but the likelihood of physical and mental disability increases noticeably past the age of 80. This means that as the share of the population in advanced age increases, the share of people who have activity limitations in their daily life rises as well (although the increases depend on how much the share of the population in need of care is increasing dramatically, the organization of care remains contingent on how the elderly were cared for in the 20th century.

As European welfare states developed, the formation of formal care infrastructure was influenced by underlying ideals surrounding the family as well as women's roles in the home and society. The Nordic countries, where

high female labour force participation was seen as a societal goal since the 1960s, created systems where eldercare was formalized through at-home and institutional care. That adult children were in this way alleviated of care duties became a widely accepted norm among older people themselves and in the society. In other European regions, most prominently Southern Europe, it remained common to have more close-knit family ties. Eldercare would often involve a middle-aged daughter outside the labour force caring for an elderly person in the home. These approaches to the organization of care solved the care-work trade-off in two different ways, either by outsourcing care or keeping it in the family, potentially at the expense of the labour force participation of a primary caregiver.

Both of these approaches are problematic from the perspective of the economies of ageing nations. Countries with extensive LTC systems are faced with increasing costs as the need for services and benefits increases, and spending on health and LTC is the largest component of the projected increase in age-related expenditure in national budgets. Ageing also results in decreasing tax revenues. From 2019 to 2070, projections suggest that the number of working-age people (20-64) per person aged 65 and older will decrease from around three to less than two (European Commission, 2021). The rising costs and decreasing revenues have led policymakers to look for ways to counteract the budgetary pressures through policy reform, such as postponing the retirement age and reforming LTC systems. In some countries, reforms that attempt to control costs shift the responsibility for care onto the family members of those in need of care. These developments are occurring alongside a shift in female labour force participation – younger cohorts of women are much less likely to be homemakers than women of previous cohorts. As a result, more people across Europe will combine paid employment and unpaid eldercare.

This dissertation focuses on Europe in the first two decades of the 21st century, a period of around 20 years. The focus is not on change over time, however. Rather, the dissertation adopts a comparative lens on gender and countries. For this aim, the micro-level data from different years are pooled, and the influence of time-varying developments that impact the whole of Europe is accounted for in regressions using time-fixed effects. The differences between men and women across countries are deeply rooted in history, and even if some change has taken place, these differences are assumed to largely persist over the 20 years. In other words, the studies have been written under the assumption that gender and country differences were in essential respects similar at the beginning of the 2000s and at the end of the 2010s.

Unpaid care as the default source of assistance for older people

Against a backdrop of rising demand for care and women's changing roles in the labour market, the global default source for long-term assistance for older people remains family and friends. At present, estimates for the EU suggest that between 12 and 18 % of the population aged 18 to 75 provide care at least once a week (European Commission & Social Protection Committee, 2021). This share will most likely increase, as greater care needs imply more pressure on families of older people to respond. However, support for those caring for older people is usually less than ideal, given that the focus of research and policies around the reconciliation of work and care has been overwhelmingly on families with children. Thus, more people of working-ages are faced with the double demands of paid work and caregiving while falling into a blind spot of available support and care-work reconciliation measures.

Even though many European countries have extensive LTC infrastructure, there are systemic challenges relating to the supply of and access to formal care. A fundamental issue is that care services are expensive because the sector is labour-intensive and the potential for productivity gains is limited. This has two implications: a) that the full cost of care is too high for most people to be paid out-of-pocket, and b) rising care needs are a key driver of public expenditure and LTC is, therefore, a critical object of concern for policymakers. Currently, challenges within the formal LTC sector include staff shortages, difficult working conditions, low pay, and increasingly complex skill requirements (European Commission & Social Protection Committee, 2021). These issues contribute to formal care access being a challenge for many older people across the EU, either due to the lack of services to choose from or the inability to afford them.

Since the 1990s, budgetary pressures have led policymakers in many countries to seek LTC reform, either through explicit policy goals or incremental changes to existing policies. In 1994, countries in the Organization for Economic Development and Co-operation (OECD) adopted "ageing in place" as a key principle of care policy, meaning that disabled older people should be maintained in their homes for as long as possible. This was seen as agreeing with the preferences of older people, improving agency and autonomy – but also as a way to avoid costly institutionalization – and was accompanied by investment in at-home care. Nevertheless, it was generally recognized that maintaining independent living among older persons with significant disabilities would require a contribution from one or more family carers (OECD, 2005: 40). Thus, a more or less implicit consequence of adopting the

principle was that unpaid care was given greater emphasis in the overall mix of formal and unpaid care.

Factors impacting the supply of unpaid care

The supply of unpaid care may decrease due to changes in the availability of caregivers (European Commission, 2021). An important demographic factor that impacts the availability of caregivers is that families have become smaller because people have fewer children than before. In the EU, fertility rates peaked during the post-war baby boom and declined for the rest of the 20th century, stabilizing at the total fertility rate of around 1.5, under the natural replacement rate of 2.1. While spouses are an important source of assistance, they tend to be elderly themselves and often have care needs of their own, or are not present due to widowhood or following a divorce. Ageing also affects the adult children of older people, who often have health conditions and limitations themselves. Lastly, reduced intergenerational coresidence and geographic proximity mean that it may not be possible to respond to care needs or that care can only be provided to a very limited extent.

The primary factor impacting the propensity of potential caregivers to provide care is their labour force participation, which drastically reduces the amount of available time for giving care. Women, who have traditionally been and still are the primary care providers, have always been more or less constrained in their ability to partake in the paid labour market due to domestic responsibilities as well as other structural barriers. However, female labour force participation rates are projected to keep increasing, as younger generations are more likely to participate than older generations (European Commission, 2021). Since the 1960s, women have established a role in the working sphere but their efforts in the domestic sphere have not decreased equally. Men's increased efforts in unpaid activities have generally not compensated for the time that women have reallocated away from the home (Pailhé et al., 2021). The question is, then – modifying a quote in Gornick and Meyers (2003: 8) – "if everyone is at the workplace, who will care for the elderly?"

An especially relevant group of potential caregivers are mid-life and older men and women, whose labour market participation rates are projected to increase due to reforms such as postponing the retirement age and changing pension benefits. For ages 55 to 64, participation rates are projected to increase from 62 % in 2019 to 71 % in 2070. The changes are larger for women as their pension ages are aligned with those of men (European Commission, 2021).

Given that caregiving is most common among middle-aged women, the rising labour force participation rates raise questions not only about the future supply of unpaid care but also about how employment and unpaid caregiving can be combined.

How common is caregiving to parents across Europe?

Figure 2 shows the prevalence of caregiving to parents among mid-life men and women (50-64) with at least one living parent across European regions, as percent.[4] Caregiving encompasses any regular help in the past 12 months with personal care, household chores, or paperwork outside or within the household. It is divided by intensity, with high-intensity referring to care provided daily or almost daily and low-intensity to care provided weekly or less often. Those who cared primarily for someone other than a parent were excluded (including those caring for in-laws).[5]

The largest share of caregivers is found in the Nordic countries (44 % of men and 55 % of women), followed by Continental European countries (31 and 40 %). Although still prevalent, caregiving is least common in Southern (21 and 33 %) and Eastern (18 and 30 %) European countries. Despite caregiving being the most common in the Nordic countries, nearly all of the care is low-intensive, with only 3 % of both men and women providing high-intensity care. The share of high-intensity caregivers is higher in the Continental countries (5 and 9 %) and the highest in Southern (7 and 17 %) and Eastern (7 and 14 %) countries. Thus, the prevalence and intensity of unpaid caregiving to elderly parents are inversely related across European regions.

This pattern is somewhat counterintuitive given that support for formal LTC is more extensive in the Nordic countries than in the South and East. It is, however, in line with international research showing that unpaid caregiving is widespread in countries where the welfare state theoretically has the primary responsibility for ensuring that care needs are met. The more extensive the welfare state support, the more common but less intensive unpaid support is

[4] Approximately 50 % of people in this age group report having at least one living parent. Regional differences across Europe are small in this respect, except for the Eastern countries where the share is lower (44 %).

[5] In the data underlying Figure 2, an elderly parent is the primary care recipient for approximately one-third to a half of caregiving situations outside the household, depending on region. For care within the household, the share of parents among care recipients ranges from 10 % in the Nordics to 42 % in Southern Europe.

(Albertini et al., 2007). This has been explained by the welfare state having a two-fold impact on unpaid care. On the one hand, the welfare state reduces the need for informal support by taking on especially heavy, routine care tasks and medical help. On the other hand, it enables potential caregivers to provide support by channelling resources to them (Hämäläinen & Tanskanen, 2020).[6]

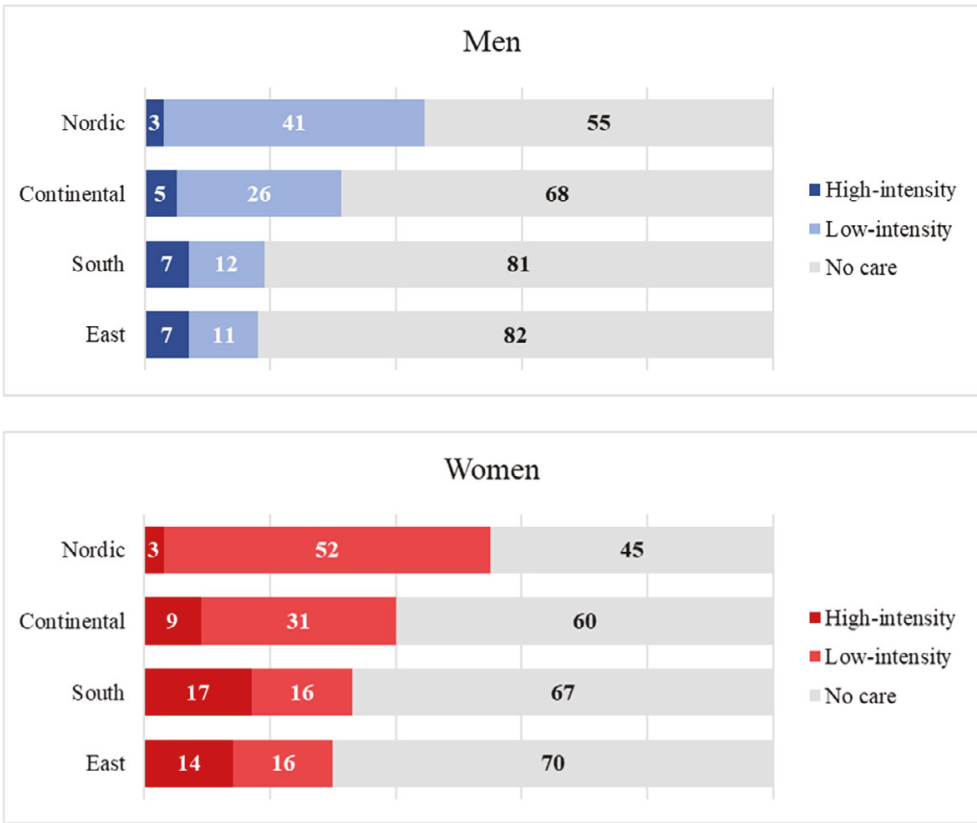

Figure 2. Prevalence of unpaid caregiving to parents (%) among men and women (50-64) with at least one living parent across Europe by caregiving intensity.
Notes: Country clusters are Sweden and Denmark (Nordic), Austria, Germany, Netherlands, France, Switzerland, Belgium and Luxembourg (Continental), Spain, Italy, Greece and Portugal (South), and Czech Republic, Poland, Slovenia, Estonia and Croatia (East). Weighted using calibrated individual cross-sectional weights; N=29,031.
Source: Survey of Health, Ageing and Retirement in Europe (SHARE), waves 1-2 and 4-8 (excluding observations collected after the start of the Covid-19 pandemic).

[6] The SHARE data show that the inverse relationship applies also caregivers to all types of care recipients (e.g. spouses, disabled children, friends, neighbours) are considered.

Theoretical considerations and previous research

Although the consequences of population ageing can be examined using a variety of theoretical approaches, this dissertation has been written through an economic lens. The topic of care is at the crossroads of several disciplines and in-depth analysis, therefore, requires using a toolbox of models and frameworks. Different theoretical perspectives are not taken at face value but modified according to critiques and empirical research findings. As an example, neoclassical economic theory cannot fully explain why women perform more unpaid work than men, and thus gender perspectives are needed.. Despite the use of several theoretical perspectives, all of the topics examined in the dissertation have economic relevance by involving either direct or indirect costs. At the core is an interest in how societies and individuals use scarce resources.

Economic perspectives

Importantly for the economic outcomes of individuals and nations, studies suggest that unpaid caregiving is associated with reduced labour supply, especially among those who spend a substantial amount of time providing care (Bauer & Sousa-Poza, 2015; Van Houtven et al., 2019; Lilly et al., 2007). These empirical patterns can be examined through the theory of time allocation (Becker, 1965), which centres time as a scarce resource that individuals choose to allocate to different activities in a utility-maximizing manner. Caring for dependent adults is viewed as an unpaid work activity that involves a trade-off with competing activities, such as paid work and leisure (Graham & Green, 1984; Gronau, 1977).

The gender division of labour is in neoclassical economic theory explained through efficiency gains from comparative advantages and specialization, and as a process that optimizes the well-being of the household and its members. Heterosexual couples pool resources and allocate them in a manner that maximizes joint utility (Becker, 1973). Women invest more in home-specific human capital given their initial comparative advantage in unpaid activities due to childbearing, while men specialize in paid work (Becker, 1985). Thus, a male-earner solution with a benevolent household head (Becker, 1974) is taken as a standard. Additionally, bargaining models acknowledge that spouses have independent agency (Lundberg & Pollak, 1996; Manser & Brown, 1980), but also predict a gendered division of labour given the relatively lower earning potential of women. The gender division of labour persists over time because

of increasing returns to specialized human capital, which can help us understand why caregiving remains gendered across the life course.

Gender perspectives

Differences in men's and women's paid and unpaid work cannot be explained entirely by economic incentives. Alternative theories have attributed gender differences to biology, psychological differences stemming from early socialization, or cultural factors that operate differently for men and women in adulthood (see Sarkisian and Gerstel, 2004, for a summary). Feminist economic scholarship has strived to make household production and reproductive activities ("unpaid work") visible in the economic sciences. Important contributions are for example the male breadwinner – female carer vs. duel earner models (Lewis, 1992). These explain why men's and women's employment patterns diverge sharply (e.g. labour force participation of mothers and other women with care responsibilities, part-time work, segregation), and are useful for understanding why patterns vary across countries.

Irrespective of which theory is chosen, the prediction is always that men and women will perform different amounts of care (or any kind of domestic work) even when holding otherwise similar positions in the labour market. Consequently, employed women are faced with a "double burden" of paid and unpaid work – in other words, working a "second shift" of domestic activities in addition to the regular workday, including household chores, child and eldercare, and managing administrative and other household production processes. Rooted in sociological role theory, the "double burden" hypothesis suggests that the combination of employment and family duties can lead to strain, overload, and adverse health outcomes (Bratberg et al., 2002; Nilsen et al., 2017; Ugreninov, 2013).

In contrast to neoclassical economic theory which assumes free choice, feminist economic scholarship has highlighted that the choice to care is constrained. Engaging in the care of close family members is generally motivated by non-selfish motives, such as altruism, reciprocity, fulfilment of obligation or responsibility, social norms, as well as what options exist in the form of publicly funded or privately purchased care (Folbre, 1995; Van Houtven et al., 2019). Most societies reinforce altruism towards family more strongly for women than for men (Badgett & Folbre, 1999). The underlying motivations and emotional processes associated with the decline of a close family member's health also render eldercare different from childcare.

Furthermore, market-based care is only a partial substitute for unpaid eldercare (Folbre, 2001: 48-49). The cost of relying purely on privately funded care services is too high for most households. In addition, many will provide at least some assistance themselves to fulfil the care recipient's emotional needs. These perspectives emphasize the limited set of options for those who have a family member in need of care, especially for women who face different expectations than men.

Perspectives focusing on health and well-being

Although unpaid caregiving generates great societal value, it is associated with health and well-being risks (Bauer & Sousa-Poza, 2015; Bom et al., 2019; Van Houtven et al., 2019; Pinquart & Sörensen, 2003). According to the psychosocial stress perspective (Pearlin et al., 1990), caregiving impacts well-being directly because it involves heavy physical tasks and emotional distress, and indirectly by creating tensions with other activities. Carers report lower levels of subjective well-being, quality of life, and happiness (Bremer et al., 2015; van den Berg et al., 2014). The negative experiences are especially salient when care is intensive (Coe & Houtven, 2009), when the parties involved are closely related (Litwin et al., 2014), or when the caregiver and care recipient live together (Kaschowitz & Brandt, 2017). This is not to say that taking care of a loved one cannot involve positive feelings, but rather to point out the risks that can be acknowledged and addressed at a collective level.

Caregiving involves a trade-off with not only paid work but also leisure, including rest and recovery. This aspect can be particularly important for working-age caregivers whose schedules can become overfull. Although the majority of all unpaid carers provide only low levels of hands-on care, they often take responsibility for household chores and manage the process of making sure care needs are met. Women in particular may fit caregiving responsibilities into their schedules without cutting back on other obligations, reducing leisure time instead (Stanfors et al., 2019). Not having enough time to perform all the tasks at hand or to recover results in stress (Hamermesh & Lee, 2007), role conflict (Opree & Kalmijn, 2012; Stephens et al., 2001), and can ultimately lead to sick leave (Ugreninov, 2013) or consumption of antidepressants and tranquilizers (Schmitz & Stroka, 2013). More extensive and frequent care responsibilities and a more salient care-work conflict impose a higher burden on women than on men.

Cross-national comparisons

The characteristics and outcomes of the caregiving situation depend not only on individual and household level factors but also on the societal context. Laws, regulations, and policies are key national-level determinants of individuals' incentives and constraints that crosscut all levels of society. Each country is characterized by a unique legal framework and an accompanying mix of policy instruments, underpinned by distinct ideals and ideologies about how the production of welfare[7] should be organized. These contextual factors can be captured under the concept of a welfare state, which refers to a state that promotes citizens' well-being and equality by modifying market or social forces (Ruggie, 1984: 11) and providing protection from social risks.[8]

In practice, various legal and policy mixes create a challenge for country-comparative research and for generalizing findings from one country to another. To counter this, scholars (e.g. Esping-Andersen, 1990; 1999) have developed frameworks or typologies that identify similarities across the various approaches found in different countries. In this line of research, countries are grouped into welfare regimes based on similar underlying logic to their respective approaches to welfare production. Although there are challenges involved when grouping highly heterogeneous countries, the concept of regimes is useful for deriving and testing hypotheses about how country context influences individual-level outcomes. For this dissertation, two conceptualizations are relevant: welfare regimes and care regimes. Both are operationalized in a gender-sensitive manner.

A good starting point for comparative analysis is the well-known welfare regime framework by Esping-Andersen. Public policies are seen as instruments to allow income maintenance in the case of the inability to work for pay ('decommodification'). What separates welfare regime types is that they differ in underlying political ideologies (Liberal, Conservative, and Social Democratic). Furthermore, public policies are seen as modifying the roles of the family and the market in the welfare mix. As Esping-Andersen treated the family as a unit without considering gender differences, others pointed out that welfare states influence gender relations. This is because they modify constraints and incentives for men and women, either consolidating or

[7] I use the term welfare to denote goods and services that provide for the basic needs or general well-being of an individual.

[8] Conventionally, social risks have been considered to relate mostly to income maintenance for example in the case of old age or disability. In this dissertation the definition is expanded to cover the 'risk' of having an older family member in need of LTC.

mitigating gender inequalities (including the gender division of labour) (see for example Daly, 2020).[9]

In the welfare regime framework, care is not a central object of interest but can be considered one of the many welfare services that individuals need. It is provided mostly by the family (or extended social network) but can also be outsourced to formal service providers. The pure market cost of LTC services tends to be too high for most people, and therefore state interventions (or insurance), such as public funding and/or the direct provision of care services, are required to make it widely accessible. Building on the welfare regime framework, some have developed theories that focus specifically on how the care needs of children, older people, and others in need are met at the country level. These national strategies can be called "care regimes" (Bettio & Plantenga, 2004; Simonazzi, 2009), and using this framework as a complement to welfare regimes has the advantage of giving care centre stage in the analysis. The downside is that there is no established definition of what elements constitute a care regime, and the literature is characterized by various definitions and indicator choices, often based on what is conveniently available.

Variation in the division of responsibility for older people who need assistance can be described along an axis of familialism vs. defamilialization (see for example Leitner, 2003; Saraceno & Keck, 2010). Familialistic welfare states assume that families ensure care needs are met, by providing care themselves and/or outsourcing it to formal, private service providers. This approach often goes hand-in-hand with traditional gender roles, with women taking responsibility for care provision. Defamilializing welfare states seek to reduce the individual's dependence on the family by taking over some of the care responsibilities. For the families of older people in need of care, public support frees up time and resources for other activities. In particular, interventions that alleviate families of their care duties are of key importance for women's labour force participation.[10] It should be noted that policy mixes for the support of families with children and older people are often not aligned within countries. The care needs of the elderly tend to be less acknowledged as a public

[9] The concept of "gender regimes" captures the full range of welfare state influence on gender relations. Pascall and Lewis (2004), for example, list the areas of influence as paid work, incomes, care work, time use, and voice.

[10] Defamilialization can also take place through the market, but only well-off families can afford to outsource heavy care duties due to high costs.

responsibility than those of children (Saraceno & Keck, 2010), and are rarely discussed or framed from a gender equality perspective (Daly 2020: 155).

Empirical analyses of European countries often feature five groups: the Nordic countries, Continental Europe, Liberal countries, Southern Europe, and Central Eastern Europe and the Baltic (Daly, 2020: 40-41). Originally, Esping-Andersen identified a Social Democratic (Nordic countries), Conservative (Continental Europe), and Liberal regime (Anglo-Saxon countries). Others added Southern European countries as a separate group due to their high familialism (e.g. Ferrera, 1996). Although also familialistic with respect to care, Eastern European countries are separated from Southern Europe by high female labour force participation rates. Descriptions of each of the five European regimes can be found in Paper I, which provides an overview of previous regime accounts and a descriptive analysis of macro-level data for 2017. The measures cover the organization for the care of older people, old-age income support, gender balance in employment and hours worked, and the share of women who are labour market inactive for reasons that include caring for elderly family members.

Data

This dissertation makes primarily use of micro-level survey data, combining it with macro-level data that capture relevant contextual factors at the country level. While caregiving as well as the outcomes of interest are observed at the individual level, the context provides the societal structure that individuals have to consider. These structures consist of economic factors but also social norms, beliefs, and attitudes. Using country-level data allows looking into the black box of what factors within the national context explain differences in the outcomes of individual men and women.

Survey of Health, Ageing and Retirement in Europe (SHARE)

Topics and coverage

The micro-level data come from the Survey of Health, Ageing and Retirement in Europe (SHARE), which is the largest pan-European social science panel, covering more than 140,000 individuals in 28 European countries and Israel from 2004 onwards. Its primary purpose is to improve understanding of how ageing affects individuals in different contextual settings around Europe. The

data are collected bi-annually and contain information on health, socioeconomic status, as well as variables relating to social and family networks. The target population consists of individuals aged 50 and over who have their regular domicile in the respective SHARE country, speak the country's language(s), and do not live in an institution, as well as their households (Börsch-Supan et al., 2013).[11] The data are collected using face-to-face, computer-assisted personal interviewing and a questionnaire. Figure 3 presents an overview of participating countries and fieldwork times for waves 1 to 8.[12]

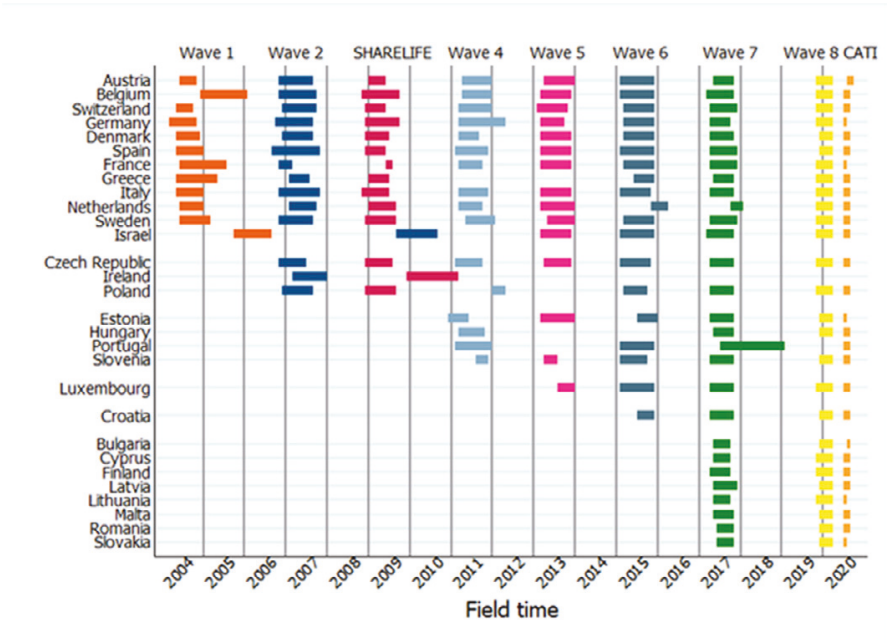

Figure 3. Overview of countries participating in SHARE and fieldwork times, waves 1-8.
Source: The SHARE Project (http://www.share-project.org/home0.html).

[11] That the target population of SHARE purposefully excludes individuals who are unable to speak the respective country's language means that findings cannot be generalized to such individuals, who may form a disadvantaged group.

[12] See Börsch-Supan and Jürges (2005) for the methodology around developing SHARE. The database is modelled after the US Health and Retirement Survey (HRS), the English Longitudinal Survey on Ageing (ELSA) and other surveys addressing questions that are relevant for the SHARE agenda (e.g., ageing-related surveys in Germany, Italy and Sweden).

As per its mission, SHARE has been used mostly for studies on the direct effects of ageing on the individual. Core findings cover topics within health and healthcare, employment, social inclusion, protection, cohesiveness, and material deprivation (see Börsch-Supan et al., 2015). When it comes to unpaid care, the focus of studies has been on older people and the role of family networks in their lives, including how unpaid care can meet care needs. Studies that have focused on those who give care to elderly parents have looked for example at the underlying motives to care (Klimaviciute et al., 2017), how sibling characteristics influence caregiving (Vergauven & Mortelman, 2019), and the impact of caregiving on adult children's mental health (Heger, 2017). The potential of SHARE for this purpose has not been fully realized, although there are several advantages over other types of databases. Register data miss information on almost all unpaid care, with the exception of formally appointed family caregivers, and internationally comparable labour surveys have had very little information on unpaid care. Lastly, SHARE aims to represent the entire population, unlike many small-scale surveys that focus on highly stressed caregivers.

Measures and data management process

The dissertation draws on data from 2004 to 2020, with observations collected after the start of the COVID-19 pandemic excluded. The effects of the coronavirus disease and associated response measures render caregiving during that time a separate research topic. Data from the third wave were also not used given that it is a retrospective survey that used a different questionnaire. As the lower cut-off for eligibility for SHARE is 50 and the most common statutory pension age across Europe is 65, the studies focus on men and women aged 50 to 64. The papers cover caregiving to parents only, who are the most common group of care recipients for mid-life adults (Colombo et al., 2011).

Data on unpaid caregiving were retrieved and variables were constructed using answers to several survey questions. Careful data work was done to harmonize information across waves whenever the formulation of the survey question varied over time. First, relevant variables from different modules in each wave were combined, creating one dataset per wave. These datasets were then combined into a panel using unique respondent identification codes as well as wave identifiers. Variables were renamed, relabelled, checked for errors, and new variables were constructed based on the existing ones. When appropriate (e.g. a question was asked only at first-time participation), information for longitudinal respondents was on certain variables filled in from previous

waves. The questionnaires, showcards, and a cross-wave comparison can be found on the SHARE project website.[13]

Limitations

The SHARE data are collected using a sampling procedure that requires a frame from which sampling units are drawn, to produce a full probability sample. A potential issue is that the availability of frames varies by country, which could reduce the validity of cross-national comparisons. Country samples drawn using frames other than population registers could lead to bias if individuals who are in the target population are missing from the sampling frame and are characterized by some common demographic or socioeconomic factor(s). To minimize sampling issues, SHARE is collected using the best available frame resources in each country to achieve full probability sampling (in most countries population registers). The SHARE documentation does not provide any indication of sampling bias based on factors relevant to this dissertation.

The response rates of SHARE are mostly in line with or above those of comparable surveys in the same period (Bergmann et al., 2019), but there is an important amount of non-response to be considered. Non-response is a threat to the validity of research findings if non-responders differ from responders in a way that is meaningful to the research question in focus. For example, a relevant issue for Paper III would be if individuals with poor mental health are more likely to not respond. The team behind SHARE examined potential selective non-response in wave 4 and found little evidence of bias based on gender, age, health status, occupation, and household composition (Börsch-Supan & Krieger, 2014: 60), which is reassuring. The threat of bias applies also to item non-response, meaning that some respondents leave part of the survey questions unanswered. This issue can be addressed by examining the characteristics of responders and non-responders to relevant survey questions in the case that item non-response is high.[14]

[13] The data as well as comprehensive documentation are available at http://www.share-project.org/home0.html.

[14] After removing observations with missing values on caregiving and individual characteristics, item non-response with respect to depression was less than 2 % in the dataset used in Paper III. Nevertheless, non-responders were more often men, non-employed, and had lower education, which does suggest non-response based on disadvantaged socioeconomic situation. Reality could therefore be slightly less positive than what the findings suggest.

This dissertation uses the panel dimension of SHARE to a limited extent because there was in most cases too little within-individual variation to conduct meaningful analyses. Individual-fixed effects are nevertheless employed in Paper III, and attrition is therefore a potential concern. The data collection team goes to great lengths to include all respondents and to reduce attrition, and SHARE also includes refreshment samples (see Bergmann et al. 2019 for details).

A limitation of the dissertation is that it was not possible to examine outcomes by ethnicity, which tends to put individuals in an advantaged or disadvantaged position. This is because of two reasons. First, SHARE does not record ethnicity, and direct analyses are therefore not possible. The closest indicator of ethnicity in the data is information on immigrant status and the country of origin, although this ignores persons of minority ethnicities born in their country of residence. Second, the sample sizes of individuals who are of non-European (and non- North American, Australian, or New Zealand) origin are small. In the case of the main sample used in Paper II, only 3 % could be identified as probably non-white individuals. This means that the studies cannot draw credible conclusions on unpaid caregiving among minority groups.

Other inherent limitations of survey data are inflexibility and a potential lack of depth. Because the survey uses a fixed questionnaire, information is limited depending on how the questions were defined. Pre-defined answer options force respondents to choose between options that do not necessarily reflect their actual situation or leave out important factors that influence the respondent's situation. This is the case for example for information on the intensity of caregiving, which is rather crude – the answer option 'daily' can cover a wide range of hours of care.

The validity and reliability of research findings depend also on how much the data feature systematic and random measurement error, for example from faulty or biased answers. Known threats are recall bias, interviewer bias, and social desirability bias. Attempts have been made to minimize each of them in the survey design phase or, for example in the case of income, by imputing missing values using a careful methodology (see Börsch-Supan et al. 2005 for a description of the measures for minimizing for example cross-cultural and measurement bias). Nevertheless, it is important to consider whether the data capture that which they were intended to and to keep in mind that the data are always subject to some error.

Contextual indicators

To provide context for micro-level patterns across countries, data on macro-level indicators were retrieved from several international databases. Since the division of responsibility for dependents between the welfare state and the family is a key theme of the dissertation, indicators on public support were needed. Data on formal LTC were thus downloaded from the OECD (2022), which collects official records of each country. In addition, the EU Statistics on Income and Living Conditions (EU-SILC, 2022) database provided information on the at-risk-of-poverty rate for retired persons after social transfers. Using these data was motivated by an interest in support for older people not only in terms of care but also in terms of income. Allowing older people to maintain an adequate standard of living through pensions is a defamilializing policy (i.e. reducing the need for adult children to provide financial support for an elderly parent).

Given that the focus is on working-age individuals, it was necessary to find indicators of men's and women's labour force participation and work hours across countries. For this, data on employment rates and work hours were taken from the OECD (2022). Because the focus is on differences between men and women, which vary across countries, the data were used to calculate gender gaps. For a proxy of traditional gender roles, information on the share of the labour market inactive women who report the reason for inactivity as providing care or other family or personal reasons were drawn from the EU Labor Force Survey (EU-LFS, 2022). Although the micro-level studies focus on mid-life men and women, these indicators are for ages 20 to 64 as this gives a more comprehensive view of gender and paid work at the country level. Lastly, data on the right to self-certified sickness absence were retrieved from the Mutual Information System on Social Protection Comparative tables (MISSOC, 2021) to be used as a control variable in Paper IV.

Methods

The analyses draw on commonly used statistical and econometric methods, chosen flexibly based on the research questions and appropriateness concerning the available data. Paper I is a descriptive macro-level study, while Papers II to IV make use of micro-level data for the most part analysed through multivariate Ordinary Least Squares (OLS) regression, which is standard practice when working with quantitative, non-experimental data. The majority

of the models were run on stratified samples (i.e., men and women, country clusters), as this allows identifying patterns within groups.

Paper I provides a descriptive analysis that unpacks the country clustering that is used often in country-comparative empirical research. The analytical strategy was inspired by Saraceno and Keck (2010) and involves both visualizing the data and ranking countries based on their values on relevant macro-level indicators. More sophisticated methodologies also exist (see for example Ariaans et al., 2021), but these can be unhelpful for a number of reasons.[15] The advantage of simply describing countries in relation to each other is that the risk of producing misleading findings is much lower. Despite its simplicity, the chosen method gives valuable information on the backdrop against which findings from individual-level studies can be interpreted.

The cross-sectional methodology used in Papers II to IV rarely allows interpreting the relationships of interest as causal. Researchers using multiple OLS regression often have to conclude that estimates should be taken as correlations or associations because of the challenges inherent in using observational (e.g. omitted variable bias, selection into "treatment", reverse causality). In the absence of data that allows using more sophisticated methods, cross-sectional results are valuable because they not only offer quantitative information on the relationships of interest but can also be used to motivate continued research. Importantly, findings can be used to attract attention and resources and to motivate the collection of data, preferably of such quality that causal estimation is made possible.

It matters a great deal whether the observed relationships between caregiving and the outcomes of interest are causal because the identification of mechanisms is necessary to implement effective policies. A common finding in the caregiving literature is that individuals who provide time-intensive care tend to be less likely to be employed and work fewer hours than comparable individuals who do not give care, but it is often not possible to establish the direction of causality. Methodologies that allow circumventing problems related to using non-experimental data, such as the Instrumental Variables (IV) method, have become increasingly popular in economics and other related

[15] Saraceno and Keck (2010) report that findings from cluster analysis are instable and that the distribution of countries is such that it is difficult to identify robust clusters, which motivates using the ranking approach instead. Another important reason not to compute clusters or indices is that contextual indicators tend to suffer from comparability issues. As long as truly comparable data on LTC policies are unavailable, complex computational methods are likely to produce depictions that are heavily affected by measurement error.

disciplines in recent years, and have also been used in the caregiving literature. A major challenge related to quasi-experimental techniques is that they are very data-intensive and require certain assumptions to hold. Data on caregiving that are of high enough quality to be used in these kinds of analyses are still rather hard to find.

Although less powerful, panel data methods have also been used in the literature on caregiving. The main benefit is accounting for the influence of unobserved, time-invariant characteristics. People self-select into caregiving based on the relationship with the person needing care, social norms and beliefs about reciprocity and solidarity, and barriers to giving care such as geographic distance, opportunity costs for time, economic situation, and whether they judge their competence to be adequate. The wider social context also influences who becomes a caregiver. Important factors are the availability of other potential unpaid caregivers (e.g. the care recipient's spouse, other children, non-kin) as well as access to formal care, which depends on LTC policy (Broese van Groenou & De Boer, 2016).

There are two challenges related to the use of longitudinal methods. First, longitudinal data on caregiving are scarce. Second, caregiving tends to be a long-term arrangement, which leads to a lack of transitions into and out of caregiving in a panel. Because individual-fixed effect models (FEM) rely on within-individual variation, it is often challenging to obtain sufficient sample sizes. The challenge becomes even more pronounced when more layers of analysis are added, such as specific characteristics of the caregiving situation. Although FEM models are used in Paper III, the lack of variation in the data is the reason why this dissertation could not make greater use of the longitudinal dimension of SHARE.[16]

On the one hand, the main analyses being cross-sectional means that the estimated relationships between caregiving and the outcomes of interest should be understood in light of potential omitted variable bias, selection effects, and reverse causality. This means that caregiving may not be the cause of the observed outcomes, or may only be a partial cause. On the other hand, correlations are often interesting even if they are explained by factors other than caregiving itself. For example, if the well-being difference between caregivers and non-caregivers is explained by caregivers being in a more disadvantaged socioeconomic situation, this is an important sign of structural

[16] Examinations of the panel dimension of the analytical samples revealed that around a half of the individuals appeared in the data only once. Furthermore, the majority were either non-caregivers or caregivers for the entire period during which they participated in the survey.

inequality (i.e., becoming a caregiver is conditional on the individual's private resources).

Summary of papers

The first study focuses on the context of unpaid caregiving at the country level, while the remaining papers focus on the individual outcomes of mature working-age men and women (50-64) who are or could be caregivers to elderly parent(s). The outcomes examined in each micro-level paper are relevant for the sustainability of national economies in the upcoming decades. All three papers explore how the intensity of caregiving matters for outcomes and how outcomes vary by gender and welfare regime. The findings can be interpreted in light of the findings from the first paper, which looks into the specifics of support for older people within welfare regimes.

Paper I: Labbas, E. Whose responsibility? Organization of care for older people across five European welfare regimes. *Unpublished manuscript.*

Although many countries have well-developed formal care infrastructure, family members remain a vital source of care for older people (65+) across Europe. There are important differences in public old-age support across countries, with some welfare states alleviating families of the responsibility to take care of the older generation more than others. This study presents an overview of how care for older people is organized across 26 European countries. It takes the commonly used welfare regime clustering into Nordic, Continental, Liberal, Southern, and Eastern Europe as a starting point and draws on data on national indicators for 2017 from the OECD, EU-LFS, and EU-SILC. Patterns are interpreted in relation to how welfare states organize care for dependents and the gendered implications for men and women in working ages (Bettio & Plantenga, 2004; Esping-Andersen, 1999; Leitner, 2003; Pascall & Lewis, 2004; Saraceno & Keck, 2010).

In line with previous research, the analysis reveals general patterns but also some heterogeneity within the clusters. Comparative micro-level research will thus benefit from for example using country-fixed effects in regressions. The majority of countries focus old-age welfare state support on income (pensions) rather than care, which confirms that eldercare remains largely a private matter across Europe. Countries that previously had high levels of public support for

care (e.g. Sweden and the Netherlands) have implemented reductions in institutional care with the emphasis of provisions having shifted to at-home care. Although many countries can be characterized as dual-earner oriented, few can be described as defamilializing in supporting older people's access to care. It is important that policy reforms around the organization of eldercare take into account implications for the family members of older people in need of care, especially if more women in particular are to participate in the paid labour market.

Paper II: Labbas, E. & Stanfors, M. Unpaid care for elderly parents and labour supply among older working-age men and women across Europe. *Unpublished manuscript.*

This paper examines how unpaid caregiving to independently living parents relates to labour supply across Europe. The study addresses the question of whether caregiving crowds out paid work, given that research has previously demonstrated that intensive caregivers, in particular, work fewer hours and are less likely to be in the labour force than non-caregivers (Van Houtven et al., 2019; Lilly et al., 2007). It builds upon empirical studies suggesting that labour supply effects are greater in Southern and Eastern Europe than in the North or West (Crespo & Mira, 2014; Kolodziej et al, 2018; Kotsadam, 2011).

Since previous research varies in the definition of caregiving (e.g. mixing care for independently living persons and coresidential care; including different types of care recipients) and sample (e.g. all persons aged 50 and over; women only), the study addresses a gap in the literature by studying a well-defined, highly policy-relevant group of both men and women. The analytical approach involves OLS and IV regression on data from SHARE, from 18 countries between 2004 and 2020 until the start of the COVID-19 pandemic. Labour supply is captured by two measures, being in employment and full or part-time work (30 hours per week), and caregiving is examined by intensity.

In contrast to our expectations from the neoclassical economic time allocation framework, we found only limited trade-offs between caring for independently living parents and labour supply, even when caregiving is of high intensity (i.e. daily or almost daily). Therefore, the IV approach did not add value to the analysis. We also found that giving low-intensity care (i.e. weekly or less often) is compatible with employment and full-time work. We found no support for a stronger trade-off in contexts where public support for eldercare is low. Nevertheless, important gender differences in paid work and caregiving emerge across welfare regimes, having built up over the life course. Gender

differences are larger in Continental and Southern Europe compared to the Nordic countries and Eastern Europe, in line with a stricter gender division of labour in these regimes.

The findings have several implications for future research and policymaking. First, research should take into account the circumstances around caregiving instead of pooling different kinds of caregiving configurations. Second, employees aged 50 and over may simply add care duties into their schedules without cutting back on paid work. Although positive from the perspective of labour supply, this may involve a risk of negative well-being effects such as burnout, coordination and time management problems, and cutbacks in leisure and rest. Third, policymakers seeking to increase the labour supply of especially women in midlife should address gender differences already in the previous stages of the life course, most importantly during the childbearing years. Alongside such efforts, adequate access to formal LTC must be ensured to support employees with caregiving duties.

Paper III: Labbas, E. & Stanfors, M. Unpaid care for parents, coresidence, and psychological well-being among older working-age men and women across Europe. *Submitted.*

The third paper shifts the focus on how caregiving relates to psychological well-being, which is of key importance for sustaining a functioning workforce. The theoretical starting point is that caregiver stress is a process influenced by individual and contextual factors like gender, caregiving intensity as well as public or private support functions (Pearlin et al., 1990: 586). Previous research shows that caregiving relates to worse mental health and well-being (Bauer & Sousa-Poza, 2015; Bom et al., 2019), varying along the lines of a North-South divide across Europe (Brenna & Di Novi, 2016; Di Novi et al., 2015; Verbakel, 2014). Although coresidential care has been shown to exacerbate negative outcomes (Kaschowitz & Brandt, 2017), its role has not been studied from a country-comparative perspective in the case of mid-life caregivers to parents. In Europe, coresidence with elderly parents is common primarily in contexts where public support for eldercare is low and where much of the responsibility for caregiving falls on families. In such contexts, traditional gender norms still structure the household division of labour with women doing more unpaid work than men (Pailhé et al., 2021). The study examines whether coresidence explains differences in caregiver well-being across Europe.

Similar to Paper II, the study draws on data from SHARE and covers 18 countries from 2004 to 2020 until the start of the pandemic. We estimated OLS models for average differences in depression and quality of life by caregiving intensity, and FEM to reduce selection bias (Kaschowitz & Brandt, 2017; Vlachantoni et al., 2013). Our findings show that caregiving relates to worse mental health and well-being, especially in contexts where coresidence with elderly parents is common (i.e. Southern and Eastern Europe). Furthermore, women are more likely to be impacted negatively than men, and coresidence explains the gradient in caregiver depression among women only, which highlights the importance of traditional gender roles. The gradient does not apply to subjective quality of life, however, which suggests that a familialistic culture may alleviate well-being losses related to an objectively high burden of care. A limitation is that the cross-sectional method could not rule out the influence of omitted factors nor claim causality, which means that the well-being differences may reflect socioeconomic factors and policy environments that put caregivers at a disadvantage rather than caregiving itself.

Our FEM estimates show that caregiving comes with an increased risk of depression among women in Nordic countries, where the hands-on care load tends to be low. This calls for applying a broad definition of caregiving in research and policymaking instead of focusing on only those who provide the most intensive care, and suggests a failure of the Nordic formal care system in supporting low-intensity caregivers. Given the relatively high accessibility of formal care, carers (the majority of whom are employed full-time) do not expect to shoulder responsibility for eldercare and may suffer from stress. Our findings highlight the need for greater support both in contexts where existing formal LTC provisions are low but also in contexts where they are more extensive (e.g. adequate access to formal care, care-work reconciliation measures).

Paper IV: Labbas, E. Double burden later in life: Unpaid care for parents and sickness absence among older working-age men and women across Europe. *Unpublished manuscript.*

The final paper turns the focus onto a less studied but important outcome, namely sickness absence from work. It examines whether a "double burden" of employment and unpaid caregiving to parent(s) relates to sickness absence in midlife, especially for women. Underlying mechanisms could be strain and overload (Pearlin et al., 1990) and/or using sickness absence to adjust labour supply in the short run (Allen, 1981). Despite the enormous costs caused by

sickness absence, the outcome remains understudied in the caregiving literature because suitable data have been scarce.

The analysis draws on data on employed men and women aged 50 to 64 from SHARE from 2006 to 2013 and is based on OLS regression. Caregiving was examined by intensity, while the outcomes were having had any sickness absence and the number of absence days in the past year. The paper also examines how two country-level factors relate to welfare regime variation in caregiver absenteeism using data from the OECD. On the one hand, formal eldercare coverage alleviates families of the need to provide care themselves, and should theoretically reduce caregiver absenteeism. On the other hand, lower gender gaps in employment and work hours mean that a double burden is more likely, which could relate to higher absenteeism. Since the contextual factors pull into different directions, the outcomes have to be studied empirically.

Providing support for the double burden hypothesis, the results show that caregiving relates to an increased likelihood of sickness absence among men and women, with gendered country patterns but no evidence of women being more impacted. Importantly, the finding applies primarily to low-intensity caregiving, which – if not attributable to bias – has economic importance given the high prevalence of low-intensity care across Europe. In contrast to studies using official sickness absence records, caregiving does not relate to a higher number of sickness absence days, although this could reflect differences in methodology.

At the national level, caregiver absenteeism correlates positively with at-home care coverage. This contradicts the expectation that high care coverage relates to lower caregiver stress and absenteeism and shows that the underlying dynamics are complex. In contexts such as the Nordic countries where formal LTC access is relatively good (although more limited than it used to be), the issue could relate to highly defamilialized social norms around eldercare, having to unexpectedly take on care, as well as having to manage and coordinate care. The likelihood of caregiver absenteeism was also higher in contexts with a lower gender gap in employment. In countries where full-time employment is the norm for all adults, caregivers are more likely to have to juggle different obligations.

Although it was not possible to identify the main underlying mechanism or interpret the associations as causal, the findings motivate further examination into the topic, for example using longitudinal data that allows accounting for selection. In addition, the findings suggest that care policies should encompass

a more ambitious vision for supporting the employed family members of those who need care.

Conclusion

This dissertation has documented some of the implications of the rising demand for old-age care in Europe for the family members of older people. It contributes to the literature on unpaid caregiving by focusing on a well-defined group of mid-life men and women, whose efforts are increasingly needed in the paid labour market in the coming decades. Despite the policy relevance of this group as well as the high prevalence of caregiving across Europe, the impact of care responsibilities is still not well understood. Public debates tend to centre on the formal LTC sector, while the family members of older people receive much less attention.

An important conclusion from the studies is that outcomes may differ across caregiver groups and configurations. While there has been a rather strong assumption in the literature that caregiving crowds out paid work, this does not appear to be the case for European mid-life caregivers to parents. Instead of focusing on direct labour supply effects, a more long-term perspective may be required when seeking to engage more mid-life women in the labour force. Future research could benefit from looking into the circumstances of the caregiving situation in more detail. Support measures for carers should also be tailored to the specific needs of the caregiver in question.

What is also clear from the studies is that patterns can challenge the received wisdom and theoretical predictions, such as with Paper II and IV. Perhaps most notably, the findings did not provide much support for the expectations that women would be more impacted more than men or that caregiver outcomes would be worse in contexts where public support for care is more limited. This signals that the processes that underlie the outcomes of individual caregivers in different countries are complex. Because systematic analysis provides grounds for effective policy, the availability of internationally comparable data on especially the main dimensions of formal care provision needs to be improved (European Commission & Social Protection Committee, 2021).

A relatively unique feature of the studies was to broaden the definition of caregiving to include low-intensity care (weekly or less often). The existing body of caregiving literature focuses on more intensive care, such as assistance provided to a spouse. That low-intensity caregiving was shown to relate to adverse outcomes, such as worsened mental health and sickness absence, can be considered surprising. Given that the majority of all care is of low intensity

and that a large share of Europeans provides such care, a recommendation for future research would be to take caregiving of different intensities into account. While the studies in this dissertation could not claim causality, the findings raise important questions for future research to look into, hopefully with more sophisticated methods (e.g. high-quality longitudinal studies).

To mitigate adverse effects on the individual and societal level, targeted policies for eldercare are required. Although care policies are in the hands of national governments, the EU has the potential to encourage the harmonization of measures across contexts based on what works. An example is the "Directive on work-life balance for working parents and carers" adopted by the European Council in June 2019 (European Commission, 2022). It proposes a "carers' leave" entailing 5 working days of leave per year for workers caring for relatives due to "serious medical reasons", as defined by each Member State. It also proposes an extension of existing rights for parents to request flexible working arrangements to other carers. The European Association Working for Carers has questioned whether the current changes are enough, however. Overall, access to leave and flexible working conditions remain a challenge, and measures often fail to meet the needs of carers even when technically complying with the new Directive (Eurocarers, 2020).

Although the studies concern a period before the start of the COVID-19 pandemic, the challenges of unpaid caregivers have only been exacerbated since then. The pandemic shone a spotlight on the long-standing challenges in accessing high-quality, affordable, professional LTC across European countries. It worsened the situation of family caregivers and exposed the neglect of their needs within formal care systems.

Given the direction of development in the EU's population age structure, the challenges related to balancing paid work and unpaid care will only become more pressing in the coming decades. The reality is that population ageing cannot be offset by fertility or immigration, and therefore an ambitious vision for the support of unpaid caregivers is urgently needed. The fate of older people's family members has mostly been considered a private rather than a public matter. This has meant that it has been up to individuals and families to solve the puzzle of how help and care for the older generation are fitted into daily life, but a mind-set where unpaid caregivers are assumed to be easily available is no longer realistic. Unpaid caregiving has to become a central subject in public discourse and an object of interest in policymaking because it touches an ever-increasing segment of the labour force. Like childcare, it must be framed from the perspective of being directly linked to women's ability to participate and be productive in the labour market.

Moving forward, it is of critical importance that decisions about formal LTC are made with an awareness of the spillover effects on the families of those who need care. Potential caregivers of working ages are a key segment in the labour force that is meant to support the economic basis of the EU. Care needs must be met through a mix of formal and unpaid caregiving that allows caregivers to remain in the labour force and maintain good health and well-being. Ultimately, the goal should be to provide potential caregivers choice so that the reason they give care is not that there were no other options available. If matched with adequate support, accompanying and assisting a loved one throughout the final years of life can be meaningful and fulfilling. If support is insufficient, it can lead to long-lasting adverse outcomes for caregivers during the caregiving episode but also later in life.

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