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The Chinese Pension System under Pressure:

The Interplay of State, Market and Society facing a
Demographic Crisis.

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Abstract

China's Demography is facing a Crisis: While people are getting older and the birth rate is steadily declining, Chinese society faces an immense dependency potential since the 2000s. Unlike in other nations of the world, this phenomenon hit China even before its great economic and social prosperity. This is a major problem, especially against the backdrop of an only fragmented pension system that leaves parts of the population lagging and unprotected.

Numerous reforms of the pension system, the attempt to improve a poorly developed and system and the ambition to eventually roll out the pension system to the entire population have led to a lack of clarity about how the state, markets and society act within this system and what logic they follow in the context of ageing. For this reason, this paper addresses the question: What logic do the state, market and society follow within the pension system and what can be derived from this interaction for the welfare state?

Based on two established theories, *the Three Worlds of Welfare Capitalism* according to Esping-Andersen and the Path Dependency Theory, a case study of China's Pension System concludes that state, markets, and society within the pension system do not only follow one single logic, but a mix of different mechanisms to face the ageing of the population. By specifically examining social stratification and decommodification as well as the historical contextualization of demographic change in the context of economic development, it becomes apparent that the functional logics range from elements of conservatism, especially corporatism, to elements of social-democratic welfare states, especially universalism, to productivism. From this, a unique welfare mix of the Chinese welfare state can be derived, which enriches the discussion on the functional logics within welfare states to a new extent.

Keywords: *Welfare State, Pension System, Demographic Change, Economic Development, Social Fragmentation*

Table of Contents

List of Abbreviations	IV
List of Tables	V
1. Introduction	1
1.1 Problem Statement, Research Objective & Structure	3
2. Methodology	7
2.1 Research Approach	7
2.2 Methods	10
2.3 Data and Data Collection	13
2.4 Reliability, Validity, Replication and Critique	15
3. Theoretical Framework	18
3.1 Definitions: Welfare, Welfare State & Pension System	18
3.2 Esping-Andersen's <i>Three Worlds of Welfare Capitalism</i>	24
3.3 Path Dependency Theory	27
3.4 Operationalisation	28
4. Analysis: A Case Study on China's Pension System	31
4.1 Part I: China's Demographic Development in the Course of Time	31
4.1.1 Before 1982: Growing Economy – Growing Population	32
4.1.2 1982 to 2000: Attempts to Regulate Population Growth	34
4.1.3 2000 to 2010: Further Ageing of the Population	36
4.1.4 Since 2010: The Demographic Crisis Peaks	37
4.1.5 Interim Conclusion	38
4.2 Part II: Logic of State, Markets & Society within China's Pension System ..	40
4.2.1 Before 1982: Two Sides of a Coin	40
4.2.2 1982 to 2000: Time of Reforms	44
4.2.3 2000 to 2010: A Left Behind Social Harmony	48
4.2.4 Since 2010: State and Market reducing Fragmentation	51
4.2.5 Interim Conclusion	55
5. Findings & Discussion	57
5.1 Why could China's Pension System not keep the Pace?	57
5.2 China's Welfare State – A Welfare Mix?	59
6. Conclusion	62
Appendix	VI
Bibliography	IX

List of Abbreviations

BOAISE	Basic Old Age Insurance System for Employees
BOAISEE	Unified Basic Old Age Pension System for Enterprise Employees
BOPSCS	Basic Old Age Pension System for Civil Servants
FGS	Five Guarantees Scheme
MOFA	Ministry of Foreign Affairs of the People's Republic of China
NBS	National Bureau of Statistics of China
NRSPS	New Rural Social Pension Scheme
OECD	Organization for Economic Co-Operation and Development
RMB	Renminbi
SOE	State-Owned Enterprise
UN	United Nations
URRPS	Urban and Rural Residents Pension Scheme
USPS	Urban Social Pension Scheme
PPP	Purchasing Power Parity
PRC	People's Republic of China
WHO	World Health Organisation

List of Tables

Tab. 1 – Extended Characteristics of Welfare States	26
Tab. 2 – Operationalisation of Decommodification	29
Tab. 3 – Operationalisation of Social Stratification	30
Tab. 4 – China’s Demographic Development in the Course of Time	39

1. Introduction

“China is of course an interesting case [...] because the global impact of its rise and the rapid development of Chinese social policy, which can serve as a playground for old theories on welfare-state development.”

Kongshøj 2015: 79

Ever since their first introduction, welfare states ¹ have been subject to a diverse academic discussion. Nowadays, it is no longer a question of what welfare states are or what goals they must fulfil, but how they function and which logics the interaction of state, society, and market ² follow. This serves above all to be able to make them comparable and, with a view to human-centeredness, to be able to determine where and how humankind is better off, supported and developed. This is done in particular by specifically examining the various developments and challenges faced by welfare states in the world.

While increasing global prosperity, states of all sizes and in all geographical locations of the world are facing one central problem that not only burdens welfare states in general but also their subsystems, especially the pension system: the ageing of society. Particularly, the People's Republic of China (also referred to as China) has been hard hit over the past 40 years. Rapid, unprecedented economic growth of 9.64% of the Gross Domestic Product (GDP) on an annual average since 1982 (World Bank 2022) and economic prosperity have not left the Chinese society unscathed. China now has not only the largest population, but also the largest number of elderly people (Wei 2021). Problems such as societal, within-country inequality and high dependencies of an ever-expanding elderly on a shrinking working population are just examples of the challenges the Chinese pension system is already facing due to the ageing of its society, today (ibid.).

¹ The term welfare state is widely used in academia, often synonymously with other words, such as ‘social state’ or ‘social welfare state’. In the context of this paper, the term welfare state is used to encompass all those social benefits that a state provides to support its society as well as all institutions and welfare systems that form the welfare state. Thus, welfare systems in the context of this work are defined to make up a welfare state. These include welfare benefits, e. g. for citizens in need, the pension system to support the elderly and insurance benefits to ensure health among society. For further explanations, see chapter 3.1 *Definitions: Welfare, Welfare State & Pension System*.

² In the context of this work, the term *market* will be used again and again. Following key economic assumptions, this term generally refers to the place where supply and demand come together. When we specifically talk about the labour market, we are talking about a market where employees offer their labour as a good and private or state companies demand it. The same applies to the pension insurance market – with the difference that the good offered is private pension insurance and the demanders usually are employees or other social groups. The providers then are private companies.

Unlike established welfare states of the world, however, there is a striking difference in China: the demographic crisis has hit the country in the midst of the development and expansion of a capitalist welfare state in general and a pension system in particular. Furthermore, the problems that follow one another in developed industrial nations are cumulative in China. While the mortality rate has remained roughly constant over the past forty years, the fertility rate has plummeted, so that society has increasingly become older, and the coming generations become smaller (see among others National Bureau of Statistics of China (NBS) 2000a; 2000b; 2019a; 2019b). Whereas in 1982, one worker provided for about eight people over the age of 65, this dependency has more than doubled until 2018 (NBS 2019a; 2019b). For this reason, the Chinese pension system represents a particularly interesting case that is of such immense importance due to its uniqueness - also in light of the fact that ideas and strategies of other industrialised countries could not have been adopted and adapted to Chinese needs due to political divergences, lack of time and financial resources (Wu 2004: 2). So how can we study, analyse, and understand how a welfare state and its pension system deal with demographic challenges?

A major, fundamental contribution to analysing welfare states, their logics and processes was made by Gøsta Esping-Andersen (1990) in his work *The Three Worlds of Welfare Capitalism* (also referred to as *the Three Worlds*). He was the one to first attempt classifying states and their welfare systems along their political orientation. Hence, he came up with the theoretical distinction between liberal, social democratic and conservative welfare states³ (Esping-Andersen 1990). The particular ambitions behind this were, first, that outdated models were no longer considered current. Esping-Andersen's goal was thus to work out a reconceptualization and retheorisation (Esping-Andersen 1990: 2). Second, he wanted to show that, contrary to the assumptions of the time, differences exist in the logics, characteristics and properties of welfare states. To this end, questions were raised about decommodification or stratification and taken as a basis to understand and analyse their functioning within welfare systems (ibid.: 3).

³ Esping-Andersen (1990) understands the welfare state complex as a structure in which macroeconomic management, employment and wages function as integral components and freely acting subsystems. Subsequently, he speaks of the welfare state as the subject of the 'Keynesian welfare state', or a 'welfare capitalism'. It can be concluded that Esping-Andersen deliberately excluded those states that were communist at the time, because they simply did not meet the basic requirements for the development of a welfare state, or simply did not yet develop a welfare state with its systems and institutions, e. g. the Soviet Union (Esping-Andersen 1990: 2).

Esping-Andersen's work has henceforth not only laid the foundation for distinguishing between welfare states per se but has given following scholars the tools to study welfare states and their system to understand how they operate. In the process, the examination and classification of these systems and institutions, how they influence each other, and how or to which extent the political state can intervene concluded that welfare states differ and cannot be of a single type. Thus, if welfare systems differ, so does the welfare state they form (ibid.).

Another theory that indirectly deals with the development and shaping of welfare states is the Path Dependency Theory (North 1990; Deacon 1993; Levi 1996; Pierson 2004). This assumes that decisions made in the past are more important than those made in the future because they are instrumental in the increasing returns of a society, its institutions or individuals. Thus, when a welfare state is formed in the course of a country's economic development, it does so along the basic choices and value orientations of the state's political leadership (Pierson 2004: 252). If, otherwise, problems arise, it is very costly to turn back on the path and revise the decision from the past (ibid.). Therefore, Path Dependency Theory adds the importance of past decisions and their benefits and costs to the analysis of welfare states.⁴

Thus, there are theoretical approaches and practical findings that provide the framework for studying welfare states and their systems. If these recognised theories are used as a basis, a scientifically valid answer to the acute problem of Chinese society and economy can be found. The further procedure in the search for this answer can be found in the following chapter.

1.1 Problem Statement, Research Objective & Structure

Many questions arise when researching social welfare, welfare states, pension systems and demographic transition: This is not least because all modern states in the world will face the problem of an ageing society sooner or later if unprepared.

⁴ Esping-Andersen (1990: 1, see also Giddens 1985) also addresses the importance of the historical development of welfare states in his theoretical elaboration. However, he ignores the point of active choices, costs and benefits from e.g. communist ideologies as shaping the welfare state. This may be due, among other things, to the fact that Esping-Andersen's research is based on Western European states that share a similar development and history.

For this reason, it is of great importance to find out how the economy in form of markets, the state and society work together within the framework of the pension system in China to form a welfare state that is able to meet the demographic challenges of modern states, or what obstacles it encounters and how these can be circumvented.

This is where the present work comes in and tries to answer the problem statement of, *How do the state, market and society function in the context of the Chinese pension system to meet the demographic challenge of ageing and what kind of welfare state can be derived from these interactive mechanisms?* In order to get to the bottom of this dichotomous question, the development of China's demographic structure as well as the particular constellation of state, market and society within the pension system will first be considered and analysed separately from each other in order to then bring the insights gained back together in the context of a discussion.

The basis for this is Esping-Andersen's theory of *the Three Worlds* (1990), which was derived from the study of a variety of different welfare states and their modes of operation (Esping-Andersen 1990). From this theory, the tools for an in-depth study of pension systems can be derived. In addition, the theoretical framework is enriched by the Path Dependence Theory (North 1990; Deacon 1993; Levi 1996; Pierson 2004), which focuses on the study of national policy decisions and historical concomitants of demographic change in the development of the welfare state to examine the research question from two complementary theory perspectives.

It remains to be noted that the present work is at the macro level of an investigation that understands the study of the Chinese pension system as a whole. Examining the specific system within a province or a city would certainly also be of great interest but is not possible within the framework of the present work and has already been extensively examined in previous works (see also Wung 2004 and chapter 2.4 *Reliability, Validity Replication & Critique*). It is not the aim of this paper to put China as a welfare state or its pension system into a box or to classify it according to an underlying theory.

Therefore, it is also not the aim of the paper to make a classificatory contribution, but to work in a practice-oriented manner with the help of a case study of the pension system and to explain how welfare states react to demographic crises in order to guarantee the welfare of society as a whole. It should also be noted at this point that the aim of the work is not to evaluate a government and its policies or to judge how good welfare systems are, but to identify and analyse how they function. Especially against the background that in the next few years more and more states will have reached a point where they are considered modern and will be confronted with the problem of an ageing society, it is highly relevant now not only scientifically but also practically-politically to deal with the fundamental question of how welfare systems have to face ageing societies. Furthermore, this paper discusses what kind of welfare state can be derived from the Chinese pension system and how China's pension system works in comparison to other, theoretically based and already well described cases (see chapter 3.2 *Esping-Andersens Three Worlds of Welfare Capitalism*).

Hence, this paper aims to identify the demographic change that has taken place in China and to analyse how the pension system has developed at the same time, to deduce how the Chinese pension system functions and deals with this kind of crisis. Thus, the work finds itself at the intersection of social sciences and economics and fills the space in the debate on welfare states and their manifestations in juxtaposition with an ageing society. Consequently, the aim is to broaden the discussion by analysing and characterising the logic of one specific welfare system that forms part of a welfare state in all its facets (here: the pension system). By criticizing and extending *the Three Worlds* (Esping-Andersen 1990), the current welfare debate is additionally enriched. The fact that the established social science theory is complemented by a second, more economics-oriented theory and is used as a basis for a modern problem also enriches the critique of both theories (see also Kongshøj 2015). Following Kristian Kongshøj (2015), the case study of the Chinese pension system is thus seen as a „playground for old theories on welfare-state development“ (Kongshøj 2015: 79). The specific focus on the logic within the Chinese pension system fills a research gap, especially because the analysis of the Chinese welfare state has mostly been based on an attempt to classify it, but not to analyse its specific functional logics in the context of its ageing society.

Consequently, the thesis first provides an overview of the methodologies underlying the work (see chapter 2 *Methodology*). After that, the paper gives an insight into its theoretical framework (see chapter 3 *Theoretical Framework*) and leads into the concrete analysis and the attempt to analyse the functions of and the connections between state, society, and market within the Chinese pension system as part of the Chinese welfare state (see chapter 4 *Analysis: Case Study of the Chinese Pension System*). To round off the analysis, the chapter following poses questions for discussion (see chapter 5 *Findings & Discussion*). The thesis concludes with a final chapter that answers the research question and provides an outlook on the need for further research (see chapter 6 *Conclusion and Evaluation*).

2. Methodology

The object of this interdisciplinary work on the interface of economics and social science (also referred to as social economics) is to understand the Chinese pension system in all its facets and logics. Therefore, the specific interest lies in understanding how the pension system, as part of the welfare state, faces the challenge of an aging society: How do state, market and society function and adapt in the context of an emerging pension system facing an aging society? Against the background of this question, this paper provides an empirical basis for future research on other countries and their handling of demographic challenges. However, it is also intended as a practical policy contribution that can already be used as a recommendation for other modern countries whose pension systems have to cope with an aging society today ⁵.

The following section therefore explains the driving forces for conducting this research. To this end, the methodological approach in general and the underlying methods in particular are discussed. In addition, a section elaborating on the data and its extraction follows. The chapter concludes with a section on the reliability of the methods and data used to evaluate their validity.

2.1 Research Approach

The present work joins the critique of constructivists, whose main criticism in science is that research often is too method- and theory-driven (Flyvbjerg 2001, Héretier 2016). Especially naturalist types of research and scientific work, they argue, is far too sterile and would lose focus on actual social problems (Mead 2010). Instead, theory-driven work, through its confinement and self-centeredness, would conduct investigations that were far from reality (Green / Shapiro 1994) and thus could hardly produce any knowledge gains.

⁵ Of course, it should be noted that the countries of the world that are confronted with the problem of an ageing society have generally experienced a completely different course of economic growth and demographic change than China and also differ significantly from the People's Republic in the context of the political system and its framework conditions. Nevertheless, some strategies, problems and challenges emerge in the course of the work that could also be interesting when transferred to other nations.

Thereupon, the present work employs a problem-oriented approach that relies primarily on "substantive research" (Lauer 2021:2). "This [...] increase[s] the public's attention both to those affected and to political science, and ultimately generate[s] more influence and relevance to both. In addition, [this] demand[s] methodological pluralism" (Lauer 2021: 2). Thus, when it is said that this thesis follows a problem-oriented approach, it is understood that the problem statement of *How do the state, market and society function in the context of the Chinese pension system to meet the demographic challenge of ageing and what kind of welfare state can be derived from these interactive mechanisms?* sets the strategy and methods for answering and exploring it (O'Leary 2017: 166). Due to the interdisciplinary nature of the research question, a mixed-method approach represents the right choice of methodological framework. This is mainly since biases and prejudices inherent in individual approaches are eliminated by the pluralism of underlying methods. Research, conducted purely quantitatively, for example, is subject to a multitude of assumptions that may narrow the researcher's worldview (O'Leary 2017: 164). In this regard, it is useful to break away from the view that a strict division of methods is necessary. Moreover, it can be argued that "mixed approaches have the potential to be expansive" (O'Leary 2017: 164). Expanding the methodological approach then allows researchers to have a certain openness regarding ontologies and epistemologies, but also to work with an open-minded approach to data collection and analysis, and to diversely live out the combination and variety of the methodological foundation (ibid.) Consequently, breaking away from paradigms and working in a problem-based manner can be enriching and promotes real-world insight. This is of utmost necessity for the present work and provides the opportunity to set up a thoughtful research design.

One could now counter that the work is oriented towards two basic theories, namely Esping-Andersen's *Three Worlds* and the Path Dependence Theory. Yes, there is hardly anything to counter this, but the theories are attempted to be looked at from different perspectives, to be criticized, to be extended and to be operationalized to extract and elaborate essential variables and dimension to profoundly analyse the Chinese Pension System and its logics (Bryman 2016: 18.). For this, mixed methods are necessary.

Thus, although in a first step, the work is to be assessed as theoretical, in a second step it is also relevant in terms of practical policy. With regards to the increasing ageing of modern societies, politicians all over the world should think about the functioning of their welfare systems in the future to be able to derive improvement potentials, challenges and opportunities. By basing this thesis on a case study of the pension system, a detailed and in-depth analysis is obtained, which provides insights into China's welfare state (see also chapter 2.2 *Methods*) Thus, it is ensured that the research is enriched and based on a variety of data. Hence, this thesis can basically be classified under positivist epistemology (Bryman 2016: 16 & 343).

The work is „guided by specific research questions derived from social theories“ (Bryman 2016: 44) and tries to find answers using the „most common approach to social research“ (ibid: 6): deduction. Following this, the present work is based on two guiding theories. Hence, theory precedes research and data gathering, using a mixed method approach instead of a purely qualitative investigation (see above). It remains to be considered that the strict separation of inductive and deductive work is in fact not so simple and is not even desired in current research. Bryman (2016) states in this regard,

“[j]ust as deduction always entails an element of induction (theories do not emerge from a pristine mind unaware of previous findings) so the inductive process always entails a modicum of deduction (no researcher will be totally unaware of theories and perspectives that might be applicable to the phenomenon he or she is observing). Often some combination of both can be found in the same research” (Bryman 2016:7)

The thesis is aware of this phenomenon, but nevertheless assumes to the best of its knowledge that the relationship between theory and analysis is deductive (Bryman 2016: 31ff.)

In the course of the literature research, it turned out that the years since 1982 can be divided into four sections, which are based on the annual census surveys of the NBS. Demographic change is analysed in terms of three variables, and the mechanisms of state, market and society in the pension system are analysed in terms of the dimensions of social stratification and decommodification. Thus, to understand the logic and mechanisms within the Chinese Pension System, a mixed-method analysis is conducted. The discussion of each method is found in the following subsection.

2.2 Methods

The analysis of welfare states has a long tradition, whose approach and focus have changed in recent decades. While researchers in the 1980s and 1990s mainly looked at the expansion of the welfare state (see thus Berg 1981; Flora / Heidenheimer 1981; Block 1985; Ashford 1986; Skocpol / Amenta 1986), it is not at the latest since the introduction of *the Three Worlds* (Esping-Andersen 1990) that the welfare state has been understood as a conglomerate of several systems, which also vary in international comparison. Since then, more important than the analysis of total state expenditure are the social rights and supports of society (Vis 2019: 267), so that it can make a living independently of the market. This advance of judging the development of welfare states by decommodification (Esping-Andersen 1990) has found widespread academic appeal (ibid.). Nevertheless, welfare research often faces the dependent variable problem when it comes to the comparative study of welfare systems (see Clasen / Siegel 2007). This paper avoids this problem by conducting an in-depth case analysis of a single welfare system and by presenting all the underlying theories and operationalisations openly and clearly (Vis 2019: 267 & 274). The possibility of a dependent variable problem is therefore negligible at this point.

Against this background, the following chapter deals with the qualitative and quantitative methods of analysis in the context of a longitudinal single case study, which form the methodological basis of this thesis.

LONGITUDINAL SINGLE CASE STUDY

Following the problem-based approach described above, the problem formulation determines the method, so that a case study of the Chinese pension system is conducted. The “intensive analysis of an individual unit [...] stressing developmental factors in relation to environment” (Flyvbjerg 2011:301) is what academia agrees on to be a single case study. Among other things, it can be conducted as a longitudinal study (Bryman 2016:43ff.). This means that a study is repeated more frequently over time to investigate a change within a specific time frame. Although this thesis does not work with its own data collection but analyses already collected data, it can be called a longitudinal study because the data used were collected in different time periods (Bryman 2016:42). The data used are firstly from the NBS census surveys and date from the years 1982, 1990, 2000, and 2010 (NBS 2000; 2010; 2019). The census data

from 2020 have not yet been published, so the current data are taken from the 2018 yearbook (see among others NBS 2019a and chapter 2.3 *Data and Data Collection*). Secondly, the mechanisms between state, market and society are analysed on the basis of the dimensions of social stratification and decommodification. Of particular interest here are, for example, the level of transfer payments, the level of pension expenditure as a share of GDP and other monetary interventions. Following the problem formulation, the longitudinal case study offers an optimal method to answer the question of understanding the Chinese pension systems and its logics facing demographic challenges.

Specifically in welfare research, it has become established to examine the development of welfare systems as a single case study (Vis 2019: 274). This type of method is used in particular when questions are asked about processes, reforms, actors, and their interaction as well as development over time. For this purpose, the variables, and dimensions to be studied are broadly defined and tailored to the research question at hand (ibid.). Since most of these studies look at a case over time, they are commonly recognised as comparative studies. This paper fits into this type of research and works with a time course that contextualises demographic change and thus does not explicitly compare, but analyses and examines China's pension system for its changes, here: response to an ageing society. Barbara Vis (2019) additionally points out that case studies in welfare research do not always have to be explicitly comparative but can just partially show elements of a comparative approach (Vis 2019: 274, see also Lipset / Marks 2000). The present work fits into this understanding of a case study.

In addition, it must be mentioned that the case of the Chinese pension system is considered part of the Chinese welfare state (see chapter 4 *Theoretical Framework*) and thus information and conclusions about the welfare state can be derived from the case study of the pension system, its logics and the actors state, market and society. Although case study researchers generally do not set out to understand a case study as a sample, this is possible as case studies "still provide an adequate context for answering certain research questions or examining key social processes" (Bryman 2016: 45). Subsequently, an attempt is made to derive certain information from the logic of the pension system to transfer it to the welfare state. Of course, it is important to keep in mind that information remains lost, if not hidden, and cannot be derived

entirely from the case study. However, it should not be forgotten that "knowledge can be transferable even if it is not formally generalizable" (ibid. 304f.). Indeed, Bent Flyvbjerg (2011) further argues that case studies support theoretical assumptions with practical findings and real-world observations (ibid. 302). Therefore, this paper follows Flyvbjerg's arguments and bases the analysis on a longitudinal single case study. The specific case within the study is examined through both quantitative and qualitative analysis which is further explained in the following subchapter.

QUANTITATIVE ANALYSIS: POOLED TIME CROSS-SECTIONAL ANALYSIS

Since the very beginning of the study of welfare states and their systems, the investigation has been carried out via quantitative cross-sectional analyses (Vis 2019: 267). In doing so, characteristic differences between welfare research and other research fields have emerged. Nevertheless, it was not until the early 1990s and the early 2000s that the field committed itself to conducting "quantitative analyses using pooled time series cross-sectional analyses" (ibid.). Characteristic of this method is the combined study of a case and its variation over time (ibid.).

To understand the development of the Chinese pension system over time and with increasing problems due to demographic change, it is important to work with quantitative empiricism. The advantage that arises from this approach and this specific form of analysis method is that by combining time series and cross-sectional data, the small-n problem is circumvented. This is understood to mean that „the number of observations is too small to draw all relevant conclusions“ (Vis 2019: 271). However, the problem can be countered by combining several types of data. „This allows estimation of more complete specified models and thus more inferences“ (Vis 2019: 271). Following this assumption, this paper analyses three types of data in the context of demographic change: population structure, population growth and age dependency. To examine the logic of state, market and society, data is used to study social stratification and decommodification. These include pension expenditure as a share of GDP or transfer payments (see also chapter 2.3 *Data and Data Collection*).

In this way, it can be ensured that the research objective of deriving what challenges the welfare system as a whole is facing can be derived from the interaction and cooperation of the actors state, market and society within the pension system facing demographic change.

Demographic change itself can also be systematically analysed and understood with all its challenges to the pension system. Within the framework of a longitudinal single case study, the analysis of quantitative data, in the form of statistics, will be used to get to the bottom of the research question. The data, their sources and their reliability are presented and discussed in chapter 2.3 *Data and Data Collection*. Since the thesis works with already collected data, the determination of statistical ratios falls out of the scope of the work, and it relies on already existing numerical data of the National Bureau of Statistics in China (Bryman 2016: 170ff.).

QUALITATIVE CONTEXTUALISATION

In order to examine demographic change not only on the basis of quantitative data, but also to contextualise the societal changes, qualitative data enrich the analysis (Bryman 2016: 198ff.). This also makes it possible to interpret the quantitative data and to understand the mechanisms of state, market and society not only quantitatively, but also qualitatively. For this purpose, reform texts and adopted policies, e.g. in the form of five-year plans, are used to identify why certain structures within the pension system have changed. During the data research, it became apparent that some of the population data are incomplete (see chapter 2.3 *Data and Data Collection*), so that contextualisation, which cannot least compensate for the lack of data, is inevitable.

However, encyclopaedias and the history of the country (Wang 1998; Dillon 2016, among others) also help to classify the quantitative data (Peräkylä / Ruusuvaori 2018: 1163, see also Atkinson / Coffey 2011). Thus, the interpretation of quantitative data can be based on the analysis of qualitative data, especially in the form of secondary literature. (see chapter 2.3 *Data and Data Collection*). The types of data examined in the analysis are discussed in the following subsection.

2.3 Data and Data Collection

Another argument in favour of using both types of data, quantitative and qualitative, is brought by O'Leary (2017) stating that “quantitative data are ultimately nothing more than coded qualitative data” (O'Leary 2017: 165). The thesis follows this assumption and breaks away from working strictly with only one type of data.

Following this, the thesis uses both qualitative and quantitative data to be able to work empirically and to base the answer to the research question on a diverse database (ibid). The data used for this purpose come from three main sources.

NATIONAL BUREAU OF STATISTICS OF THE PEOPLE'S REPUBLIC OF CHINA

The NBS is the state's office responsible for collecting and evaluating economic, sociological and ecological indicators and data. It is also responsible for drafting legislation and guidelines on statistical collection and supervises other government agencies in this area. It is governed by the State Council and is state-run (NBS 2007, see also Taube 2014). The bureau collects the most important socio-economic indicators on the country's scientific and economic progress (Census) every ten years and makes them available to among others, the State Council, the Central Committee of the Communist Party of China and other state institutions (NBS 2007). It also maintains a statistical yearbook in which the most important statistical figures are published at the end of each year (ibid).

However, some of the publicly available data sets translated into English are incomplete (NBS 2000a; 2000d). They mainly refer to the geographical coverage of the pension system, but not to the actual number of persons participating in the schemes (see for example NBS 2000b; 2000c; 2010). In addition, the people who pay into the pension system as contributors and those who receive payouts are grouped together. Whenever this issue arises, it is noted in the analysis.

This paper uses the publications of the NBS to analyse them and to find explanatory approaches in them. Of course, uncritical processing of data is negligent. Nevertheless, the data and its collection methods of the NBS are publicly available and there is apparently no reason for the office to disclose falsified data. Against this background, the further processing of the demographic and economic key figures is justifiable in the context of the present work.

FURTHER DATA PROVIDING INSTITUTIONS

Against the background of the occasionally incomplete data situation, data from international institutions are used to supplement the census and yearbook data. These include quantitative data and reports provided by the Organisation for Economic Co-operation and Development (OECD) (OECD 2019; 2022b) and the World Health Organisation (WHO) (WHO 2015), as well as the European Statistical Office (EUROSTAT) (EUROSTAT 2010; 2022a).

First, the OECD is an international organisation with 38 member countries that conducts its own data and analysis to make policy recommendations and set international standards. It is an organisation that also promotes international cooperation and operates independently (OECD 2022a). Second, WHO, is an organisation that belongs to the United Nations (UN). It coordinates public health and collects its own data for this purpose, which is publicly available in the form of raw data or as reports (WHO 2022). Third, EUROSTAT is the European administrative unit for data analysis and statistics. Data are often collected in cooperation with other international statistical offices (EUROSTAT 2022b).

What all three institutions have in common is that they make their data openly accessible and, not least, gain credibility through the transparency of data collection. Overall, the examination of data from different providers to be able to conduct an enriched analysis and discussion is useful and reliable. Criticisms of the untrustworthiness of OECD, WHO or EUROSTAT could not be found in course of the research.

2.4 Reliability, Validity, Replication and Critique

The concepts of reliability, validity, and replication play an important role, especially in statistical or quantitative research (Bryman 2016: 81). Therefore, this subchapter will discuss the extent to which this thesis follows and is guided by these concepts. As a conclusion of this chapter, an alternative research designs is introduced and its use for the present work is discussed briefly.

RELIABILITY

„Reliability is concerned with the consistency of measure” (Bryman 2016: 81). Consequently, it is of utmost importance for reliable quantitative and qualitative work to ensure both stable measurement over time and internal reliability (Bryman 2016: 81ff.) This is where a peculiar situation arises in the context of this thesis. It can be assumed that the results of quantitative data collection are similar over hours and days, but with a time span of several years, deviations are to be expected. However, it is precisely these deviations that are being examined in the context of this work: among other things, in the context of demographic development. For this reason, reliable data can be assumed facing deviations over time since these may be result of external influences or changes in policy (ibid.) that are ought to be examined in the context of this work.

VALIDITY

The general validity of a study is measured both on its internal and its external validity (Bryman 2016:41). The first refers to the question of whether the study is effective in establishing causation. This would be given in the present work especially by the detailed investigation of all groups of people in the Chinese society, e.g. children, employees and pensioners. However, this paper deals with the acting units of state, market and society as the smallest units in the Chinese pension system. A smaller subdivision of the units, e.g. into certain groups of persons in different geographical areas, would go beyond the scope of this paper. For this reason, the paper refrains from inferring statements such as X is because Y is or A is because B is. (de Vaus 2001:27f.).

External validity exists when the results of a study or analysis can be generalized (ibid.: 28). This is only partly the case in the present work, as generalization is controversial in the context of a case study (see *chapter 2.2 Methods*). With support of the argumentation according to Flyvbjerg (2011), it can nevertheless be assumed that the work is for the most part externally valid and can contribute to the grand generalization of the Chinese welfare state (Flyvbjerg 2011: 302).

REPLICATION

“A study is replicable if others are able to repeat it and get the same results” (Bryman 2016:33). Consequently, a study is of high scientific quality if it discloses its methods and thus allows for at least approximate replication. In the preceding chapter, the present thesis discloses all its methods, its procedure and its data extraction and can thus be recognized as a replicable study. Moreover, since the thesis relies on given data and cannot undertake its own data collection, future researchers using the same data for analysis can come to similar conclusions considering the same methods. It should be noted, however, that a similar analysis conducted at a later date may yield different results considering the same methods, as the expressions of variables may change over time (ibid.).

CRITIQUE

Case studies "may be useful in the preliminary stages of an investigation since [they] provid[e] hypotheses, which may be tested systematically with a larger number of cases" (Flyvbjerg 2011: 301). Although the main criticism of single case studies is that they cannot be generalized, it is important to distinguish between research subjects on this point (Flyvbjerg 2011). Basically, Flyvbjerg argues that formal generalization is overrated in single cases and that other ways of generating knowledge are currently neglected (ibid.: 304). A case study as a "supplement or alternative to other methods" (ibid.: 305) can nevertheless be useful for generalization.

With regards to the research question, only a single case study can be considered, although a comparative case study of at least two East Asian pension systems would be interesting, especially against the background of future demographic and economic development in East Asian countries. However, given the limits of this thesis, this cannot be done in the course of this paper. The comparative work of two or more welfare states, also to study and compare the development of these countries is of particular scientific interest. This would also increase validity, because it would not be necessary to work with a single case study of a specific system, but the welfare state and all its systems and specific mechanisms could be compared to each other. However, a study in this framework would be extremely costly, not only financially but also in terms of time, and would possibly have to face the criticism of no longer being up-to-date after completion.

3. Theoretical Framework

The sound, deductive analysis of a problem demands the clear presentation of the theory on which the investigation is based (Bryman 2013: 76). Following this academic principle, this chapter candidly presents, discusses, and evaluates the major theories of welfare research. These include *the Three Worlds* (Esping-Andersen 1990) and the complementary social economic theory of Path Dependency (North 1990; Deacon 1993; Levi 1996; Pierson 2004). Taking these two theories into consideration, it is additionally ensured that China's pension system is not only thought of and understood in the box of *the Three Worlds* but can be analysed and illuminated from multiple perspectives (see chapter 2.1 *Research Approach*). The chapter concludes with an operationalisation on which the analysis on China's pension system coping with an ageing society is based.

3.1 Definitions: Welfare, Welfare State & Pension System

The concept of welfare, albeit in different forms around the world, pursues the goal of preventing material hardship among a country's citizens, equalizing social inequalities, and levelling out injustices (Greve 2019: 1). To this end, citizens are guaranteed a dignified life, equal opportunities are ensured, and economic dependence is avoided (ibid.). To understand what is behind the term welfare state, the concept, and the term itself must be seen separately. The pension system, in turn, is understood as a part or a specific area (system) of the welfare state (Esping-Andersen 1990: 79). Examining the pension system thus allows conclusions to be drawn about the welfare state (see chapter 2 *Methods*).

WELFARE

“Welfare is [...] ambiguous and has different connotations for individuals and in different countries. The concept is often used in connection with other terms, such as state, society, policy, work, and is often understood as something in which the public sector plays a role.” (Greve 2019:11)

As already discussed in chapter 2 *Methodology*, welfare can be viewed from both the social science and the economics perspective. This shows once again why this thesis not only uses mixed methods, but also works in an interdisciplinary way.

This is simply necessary to examine and understand China's welfare state and pension system from multiple perspectives.

In *Social Science*, on the one hand, welfare research is primarily concerned with the connection between "social inclusion, social cohesion and well-being in a broader sense" (Greve 2019: 7). In this context, social indicators of overall societal well-being can be measured in different ways. Questions about objective and subjective indicators of well-being are also answered in this field (ibid.). This does not mean, however, that social sciences purely work qualitatively with respect to well-being research. On the contrary, in recent years there has been an increase in social science work that significantly deals with data beyond GDP analysis (Greve 2019: 7, see also Cajkova / Cajka 2021; Chen Wei 2021). When examining the welfare state as a social investment state, the element of equality, and well-being are examined in particular. This can be assigned to positive welfare research, which, for example, examines day care for children and also recognizes positive effects on the equality of men and women, for example, through an equal integration into the labour market (Giddens 1998).

In *Economics*, on the other hand, benefits, utility and costs of available goods and services are subjects that are mostly studied (Greve 2019: 6). It is often argued that "[i]ndividuals' decisions on how to combine and use their money are thus [...] the best way to maximize societal welfare" (Greve 2019: 7). In this discipline, GDP per capita has long been analysed as the best indicator of a state's well-being and used for international comparison. For this reason, the markets, its functioning, and its failures have always played an important role in the analysis (Greve 2019: 7, see also Johnston 2019). An interdisciplinary definition of welfare is thus provided by Bent Greve (2019) stating "welfare is the highest possible access to economic resources, a high level of well-being, including the happiness of the citizens, a guaranteed minimum income to avoid living in poverty, and, finally, having the capabilities to ensure the individual a good life." (Greve, 2008: 50) In the context of this thesis, welfare is understood in this sense. Moreover, researchers can approach the research field of the welfare state on two different levels: the functionalist approach, as well as the institutionalist approach.

WELFARE STATE

Functionalist approaches on the one hand see industrialisation as a crucial window of opportunity for the development of a welfare state. In this context, the “development of social security and the welfare state is seen as a crucial step in building the industrial workforce” (Cousins 2005: 31). The institutional approach, on the other hand, has steadily evolved in recent years and takes “a state-centred approach to the actors and systems of the welfare state” (ibid.). In doing so, they assume a “polity centred approach which sees the polity as the primary locus of action, yet understands political activities, whether carried out by politicians or by social groups, as conditioned by the institutional configurations of governments and political party systems” (Cousins 2005: 31, see also Skocpol / Amenta 1986). This approach thus specifically analyses and examines actors and systems (see also Titmuss 1974; Korpi 1980). In addition, the institutional approach assumes that the “welfare state is determined by the structure and interests of the state or polity” (Cousins 2005: 19). From this approach, an attempt to typologies welfare states has developed (see chapter 3.2 *Esping-Andersen's Three Worlds of Welfare Capitalism*). Although Peter Baldwin (1996) described the attempt to classify and typologies welfare states as “the lowest form of intellectual endeavour” (1996: 29), it provides detailed information on the characterisation of certain systems within a welfare state and is thus suitable to be used as a basis for the analysis of this thesis (Cousins 2005: 34).

For the examination of the welfare state, there is no patent or even person who is considered the inventor of the welfare state. This is because the welfare state is a byproduct of growing prosperity (Kuhlmann 2019: 7) and capitalism (Cousins 2005:19). However,

“[...] without a welfare state we would have to invent a welfare state in one way or another. This as the impact and consequences of market failure still make welfare states important in order to ensure a good life for as many as possible to have interventions”. (Greve 2019: 1)

Thus, it can hardly be denied that all modern and developed states have incorporated one or another form of welfare state (Kuhlmann 2019: 13). Nevertheless, the search for a uniform definition has so far met with little success. This is not least because the debate on the welfare state is the subject of a multitude of discussions (Kuhlmann 2019: 13, see also Briggs 1961; Titmuss 1987; Wincott 2001; Hill 2013) and welfare states exist in a multitude of different forms.

First, the welfare states of the world empirically differ to a great extent, so that a generalization is hardly possible (Kuhlmann 2019: 7) Second, the interdisciplinary nature of the topic makes it difficult to simplify the term (ibid.). Even when looking at the terms used to describe the word welfare state, there are differences in research. For example, "welfare capitalism" (Esping-Andersen 1990), "social state" (Garland 2016), or "social protection state" (Béland 2011) which all describe the same phenomenon yet differ in nuances. In the context of this thesis, the question of terminology is not of essential importance. The thesis is primarily interested in the modes of operation behind the term. For this reason, the terms welfare state, welfare capitalism, social state and social protection state are used synonymously.

The fact that the terms can be used synonymously is demonstrated not least by the point that, despite their great empirical diversity, they share structures in common. For example, welfare states imply "a specific mode of exercising government power and a specific set of conceptions, institutions, and techniques with which to do so" (Garland 2016: 6). At this point, we should also refer to Esping-Andersen (1990), who introduces two understandings of welfare states in *the Three Worlds*: the narrow and the broad welfare state concept. While the narrow understanding focuses in particular on "social amelioration" (Esping-Andersen 1990: 1), the broad concept is concerned with "the state's larger role in managing and organizing the economy. In the broader view, therefore, issues of employment, wages, and overall macro-economic steering are considered integral components in the welfare-state complex" (Esping-Andersen 1990: 2). Since this paper deals with a much larger problem than just improving living standards it follows Esping-Andersen's broader definition.

To be more specific, welfare state in the context of this paper is understood as a form of government with the possibility of state intervention in the areas of education, health, housing and social security in developed, capitalistically characterised states (Eikemo / Bambra 2008: 2). Just as a government itself, it consists of different systems. The interventions in these systems and in the form of social transfers pursue the goal of ensuring equality and balancing within-country inequality.

“The size and type of intervention may, and will presumably always be, contested as part of variations in national development, the influence of ideologies and economic perspectives on what and how the welfare state influences everyday life as well as overall societal development. Recent years’ increase in inequality around the globe has further implied a stronger focus on how welfare states might help in reducing inequality.” Greve 2019:1

However, a welfare state is also to be understood as a "system of social stratification, because the way in which the welfare state distributes welfare services has consequences for the social and economic hierarchy in society" (Eikemo / Bamba 2008: 4). Thus, the welfare state redistributes wealth through targeted social transfers to promote overall social well-being (ibid.). The term stratification itself describes the extent to which a political system and its institutions contribute to the formation of social strata and to what extent or whether changes between the different strata are possible (Esping-Andersen 1990: 55f. and see also chapter 3.1 *Esping Andersen's Three Worlds of Welfare Capitalism*). If we now look at the individual level, it is also worth defining the term decommodification. This is commonly understood to mean the extent to which a citizen of a country is dependent on selling his or her labour power on the market to ensure social security (Esping-Andersen 1990: 35f. and see also chapter 3.1 *Esping Andersen's Three Worlds of Welfare Capitalism*).

The influence of the state through a welfare system is controversial and debated. One of the main arguments is that the welfare state is supported by revenues in the form of taxes and contributions. Accordingly, public money is redistributed and allows the state to intervene in individual decisions. However, this form of intervention becomes particularly necessary when there is talk of a market failure (Greve 2019:10). This would be the case, for example, if public funds were distributed unfairly or if the so-called free-rider phenomenon were to be observed (ibid.: 11).

PENSION SYSTEM

If the welfare state is based on an institutionalist understanding, it can be understood as a conglomerate consisting of several systems. Thus, in the context of this paper, the pension system is understood as an essential sub-area, i.e., a system within the welfare state. Within this system, the units of state, market and society interact and influence each other through certain mechanisms. These mechanisms need to be examined, analysed, and understood. More concretely, the pension system is understood as part of the welfare state, with the help of which equality among pensioners is to be ensured.

This includes all those people who have reached a certain age (retirement age) and who, as a rule, do not (can no longer) earn money through work, means offer their work at the market (Esping-Andersen 1990: 81) Especially in the area of the pension system, social transfers are regularly implemented to ensure social justice and equality. In this context, sociologists equate the distribution of welfare with state social policy (Esping-Andersen 1990: 79). This assumption cannot be followed because in the context of this thesis the state is not an artificial creation, and the private market is not the only institution that can satisfy various welfare needs (ibid.).

Pension systems usually consist of private and public provision. However, it is difficult to define exactly which type of provision is considered private and which public (Esping-Andersen 1990: 81). Thus, public refers to all those actions that are directly regulated by the state - and in this form as law (ibid.) - and actively influence markets and society. When examining public pension systems, a very basic distinction must be made between two types of systems: one that is financed through capital investment and one that is financed through social pay-as-you-go (Heuer 2004: 3). The former describes a system in which employees at the current time pay into a pension fund administered by the state, which finances the pensions of the current pensioners. This means that the younger generation finances the current generation of pensioners. A pay-as-you-go system, on the other hand, always specifically finances those who pay into the pension fund, so that the money directly benefits those who pay it in (Heuer 2004: 2).

In the context of the pension system, the state usually acts as "pension regulator" and "provider" (Hughes / Stewart 1999), whose task is to provide goods and services in areas where they are lacking or where an efficient and socially acceptable solution is not possible due to market failure (ibid.). In the context of this work, it is understood in the economic sense as the conglomerate of all state institutions and the treasury. Markets, in particular the labour market, on the other hand, is the institution in the context of which private households as suppliers and private or public enterprises and households demand the production factor labour. Changes in the labour market also have a major impact on pension payments, e.g. if the supply of workers decreases (Bäcker / Kistler 2020: 2f.). In addition, private pension insurance markets also play a role in the pension system (Esping-Andersen 1990: 81).

The society in the pension system ultimately includes both the providers on the labour market but also all those who are too young or too old to offer their work on the labour market. The latter are then the active beneficiaries of the pension system (ibid.). In any case, in order to analyse the functional mechanisms of the state, markets and society in the context of the Chinese pension system, instruments and theories are needed on which it is based. These are presented in the following subchapters.

3.2 Esping-Andersen's *Three Worlds of Welfare Capitalism*

After defining and explaining the terms of welfare, welfare state and pension system, the following subchapters are dedicated to theories that deal with finding explanations of functioning mechanisms of individual welfare systems. These can then be used to derive the functioning and coping with challenges of a welfare state. They thus provide the basis for analysing and answering the research question and place China in a comparative context by understanding cases already studied as a basis for examining the mechanisms within the Chinese pension system.

As noted at the beginning of the paper, Esping-Andersen's (1990) theory is suitable for analysing and examining in detail the mechanisms and functioning between the state, markets and society. Even though Esping-Andersen's main goal was to model typologies of welfare states (1990: 3), he has thereby created much more than just a classification. Through theory, he gives tools to analyse and understand welfare states and their systems with all their actors and institutions. The reason for this is that in order to work out the differences between welfare states, characteristics had to be worked out and examined. These included not least that the differences were created by the specific ways in which state, economy and society worked together.

Esping-Andersen (1990) assumes that the historical development of a welfare state and thus of its systems has a decisive effect on the respective characteristics of the welfare state (Esping-Andersen 1990: 1). If one wants to follow this finding, it is indispensable not to integrate a historical development into the analysis of a welfare system (see also chapter 3.3 *Path Dependency Theory*). Following the institutional approach, the historical context in which a state or a welfare state and its systems are built can be considered as an institution that is significantly involved in shaping and characterising the welfare state.

Esping-Andersen (1990) cites external and internal circumstances, for example wars, economic upswings, and demographic change, as concomitants of history that force changes in a welfare state (ibid.). The same applies to the development of welfare systems, for example the pension system, which must react to external and internal changes (Esping-Andersen 1990: 88).

With regard to the working part of a state's society, it has been recognised and proven that workers are completely dependent on their market price for their welfare in the absence of regulatory or supportive intervention by the state (Esping-Andersen 1990: 36). In this context, welfare systems act as institutions that restructure society and give it a social order (Esping-Andersen 1990: 55). Social stratification measures to what extent and how certain policies adopted by the state change social structures. The stratification of a state can range from corporatism to universalism of the welfare state (Esping-Andersen 1990: 39f.) One could say that social stratification according to Esping-Andersen measures the power of the state within a welfare system. Thus, the dependency of society, here: of workers, can be prevented by the state intervening and introducing social rights. The quality of these is in turn measured by the standard of living that members of society can achieve completely independently of the market (ibid.) Esping-Andersen (1990) speaks in this context of depriving citizens of their status as commodities (Esping-Andersen 1990: 3).

Under the term of decommodification, Esping-Andersen (1990) has elaborated the provision of alternative, non-market means of welfare production and sees in a strongly expanded decommodification an expanded decoupling of society from the labour market. At the same time, however, this also results in a strong dependence on state support (Esping-Andersen 1990: 52f.). Basically, Esping-Andersen attributes to the state the role of the most important link between inputs and outcomes (Esping-Andersen 1990: 102, see also Easton 1953). The extent to which it controls the market and society in its real form then shows how powerful the state is and how unfree the market as well as suppliers and consumers, in this case society, are as a result of state intervention.

Even if the present study attaches little importance to the classification of welfare states, the essential characteristics and mechanisms of state, market and society within *the three Worlds* are of interest for answering the research question (see Tab. 1 – Extended Characteristics of Welfare States).

In liberal welfare states, then again, the state itself plays a marginal role (Esping-Andersen 1990: 28; Schmid 2010: 104) and has little to no room for manoeuvre. Interventions on the free market are also almost non-existent. Against this background, the mode of solidarity is individualised and the degree of decommodification is low (Esping-Andersen 1990: 73f.). The units market and state are clearly separated from each other. (Schmid 2010: 104). Social democratic welfare states, on the other hand, are characterised by a state that assumes a central role and actively intervenes in market activities. Accordingly, the power of the market itself is low. The degree of decommodification is maximum and the model of provision is universal (Esping-Andersen 1990: 127). In conservative welfare states, again, markets plays a marginal role, while the family plays a specific role: Corporatism and etatism shape the mode of solidarity, so that the state assumes a subsidiary role (Schmid 2010: 104f.).

TAB. 1 – EXTENDED CHARACTERISTICS OF WELFARE STATES

		liberal	social democrat	conservative
Role of	society	marginal	marginal	central
	market	central	marginal	marginal
	state	marginal	central	subsidiary
Welfare State	mode of solidarity	individual	universal	relationship, corporatism, etatism
	locus of solidarity	market	state	society, family
	decommodification	minimal	maximal	high

compiled by author according to Esping-Andersen (1990) and Schmid (2010)

Regarding the pension system, Esping-Andersen has developed the decommodification index, more specifically: the pension index (1990: 49f.) This works with the following variables to examine decommodification in old-age pensions.

"1. the minimum pension as a percent of a normal worker earnings (replacement rate net of taxes) for a single person, 2. the standard pension replacement rate (net) for a single person, 3. number of years of contributions required to qualify, 4. The share of total pension finance paid by individuals [...], 5. The percent of persons above pension age actually receiving a pension." (Esping-Andersen 1990: 49f.)

It is therefore of great importance when analysing welfare systems to understand above all the interplay and mechanisms followed by the public sector, i.e. the state, the markets but also society (ibid.). Esping-Andersen (1990) shows which instruments and dimensions can be used to achieve this. The stratification or decommodification index for pensions, for example, can provide information about the functional logics of the pension system by showing how great the influence of the state is through the level of social transfer payments or market interventions.

3.3 Path Dependency Theory

In order to examine the Chinese pension system not only from Esping-Andersen's (1990; see chapter 3.2 *Esping-Andersen's Three Worlds of Welfare Capitalism*) primarily social science perspective, but also from an economic policy perspective, the theoretical basis of the analysis will be enriched by the theory of path dependency (North 1990; Deacon 1993; Levi 1996; Pierson 2004). This complements Esping-Andersen's *Three Worlds* (1990) with an additional view of history as a decisive cause for the development of a welfare state. This is particularly necessary with regard to the Chinese pension system, which has established itself in a rapidly developing state. But also, in view of the fact that the research question deals with the historical process of increasing ageing, additional theoretical impulses that focus on the historical context as an institution shaping a welfare system are called for.

Path Dependency Theory seeks to explain the evolution of political and economic institutions by focusing on the causal relevance of preceding decisions (Pierson 2004: 252). More concretely and narrowly, this means that a state or government has to incur very high costs to revise certain decisions taken in the past, especially if they are profound and comprehensive. "The constriction of certain institutional arrangements prevents a simple reversal of the original decision" (Levi 1996: 28), so that decisions taken at an earlier time must be assumed to have a greater impact on life in a state today than decisions taken in the future (Pierson 2004: 253).

In addition, states, but also organisations and institutions, face increasing returns if a perpetual development is assumed. It can thus be concluded that further steps will be taken on the historically grown path and that a reversal is unlikely, as costs would have to be assumed to be too high. It can also be inferred from the increasing returns that the path taken holds growth and development (Pierson 1996:149, see also North 1990). Against this background, welfare states that are based on an institutional understanding depend strongly on the historical development and are result of this development in particular. They follow the path that the state itself has taken (Pierson 1996: 175). Thus, for example, a communist era can have a significant influence on the welfare state of a former or still communist country (Deacon 1993). Pierson (2004) states that it can be assumed that the form of government – even if it is only former – has a significant influence on the development path of the welfare state (Pierson 2004).

It is emerging that the theory of Path Dependency, in addition to Esping-Andersen (1990), emphasises the importance of historical context in understanding how the state, market and society respond to the challenge of an ageing society in the context of the pension system. In the following chapter, the two theories are operationalised to conduct the analysis that follows.

3.4 Operationalisation

The theories considered above provide a framework for the analysis in the next chapter. They provide a suitable framework to get to the bottom of the research question about the coping of the pension system and the units state, market and society with ageing. However, an actual change or reaction of the pension system to the change in societal demography can only be made measurable and recognisable if the theories described above are operationalised. The difficulty here lies in identifying the essential variables, because there are hardly any factors that cannot be considered influential with regard to the study of the development of a welfare system (Béland et al. 2022: 2).

Both Esping-Andersen (1990) in general and the central representatives of Path-Dependency Theory (North 1990; Deacon 1993; Levi 1996; Pierson 2004) in particular see great importance in the historical contextualisation of a welfare state. Especially in light of the fact that, according to the theory, it is difficult to understand the organisation of a welfare state independently of its historical development, this makes it essential to include history and past events in the analysis. If the Chinese pension system is

assumed to follow the theory of path dependency, it cannot be included in the classical triad according to Esping-Andersen (1990). However, this is not the aim of the paper anyway - on the contrary: this paper uses the instruments and indices from *the Three Worlds* to gain an in-depth and detailed understanding of the Chinese pension system. The use of both theories as a framework for the analysis is therefore not mutually exclusive but enriches the analysis with a further perspective.

Thus, in the course of the analysis, first the demographic change of Chinese society over the past 40 years structured in four phases before 1982, 1982 to 2000, 2000 to 2012 and since 2010 is analysed with the help of the demographic indicators Population Structure, Population Growth as well as Age and Dependency. The analysis is not simply a historical contextualisation, but already part of the answer to the research question. In a second step, the logic and interaction of state, market and society within the framework of the pension system is analysed. A specific focus is placed on social stratification (see *Tab. 2 – Operationalisation of Social Stratification*) and decommodification (see *Tab. 3 – Operationalisation of Decommodification*) as analytical dimensions of the pension system.

TAB. 2 – OPERATIONALISATION OF SOCIAL STRATIFICATION

Criteria		Definition	Stratification Effect
Conservative Stratification	Corporatism	number of pension systems and subsystems in operation	Conservative, if high
	Etatism	pension expenditures for society as per cent of GDP	Conservative, if high
Liberal Stratification	Importance of Social Assistance	expenditure on pension benefits as per cent of total public social expenditure	Residual, if high
	Importance of Private Health	private pension expenditure as per cent of total pension expenditures	Residual, if high
Social Democratic Stratification	Degree of Universalism	share of relevant population covered under pension program; eligible for pension benefits	Universal, if high

compiled by author according to Esping-Andersen (1990) and Gencer (2017)

The specific examination of social stratification and decommodification helps to understand differences and changes in the pension system and the interaction of the three entities over time. The temporal phases are thereby equated in both the first part of the analysis and the second part in order to temporalize and identify possible responses of the pension system to changing demographics.

TAB. 3 – OPERATIONALISATION OF DECOMMODIFICATION

Decommodification (Pension Index)	
<ol style="list-style-type: none"> 1. minimum pension as per cent of normal worker earnings for single person 2. standard pension replacement rate (net) for single person 3. number of years of contributions required to qualify 4. share of total pension finance paid by individuals 5. per cent of persons above pension age receiving a pension 	
Degree of Decommodification	
conservative	high
liberal	low
social-democratic	medium

compiled by author according to Esping-Andersen (1990: 49ff.).

4. Analysis: A Case Study on China's Pension System

The present analysis is conducted in the form of a longitudinal case study of the pension system (see chapter 2.2 *Methods*). In a first step, quantitative data, specifically demographic indicators, are analysed to determine and examine demographic change in China. These are obtained and contextualised from the surveys of the National Bureau of Statistics in China among others (see chapter 2.3 *Data and Data Collection*). In a second step, the analysis of quantitative data, e.g. social transfers, but also qualitative data, i.e. legal texts and the like, helps to examine how the actors state, markets and society function, act and exercise power within the framework of the pension system. Based on *the Three Worlds* according to Esping-Andersen (1990) and the Path Dependency Theory, the analysis is understood as a case study with comparative elements, not least against the background of varying time periods.

After completion of the separate analyses in Part I and Part II, the findings are brought together in the discussion to be able to answer the initial research question and to assess the extent to which the pension system in its establishment and adaptation copes with the challenge of the ageing society. In addition, the discussion will deduce how the Chinese welfare state functions from the modes of operation within the pension system.

4.1 Part I: China's Demographic Development in the Course of Time

Demographic change - a buzzword that makes growth-oriented heads of state sit up and take notice. Yet, the word itself initially only describes the change in a population's structure and size caused by "changes in birth and death rates and migration" (Myrskylä 2022: 12). Reasons for these changes are primarily improved medical care, and increasing life expectancy, but also fertility and the decline in birth rates as a result of economic development (Hillebrand 2008: 1). The real challenge of demographic change is that the population is ageing while shrinking, so that economic growth collapses and additional costs are shifted onto the backs of younger generations (Myrskylä 2022: 12). In concrete terms, this means increasing life expectancy, declining birth rates and a shift in the age pyramid towards the older age groups (see Appendix I; Appendix II; Appendix III; Appendix IV; Appendix V). The following chapter examines the actual manifestation of these variables in China on the basis of

demographic indicators: Population Structure by Sex (Total Population, Number of Males and Females), Population Growth (Fertility Rate in Percent, Mortality Rate in Percent and Population Growth in Percent) as well as Age and Dependency (Average age in years, Total number of people over the Age of 65 years and old-aged dependency ratio in percent).

The fertility rate describes the “number of live births per thousand women aged 15 to 44” (NBS 2010a). The mortality rate, on the downside, refers to the number of deaths per 1000 persons in the survey year (ibid.). Population growth, on the other hand, describes the percentage increase in population compared to the previous year. There is no standard value, but the United Nations (UN) speaks of an ageing society when 7% of the population is over 65 years old (Krieg 2000). Last but not least, the dependency ratio shows the ratio of the non-working, old population (> 65 years old) to the working population (14 to 64 years old) (ibid.). The higher this ratio, the higher the burden on the working population. The ratio of migration must be left out of the analysis - especially against the background that migrants do not play an essential role for the pension system - at least not as long as they are not naturalised.

In order to be able to examine demographic change consistently, the same key figures are examined in each of the phases. The time periods are based on the census surveys of the NBS, so that four temporal phases are analysed: Before 1982, 1982 to 2000, 2000 to 2010 and since 2010, using the 1982 Census as the base year. Finally, this subdivision of the past forty years makes it possible to undertake a detailed investigation. This also makes it possible to better understand and assess the causes of a change in demography.

4.1.1 Before 1982: Growing Economy – Growing Population

Communism took hold in China under Mao Zedong at the latest with the proclamation of the People's Republic in 1949. Therefore, a planned economy modelled on the Soviet Union was established (ten Brink 2019:57ff., see also Gencer 2017: 20) and well until Mao Zedong's death in 1976, the country, which was closed to the world economy at this time, grew in particular by focusing on the establishing of the home economy, but was also characterised by population growth (ibid.). In 1978, Deng Xiaoping took power and began the country's policy of opening up (Dillon 2014).

The "four modernisations" (ibid.) served this purpose and the planned economy was largely overthrown. Thus, the previously implemented collectivisation of agriculture was gradually reversed and the production surpluses could be offered on the market (ten Brink 2019: 63). This has led to fundamental socioeconomic changes: While social support in the centrally planned country was still established and supported by work units and collectives (*danwei*), the former socialist welfare system eroded during the transition to a market economy leaving large segments of the population unprotected (Heuer 2004: 1).

In view of demographics at the time, families in urban areas were urged for the first time in 1979 to give birth to only one child per family in order to curb the rapid population growth. In 1982, the third Census was conducted in China. A total of 1,016,540,000 (NBS 2010a) people were living in the People's Republic of China at the time, of whom 523,520,000 were men (ibid.) and 493,020,000 (ibid.) were women. For every woman between the ages of 16 and 44 there were around 2.32 live births (NBS 2010b), so that with a mortality rate of 6.60 per mille (ibid.) a growth rate of 15.68 (ibid.) was achieved. The average age was 21.9 years (NBS 2010a) and the number of people over the age of 65 was around 50,000,000 (NBS 2010b). For every working person between the ages of 14 and 64 there were about eight people ageing over 65 years to care for (NBS 2010b). It should be noted, however, that the ratio was adjusted for the 0 to 14 year-olds so that a possible burden on the pension system can be better read (see chapter 4.2.1 *Before 1982: Two Sides of a Coin*). It is also clear from the population pyramid (see Appendix I – Population Pyramid Census 1982) that the People's Republic of China in 1982 was a fairly young nation, capable of supporting the comparatively small number of old people.

The period before 1982 is commonly referred to as one of explosive population growth (Wu 2004: 2). This was initially welcomed, although there were occasional and sporadic attempts to curb it. In summary, it can be said about this phase that economic development always brings with it political and social change. On the other hand, however, economic development also presupposes social upheaval (Wu 2004: 2). The high population growth can be attributed to both the low mortality rate and the high fertility rate.

4.1.2 1982 to 2000: Attempts to Regulate Population Growth

Until well into the 1980s, China's social security system was closely linked to the State-Owned Enterprises (SOE) and the *danwei* labor units, which at that time provided its members with housing, medical care and basic old-age security and, not least, guaranteed all members a job for life (Heuer 2004: 1). This ensured that SOEs increasingly suffered from a high financial burden and in some cases became uncompetitive (*ibid.*). Subsequent economic reforms reduced the total number of employees, not only in the SOEs, so that the number of pensioners increased in relation to those who continued to work.

Since the beginning of the 1980s, China has also no longer been considered a developing country (World Bank 2022), which is also reflected in the development of population figures and in the fundamental improvement of the living situation, especially of the urban population. While the population structure in 1982 was still strongly oriented towards population growth, the overall growth rate fell somewhat in 1990 to 14.39 (NBS 2010a). With a roughly constant fertility rate of 2.43 and a mortality rate of 6.67 (*ibid.*), this means a slowdown in population growth, which is additionally reflected in the delta of the total population of 1,143,333,000 (*ibid.*). The changes since 1982 are nevertheless small, looking at the data in the Census 2000. After the step-by-step implementation of the one-child policy, first effects can be seen in the population structure of 2000 (see Appendix III - Population Pyramid Census 2000). The average age in 1990 first increased by almost three years and by 2000 by a total of almost ten years (NBS 2010a).

In terms of economic development, the People's Republic opened up further in 1984 and industrial products are now also allowed to be offered on the free market. In addition, special economic zones are established in which foreign companies can invest in the People's Republic through joint ventures. Three years later, the two-price rule was abolished and the prices of all goods were liberalised, leading to immense price increases. Since the 1980s, China has been able to significantly raise the standard of living of the population and economic output, whereby the Communist Party "helped steer the greatest economic upswing in the history of modernity" (ten Brink 2019: 174).

Until 1992, China's reform policy was characterised by the motto *xiaolu youxian jiangu gongping* (engl.: *efficiency comes first, with proper attention to equity*; Dalen Flatø 2016: 7). Consequently, further economic reforms were introduced with the aim of establishing a “socialist market economy with Chinese characteristics” (Lin 2011: 4). The attempt to develop the country economically combined marketisation with the establishment of a party state (ibid.). As a result, a capitalist society has been established that operates in de jure free but de facto massively controlled markets (ibid.). After this opening process, many parts of society faced improvements. Nevertheless, inequality within the country was severe, especially when comparing rural and urban society and in terms of access to public goods of provision (ibid.: 7)

Ever then, the government has made constant efforts to improve the welfare system, which has been particularly successful in urban areas. To this end, a pension system was created in 1997 that is based on two pillars, or a third, voluntary one (Chen / Turner 2020: 36). Subsequently, China also faced the problem of an aging society, and the reforms of the 1990s had to be further deepened (ibid.: 35). For example, while the scope of Basic Old Age Insurance (BOAI) was initially extended “from state-owned enterprises and urban collective enterprises to foreign-invested” (Yang 2021: 4) and subsidized enterprises, in 2005 it was additionally extended to privately owned enterprises and urban retail stores, as well as individuals in flexible employment (ibid.: 36)

Consequently, several factors catalysed the marked ageing of society. While life expectancy rose and birth rate fell, the introduction of the one-child policy is leading to an acceleration of demographic ageing. In summary, it can be seen that a major break has happened between the 1990 Census and the 2000 Census. Not least the one-child policy may have contributed to the reduction of the birth rate by one percentage point in ten years. At this point, however, it should also be pointed out that provision for the elderly is no longer too dependent on reproduction and children, especially boys. However, Wu (2004) cautions that the willingness of children to support their parents is declining (2004: 9).

In addition, the dependency ratio has increased by almost three percent in the 18 years since 1982: For every one hundred working people, there were almost 11 pensioners to be financed in 2000. A first shift towards an ageing society is clearly visible. Moreover, as of Census 2000, Chinese society has almost reached the UN's 7% mark, which is an indicator of an ageing society (United Nations 2019). The economy, on the other hand, is not yet at its peak: with an annual GDP growth of 8.5% and a total GDP of 1.21 trillion (959.4 GDP per capita), inequality in the country continues to rise (NBS 2000c).

4.1.3 2000 to 2010: Further Ageing of the Population

Since the 2000s, China has repeatedly been marked by economic and state reforms. In particular, the discussion on the establishment of welfare systems and programmes has become increasingly vocal, leading the Central Committee to recognise the importance of a "harmonious society" (Dalen/ Flatø 2016: 8). Efforts to achieve this harmony have ranged from coordinated development towards equality and justice to increasing efficiency in public administration and are even noted in the Eleventh Five-Year Plan (National People's Congress of the People's Republic of China 2006).

Last but not least, in the years from 2000 to 2009, the number of employees in SOEs decreased from 81 to 64 million and large state-owned enterprise groups (*qije jituan*) were established (NBS 2015, see also Ten Brink 2019). These changes are hardly reflected in the population structure, but developments and operating mechanisms can be derived from them for the pension system (see chapter 4.2.3 2000 to 2010: *A Left Behind Social Harmony*). Nevertheless, changes are also emerging in the political control of population development: In 2004, the one-child policy was gradually relaxed, and compared to the Census in 2000, the fertility rate even increased by 0.1% (NBS 2010b), but this could not cushion the growth of the dependency ratio of one percent while total population growth continued to decline.

In the context of the 2007/08 global economic crisis, further economic reforms sweep the country and the focus shifts from foreign capital investment and foreign trade to domestic production and consumption within the country (Ten Brink 2019: 171).

Nonetheless, consumption levels and employee wages remain comparatively (ibid.). What is striking in this temporal phase is the high savings rate, which points to the need of private households to bear health care and old-age provision themselves (see also ten Brink 2019: 171f.) This insecurity is also reflected in the populations' growth rate and a rising age of people: the birth rate continues to fall. The population pyramid (see Appendix IV – Population Pyramid Census 2010) also shows, in direct comparison with that of 1982, a clear trend towards the bipolar form, which indicates an ageing society. As the large block of the population group that was young adults in 1982 approaches retirement age and continues to move upwards, the pyramid widens towards the top and ageing is irreversible.

4.1.4 Since 2010: The Demographic Crisis Peaks

When looking at the fourth period, since 2010, it becomes clear, especially in view of the chronological sequence, since 1982, that we can no longer speak of a demographic change, but of a crisis. Since Xi Jinping came to power as head of state in 2013, replacing Hu Jintao and his efforts for further reforms, the balance of power in the Chinese state has become more centralised and the attribution of power to it has increased (ten Brink 2019: 178).

Then in 2015, the one-child policy was completely suspended and in 2016 it was changed to a two-child policy. Despite this, there is no increase in the fertility rate in 2018. On the contrary, the number of births per thousand women is the lowest since 1982 (NBS 2019a). The death rate, otherwise, continues to remain at a constant level, which further depresses the growth rate (ibid. 2019b). The average age is also at its peak at over 38 years in the 2018 yearbook. A serious aspect is the dependency ratio, which at 16.8% is well above the UN's benchmark. The People's Republic of China can therefore very well be said to be in a demographic crisis.

Since this paper has to work with data from the 2018 Yearbook and cannot rely on the Census 2020, possible demographic changes that could be caused by the Corona pandemic are completely ignored. However, it is clear that the demographic trend has been moving almost inexorably in one direction since 1982. While the fertility rate is continuously declining and the overall growth of society is decreasing, both the average age and the dependency ratio are continuously increasing (also see Tab 4- China's Demographic Development in the Course of Time).

4.1.5 Interim Conclusion

The Chinese pension system has undergone great changes and repeated transformation in recent years. Especially the pursuit of economic growth and social stability have led to changes in demography but also in the welfare system (Li 2019: 208). Not least internal, but also external reasons and developments have catalysed a demographic change.

The four periods chosen can be characterised by four formative economic policy decisions, upheavals and developments: The change from communism to a social market economy, the one-child policy, targeted and established reforms, and the demographic crisis at its peak. These can be seen as major influences on population growth and the burden on and the pension system itself. Following the theory of path dependency, the analysed development also shows that the decisions taken in China since 1982 have had a decisive impact on the developments. The protracted influence of communism on society, the economy and the state has had a significant impact on the development of the country, the welfare state and also the pension system, and has ensured a lack of agility and adaptability. The changes in Chinese demography highlighted and analysed in this chapter in the context of rapid economic and economic policy developments clearly show that there must be talk of a demographic crisis during which a welfare system that was initially present in a completely different formation during the communist-influenced period had to build itself up. The intended and established changes could be shown in the previous subchapters.

In summary, see Tab. 4 – China's Demographic Development in the Course of Time which clearly shows the cut between the Census of 1990 and 2000: the growth rate has halved and the Old-Aged Dependency Ratio has increased by over two and a half percentage points, to name just two drastic figures. Another notch can be seen between 2010 and 2018: here, a further increase in the dependency ratio to 16.8% can be seen. This represents a doubling in 40 years, while population growth has fallen by 80 per cent in that time. However, how the state, the market and society re- and act within the pension system and in the course of this societal change and within the framework of the pension system will be analysed in the following chapter.

TAB. 4 – CHINA'S DEMOGRAPHIC DEVELOPMENT IN THE COURSE OF TIME

		1982	1990	2000	2010	2018
Population Structure by Sex	Total Population	1.016.540.000	1.143.330.000	1.267.430.000	1.340.910.000	1.144.648.000
	Male	523.520.000	589.040.000	654.370.000	687.480.000	585.299.000
	Female	493.020.000	554.290.000	613.060.000	653.430.000	559.349.000
Growth	Fertility Rate per 1000	2,32	2,43	1,45	1,54	1,30
	Mortality Rate per 1000	6,60	6,67	6,45	7,14	7,09
	Population Growth Rate in Percent	15,68	14,39	7,58	4,79	3,81
Age and Dependency	Average Age in Years	21,9	24,9	30,1	35,2	38,4
	Total Number of People age > 65 Years Old	49.910.000	63.680.000	88.110.000	118.940.000	136.644.000
	Old-Aged Dependency Ratio in Percent	8,0	8,3	10,89	11,9	16,8

compiled by author according to National Bureau of Statistics in China (2000a; 2000b; 2000c; 2010a; 2010b; 2010c; 2015; 2019a; 2019b; 2019c; 2019d).

4.2 Part II: Logic of State, Markets & Society within China's Pension System

Based on the previous chapter (see chapter *4.1 Part I: China's Demographic Development in the Course of Time*), it has been shown and could be deduced that both the welfare state in general and the pension system repeatedly had to face new demographic challenges and adapt. In particular, the cushioning of social vulnerabilities and inequalities resulting from enormous economic growth and changes in the economic system must be met by the pension system (Li 2019: 208). Moreover, not least due to the unprecedented economic progress, an ageing society is emerging, which in turn puts immense pressure on the pension system. Thus, it can be stated that the Chinese pension system pursues two main goals: "facilitating economic growth and social stability" (ibid.).

After the first part of the analysis highlighted and examined the process of demographic change in the context of China's economic policy development, the following chapter is dedicated to a targeted examination of the functional logic of the Chinese pension system. For this purpose, the operationalisations of social stratification and decommodification according to Esping-Andersen (see chapter *3.4 Operationalisation*) are applied in particular and analysed with regard to the state, market and society.

4.2.1 Before 1982: Two Sides of a Coin

In the period before 1982, also known as the "Iron Rice Bowl" (Vilela 2013: 2), communism takes hold in the People's Republic and the basic features of the Chinese pension system were to be established. In particular, the financial security of state employees in old age is on the agenda. The Basic Old Age Insurance System for Employees (BOIAS) is introduced in 1951 and is considered the first pension system. Shortly afterwards, the Basic Old Age Pension System for Civil Servants (BOPSCS) follows. This scheme is intended to protect civil servants and military personnel in particular from poverty in old age (Vilela 2013: 2).

Until the 1980s, social security and the pension system in particular were closely linked to work units (*danwei*) of SOEs as a remnant of the planned economy. However, this implicit security was not a legal obligation and did not extend to people and workers outside state employment (Vilela 2013: 2). What the Chinese state called a pension system at the time was closely modelled on that of the Soviet Union (Li 2012). Workers' units ensured their members a place of residence, medical care, old-age security and a lifetime guarantee of a job. To promote heavy industry, which was the most important industry at the time, workers were to be able to concentrate fully on production. Hence, "[w]orkers should devote their lives to their jobs, and heavy industries should be guaranteed of good labour supply. The welfare state in the early stage of communist China was intended to help meeting these conditions" (Lin / Cai / Li: 1996).

In addition to the BOAISE and the BOPSCS, a pension scheme for the informal sector was implemented in 1956. The Five Guarantees Scheme (FGS) was a programme that can generally be classified as a pension scheme and was intended to support those in rural areas in their old age. This programme, unlike the BOAISE and the BOPSCS, was enshrined in law. Nevertheless, there was a great duality between the pension provisions for the formally employed and those being without employment or working in the informal sector (Vilela 2013: 2). This shows the origin of a fragmented system that has grown out of the decision of a state-linked pension system until today. The problem of the time, however, was that the state enterprises could not cope with the increasing pension burden. The financing of this system could not be sustained, and many companies collapsed under the pension burden (see chapter 4.1.2 *1982 to 2000: Time of Reforms*).

Esping-Andersen (1990) also reflects this: in order to establish and expand a welfare state, a specific capitalism is needed, which could not be established in China at that time, as neither the market nor society could act freely enough, and the economy was planned specifically. In this period, the state held a controlling role that did not make free-acting markets possible. Just as the economy was tied to the state, it was also reciprocal: the state controlled the markets. Nevertheless, there were pension benefits and payments to society, especially workers who were allocated to certain jobs according to their strength and members in *danweis* receiving lifelong security. In this way, the labour market was also to be understood as unfree and society was assigned to SOEs according to labour force (Vilela 2013: 3f.).

The application of social stratification and decommodification, specifically the pension index, is difficult at this point. As has already been shown, before 1982 there was no established pension system as Esping-Andersen would understand it, but mainly company-linked safeguards and payments. Consequently, to remain consistent in the analysis, we nevertheless try to apply Esping-Andersen's understanding of social stratification and decommodification to examine the mechanisms of market, state and society even more deeply.

SOCIAL STRATIFICATION

With a view to social stratification within Chinese society and the levelling role of the state (Esping-Andersen 1990), it becomes apparent that the Chinese state apparatus indeed played a pronounced role as an instrument of influence and correction. However, it is questionable whether this role really served the purpose of correcting social inequalities (Esping-Andersen 1990: 52f.). At the same time, in fact, a strong distinction between rural and urban populations becomes apparent. While most of the commission and pension payments at the time went to the urban population (a total of 3.11 million yuan per year on average from 1978 to 1982, the bulk of which goes to the urban population, which in turn accounts for only about 18% of the total population; NBS 2000d), there are few, immature programmes for the rural population, which were funded and administered by the provinces. (Dalen / Flatø 2016: 6).

Within Chinese society, different levels of protection can clearly be seen, especially with regard to urban and rural populations. However, this does not necessarily speak for a high degree of stratification, because it cannot be seen that entire social strata are distinct. The state acts in an unbalanced manner and implements several different pension systems, the effectiveness of which, however, remains questionable. It also remains questionable whether the implementation of different programmes actually pursues the goal of dividing society into different strata or equalising them. Nevertheless, according to Esping-Andersen (1990: 27), it can be deduced that the state is in the position and role where it displaces the market as a provider of social benefits and makes society dependent on its offers and payments because it has a monopoly on social benefits.

Provisions offered by private insurance companies played no role in this time frame. Consequently, the pension system would follow a corporatist character – even if the question of the balancing role of the state remains open. It should also be noted that capitalism is not fully developed in this phase and thus the application of the theory according to Esping-Andersen (1990) is only possible to a limited extent.

DECOMMODIFICATION

The theory is also not easy to apply with regard to decommodification: Esping-Andersen (1990) understands decommodification as the provision of non-market means to secure welfare. A strong degree of decommodification would be reached when society can decouple from the labour market and still be socially secure (Esping-Andersen 1990: 52). In China before 1982, the opposite can be seen: Particularly with regard to the protection of workers in SOEs, there is a strong provision of non-market goods, e.g. social security in the form of housing and access to a health system. However, this is accompanied by a low degree of decoupling of society from the labour market. Society is strongly tied to the labour market and would not be included in welfare state systems without it. Thus, one can speak of a high degree of decommodification under the condition that the decoupling from the labour market is non-existent at the same time.

A detailed look at the pension index according to Esping-Andersen (1990) reveals another problem: the information on the minimum pension in percent can be analysed in the rural nor in the urban pension system linked to *danwei*, nor can it be examined for the collectivised farms in the rural areas, because the data are only incomplete or not available at all (NBS 2000a; NBS 2000b). Other variables from the pension index according to Esping-Andersen are also not publicly available, so that analysis is not possible here. A conclusion on the degree of decommodification can hence not be drawn in this phase against the background mentioned above. Moreover, the dual pension system implemented in this phase cannot be classified as a traditional pay-as-you-go or capital-financed system (Dalen / Flatø 2016: 6), which further complicates comparability.

Finally, Esping-Andersen's decommodification cannot be applied in this phase because basic assumptions do not follow the same ideas. In summary, it can nevertheless be stated that several systems for social security of pension-like payments were established in the period before 1982. Based on Esping-Andersen (1990), however, it can be shown that the non-existence of capitalist structures in the centrally planned market is decisive for the lack of establishment of a pension system and payments. It can be seen that the state plays the decisive role in provision by playing a controlling, if not displacing, role in the market for non-state or state-owned pension provision. Looking at the labour market, it is evident that society does not have free choice but is divided into labour units according to labour power. Society thus provides important actors, namely workers, that drive the production of heavy industry. As the coverage of the pension system is still in its infancy, actors within society, e.g. family, especially children in rural areas, play an important role in providing for old age. The part of society that is part of the pension system is organised and managed by the state in the form of SOEs in urban areas and collectivised farms in rural areas (here by local governments). While "in urban areas foreign and national equity owners were expropriated and work units were created" (Gencer 2017: 20), "landowners were expropriated and land was collectivized" (ibid.) in rural areas, so domestic provision played a major role: The number of new-born children is particularly high here. This reflects a well-known phenomenon in immature economies and is also reflected in the analysis of demography (see chapter 4.1.1 *Before 1982: Growing Economy – Growing Population*).

4.2.2 1982 to 2000: Time of Reforms

The period from 1982 to the 2000s shows many changes in the People's Republic: not only is the economy growing rapidly, but the question of whether the welfare state and especially the pension system can withstand this growth and the demographic changes that accompany it is also coming up more and more. Due to the implementation of the one-child policy and the dwindling "pension eligibility criteria" (Oksanen 2010: 3), not least the number of potential pensioners increases sharply in this phase.

At this time, the social market economy plays a slowly growing role. However, as the profitability of the SOE additionally decreases due to the opening policy, the (state-)enterprise-based pension system starts to falter (Yang 2019: 3).

In addition, the burden of the two-tier system increases sharply in the 1980s: while the urban pension system continues to exist at the expense of the state, there is little to no coverage in China's rural areas, which are organised in a decentralised manner through local governments (Dalen/ Flatø 2016: 8). In addition, the problem has emerged that the fragmentation of the pension system is visibly increasing, and the financing of the provisions is becoming impossible against the background of demographic change. This is not least since employment in SOEs is being reduced in the course of the opening-up policy and the number of pensioners is increasing in relation to the number of employees in SOEs (ibid.).

In the course of the opening-up policy and the economic reforms in the 1990s, the previous BOAISE system was largely abolished and further developed. In 1991, the Unified Basic Old-Age Pension System for Enterprise Employees (BOAISEE) was established and extended to private sector employees in the following years (Vilela 2013: 3). Thus, in "1993 a fragmented multilevel social security system was implemented, often with local experiments over different pension schemes" (Hong / Kongshøj 2013: 678). In addition, a few urban workers had the option of joining a private pension scheme. However, these were also subsidised to a small extent by the state (Gencer 2017: 31). The effect of capitalist structures established by the state can be seen: in BOAISEE, both employers and employees pay into a pension system that is used to finance the elderly. This could reduce society's dependence on the state. The opening reforms force and initiate capitalist competition, which finances the welfare state in general and the pension system in particular through levies and taxes (ibid.) This social market economy with Chinese characteristics supports society as a unit that detaches itself from the state and increases its importance for the financing and functioning of the pension system. Nevertheless, the importance of the state intervening with subsidies must not be forgotten and is again addressed in the context of decommodification in this subchapter.

Although a large number of other reforms have been implemented since the 1980s, in 2000 not all people are still equally protected by a comprehensive pension system. For example, 132 million workers in urban areas paid into the pension system (94.7 million in BOISEE and 37.5 million in BOPSCS) (Vilela 2013:3). However, this represented less than half of the people working in secondary and tertiary industries (ibid.).

This clearly shows that the pension system cannot keep up with ageing in its coverage and inclusiveness – not only because society is getting older, but because simply too few workers are part of or pay into the pension system.

SOCIAL STRATIFICATION

Despite reforms, inequality between groups in urban and rural China is still glaring and inequality among state workers and other, merely informal workers has not yet been addressed. The reforms have also led to massive rural-urban migration (Gencer 2017, see also Yang 2019: 3) and social inequality is worsening. This raises the question of stratification in the People's Republic.

We still cannot speak of conservative stratification to the same extent as, for example, in Germany at this time, because the stratification of society in China is still not equally diversified. A large mass of the population and belongs to the low-income, informally working class, while few experience higher incomes and living standards. There is no further differentiation of social classes in China during this period. Nevertheless, the number of schemes and programmes within the pension system is relatively high (see Germany as a conservative welfare state with one statutory pension system, see Federal Ministry of Labour and Social Affairs 2022). This in turn would speak for a conservative stratification, following corporatism. It must be borne in mind, however, that pension expenditure can generally be regarded as low: While in Germany between 13.1 and 12% of GDP is spent on pension payments (EUROSTAT 2022), in China it is only about 5% (Oksanen 2010: 8), which again argues against the criterion of etatism.

Another way to understand the logic society follows within the Chinese pension system is to examine the universality of the system itself. The implementation of reforms, as well as the reforms that have been passed, show an inclusion of a larger group of the population as well as an effort of the state towards a universal pension system. In such a system, the state displaces the market as a provider of social benefits and private provision moves into the background. In China's yet immature system, there can be no talk of a full universal pension system at the time from 1982 to 2000, not least because not a significant amount of people are protected by the system.

Notwithstanding, it is evident - following universalism – that the state is suppressing the market as a possible provider of social benefits and that the market for private pension insurance is only marginal and accessible to an exclusive group of society.

DECOMMODIFICATION

While government expenditure on financing the pension system was 9.60 million yuan in 1978, it rose to 19.68 million yuan for the entire pension system in 1999 (NBS 2000d). In addition, payments for local pensions have already been excluded from this figure, as these are made by the Department of Civil Affairs (NBS 2000d). It is thus clear that the state - in contrast to what was previously assumed due to the opening-up policy - is becoming increasingly important, especially in financing the system - this also reflects the results from the study of stratification. Nevertheless, the state assumes a reactive role and acts in line with the growing society, not proactively or with initiative.

The increasing importance of the state is also reflected in the provision of non-market goods and services: Even though in 2000, i.e. after the implementation of the reforms, only about 132 million workers paid into the pension system in urban areas (94.7 million in BOAISEE and 37.5 million in BOPSCS), this corresponds to about half of the actual target group in the secondary and tertiary sectors (Vilela 2013: 8). Consequently, about 36.7 per cent were involved in the pension coverage of the urban system. The standard pension rate at that time was between 2 and 20 yuan per person per month (Vilela 2013: 4), and participants had to pay in for around 35 years or reach the age of 60 before they were paid out. Based on 231.5 million people who had access to the urban hukou system, the coverage corresponds to 57.1 per cent (Vilela 2013: 8). Since the data do not provide information on the amount of the minimum pension (net) per person, it is not possible to make a concrete and complete indexation according to Esping-Andersen (1990:49).

After all, it can be deduced that the Chinese state still acts as an initiator of reforms and actively steers the country's policy. Although an opening-up policy is being pursued and reform efforts are being implemented, pension coverage is not yet optimal and equal across society.

Yet, the way to a social market economy is being paved and capitalist structures are being initiated so that the markets can benefit from the opening-up policy and can act more freely in at least some areas due to the two-price policy. In the area of social benefits, however, it is still displaced by the state and plays no significant role in the pension system. Society, too, is slowly and in small steps detaching itself from the state through the reforms but is still tied to it through the state as a major contributor to the pension system, and the difference between the detachments is serious between the urban and the rural population. Thus, the 1990s could be characterised to be the phase of an increased degree of decommodification. It is important to note that the state and the market had previously formed an almost unified whole and that the opening-up policy also led to a further separation of the two. Similarly, the reform of the pension system detaches society from the labour market. The private pension market still plays a marginal role. In addition, there is a lack of comparable data from the period before 1982, so that it is only possible to estimate the extent to which the degree of decommodification has changed. However, it would not be correct at this point to infer from this observation that the Chinese pension system follows purely liberal or social-democratic mechanisms. It merely shows that the degrees of decommodification and functional logics are similar in some variables, e.g. in the displacement of the market as the place where private social benefits are offered, but no further conclusions should therefore be drawn.

4.2.3 2000 to 2010: A Left Behind Social Harmony

From 2000 onwards, China is considered an ageing society in the international context, when the 7% dependency ratio mark was exceeded (United Nations 2019; see chapter *4.1.3 2000 to 2010: Further Ageing of the Population*). The same period also shows a renewed impetus to deepen and widen China's pension system (see also Dalen / Flatø 2016: 8).

In the period from 2003 to 2009, new pilot projects were introduced to put more emphasis on state financing. Above all, the population in rural areas is to be better protected by innovations in the pension system, since in this period only about 10% of all elderly people in rural areas received pension coverage (Vilela 2013: 5f.). Here, different variants of state and individual funding were implemented in 25 counties (*ibid.*).

All these programmes were then combined into the New Rural Social Pension Scheme (NRSPS; *ibid.*), which significantly increased the importance of the state as the financier of the pension system. Furthermore, at the 17th National Congress in 2011, the Urban Social Pension Scheme (USPS) was adopted, intending to provide better coverage for people in rural areas (Ministry of Foreign Affairs 2007: para. 102). In addition, the previously existing programme for the exclusive pension coverage of civil servants was abolished and they had to pay contributions themselves from then on (Liu 2015: 16).

Contrary to the first reformation and expansion phase of the pension system in the 1990s, this was intended to overcome the challenges of private "voluntary participation" and "reasonable contribution rates" (Vilela 2013: 6), which the system had previously failed to overcome. Instead, however, state funding was further increased and interventions in the form of state subsidies and state-funded contributions characterised this programme. This clearly shows that private participation in pension provision is not integrated into the pension system and that the market for private provision has no opportunity to develop and, to put it drastically, is crowded out by the state. The state, on the other hand, is increasing in importance for the financing of the system.

SOCIAL STRATIFICATION

Due to the continued crowding out of the private pension insurance market, the population is and will remain dependent on state-funded benefits. However, at the same time, the deepening of state pension coverage also ensures that society can act less dependent on the labour market.

It can be seen that expenditure on pension protection as part of GDP is comparatively low: In 2008, it was 2.5% of GDP, with the level of payments corresponding to 2.7%. This means that expenditure clearly exceeded income. Here the problem of ageing becomes very clear. Although less than 30% of employees are covered by the pension system, it is already overburdened and faces a financial deficit that has to be compensated by state intervention.

However, the number of pension schemes still shows a comparatively high number, mainly due to the number of pilot schemes, which were only combined in 2007 from 25 counties and 300 counties (Vilela 2013: 6). At the same time, it must be noted that the emphasis on status differentiation by the state, as seen through the various pension systems in China, indicates that the effect of redistributive measures by the state on society is negligible (Esping-Andersen 1990: 27).

Also, the effect cannot be great because the actual coverage is still quite low. Thus, it would be wrong to conclude from this that a liberal pension system is stratified, because the state neither actively nor passively encourages the market to offer pension insurance⁶. Thus, the Chinese state follows the logic of a corporatist financier who claims to act universally. What at first sounds contradictory can be seen in the function of the treasury, which, at least with the help of the reforms, tries to give citizens access to similar pensions so that cross-societal solidarity is achieved (Esping-Andersen 1990: 25). By establishing an increased number of pension schemes, solidarity within society can be strengthened and population differences can be evened out.

Society still has to offer itself on the labour market in order to be entitled to pension protection, although this has been relaxed and there is an entitlement to a pension even in the case of unemployment, so that it can be said that Chinese society is moving more and more away from the labour market as a safeguard and is closer to the state as a safeguarding unit.

DECOMMODIFICATION

Although the implementation of the NRSPS aimed at further expanding the pension system, only 55% of the population living in urban areas were part of the programme and could benefit from payments. Last but not least, the fact that the contribution rate as the sum of employee and employer payments was around 26% of the average wage may have been the reason why the Pay-As-You-Go system (see chapter 3.1 *Definitions: Welfare, Welfare State & Pension*), despite the efforts, caused a great fragmentation of society, because in rural areas only about 12% of the population was

⁶ Esping-Andersen (1990: 26) understands active encouragement by the state as subsidising private pension insurance offers on the market. Passive encouragement, on the other hand, is minimal pension provision by the state so that the market would provide the residual benefits. In China, however, there is only an extremely exclusive market for private pension provision, so that an argument for liberal stratification or its mechanisms is invalid (ibid. 1990: 26f.).

covered by the USPS in 2008. With the average pension paid from the age of 60 (Vilela 2013: 6) being around 55 yuan a month ⁷ (Oksanen 2010: 3), there can indeed be talk of problematic and lacking coverage.

In both systems, a minimum of 35 years was required for the pension to be paid out (Feng / He 2012: 4) and overall only about 30% of all workers were covered by the entire pension system (Oksanen 2010). Looking at people in rural areas, this low coverage is even more evident: of the approximately 473 million workers, only about 56 million people are covered by the pension system, which is only about 12% of all potential participants (ibid.).

It can thus be seen that non-market goods, mainly in the form of transfer payments and pension provisions, are provided in order to achieve a disconnection of society from the labour market. The coverage of society, on the other hand, is relatively low. Nevertheless, there is an upward trend compared to the previous period (see chapter 4.2.2 *1982 to 2000: Time of Reforms*). The provision of non-market goods by the state is thus indeed present and places the state in a central role – but only for some individuals. How the fragmentation resulting from the different provision of pension payments will develop further, how and whether it can be remedied, is examined in the following subchapter.

4.2.4 Since 2010: State and Market reducing Fragmentation

In the time since 2010, further major changes have emerged and further developments have taken place. As recently as 2011, there were about 18 million elderly people in China who were considered poor. Around 75% of these people lived in rural areas of China (Vilela 2013: 2). This problem of fragmentation can be understood as one of many crucial reasons for the merger of the NRSPS and the USPS into the Urban and Rural Residents Pension Scheme (URRPS) (see also Yang 2021: 6). Thus, the current Chinese pension system consists of two main schemes. The BOAISEE (see chapter 4.2.2 *1982 to 2000: Time of Reforms*), on the one hand, continues to function as an employment-based scheme for municipal employees and civil servants, a few of whom may also join private insurance companies (Ye 2011, see also Gencer 2017: 31). On the other hand, the URRPS functions as a basic security and residence-based

⁷ 55 yuan is equivalent to \$8.83 or \$35.17 Purchasing Power Parity (PPP) (Vilela 2013: 6).

programme in which both the population in rural areas and those in urban areas (especially the non-working elderly) are protected (Gencer 2017: 31f.).

Looking at the first and second time periods examined in this analysis (see chapter 4.2.1 *Before 1982: Two Sides of a Coin* and chapter 4.2.2 *1982 to 2000: Time of Reforms*), we see not only a significant change in the pension system in all its programmes and schemes, but also a concrete shift in the importance and functional logics of state, market and society. The merger of two previous schemes into the URRPS has succeeded in covering and integrating further segments of the population: While in 2008 only about 60 million people (Yang 2021: 6) were covered by the pension system⁸, in 2012 there were already 480 million (ibid.) and in 2019 already 530 million (ibid.) enrolled in the scheme.

Nonetheless, China's pension system is considered lacking in coverage. In recent years, remarkable efforts toward a universal insurance coverage, especially with regards to pension insurance, have been recorded, although great inequalities characterise the welfare system and its effectiveness. Therefore, the state has pursued the goal of minimizing the fragmentation of the pension system, finding a strategy to combat societal aging, and sharing the risks of the welfare system between the state, households, and companies (Chen / Turner 2020). One of these strategies is the implementation of a third pillar for private pension insurance in some isolated cities and provinces (Feipeng 2021). Esping-Andersen (1990: 79) sees this as an absolute necessity. The mixture of social benefits from state and private provision is the optimal solution to guarantee effective social security for society.

SOCIAL STRATIFICATION

Despite the increased coverage, a major challenge emerges in the equality of payout: here, a large gap between BOIASEE and URRPS points to inequality within the pension system and society, both in urban and rural contexts but also between people in the formal and informal sectors. The different subsidisation by the state also speaks for a growing stratification and shaping of social classes. Even if the number of classes is small (in the context of this work and this study, only rural and urban population classes are considered), it shows that there is a within-country inequality whose

⁸ Prior to 2014, the total coverage amount considered corresponds to the coverage of the NRSPS and the USPS combined.

levelling the state does not succeed in. For example, the URRPS is heavily dependent on state subsidies, which finance about 72% of the payments (annual subsidy amount per person: 4500 Renminbi (RMB)), whereas only about 14% of the BOAISEE contributions (annual subsidy per person: 1750 RMB) are subsidised by the state (Yang 2021: 9).

Since the state intervenes in a subsidising way, it is said to play an interventionist role. However, different payoffs are achieved. These show that the state acts less as a levelling unit, but rather primarily pursues the goal of expanding pension coverage. Instead of providing basic pension protection, the state's focus is on pension contributions (Yang 2021: 11, see also Wang et al. 2019 or OECD 2019: 3). While this expands national pension coverage in the short term, the defined contribution system simultaneously leads to more inequalities within the country. This can clearly be seen as a contradiction of the original objective.

On the one hand, an active, subsidising state speaks for a levelling of society and implementation of equality, i.e. against conservative stratification. On the other hand, however, a relatively large number of individual pension schemes are implemented in the Chinese pension system, which in turn would speak for conservative social stratification. It is therefore difficult to say whether the Chinese state is actually pursuing the goal of levelling out and equalising stratification through subsidies, or whether it is fighting for the formation of social strata, as in conservatism. The strong development towards a broad expansion of the pension system, in turn, argues strongly for universalism in the Chinese pension system.

The sharp increase in the number of people being integrated into the pension system clearly speaks in favour of this. Also, the market for private pension insurance continues to play only a marginal role, in line with the social-democratic system. The extent to which society can decouple itself from the labour market will be shown in the course of decommodification.

DECOMMODIFICATION

Numerous reforms in recent years have resulted in around 67.2% of the Chinese population (National Bureau of Statistics of China 2018e) now being covered and protected by a pension system programme (see also Vilela 2013). Looking at the pension index of decommodification, we see that the minimum pension as the sum of

the basic pension and the individual account has indeed risen and, depending on the region, is between 40 and 60% of the previous year's average monthly wage (Gencer 2017: 31). This shows a clear financial relief for society, especially for workers, who can thus detach themselves from the labour market, especially in old age.

The standard pension replacement rate, otherwise, has followed a clear downward trend in recent years. While it was still 17% in 1997, it had fallen to only 45% in the BOIASEE by 2014 (ibid.). Here, as already examined, a contradiction in purpose becomes apparent: the expansion of the pension system does not automatically ensure an increase in pension payments.

In terms of the number of years required for a person to qualify for a pension, little change is evident in this time period and in the pension schemes. In order to qualify for a pension under both the URRPS and the BOIASEE, it is necessary to have contributed for at least 15 years and to have reached the retirement age (55 years for manual workers, 50 years for other women and 60 years for white-collar workers) (Gencer 2017:31), which turns out to be very low by international standards. As has already been shown, the state plays a central role in financing the pension system. With percentage funding of the URRPS amounting to 72% and 14% of the BOIASEE, the residual is the share paid by society amounting to 23% and 86% (Yang 2021: 9). These payments, in turn, are made up of employees paying in 8% of the individual wage bill and employers paying in 20% of the individual wage bill per person (Gencer 2017: 32).

Similar to the analysis of social stratification, decommodification also shows that the state plays an increasing role as a central contributor and financier. Although the market plays a role for a small part of people and private pension insurance is offered there, the role is rather negligible. It could be argued here that the market and the state are following the social democratic example, not least to reduce fragmentation within the pension system and aim for a universal pension system. Nevertheless, it can be seen that the increasingly centralised state (especially before the removal of regional pilot schemes and immense intervention in the form of subsidies) has undergone a transformation. While the state and the market were still very closely linked, if not superimposed, in the 1980s, it is becoming increasingly apparent that both entities are acting detached from each other and following the principle of a socialist market economy with Chinese characteristics.

Tax subsidies still make up an extremely important, if not the most important, part of pension payments, with the result that although society can detach itself from the labour market and can also act more independently as pension payments increase, it is still dependent on state subsidies.

4.2.5 Interim Conclusion

The Chinese pension system has undergone immense change over the past forty years. After a long period of time and political growth, when coverage was tied to state-owned enterprises and the focus was primarily on employees, it was difficult to implement systematic pension coverage, also against the backdrop of political values. But: it has succeeded and thus the system has evolved from a highly fragmented to an avoidably universal coverage for the population in formal and informal enterprises, the self-employed and the unemployed. A move away from a selectively characterised system is clearly evident and large subsidies and investments are shaping a nationally comprehensive pension system. However, the analysis has also shown that coverage alone is not sufficient and individual pension payments continue to be a social problem – especially in rural areas. The system is also characterised by its continuing complexity and possible lack of sustainability, which can be seen in the heavy tax burden on the treasury. The current pension system is heavily dependent on subsidy payments, which is questionable, especially in light of what has been a permanently ageing population.

The role of the state has also changed over time. While for a long time, the state followed the logic of the central provider and initiator of pension programmes, this position has only softened over time. Through different pilot programmes in different provinces and territories, a decentralisation of the pension system has emerged at times. However, this has not been long-lasting, as the state still plays a central role not only in implementing rules but also in financing. Yet, the overlap between the state and the market has been softened, especially through the detachment of the pension system from the SOEs. Meanwhile, the state is in a controlling role through its many interventions while continuously to implementing a consumption-oriented socialist market economy with a Chinese character.

With regard to the market, it can be seen that as it is fundamentally state-controlled, it plays a marginal role for the pension system. Only a small and exclusive part of the population has access to private insurance, which is additionally subsidised by the state. A free pension insurance market does not exist in the form of a liberal pension system. However, a look at the labour market shows that it is essential for society, especially in earlier times when the pension system was linked to the labour market. Over time, however, not only was the pension system itself detached from the labour market, but society was also able to detach itself from the labour market through redistribution in the form of pensions.

Chinese society in all its facets is and remains an important entity within the pension system, not least as a contributor and recipient of payments, to ensure prosperity but also implicitly, as a catalyst of economic growth, which in turn drives prosperity. In terms of stratification within society, a clear division between rural and urban dwellers has been noticed, characterised by marked inequality. Following Esping-Andersen's *Three Worlds* (1990), the study of stratification within society and the decommodification of pensions could be used to show the functional logics of state, market and society. It has been noticed that the Chinese pension system follows some of the findings, while clearly contradicting others. While society plays a central role, similar to conservative welfare states, a marginal pension insurance market, a centrally acting state and the universality of area coverage show social democratic logics within the pension system.

5. Findings & Discussion

China's pension system has undergone a major transition in a short period of time, moving from fragmented payments to formal-sector workers to a system that focuses on universal and inclusive coverage. However, it faces a key challenge: The Chinese population is getting older and the dependency ratio is increasing. How can the pension system deal with this challenge? Following the problem-oriented approach, this chapter attempts to finally answer the research question. To this end, the findings from the analysis are brought together and weighed up in the context of two discussion chapters.

First, the question is answered as to which logic the state, the market and society follow in the context of the Chinese pension system in order to meet the challenge of ageing. It has already been shown in the analysis that pension coverage is being steadily expanded, but that contribution payments are lagging behind. It is discussed why the establishment of China's pension system has not been able to keep pace with the rapid economic growth, much more with the demographic development, which is not least a consequence of the rapid economic development. Against this background, what role logic do the state, market and society follow?

Second, conclusions about the welfare system can be drawn from the individual case study (see chapter 2.2 *Methods*). Thus, the second subchapter is dedicated to this task and discusses what kind of welfare state can be derived from the interaction of state, market and society. The discussion brings together views of a welfare mix and a productivist welfare state and weighs them against each other.

5.1 Why could China's Pension System not keep the Pace?

Even today, the payout of the Chinese pension system is considered insufficient, while the nationwide implementation and integration of more and more people is being pushed forward. Nevertheless, the discrepancy between participation in the pension system and payout levels is still remarkable. Derived from the findings of the preceding analysis, the question thus arises as to why China's pension system has not been able to follow the rapid demographic change.

Already in the first analysed timeframes, at the beginning of the analysis, a first problem becomes apparent: after the de-collectivisation of the country, both family in general and the following generation in particular would have been central to old-age provision within society. Here, however, birth control was established in 1979 to curb the rapid population growth (see also Wu 2004). The population growth in general could be limited, but a second consequence became apparent a few years later: the population pyramid changed to an onion with a large mass of old people and a proportionally much smaller number of people of working age (see especially Appendix I, Appendix III and Appendix IV). This clearly shows that China's 'Not Rich, First Old' devise has not worked out: the plan to increase the number of workers and force rural-urban migration failed on the back of left behind social security.

In addition, a closer look at the relationship between the state apparatus and the market reveals another problem. It could be shown that the marginal role played by the pension market in the Chinese pension system, which follows a similar logic as in social-democratic pension systems, leads to inefficiencies in coverage, especially when state coverage is still very fragmented. Parts of the population that thus did not have access to state pension coverage also did not have the opportunity to acquire an alternative. This inefficiency is being addressed in the 14th Five-Year Plan: After some pilot programmes, a third pillar will be anchored in the Chinese pension system, implementing private pension insurance. In the context of this paper, this implementation is initially difficult to evaluate because no data is yet available on the possible effects of this innovation. In contrast, liberal countries have shown that purely private provision has advantages and disadvantages. However, the additional implementation alongside state provision could indeed create benefits – especially in the context of an ageing society.

A further problem that did not receive much attention in the analysis, but for which further research is definitely needed (see chapter 3.4 *Reliability, Validity, Replication and Critique*), is the lack of precedents. Neither at the time of the great economic boom, nor during the one-child policy or the demographic transition in a developmental stage, in which China found itself around the year 2000, were there states that found themselves in similar situations.

Unlike the implementation of the one-child policy, for example, possible reference countries such as South Korea, Singapore or Japan have managed to become rich before they become old, following China's motto 'First Old, not Rich' (see also Johnston 2020).

In conclusion, China's pension system has not been able to keep up with the extremely rapid demographic change for several closely related reasons. Besides the implementation of birth control and the devise of tying China's labour force and production to SOEs in order to increase productivity, reasons also lay in the lack of capitalist structures, private pension provision or precedent. While the demand for pension protection was steadily increasing, the state supply could not be expanded fast enough. This changed as the socialist market economy expanded. There is reason to believe that after the expansion of the universal and comprehensive spread of the pension system, provisions might rise, especially with the implementation of a less exclusive, private pension insurance market.

5.2 China's Welfare State – A Welfare Mix?

In the process of China's long and still ongoing transformation, the state, market and society have acted and reacted to each other differently in different temporal phases. But what can be deduced from these functional patterns and logics and what kind of welfare state results from them? As already pointed out in the discussion of methods, this paper is aware that conclusions from individual case studies, as in the context of this paper, cannot be carried out unconditionally. Nevertheless, it can be assumed that in the context of the current academic debate and also by supporting it with the help of other academic viewpoints, a transfer of the functional logics to the Chinese welfare state is possible (see chapter 2.3 *Methods*).

With regards to the examination of East Asian Welfare States in general, there are two argumentative streams. The first current on the one hand, recognises East Asian welfare states as a distinct form and sees in their uniqueness the duty to acknowledge them separately (Kwon 1997). In addition to the three worlds according to Esping-Andersen (1990), a fourth world is introduced: that of a productivist welfare state (Kwon 1997; Holliday 2000; Mok et al. 2017).

What is particularly characteristic of these welfare states is that they promote themselves through immense economic growth and economic prosperity instead of overall social welfare (Holliday 2000: 709). This could also be deduced from the previous analysis for the Chinese pension system: Social rights are linked to the productivity of society (see chapter 4.2.1 *Before 1982: Two Sides of a Coin* and chapter 4.2.3 *1982 to 2000: Time of Reforms*, see also Aspalter 2005; Aspalter 2010; Aspalter 2011). A major criticism of the characterisation of welfare states by productivism, however, is the idea that the concept is very static and emphasises the backwardness of East Asian states, which is no longer relevant (Ringen / Ngok 2013: 4).

On the other hand, Esping Andersen (1996; 1997), among others, sees neither the necessity nor the possibility of understanding East Asian welfare states as distinct variants that "deviate markedly from existing welfare states" (Esping-Andersen 1996: 20). Thus, he argues that East Asian states should be seen as hybrids of the conservative-corporatist continental European and the liberal Anglo-Saxon system (Esping-Andersen 1990; 1999). Kongshøj (2015), on the other hand, sees China's welfare state as a hybrid of social-democratic and productivist logics, thus combining both currents (2015:71f.).

In the context of the present work and the analysis carried out, which is based on the theoretical work of Esping-Andersen (1990), the pension system has been examined less in terms of units acting productivistically, but it has been shown that the state, the market and society follow both social-democratic logics and conservative mechanisms. Nevertheless, it could also be shown that the Chinese pension system does not keep pace with demographic change. Reasons for this included the rapid economic development, which is due not least to the increased productivity of society. The pension system, however, has been slow to catch up and fragmented (see also chapter 5.1 *Why could China's Pension System not keep the Pace?*). Both corporatism and productivism subordinate social policy to economic development (Kongshøj 2015: 71). This was also seen in the analysis of the development of the pension system in China (see chapter 4.2.1 *Before 1982: Two Sides of a Coin*). Thus, it is also possible to show productivist elements in the development of the Chinese pension system, which, however, could not be examined in the context of the analysis because they were simply not part of the Three Worlds on which the analysis was based.

Researchers now seem to agree that welfare states always combine individual characteristics from different ideal types, so that it is correct to speak of ideal types only in theory. In their actual form, however, welfare states are always understood as welfare mixes (Aspalter 2019: 301, see also Esping-Andersen 1990). The discussion has shown that within the real manifestation of the Chinese welfare state, a mix of several mechanisms from different ideal types also operate together. Thus, the existing research opinions (see also Dalen / Flatø 2016) can be combined with the results of the analysis. China's welfare state could very well be characterised as a welfare mix, in whose systems the state, market and society follow social-democratic as well as conservative and productivist logics (see also Tab. 1 – Extended Characteristics of Welfare States). While society, depending on the perspective, plays an important role as a continuous driver of economic development and thus follows conservative logics, the role of the market is currently changing, and its importance could grow in the future. The State, nonetheless, has a clearly central role and thus follows social-democratic logics, especially in his role of a subsidising redistributor of pension payments.

6. Conclusion

Within the framework of the case study of the Chinese pension system, in particular the actors state, market and society within the system facing the challenge of ageing, many insights could be gained from which it was subsequently possible to deduce what kind of welfare state is being formed in China and why the pension system could not keep pace with the country's economic development. This has shown how the Chinese pension system, as a case study of the welfare state, is (not) coping with the demographic crisis. In order to answer the initial research question of, *How do the state, market and society function in the context of the Chinese pension system to meet the demographic challenge of ageing and what kind of welfare state can be derived from these interactive mechanisms?*, it must be stated that there is not the one single mechanism for the actors to be followed but a conglomerate of interplaying logics acquired from social-democrat, conservative and productivist elements were discovered.

The state, as a party-state, has a fundamentally central and controlling role throughout the period under study. Nevertheless, the state has undergone a significant transformation. While in the first periods studied it still assumed an extremely comprehensive role and also largely supplanted or overlapped the pension and labour markets, this relationship loosened, and a separation was forced in the course of implementing a socialist market economy with Chinese characteristics. It remains questionable how the role of the state will evolve, especially in light of Xi Jinping's increasing tendency to centralise policy decisions.

In addition, the importance of private pension insurance markets could be demonstrated, as the coverage of pension provision by the state and companies in China alone neither covers the entire ageing population, nor is it sufficient to enable benefits that secure living standards. For a long time, however, the pension market has played no or only a marginal role in the time periods studied and has only been accessible to a small, exclusive group of the population. Only very recently has the implementation of a third pillar, a private pension market, come onto the scene.

How this will affect the welfare of society as a whole cannot be conclusively assessed at the present time. However, based on the study of other countries, Esping-Andersen (1990: 79) gives reason to believe that the development of a private pension market, which acts complementary to state and occupational pensions, will have a positive effect on the welfare and standard of living of society.

The labour market, on the other hand, plays a crucial role in the study, especially in its reciprocal interaction with society, which, as a provider of labour power, detaches itself from it over time and through the state and company provision of non-market goods, especially in the form of increasing pension payments. Examination of earlier periods shows that in the 1980s society's social security still depended heavily on offering labour power as a commodity in the labour market. Due to the steady ageing and decreasing size of the working population, the pension system came under increasing pressure and the state had to implement reforms to maintain the social security of society. With the implementation and extension of the pension system, also to the informal sector or the unemployed, society experienced an increasing decommodification over the years.

In addition, the problem of introducing birth control and a simultaneous increase in productivity with a simultaneous lack of social security in society could be demonstrated. This has led not least to extreme inequality within the country and society. Above all, the differences between the rural and urban population and their pension provision could be shown. Thus, the study was able to show that state, market and society follow logics from differently shaped and already well researched welfare states.

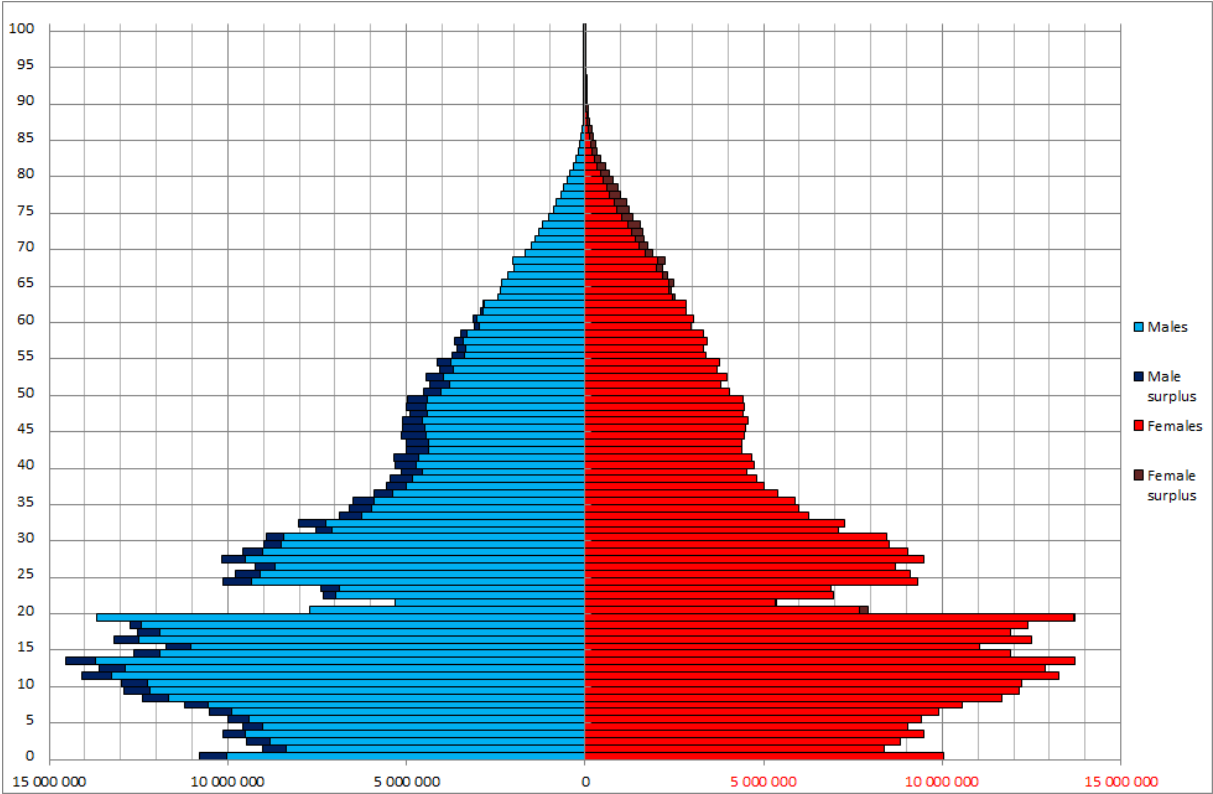
With regard to the relationship between state and society, especially in the form of employers and employees, a fragmented corporatism can be seen. In particular, the negligible role of the pension market suggests this. However, especially from the 1990s onwards and in the course of comprehensive reforms for the nationwide expansion and implementation of the pension system, elements from social-democratic welfare states can be seen. Above all, the impulses for a universal pension system, which the state is trying to establish through the adopted reforms, speak for this. However, the problem of inadequate financing and pension payments is apparent. Moreover, as in universalism, the market plays only a marginal role, while the state is of central importance as a redistributor (see Tab. 1 - Extended Characteristics of Welfare States).

Elements of productivism are particularly recognisable with a special look at the historical course and development of the pension system. With the decision to increase productivity by tying society to state-owned enterprises and in heavy industry, rapid economic development has taken place in China.

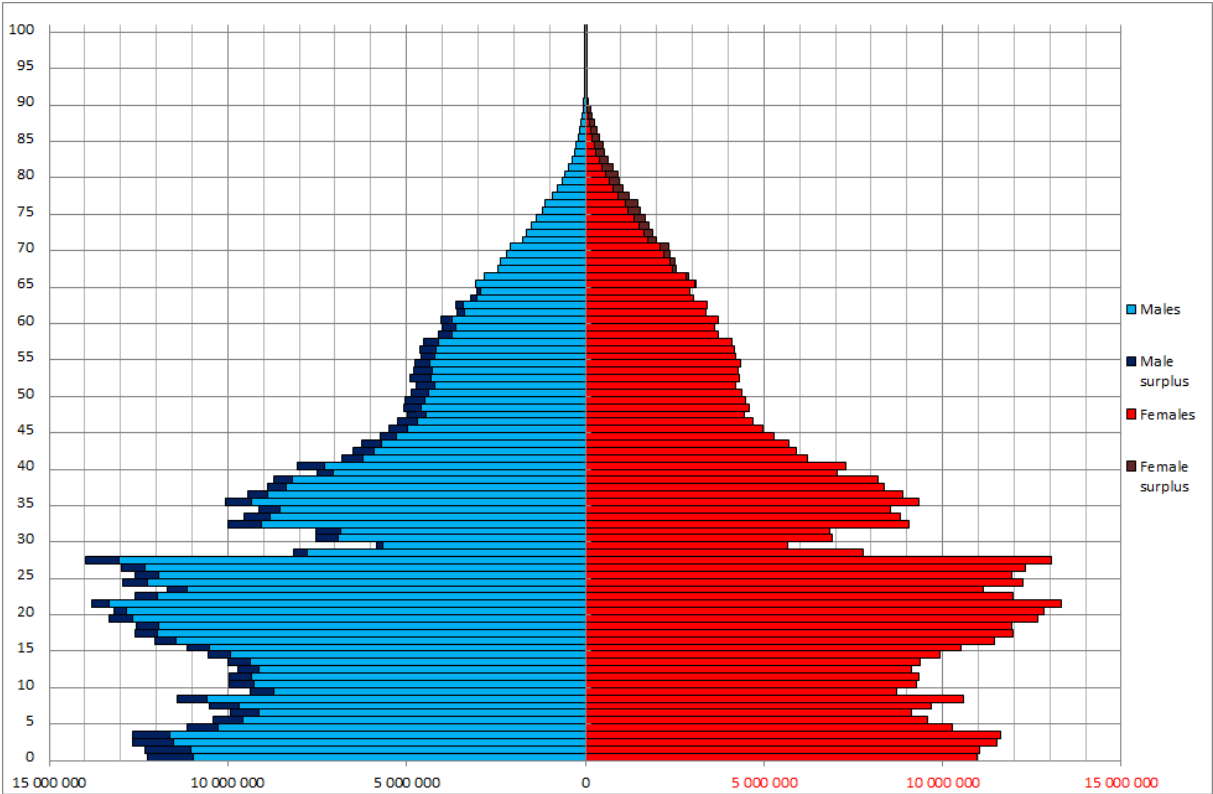
However, the decision to prioritise economic development over the development of social security cannot be reversed without incurring immense costs and is one of the reasons why the Chinese pension system still lags behind the level of economic development today. A detailed examination of productivism in the context of the analysis was not possible due to the theoretical foundation in this area but emerged from the discussion.

Consequently, to meet the challenge of an ageing society, state, markets and society within the pension system do not follow a single logic, but a mix of different mechanisms. Not least due to the dependence of decisions made in earlier times this has not been particularly successful so far and over ageing could not be contained at times. Still, from findings, a welfare mix can be derived that will enrich the discussion on the functional logics within welfare states. To conclude, China is not only an exciting case for welfare research today but will remain so in the future (referring to Kongshøj 2015). Not least through the implementation of a third pillar, a private market within the pension system, it will become clear in the future whether China can improve the living situations of its population by expanding not only the coverage but also the level of payments and how, or whether, the demographic crisis can perhaps even be contained as a result.

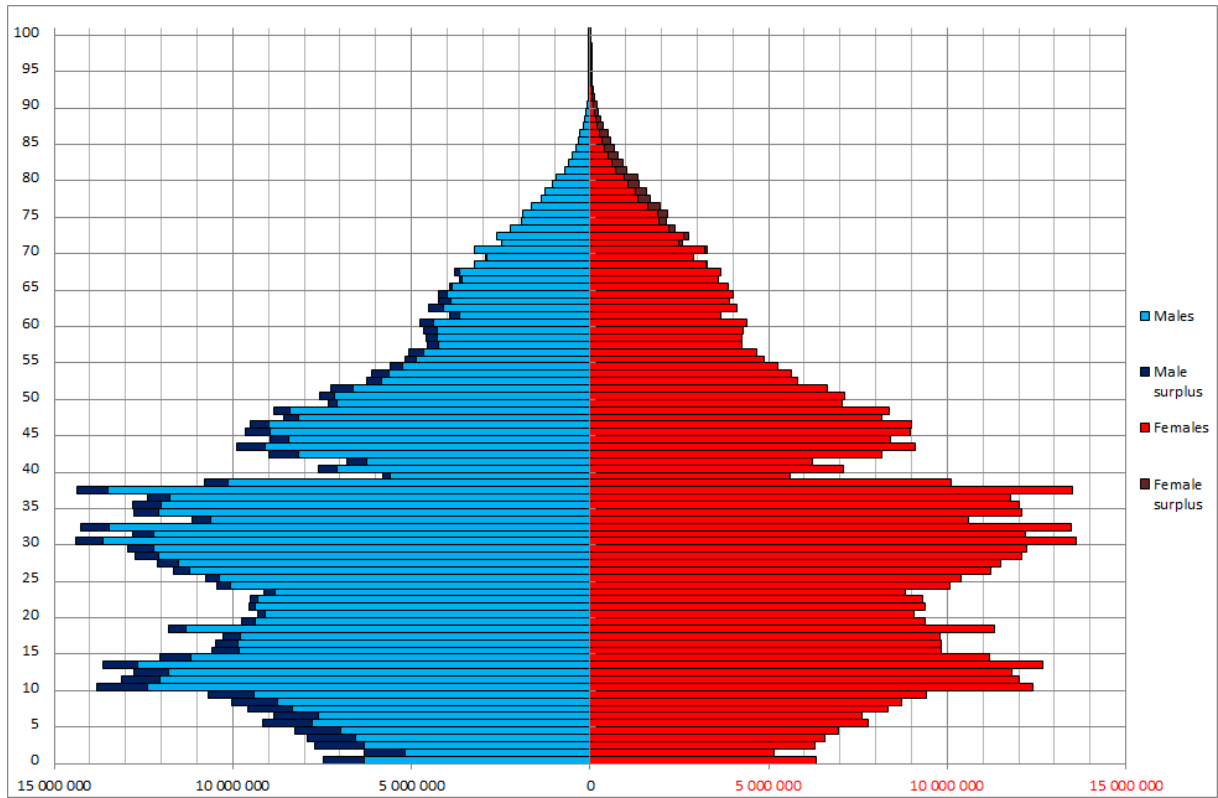
Appendix



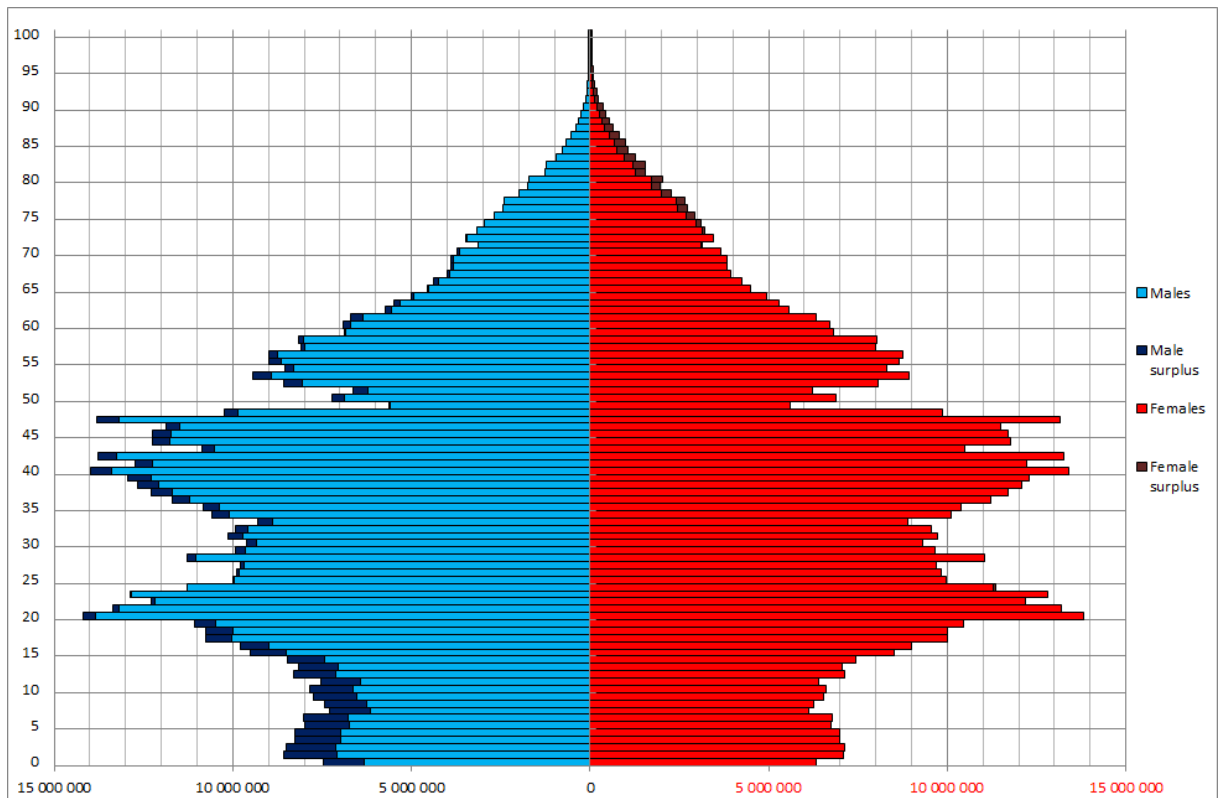
Appendix I: Population Pyramid Census 1982 (wikimedia 2022a)



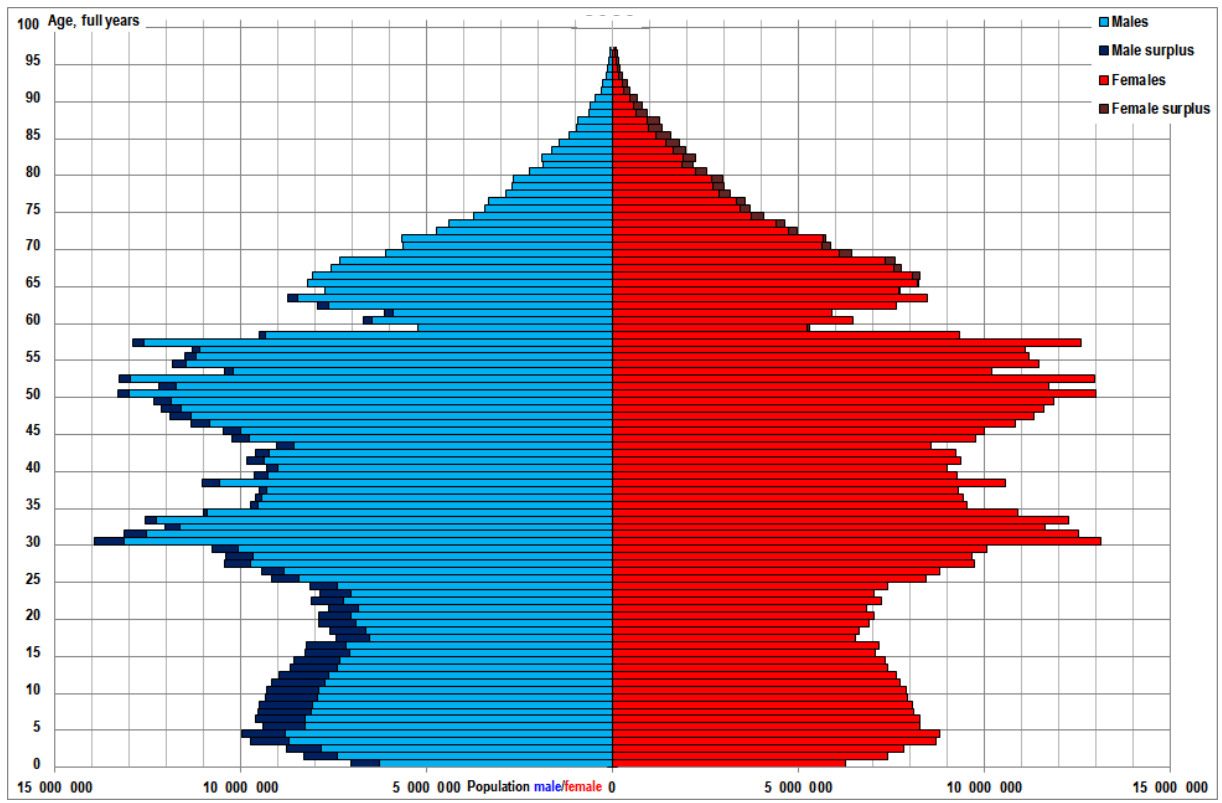
Appendix II: Population Pyramid Census 1990 (wikimedia 2022b)



Appendix III: Population Pyramid Census 2000 (wikimedia 2022c)



Appendix IV: Population Pyramid Census 2010 (wikimedia 2022d)



Appendix V: Population Pyramid Yearbook 2018 (wikimedia 2022e)

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